

## **Arboricultural Impact Assessment**

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## **Charter House Resource Centre, Burnley**

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Prepared for:

**CHARTER HOUSE RESOURCE CENTRE**

Our Ref: 24/AIA/Burnley/04

January 2024

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## 1.0 INSTRUCTION

- 1.1 We have been instructed by Charter House Resource Centre (the applicant) to carry out an Arboricultural Impact Assessment (AIA) to assess the development proposal in relation to trees in accordance with the principles of British Standard 5837 'Trees in Relation to Design, Demolition & Construction - Recommendations' 2012.
- 1.2 We are instructed to prepare a report to provide information to assist all parties involved in the planning process to make balanced judgements regarding arboricultural features in relation to the proposed development on land at Charter House Resource Centre, Brunshaw, Morse St, Burnley. As such, all trees within influencing distance to the development proposal both on and adjoining the site have been surveyed and are listed within a Tree Survey Schedule (**Appendix 1**) and plotted on all accompanying plans.
- 1.3 The stage 1 tree survey was carried out on 19 January 2024 by Russell Pearce, Consultant to Tree Solutions Ltd. Our appraisal of the mechanical integrity of trees on the site is enough to inform the current project. The assessment of trees is carried out from ground level without invasive investigation and the disclosure of hidden defects cannot therefore be expected. Whilst the survey is not specifically commissioned to report on matters of tree safety, we report obvious defects that are significant in relation to the existing and proposed land use. We do not carry out detailed safety inspections unless specifically instructed to do so in writing and have not carried out such inspections of trees on the proposal site.
- 1.4 There are no trees or hedgerows on or adjoining the site. The only vegetation within influencing distance is a linear group of Dogwood shrubs located beyond the southern boundary. These have been plotted as a group (G1) on all plans Ref: 24/AIA/Burnley/04, Drawing Nos 1-3 at **Appendix 2-4**. All arboricultural information recorded during the survey is presented within a schedule at **Appendix 1**.
- 1.5 The Arboricultural Impact Assessment is based on site plan Ref: SP/169, Drawing No: A1.3 provided by Habitat Architects.

## 2.0 STATUTORY CONTROLS

- 2.1 N/A as there are no trees on or adjoining the site.

### 2.2 Protected Species

- 2.2.1 Mature trees often contain cavities, crevices and hollows that offer potential habitat for species such as bats and barn owls. Both are afforded protection under the Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also protected under The Conservation of Habitats and Species Regulations 2010 (as amended).

### 2.3 Wildlife Habitats

- 2.3.1 Trees and hedgerows of most species provide valuable nesting sites for a wide range of birds, and it is likely that nesting birds will be present on the site during the period March to September.

## 3.0 THE SITE

- 3.1 The site is a garden area for the resource centre.

## 4.0 DEVELOPMENT PROPOSAL

- 4.1 Detached dwelling with associated vehicular access and parking.

## 5.0 GENERAL CONSTRAINTS DATA - CONSTRUCTION EXCLUSION ZONES (CEZ's)

### 5.1 GENERAL

5.1.1 During the development process for retention trees, there may be three and even four constraints to consider: Construction Exclusion Zone (CEZ's):

- CEZ 1: Root Protection Area (see 5.2)
- CEZ 2: Tree Crown Protection (see 5.3)
- CEZ 3: Tree Dominance (see 5.4)
- CEZ 4: New Tree Planting Zone (see 5.5)

CEZ's are explained below:

### 5.2 CEZ 1: ROOT PROTECTION AREA (RPA)

5.2.1 The RPA, calculated in m<sup>2</sup>, should be protected before and during any demolition/construction works. This ensures the effective retention of trees by safeguarding a reliable quantum of functioning tree roots. The RPA is based on a radial measure from the centre of the tree stem, which is calculated by multiplying the stem diameter by a factor of twelve or by the (mean stem diameter<sup>2</sup>) x number of stems for multi-stemmed trees. With the AIA 1, the RPA is only shown indicatively on the preliminary TCP, as its shape may be subject to amendment as the design progresses.

