

The Arena, Stockley Park

**Arboricultural Impact Assessment
and Arboricultural Method Statement**

for

BBC Pension Trust Limited

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Contents

1 Introduction 1

2 Site description 1

3 The trees and hedges..... 1

4 Arboricultural Impact Assessment (AIA)..... 2

5 Impact of proposed development on retained trees and hedges..... 2

6 Arboricultural Method Statement methodology 3

7 Arboricultural Method Statement – Heads of Terms 3

8 Conclusions 5

9 Recommendations 5

10 Project contact details 5

Appendices

- 01 B24023-TLP-Tree Schedule The Arena, Stockley Park (Rev.A)
- 02 Tree Survey Schedule - Notes & Abbreviations
- 03 BS5837:2012 - Table 1 Cascade chart for tree quality assessment

Accompanying drawings

- 01 B24023-TLP-601A-TS The Arena, Stockley Park
- 02 B24023-TLP-602-AIA AMS The Arena, Stockley Park

1 Introduction

- 1.1 The Landscape Partnership has been commissioned by BBC Pension Trust Limited to carry out a tree and hedge survey at The Arena, Stockley Park, Bennetsfield Rd, Hayes, Uxbridge UB11 1FL and assess the potential impact of the proposed development works on retained trees and hedges and develop an Arboricultural Method Statement.
- 1.2 Interrogation of London Borough of Hillingdon webpages confirms that the site is not within a Conservation Area and that none of the surveyed trees are subject to a Tree Preservation Order (TPO).
- 1.3 The proposed development is for the redevelopment of existing buildings and associated landscape features.
- 1.4 The site visit, tree survey, and associated drawings and tree schedule were completed by the Author in April 2024.

2 Site description

- 2.1 The site is located at Stockley Park, Hayes, and comprises part of the existing buildings that form the business estate and public country park. Associated landscape features include the car park with a small area of soft landscape with a row of pleached lime trees and low growing shrub mass (*Figure 1*), courtyard area, an area of grass to the west containing recently planted trees along the edge of the car park, and a group of 4no. willow trees growing near to the lake (*Figure 2*).



Figure 1. View to the south-east showing the existing building, car parking space and the row of pleached lime (T1-T4)



Figure 2. Area of grass, newly planted trees, and the group of 4no. willow at the lakes edge, to the west of the site.

3 The trees and hedges

- 3.1 The trees and hedges fall into two-character groups as described below.

Character Group One

- 3.2 Includes the young and semi-mature trees in relation to the car park areas. These trees are generally small but, in some instances, offer moderate arboricultural and amenity quality. These trees are typical of business park type setting.

Character Group Two

- 3.3 This character group includes the 4no. mature willow trees on the edge of the lake west of the site. These riparian tree species have a larger presence in the landscape as compared to the remaining trees providing moderate amenity value when considered as a group of trees.

4 Arboricultural Impact Assessment (AIA)

- 4.1 The AIA uses information provided in the tree survey to identify areas where the proposed development construction may be at odds with accepted standards in terms of a tree's requirements for soil volume in which to maintain existing roots and shoots and soil volume for future growth.
- 4.2 Details of the trees surveyed are given in the accompanying Tree Survey Schedule (*B24023-TLP-Tree Schedule The Arena, Stockley Park (Rev.A)*). Tree locations are shown on the accompanying Tree Survey Drawing *B24023-TLP-601A-TS The Arena, Stockley Park*.
- 4.3 The quality and relative importance of each is shown as coloured polygons. The colour used relates to the British Standard categories as follows: A, green; B, blue; C, grey and U, red (see drawing *B24023-TLP-601A-TS The Arena, Stockley Park*) Red trees are discounted as they are recommended for removal. In general, the design process will seek to retain all viable trees, but in particular Category A and B trees.
- 4.4 The root protection area (RPA) is shown as a circle on the Tree Survey Drawing *B24023-TLP-601A-TS The Arena, Stockley Park*.
- 4.5 This report considers existing site conditions and the effect that they may have on the development of the surveyed trees' root systems. Hard structures such as buildings and paved roads and paths can influence the root activity of trees by reducing the availability of both moisture and nutrients.

