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Arboricultural Impact Assessment

Welcomb Street, Openshaw, Manchester

A Report To: RPS Consulting UK & Ireland
Report Number: RT-MME-157730-02
Date: October 2022

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Report Verification

Report Version	Date	Completed by:	Checked and Approved by:
Final	05/10/2022	Andrew Hastings FdSc Tech.Arbor.A Arboricultural Consultant	Duncan Smith BSc (Hons) M.Arbor.A Arboricultural Manager

Declaration of Compliance

This study has been undertaken in accordance with British Standard 5837:*2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'.*

Disclaimer

The contents of this report are the responsibility of Middlemarch. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

Validity of Data

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified and experienced arboriculturist to assess any changes to the trees, groups, and hedgerows on site and to inform a review of the conclusions and recommendations made.

It should be noted that trees are dynamic living organisms that are subject to natural changes as they age or are influenced by changes in their environment. As such, following any significant meteorological event or changes in the growing environment of the trees they should be re-assessed by a suitably qualified and experienced arboriculturist.

This Arboricultural Impact Assessment has been produced following a review of a proposed development layout for the site based on data provided by the client. Should the development proposals change, this report will need to be updated to assess the impact of the amended development.

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1. Introduction

1.1 Project Background

This Arboricultural Impact Assessment was commissioned by RPS Consulting UK & Ireland to accompany a planning application for commercial development at Welcomb Street, Openshaw, Manchester. A survey of the trees on site and within influencing distance of the boundaries was undertaken on the 25th May 2022 as part of a Preliminary Arboricultural Assessment to aid design and avoid unnecessary tree removal.

This Arboricultural Impact Assessment has been carried out in accordance with British Standard 5837:2012 *'Trees in Relation to Design, Demolition and Construction - Recommendations'*[1] (hereafter referred to as BS5837). BS5837 sets out a structured assessment methodology to assist in determining which trees could be integrated into any future development of the site.

The purpose of this report is to:

- Review the relationship between the proposed development and the existing trees and hedgerows identified during the Preliminary Arboricultural Assessment.
- Provide a Tree Retention Plan to determine trees and hedgerows to be retained and removed in the context of the proposed development.
- Identify mitigation to offset any tree or hedgerow loss as part of the development proposals.
- Identify all areas where specific working methods are required to ensure protection of retained trees and hedgerows as part of an Arboricultural Method Statement.

1.2 Site Description

Attribute	Description
Location	Welcomb Street, Openshaw, Manchester
National Grid Reference	SJ 87926 97222
Tree Cover (on site)	Medium to low quality individual trees and groups of trees sporadically spread across the site or planted for screening.
Tree Cover (site surrounds)	Medium to low quality individual trees and groups of trees sporadically spread across the site or planted for screening.
Drawings attached	Tree Survey Plan – C157730-01-01 Tree Retention Plan – C157730-02-01
Appendices	Appendix A – Tree Schedule

Table 1.1: Summary of Site and Surroundings

[1] British Standards Institution. (2012). *British Standard 5837:2012, Trees in relation to design, demolition, and construction – Recommendations.* British Standards Institution, London.

1.3 Development Proposals

The proposed development of the site includes the construction of fourteen warehouse units in four terraces and two off units to be refurbished all with integral office accommodation. External site works include drainage and incoming services.

1.4 Documentation Provided

This assessment is based upon the information provided by the client in addition to information collected by Middlemarch during the Preliminary Arboricultural Assessment, as detailed below.

Author	Document	Drawing Number	Date
Richard Eaves	Landscape Proposals	4198-01	September 2022
RPS	Underground Utility Survey	UAR3182_A	June 2022

Table 1.2: Documentation Provided

2. Survey Methodology

2.1 Survey Scope

To determine the status of the trees within the site, a full arboricultural survey has been undertaken, assessing the species and status of all trees present. This survey has been carried out in accordance with BS5837.