5.2.2 During the AIA 2, the derived radial measure is converted by the arboriculturalist into the actual area to be protected, having due regard to prevailing site conditions and how these may have affected the tree(s), particularly in relation to factors affecting their likely rooting disposition. The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution.

5.2.3 The means of protecting the RPA will include the installation of tree protective fencing prior to the start of any demolition or construction work on site. The prohibition of various activities within the RPA must be adhered to (e.g. mechanical excavation, soil stripping, fire lighting, material storage, lowering levels and creating excessive sealed surfacing) and may include the use of temporary ground protection and/or special engineering solutions where construction is proposed near to retention trees or within the RPA.

### 5.3 CEZ 2: TREE CROWN PROTECTION ZONE

5.3.1 N/A, there are no trees present on site.

### 5.4 CEZ 3: TREE DOMINANCE ZONE

5.4.1 N/A, there are no trees present on site.

### 5.5 CEZ 4: NEW PLANTING ZONE

5.5.1 Refer to landscape proposals.

## 6.0 SURVEY METHODOLOGY

6.1 The method used in the preparation of this report is based on the principles of BS 5837: 2012.

1. Tree heights were surveyed to the nearest 1m.
2. Trunk diameters were measured by use of forestry girth tape
3. The category assessment (Table 1) on which the trees is based include current and long-term arboricultural, landscape, cultural and conservation values (BS5837: 2012). This table can be found at **Appendix 1**
4. For clarity, the grading system is summarised from **Table 2** of the BS as follows:

**U grade** – trees for removal, effective for less than 10 years

**A grade** – trees of high quality and value, effective for more than 40 years

**B grade** – trees of moderate quality and value, effective for more than 20 years

**C grade** – trees of low quality and value, effective for 10 years

*Note: We have indicated colour coding on the drawing and therefore a monochrome copy should not be relied on.*

## 6.2 SOIL ASSESSMENT

6.2.1 A soil assessment should be undertaken by a competent person to inform decisions relating to:

- the root protection area (RPA)
- tree protection
- new planting design; and
- foundation design to take account of retained, removed and new trees (potential soil subsidence/heave)

Tree Solutions do not undertake soil assessments and the client is advised to seek specialist advice in this respect.

## 7.0 JUXTAPOSITION OF TREES AND STRUCTURES

### 7.1 Below ground constraints

7.1.1 The below ground constraints are generally summarised as the root protection area (RPA). The shape of the RPA and its exact location will depend upon arboricultural considerations including likely tolerance of the tree to root disturbance; morphology and disposition of the roots when known influenced by past or existing site conditions; soil type and structure; and topography and drainage.

7.1.2 The purpose of the RPA is to prevent physical damage to tree roots and to prevent damage to the soil structure. Tree roots are damaged by soil compaction, changes in soil levels or soil contamination which could reduce tree health and/or stability.

7.1.3 Root patterns are affected by topography and characteristics of the soil or substrate. Where trees are located within proximity to existing hard standing or underground physical barriers, they are unlikely to have an even distribution of lateral roots due to restrictions in root growth created by compacted sub-grades beneath. The RPA of all trees have been plotted unmodified as there are no significant underground barriers to prevent radial root spread.

### 7.2 Underground Services

7.2.1 There are no proposed new service runs within the RPA of any retained trees.

## 8.0 DEVELOPMENT IMPACT TO TREES

8.1 As there are no trees on or adjoining the site there is no development impact. We have however surveyed and plotted what the Council believed to be a hedge along the southern boundary. This is fact a linear group of Dogwood shrubs and as such not relevant to an Arboricultural Impact Assessment. However, as requested by the Council this group has been duly assessed. The shrubs overhang the boundary by 1m, and the applicant can cut this back to the boundary fence line if they wish. There is a clear easement between the proposed dwelling and the shrubs such that pruning is not required at present and there is clearly no incursion within their primary rooting area. We are therefore satisfied that this development proposal can be constructed with no adverse impact to the current or future health and vitality of the shrubs. As such, they will continue to provide a dense screen to Primary School beyond.