5 Impact of proposed development on retained trees and hedges

- 5.1 Refer to the accompanying AIA AMS drawing *B24023-TLP-602-AIA AMS The Arena, Stockley Park* for the relationship between the approved development and the trees on the site.
- 5.2 **Tree retention:** Except for a small portion of the Category C group G2, which contains low growing hedge and shrub mass, all trees on or adjacent to the site can be retained and protected throughout the course of the development.
- 5.3 **Proposed landscape planting:** proposed landscape planting includes a total of 5no. individual trees, providing a net gain of 5no. individual trees, as well as shrub mass and mixed native hedge planting.
- 5.4 **Arboricultural and amenity impacts:** the proposed scheme is considered as having a limited impact in arboricultural terms, whilst landscape proposals increase tree numbers and seeks to enhance the sites overall amenity value.
- 5.5 None of the retained trees or hedges shall be adversely affected by the approved development and associated construction works to such a degree that their overall quality is reduced in BS5837 terms.

6 Arboricultural Method Statement methodology

- 6.1 The arboricultural method statement provides the means by which areas of demolition and construction activity or working space requirements identified in the AIA as being within or close to the RPA of retained trees, can be achieved whilst minimising the impact of that construction activity on the affected trees.
- 6.2 Demolition and construction activity can result in physical damage to trees and compromise of their rooting environment. Where construction activity is predicted to be in close proximity to trees, it is important that an appropriate method of construction is followed to avoid or minimise impact on retained trees.

7 Arboricultural Method Statement – Heads of Terms

- 7.1 The following heads of terms have been prepared based on currently available design information and should be developed into a detailed AMS which can be secured by condition of planning permission.
- 7.2 **Tree Protection:** Prior to works commencing on site, Root Protection Areas (RPAs) indicated on the Tree Protection Plan shall be set out. Protective tree barriers will be installed in the locations shown on the drawing. The Protective Barriers shall not be removed or altered without prior consultation with the project Arboriculturist.
- 7.3 The areas protected by fencing be subject to the following restrictions:
- Existing soil levels within the protected areas shall not be altered.
 - No excavation of any kind shall take place within the protected areas.
 - The protected areas shall not be used for storage of any kind.
 - No vehicles or machinery shall be allowed into the areas protected by fencing.
 - No dumping of waste liquids or other materials.
- 7.4 Additionally, the following restrictions apply to the areas beyond the RPA of retained trees:
- Waste liquids which may be harmful to trees, such as cement washings, shall not be tipped within 10 m of RPAs.
 - Chemicals which may be harmful to trees such as oil, diesel and bitumen shall not be stored or poured within 10 m of RPAs.
 - Fires should not be allowed within 15 m of Tree canopies, or RPAs.
- 7.5 Should the developer require the above restrictions to be breached for unforeseen reasons, an appropriate method of works must be agreed with the Local Authority prior to any works taking place within the protected areas.
- 7.6 **Protective Barriers:** Protective Barriers shall be erected to prevent access into designated areas around retained trees. Once installed, all weather notices shall be attached to each barrier with words such as: "Construction Exclusion Zone – No Access".
- 7.7 Protective Barriers shall be erected in accordance with *BS5837: 2012 Fig. 2 (Figure 3, below)*.

- 7.8 There may be instances where existing boundary treatments are sufficient to act as the protective barrier for off-site trees and hedges, which shall be confirmed (if required) during the pre-commencement site meeting.