All individual trees with a stem diameter greater than 75 mm are shown on the Tree Survey Plan and have been assigned a unique reference number. Trees were visually assessed and a schedule prepared listing:

- Tree number
- Species
- Tree height
- Minimum crown clearance
- Stem diameter
- Crown spread
- Age class
- Vigour
- Structural condition

Measurements for tree height, minimum crown clearance and crown spread were taken to an accuracy of 0.5 m. Stem diameter measurements were recorded to the nearest 10 mm. Any specific observations were also noted. All observations and measurements are included in Appendix A Tree Schedule.

Trees were assessed and assigned one of the following categories:

Category U:
Trees 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.

Category A:
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B:
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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.

Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

- Mainly arboricultural qualities.
- Mainly landscape qualities.
- Mainly cultural values, including conservation.

N.B. Certain trees considered unsuitable to retain in their current context (Retention Category U) may possess existing or potential conservation value which make them desirable to preserve in the context of wildlife habitat (e.g. areas with limited public access).

2.2 Root Protection Area (RPA)

To avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated for each of the Category A, B and C trees in accordance with section 4.6 of BS5837. BS5837 recommends this as the minimum area around a tree that contains sufficient roots and rooting volume to maintain viable tree vigour and structure. Where groups of trees have been assessed, the Root Protection Area has been shown based on the maximum sized tree stem in each group and so may exceed the Root Protection Area required for some of the individual specimens within the group. Further detailed inspection of the individual trees forming a group may be required where development impacts upon individual trees forming the combined group.

Protection of the roots and soil structure within the RPA should be treated as a priority. These figures have been calculated utilising the formulas within Section 4.6 and Annex D of BS5837.

2.3 Tree Schedule

Appendix A details the individual trees, groups, hedgerows, and woodlands (where present) and includes the relevant information for each at the time of inspection. General observations of any structural and physiological condition and the presence of any decay or physical defects have also been included.

2.4 Assessment Limitations

This survey has been undertaken in accordance with BS5837 and trees with a stem diameter of less than 75mm and the specific location of species within a hedgerow have not been identified in accordance with the guidance. It may therefore be necessary during detailed design to undertake further assessment and accurate positioning of juvenile trees or woody species within hedgerows and tree groups to assist structural calculations for foundation design of structures in accordance with current building regulations and NHBC Chapter 4.2 *Building near Trees*[2].

For the purposes of this assessment, a hedgerow is described as a line of trees or shrubs with canopies less than 5m wide which is regularly managed through pruning. Where trees are present within a hedgerow that are significantly different in character from the remainder, these have been identified and recorded separately. A tree survey in accordance with BS5837 does not assess hedgerows against the Hedgerow Regulations 1997[3] or from an ecological perspective.

[2] National House Building Council. (2022). *NHBC Standards 2022: Chapter 4.2 - Building Near Trees*. NHBC, Milton Keynes.

[3] Department of the Environment, Transport, and the Regions: London. (1997). *The Hedgerows Regulations 1997: A Guide to the Law and Good Practice.*

The exact position of individual trees or species included as part of a tree group, hedgerow or woodland should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken.

2.5 Conditions of Tree Survey

The survey was completed by a suitably qualified and experienced Arboriculturist from ground level and from within the boundary of the site. Aerial tree inspections or the internal condition of the stem/s or branches was not undertaken at this stage. Evaluation of tree condition given within this assessment applies to the date of survey and cannot be assumed to remain unchanged. It may be necessary to review these within 12 months, in accordance with sound arboricultural practice.

All survey data is based on a topographical survey where possible, supplied by the client. Where topographical information has not identified tree positions or Ordnance Survey mapping has been utilised, trees and hedgerows have been positioned using GPS and aerial photography to provide approximate locations in relation to existing surrounding features. Further confirmation of tree and hedgerow locations through a topographical survey of the site is recommended to ensure future design accuracy.

2.6 Tree Survey Plan

The Tree Survey Plan identifies the existing trees including above and below ground constraints which should be considered during the design process.