**P1 – Application site viewed from land to west**



**P2 – G1, linear group of Dogwood located beyond southern boundary**

## **9.0 PROPOSED REVISIONS TO THE SCHEME**

9.1 We advise that all proposed revisions having implications for trees should be referred to us for review.

## **10.0 CONCLUSIONS**

10.1 BS 5837: 2012 contains clear and current recommendations for a best practice approach to the assessment, retention, and protection of trees on development sites. The proposed development has followed this guidance by:

- Seeking arboricultural advice and undertaking a phase 1 preliminary tree survey to inform the layout and design of the proposed development
- Respecting the constraints posed to development of the site by high or moderate quality trees
- Acting upon arboricultural advice throughout the design process to obtain the best development proposal whilst considering the current and future tree requirements
- No trees on or adjoining the site boundary affected by development
- G1, shrubs will be unaffected by the development
- Taking the above into consideration, we can see no arboricultural grounds for refusal.

## 11.0 LIMITING CONDITIONS

Unless stated otherwise:

Information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of the inspection.

The inspection is limited to visual examination of the subject trees from ground level only and without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

This report has been prepared for the sole use and benefit of the client. Any liability of Tree Solutions shall not be extended to any third party.

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**Appendix One**  
**Tree Survey Schedule**



# TREE SURVEY SCHEDULE (BS5837: 2012)

<b>SITE:</b>	CHARTER HOUSE RESOURCE CENTRE, BURNLEY
<b>CLIENT:</b>	CHARTER HOUSE RESOURCE CENTRE
<b>BRIEF:</b>	ARBORICULTURAL IMPACT ASSESSMENT

<b>SURVEYOR:</b>	A HENDERSON
<b>ASSESSMENT DATE:</b>	19/01/2023
<b>VIEWING CONDITIONS:</b>	GOOD
<b>JOB REFERENCE:</b>	24/AIA/BURNLEY/04


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TREE NO. <small>T - Tree G - Group H - Hedge</small>	SPECIES (COMMON NAME)	AGE	HEIGHT (m) + CROWN CLEARANCE/ DIRECTION OF GROWTH (N.S.E.W)	RADIAL CROWN SPREAD (m)				STEM/ MULTI-STEM* DIA. (mm)	VITALITY	COMMENTS	MANAGEMENT	CATEGORY & SUB-CATEGORY GRADING BS 5837	BS 5837 RADIUS (m)  RPA (m²)
				N	S	E	W						
G1	Dogwood	SM	4  0	2	2	2	2	≤50	G	<ul style="list-style-type: none"> <li>Located off-site beyond southern boundary</li> <li>Linear unmanaged shrub layer, prolifically multi-stemmed at base</li> <li>Overhangs boundary by 1m</li> <li>E.R.C. 10</li> </ul>	• 3 <sup>rd</sup> party shrubs	C2	0.5