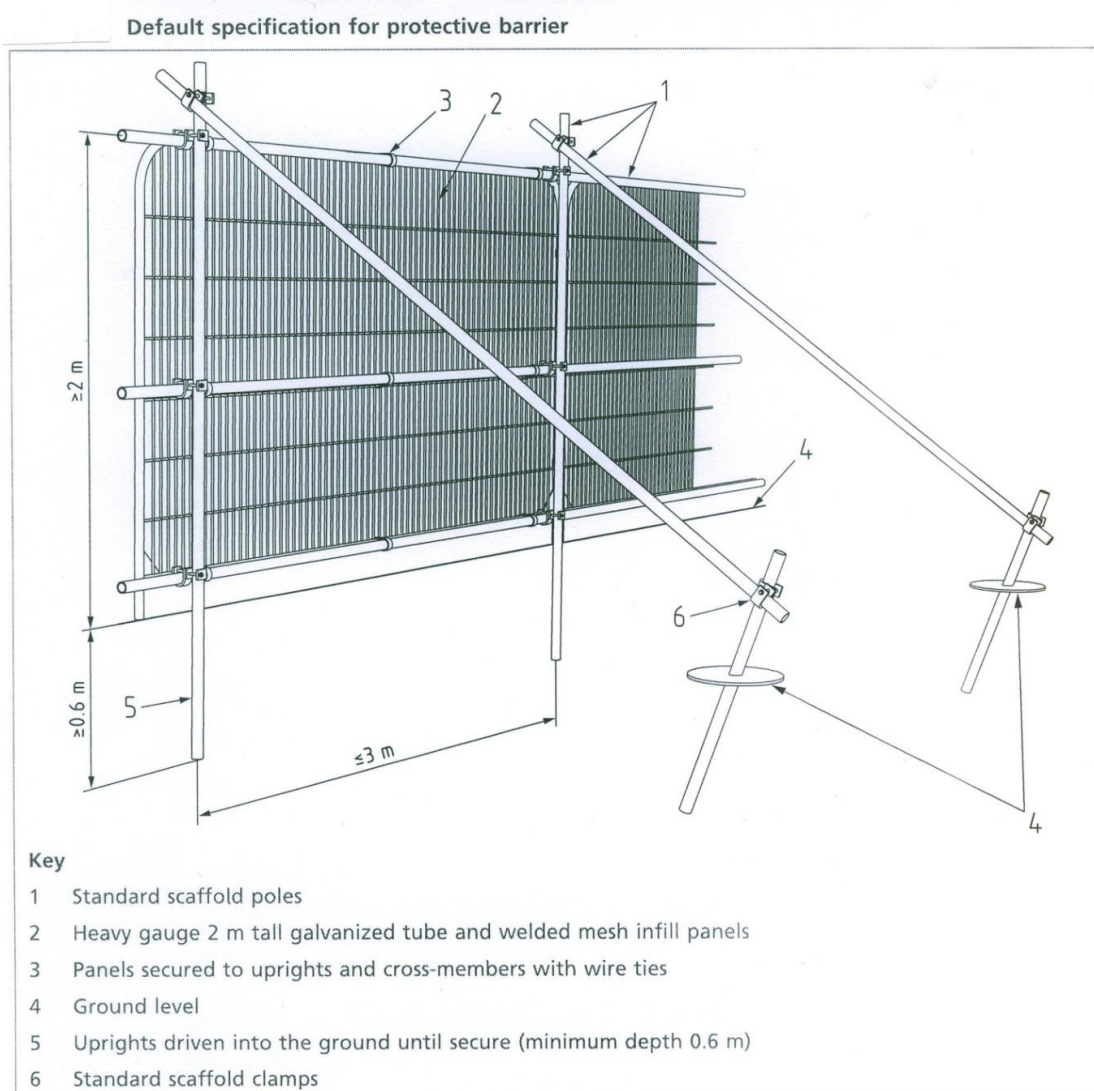


Figure 3. BS5837: 2012 Fig 2.

- 7.9 **Resurfacing within Root Protection Areas (RPAs):** identified on the AIA AMS drawing as areas of light blue within the RPAs of T1-T4, resurfacing works will be carried out without excavation or disturbance to the existing made ground or its subbase material. New surfaces will build up from existing site levels or the subbase material / foundation level. If excavation work is required (e.g., to achieve site levels) within RPAs, these works will be carried out carefully using hand tools or a small excavator / mini digger (<1.5 t) with arboricultural monitoring by the Project Arboriculturist. If tree roots are uncovered <25 mm diameter they will be pruned back using sharp and clean hand tools. Where significant roots are found, those >25 mm diameter or dense clumps of fibrous roots, the advice of the Project Arboriculturist should be taken in respect of pruning or adapting the proposed structure / surface to accommodate them.
- 7.10 **Avoidance of damage to tree stems and branches:** The Site Manager shall ensure that machinery and vehicles do not come into contact with trees during demolition and construction stages. A banksman

shall oversee site operations that are in close proximity to trees. If additional pruning is required to facilitate access, then this must be of a minimal nature and in accordance with the instructions of the Project Arboriculturist and with the approval of the Local Planning Authority.

- 7.11 During the pre-commencement site meeting a review of site logistics and potential conflict with tree canopies and stems will be carried out.
- 7.12 **Installation of Belowground Services:** Underground services should avoid RPAs wherever possible. If excavations to accommodate services within RPAs are necessary, advice must be obtained from the Project Arborist in order to agree measures to minimise root disturbance, such as use of air-spade to remove soil, or trenchless technology.
- 7.13 Refer also to National Joint Utilities Group NJUG Volume 4 2007 ‘Guidelines for the planning and installation and maintenance of utility apparatus in proximity to trees’ (NJUG - <http://www.njug.org.uk>).
- 7.14 No excavation to accommodate services within RPAs will be allowed without the prior approval from the Local Authority.