2.7 Tree Retention Plan

The Tree Retention Plan identifies which trees and hedgerows are to be retained and incorporated as part of the site development and which are to be removed.

3. Statutory Protection

3.1 Tree Preservation Order and Conservation Area Protection

A desk-based study was undertaken to identify if any of the trees present within or near the site are affected by statutory constraints as detailed below.

Statutory Constraint	Present ✓ ✗	Source	Details
TPO	✗	Consultation with the Local Authority	None present
Conservation Area	✗	Consultation with the Local Authority	None present
Ancient Woodland	✗	MAGIC (Multi Agency Geographical Information for the Countryside)	None present

Table 3.1: Summary of Statutory Constraints that Affect the Site

Where a tree preservation order, conservation area or ancient woodland applies to trees within the assessment area, statutory constraints will apply to the development in respect of trees.

No works must be undertaken on the protected trees without prior permission from the Local Authority unless authorised as part of an approved planning application. Works include pruning, topping, lopping, uprooting or wilful damage or wilful destruction of these trees. Any proposed pruning works not currently approved will need to be fully specified and agreed within a future planning application.

3.2 Protected Species

Bats

Mature trees often contain cavities, hollows, peeling bark or woodpecker holes which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017)[4]. They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981[5], as amended. Consequently, causing damage to a bat roost constitutes an offence.

[4] HM Government – The National Archives (2017) [online] *The Conservation of Habitats and Species Regulations 2017*. Available at: https://www.legislation.gov.uk/uksi/2017/1012/contents/made

[5] HM Government – The National Archives 2017. *Wildlife and Countryside Act 1981*. [online] Available at: http://www.legislation.gov.uk/ukpga/1981/69/contents

Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.

Birds

Trees offer potential habitat for nesting birds which are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (Generally March to September).

If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

4. Results Summary

4.1 Preliminary Arboricultural Assessment

The assessment identified four individual trees, and five groups of trees, as detailed in Appendix A Tree Schedule and Table 4.1 below.

BS5837:2012 Category	Tree/ Group/ Hedgerow Reference
U	-
A	-
B	G1, G4.
C	T1, T2, T3, T4, G2, G3, G5.

Table 4.1: Summary of Trees, Groups and Hedgerows in BS5837:2012 Categories

The assessment area was situated off of Welcomb Street in Openshaw, Manchester and included a parcel of land occupied by disused buildings and trees around the periphery of the site. Trees recorded during the survey were predominantly low-quality, self-seeded specimens situated adjacent to the site boundaries.

The highest value specimens recorded during the survey were a mixed species group of trees (G1) and group of Norway maple trees (G4) which were both considered to be of moderate retention value. G1 was comprised of semi mature Norway maple, silver birch, cherry and elder trees which were in good condition with some fair specimens. G4 was comprised of semi mature Norway maples which were in good condition with no obvious defects observed. It should be noted that G1 provided screening for the site from the adjacent industrial estate.

The remaining four individual trees and three groups of trees (see Table 4.1) recorded during the survey were all considered to be of low retention value. These specimens were typically in fair condition with some poor specimens within G2 and G5. These groups were comprised of self-seeded specimens with many featuring defects such as included bark at branch unions and wounds on their stems. These specimens were prevented from being considered higher value because they did not meet the minimum stem diameter of 150mm or the useful remaining life expectancy of at least twenty years required to be considered moderate retention value. It should be noted that the groups adjacent to the boundaries of the site did provide screening from the adjacent industrial estate.

5. Arboricultural Impact Assessment

5.1 Introduction

This section of the report details the potential impacts that the proposed development may have upon the site's tree stock. The assessment has been based upon the documents detailed in Table 1.1 with reference to the results of the Preliminary Arboricultural Assessment.

5.2 Tree Retention and Removal

The trees to be removed are detailed below and are identified on the Tree Retention Plan. All trees, groups and hedgerows not featured within the table below, are to be retained within the proposed development.