## HEADINGS & ABBREVIATIONS

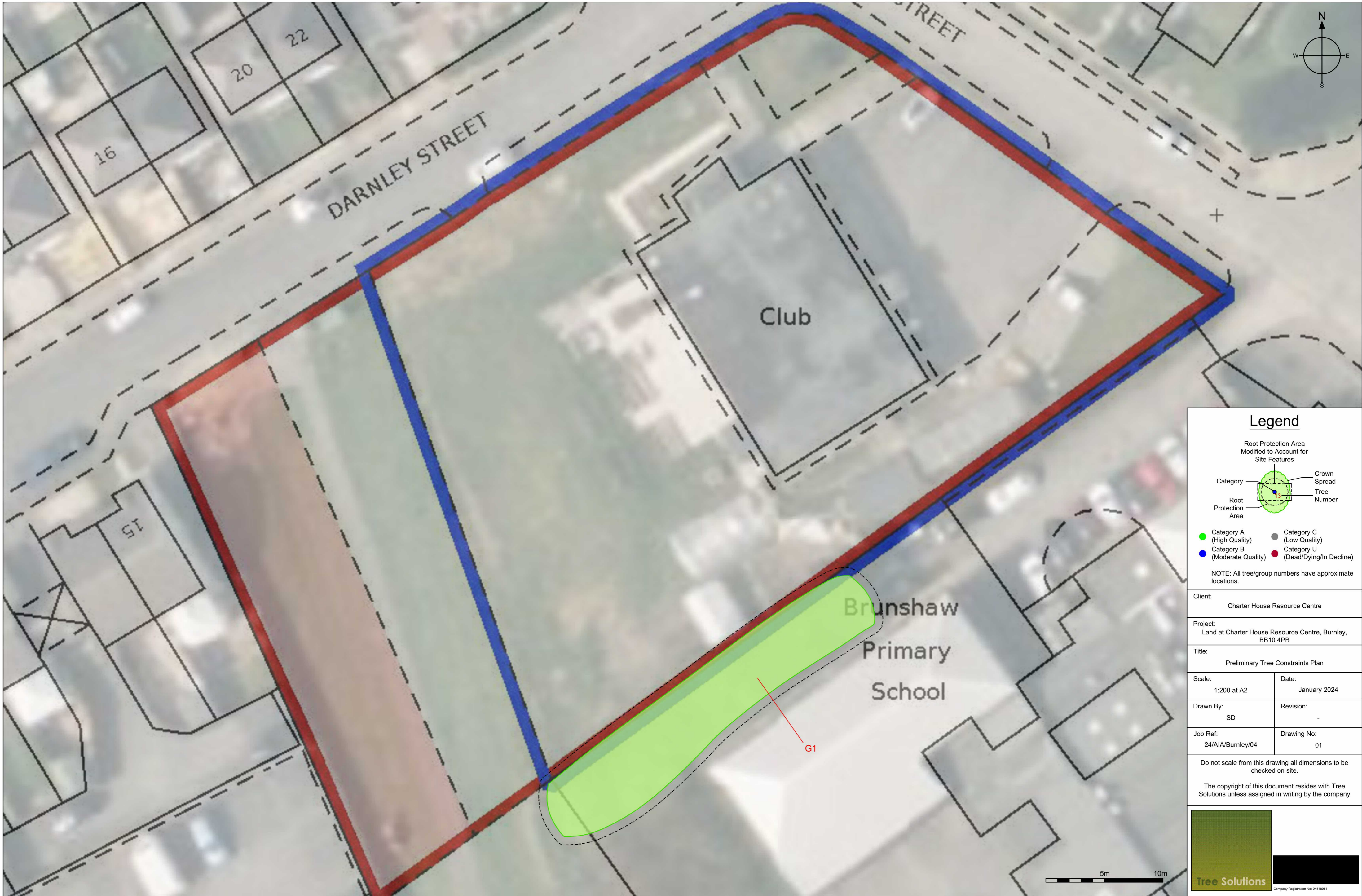
TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE (T = TREE, G = GROUP, H = HEDGE)
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE & DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD
E.R.C. = ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837 CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION (SUB-CATEGORY REFERS TO ARBORICULTURAL, LANDSCAPE AND CULTURAL/CONSERVATION VALUES)
BS 5837 RADIUS & BS 5837 RPA:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M²) NOTE - ALL CALCULATIONS ROUNDED TO NEAREST DECIMAL