8 Conclusions

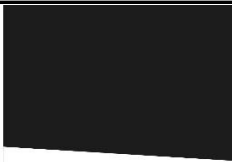
- 8.1 The proposed development has limited impact to the site from an arboricultural standpoint. The landscape proposals will provide a net gain of 5no. individual trees, as well as other forms of planting, whilst seeking to enhance the sites overall amenity value. The scheme is considered sustainable in arboricultural and amenity terms.

9 Recommendations

- 9.1 This report shall be read in conjunction with the accompanying drawings *B24023-TLP-601A-TS The Arena, Stockley Park* and *B24023-TLP-602-AIA AMS The Arena, Stockley Park*.

10 Project contact details

Client	BBC Pension Trust Limited
Principal Arboriculturist	Kit Hardy, The Landscape Partnership t: 020 3092 4141
Local Planning Authority	London Borough of Hillingdon

Project:	The Arena, Stockley Park			BS 5837 2012 Trees in relation to construction - recommendations										<div> thelandscapepartnership planning and designing environments for life</div>		
Ref:	B24023 (Rev.A)															
Date:	April 2024															
Client:	BBC Pension Trust Limited															
Surveyed by:		KH														
Tagged:		No														
Type / No.	Species	Height (m)	DBH (mm)	Canopy Spread				Height of branch clearance N,S,E,W	Height of crown clearance	Age class	Physiological Condition	Structural Condition	General observations	Preliminary management	Estimated remaining contribution	BS Category
				N	E	S	W									
T1	Lime (<i>Tilia sp.</i>)	7.5	300	2.0	3.5	2.0	3.5	2(Multiple)	2.0	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
T2	Lime (<i>Tilia sp.</i>)	7.5	300	2.0	3.5	2.0	3.5	2(Multiple)	2.0	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
T3	Lime (<i>Tilia sp.</i>)	7.5	300	2.0	3.5	2.0	3.5	2(Multiple)	2.0	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
T4	Lime (<i>Tilia sp.</i>)	7.5	250	1.0	2.0	1.0	2.0	2.5(Multiple)	2.5	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
T5	Crack willow (<i>Salix fragilis</i>)	13.0	750	7.0	7.5	7.0	7.0	1.5(E)	1.5	M	Good	Good	Multi-stemmed at 1.7 m.	None	20+ Years	B1,2
T6	Weeping willow (<i>Salix babylonica</i>)	7.0	400	2.0	4.0	6.0	5.0	1.5(Multiple)	0.0	M	Fair	Fair	Multi-stemmed at 1.7 m. Decay in main stem with open cavity at 1.5 m east, suppressed form.	None	10+ Years	C1,2
T7	Weeping willow (<i>Salix babylonica</i>)	7.0	400	3.0	3.5	7.5	6.5	1.5(Multiple)	0.0	M	Fair	Fair	Multi-stemmed at 1.7 m, suppressed form.	None	10+ Years	C1,2
T8	Crack willow (<i>Salix fragilis</i>)	11.0	500	7.0	5.0	4.0	7.0	1.5(E)	1.5	M	Good	Good	Multi-stemmed at 1.7 m.	None	20+ Years	B1,2
T9	Lime (<i>Tilia sp.</i>)	5.0	80	1.5	1.5	1.5	1.5	2(Multiple)	2.0	Y	Fair	Good	Recently planted tree.	None	10+ Years	C1,2
T10	Lime (<i>Tilia sp.</i>)	5.0	60#	1.5	1.5	1.5	1.5	2(Multiple)	2.0	Y	Fair	Good	Recently planted tree.	None	10+ Years	C1,2
T11	Lime (<i>Tilia sp.</i>)	5.0	60#	1.5	1.5	1.5	1.5	2(Multiple)	2.0	Y	Fair	Good	Recently planted tree.	None	10+ Years	C1,2
T12	Lime (<i>Tilia sp.</i>)	2.0	30#	1.5	1.5	1.5	1.5	1.5(Multiple)	1.5	Y	Fair	Fair	Recently planted tree.	None	10+ Years	C1,2
T13	Lime (<i>Tilia sp.</i>)	7.5	300	2.0	3.0	2.0	2.0	2(Multiple)	2.0	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
T14	Lime (<i>Tilia sp.</i>)	7.5	200	1.0	2.0	1.0	2.0	2(Multiple)	2.0	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
T15	Lime (<i>Tilia sp.</i>)	7.5	200	1.0	2.5	1.0	2.0	2(Multiple)	2.0	SM	Good	Good	Pleached form / group.	None	20+ Years	B2
G1	English yew x5 (<i>Taxus baccata</i>)	2.0	50	1.0	1.0	1.0	1.0	0(Multiple)	0.0	SM	Good	Good	Hedge and shrub mass.	None	10+ Years	C2
G2	English yew x10 (<i>Taxus baccata</i>)	2.0	50	1.0	1.0	1.0	1.0	0(Multiple)	0.0	SM	Good	Good	Hedge and shrub mass.	None	10+ Years	C2