Tree/Group/Hedgerow Reference	Species	Retention Category	Reason for Removal
G1	Mixed Species	B	Within the footprint of the proposed new warehouse and office units
G2	Mixed Species	C	Within the footprint of new car parking spaces.
G4	Norway Maple	B	Extended road access and footpath.
T1	Goat Willow	C	Within the footprint of new car parking spaces.

Table 5.1: Tree Removal

The proposed development will ensure the retention and incorporation of the majority of trees across the site alongside new tree planting as part of the wider landscape strategy. However, the proposed development will require the removal of several trees to facilitate the development.

Two groups of trees (G1 & G4) were of moderate retention value and suitable new tree planting will therefore be required to offer an adequate level of mitigation for this loss.

The remaining tree and one group (T1 & G2) that are to be removed or partially removed were considered to be of low retention value during the Preliminary Arboricultural Assessment. The proposed removal of these trees should be considered acceptable as new tree planting of higher quality trees more suited to the new development will make a lasting contribution to the visual amenity value and canopy coverage of the site.

5.3 Tree Pruning

Pruning of mature trees should only be undertaken where essential, to prevent open wounds that allow the ingress of decay and provide opportunity for fungal spores to infect the tree. Pruning works should ideally be undertaken during the winter months when the tree is dormant or during the summer months when the tree is fully active. Autumn pruning (when fungal spores are abundant in the surrounding atmosphere) should be avoided if possible. Juvenile trees should be formatively pruned in their early years to reduce the presence of potential defects into maturity that would reduce their lifespan.

All tree pruning works should be detailed as part of an Arboricultural Method Statement and completed in accordance with the current best practice guidance set out within BS3998:2010 *"Tree Work – Recommendations"*[6] by suitably competent, qualified, and insured arboricultural contractors. The extent of pruning should be identified to contractors in a pre-commencement site meeting as part of enabling works.

5.4 Shading

The shade from trees can be considered both a constraint and opportunity and therefore its effect upon the new development should be fully considered to ensure a harmonious and sustainable relationship can be achieved.

5.5 Trees and Foundations

Any structures built on the site should comply with current building regulations and NHBC Chapter 4.2 - *Building near Trees* (2022)[8]. Foundation depths for buildings near or adjacent to trees should consider the potential size of the trees at maturity and their subsequent water demand. The soil types throughout the site should be fully investigated and appropriate measures taken. If trees are removed across the site, the potential for soil heave should be assessed and foundations designed accordingly.

This survey has been undertaken in accordance with BS5837 and further assessment in accordance with current building regulations will be required to inform foundation design.

5.6 New Tree Planting

As part of the development proposals, an adequate quantity of tree planting has been demonstrated, the soft landscaping schedule taken from the landscape proposal drawing indicates that five crab apple trees (girth 12cm-14cm) and ten rowan trees (girth 16cm-18cm) are proposed for planting across the new development site and supported with a planting scheme of mixed species new native hedgerow and shrub planting.

The purpose and function of the new tree planting should be carefully considered so that key objectives from a wildlife habitat and landscape perspective can also be achieved.

[6] British Standards Institution. (2010). *British Standard 3998:2010, Tree Work – Recommendations*. British Standards Institution, London.
[8] National House Building Council. (2022). *NHBC Standards 2022: Chapter 4.2 - Building Near Trees*. NHBC, Milton Keynes.

6. Conclusion

6.1 Summary of Impacts

The proposed development of the site will impact the visual amenity of the local area as a result of the proposed tree removal. Proposed new tree planting will, however, offer immediate and future amenity value to the local area and within the new development, with the addition of new native species hedgerow planting, and native shrubs adding further value to the development both in terms of visual amenity and new biodiversity and habitat creation.