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
<b>Trees unsuitable for retention</b> (see Note)		
<b>Category U</b> Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)  Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline  Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality  <i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.	
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>
		<b>3 Mainly cultural values, including conservation</b>
<b>Trees to be considered for retention</b>		
<b>Category A</b> <b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features
		Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
<b>Category B</b> <b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality
		Trees with material conservation or other cultural value
<b>Category C</b> <b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits
		Trees with no material conservation or other cultural value

**Appendix Two**  
**Preliminary Tree Constraints Plan**





### Legend

- Root Protection Area Modified to Account for Site Features
- Category
- Root Protection Area
- Crown Spread
- Tree Number
- Category A (High Quality)
  - Category B (Moderate Quality)
  - Category C (Low Quality)
  - Category U (Dead/Dying/In Decline)
- NOTE: All tree/group numbers have approximate locations.

Client: Charter House Resource Centre	
Project: Land at Charter House Resource Centre, Burnley, BB10 4PB	
Title: Preliminary Tree Constraints Plan	
Scale: 1:200 at A2	Date: January 2024
Drawn By: SD	Revision: -
Job Ref: 24/AIA/Burnley/04	Drawing No: 01

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**Appendix Three**  
**Impact Assessment Plan**





### Legend

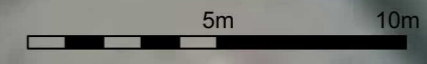
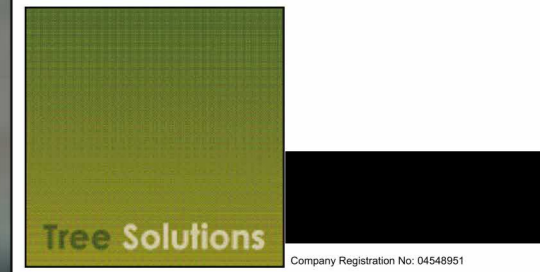
- Root Protection Area Modified to Account for Site Features
- Category A (High Quality)
  - Category B (Moderate Quality)
  - Category C (Low Quality)
  - Category U (Dead/Dying/In Decline)
  - Tree Proposed for Removal
- Crown Spread  
 Tree Number  
 Root Protection Area

NOTE: All tree/group numbers have approximate locations.

Client: Charter House Resource Centre	
Project: Land at Charter House Resource Centre, Burnley, BB10 4PB	
Title: Arboricultural Impact Assessment	
Scale: 1:200 at A2	Date: January 2024
Drawn By: SD	Revision: -
Job Ref: 24/AIA/Burnley/04	Drawing No: 02

Do not scale from this drawing all dimensions to be checked on site.