Tree Survey Schedule - Notes & Abbreviations:

TYPE & DIMENSIONS

Ref: Code corresponding with tree locations on drawing. T = Individual trees, G = Groups of trees, H = Hedgerow

Height (m): Measured in metres using clinometer where practical, otherwise estimated.

DBH (mm): Diameter of stem measured in millimetres at 1.5m above ground, informs Root Protection Area (RPA) calculation. '#' denotes where a measurement has been estimated.

Canopy Spread (m): Measured in metres from trunk at 4 cardinal points.

Lowest Branch (m): Approximate height of lowest significant branch measured in metres, followed by letter indicating direction of growth; 5N =Lowest branch is at 5m on north side etc.

Crown Clearance (m): Approximate average height of clear space beneath tree canopy.

AGE CLASS

General Age Designations:

Y (Young) Less than 1/3 of anticipated mature size.

SM (Semi-mature) An established tree that has not reached its full size for its species or location.

EM (Early mature) A tree that is near to or has reached its maximum potential height but with a slowed growth rate and stem diameter growth.

M (Mature) Between 2/3 and maximum anticipated size.

LM (Late mature) Maximum anticipated size stable condition, but no significant extension growth.

OM (Over mature) Crown mass decreasing due to age.

Special Age Designations:

V (Veteran) – A tree that may not be exceptionally old, but has features of special biodiversity, cultural, or heritage value.

A (Ancient) – A tree of great age, typically with features of remarkable size and veteran characteristics of exceptional value.

CONDITION

Physiology: Good Fair Poor Dead Given relative to species, age and location.	Structural: Good – No significant defects Fair - Remediable defects, given light surgery. Poor – Irremediable defects or defects remediable only with severe surgery
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Remaining Contribution: Estimate of number of years that tree may be retained in current context, used to inform BS Categorisation.

BS Category:

Category A = High quality tree/s with at least 40+ years remaining contribution.

Category B = Moderate quality tree/s with at least 20+ years remaining contribution.

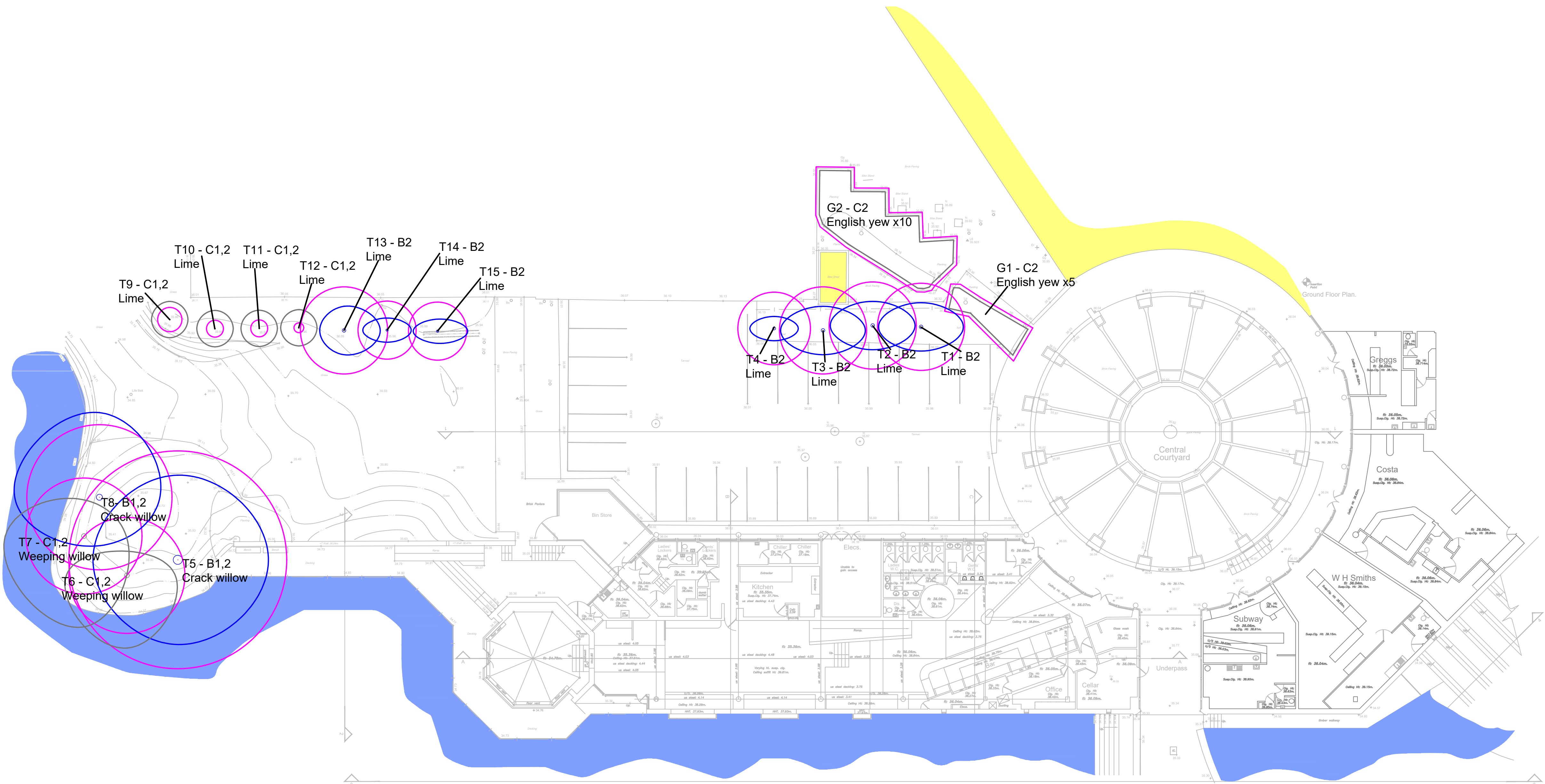
Category C = Low quality tree/s with at least 10+ years remaining contribution.

Category U = Tree unsuitable for retention longer than 10 years.

1 = Arboricultural qualities, 2= Landscape qualities, 3 = Cultural / conservation qualities.

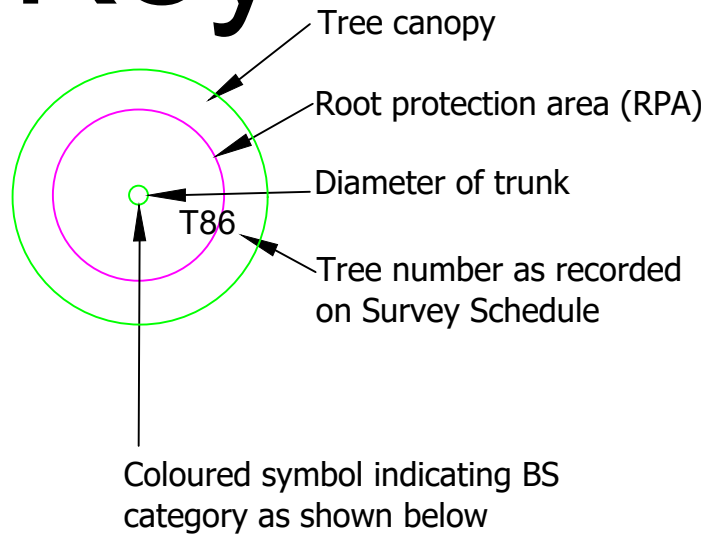
Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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	<ul style="list-style-type: none">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 declineTrees 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 <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality 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)	See Table 2
Category B Trees of moderate quality 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	See Table 2
Category C Trees of low quality 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	See Table 2

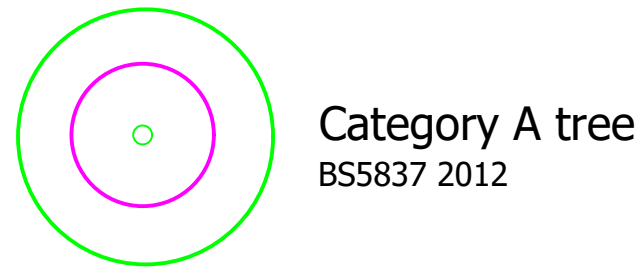


Ground Floor Plan.