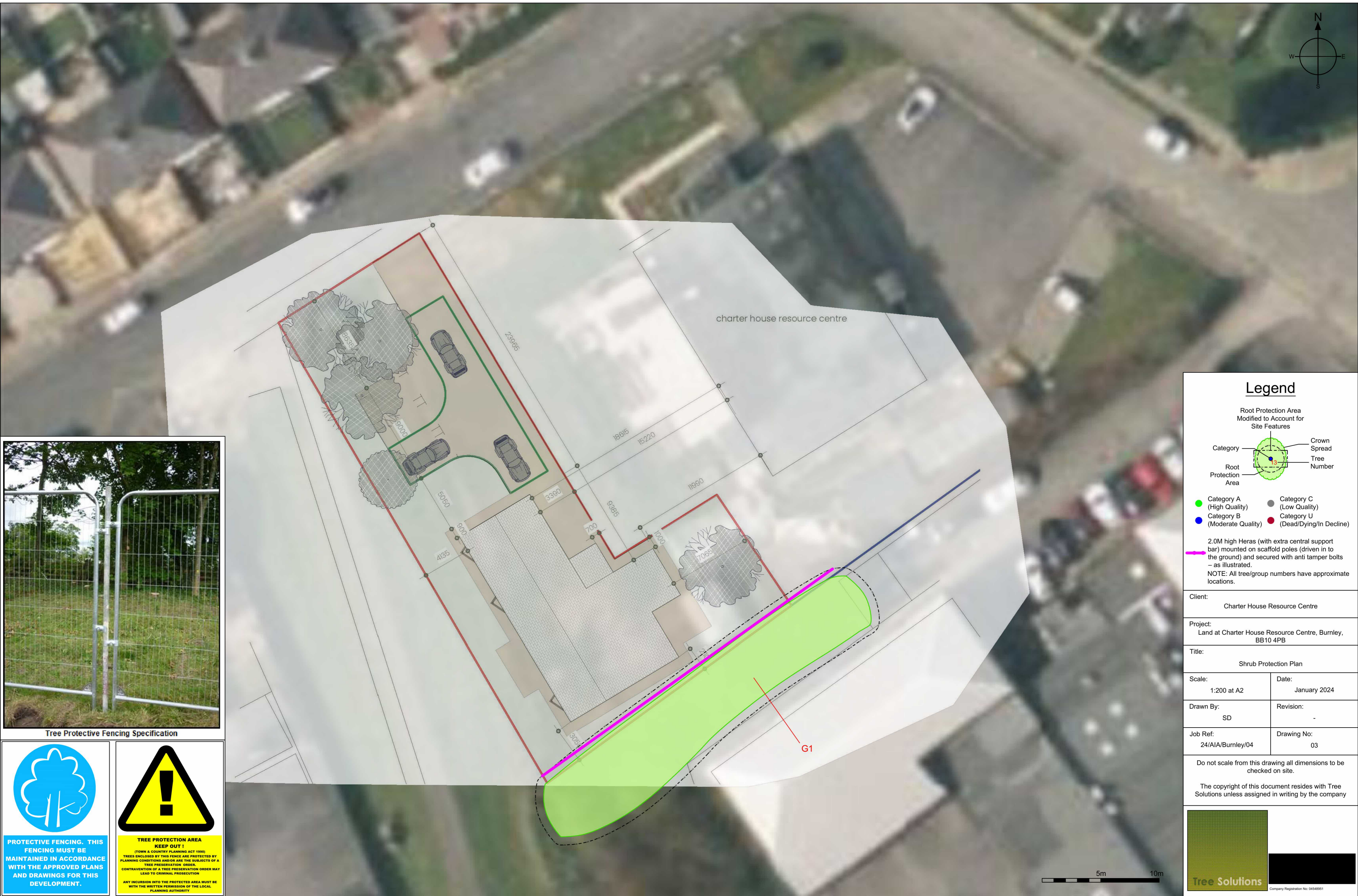
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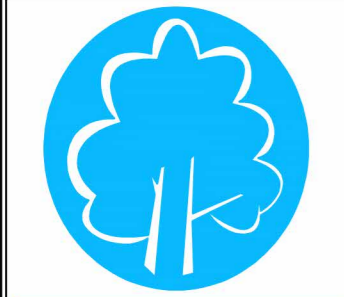


**Appendix Three**  
**Shrub Protection Plan**





Tree Protective Fencing Specification



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



**TREE PROTECTION AREA**  
**KEEP OUT!**  
(TOWN & COUNTRY PLANNING ACT 1990)  
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.  
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION.  
ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

### Legend

Root Protection Area Modified to Account for Site Features

Category A (High Quality)    Category C (Low Quality)  
Category B (Moderate Quality)    Category U (Dead/Dying/In Decline)

2.0M high Heras (with extra central support bar) mounted on scaffold poles (driven in to the ground) and secured with anti tamper bolts – as illustrated.  
NOTE: All tree/group numbers have approximate locations.

Client: Charter House Resource Centre	
Project: Land at Charter House Resource Centre, Burnley, BB10 4PB	
Title: Shrub Protection Plan	
Scale: 1:200 at A2	Date: January 2024
Drawn By: SD	Revision: -
Job Ref: 24/AIA/Burnley/04	Drawing No: 03

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