Key



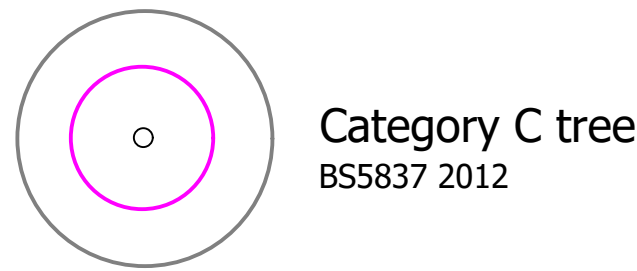
Note: Where no topographical data was available tree positions should be regarded as approximate, as identified in the tree schedule.



Category A tree
BS5837 2012



Category B tree
BS5837 2012



Category C tree
BS5837 2012

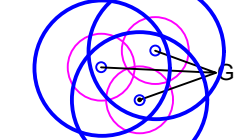


Category U tree
BS5837 2012

The above BS categories are judgements of quality and value based on the contribution each tree would be expected to make over a given period of time, categories A, B and C being high, moderate and low respectively. Category U represents trees that, in their current context, should be removed for sound arboricultural reasons. For exact definition of BS categories refer to notes accompanying schedule.



Group (Group of similar trees recorded together in schedule). Colours same as BS5837 2012 categories for trees (left)



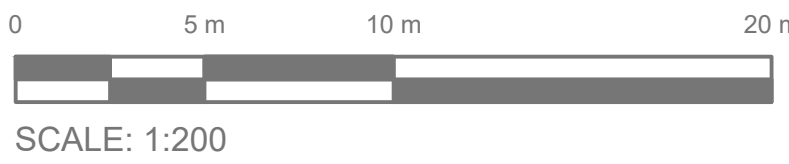
Hedge Colours same as BS5837 2012 categories for trees (left)

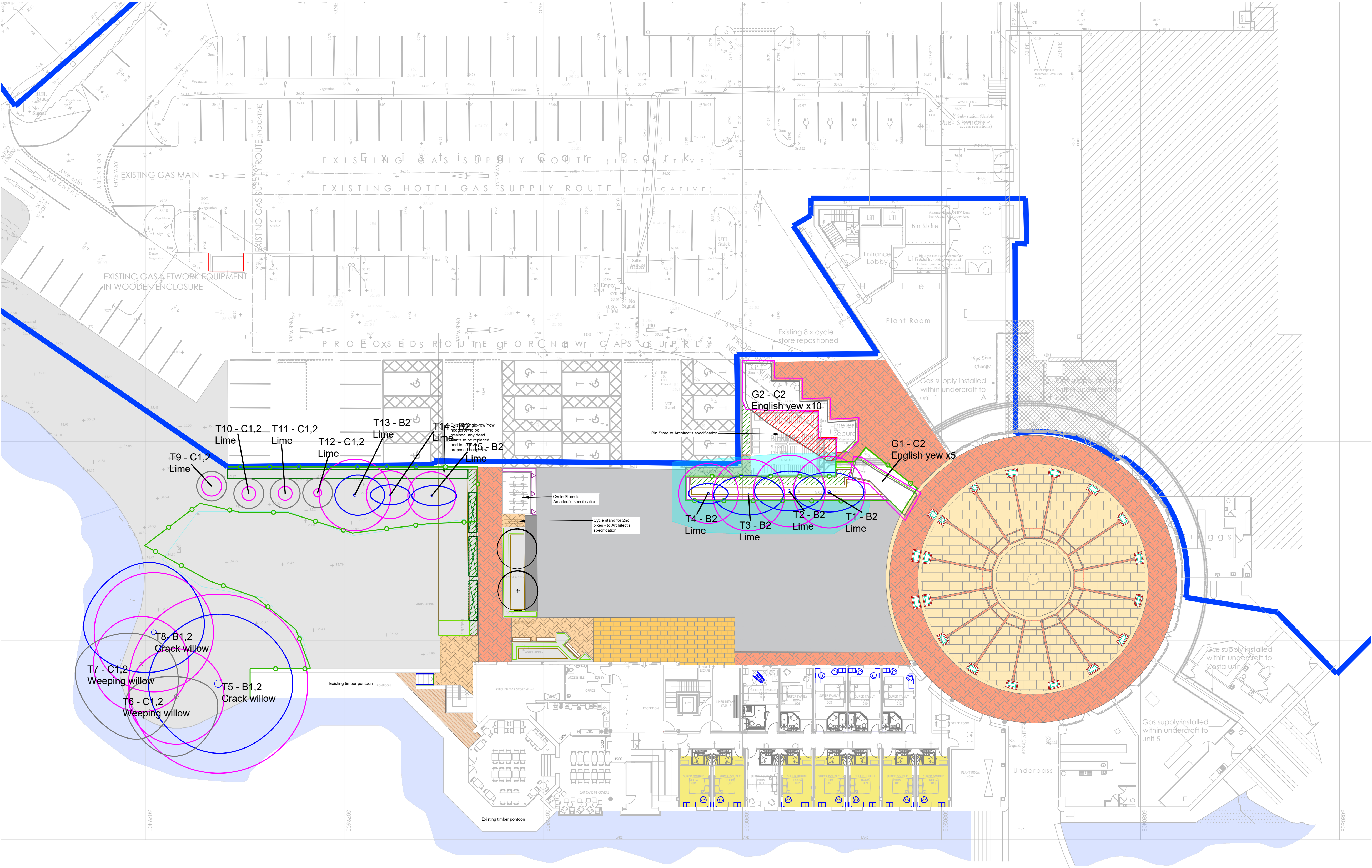
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Revision	Number	By	Date

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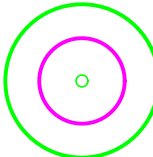
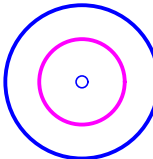
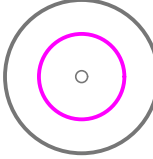
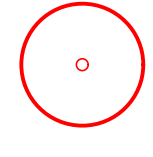
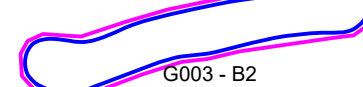

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The Arena, Stockley Park	Woodbridge 01354 380509 <input type="checkbox"/>
	London 020 7252 0002 <input checked="" type="checkbox"/>
	Norwich 016 0323 0777 <input type="checkbox"/>
Drawing	Job No. B24023
Tree survey	Dwg. No. 601A
	Scale 1:200@A1
	Drawn KH
	Checked OT
Status	Date 11/04/2024
Planning	North

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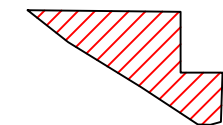
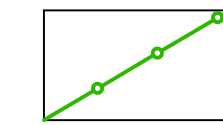
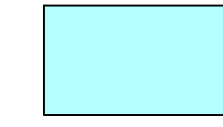




Key

-  **Category A tree**
BS5837 2012
-  **Category B tree**
BS5837 2012
-  **Category C tree**
BS5837 2012
-  **Category U tree**
BS5837 2012
-  **Group** (Group of similar trees recorded together in schedule). Colours same as BS5837 2012 categories for trees
-  **Hedge** Colours same as BS5837 2012 categories for trees (see above)

Arboricultural Strategy

-  Part removal of G2
Canopy spread colour reference in accordance with the categories defined by BS-5837
-  Line of protective tree barriers to form Construction Exclusion Zones (CEZ). Where applicable, existing fence lines and boundary treatments will act as a suitable form of barrier
-  Resurfacing works located within tree RPAs will be carried by utilizing the existing made ground without (or limited) excavation to avoid / minimize disturbance to tree roots, should they be present. Removal of any surfaces if required shall be undertaken carefully and under arboricultural monitoring to allow for suitable root retention and / or pruning.

Revision	Number	By	Date
thelandscapepartnership planning and designing environments for life			
Project			
The Arena, Stockley Park			
Drawing			
Arboricultural Impact Assessment Arboricultural Method Statement			
Status			
Planning			
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Bedford	01234 261315	<input type="checkbox"/>	
Woodbridge	01394 380509	<input type="checkbox"/>	
London	020 7252 0002	<input checked="" type="checkbox"/>	
Norwich	016 0323 0777	<input type="checkbox"/>	
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North	