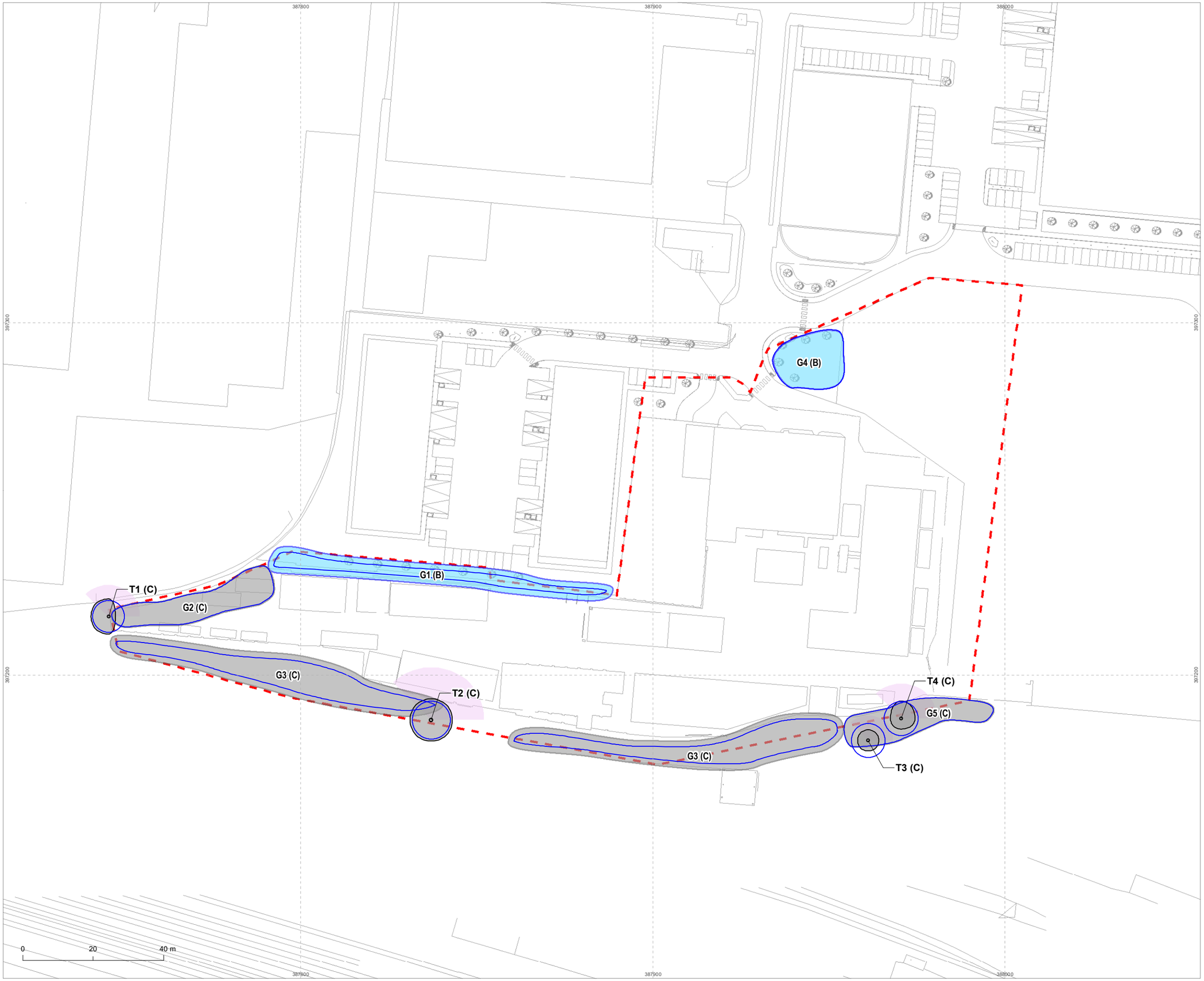
7. Arboricultural Method Statement

7.1 Introduction

An Arboricultural Method Statement will be required for the site as various aspects of the proposed development affect retained trees. The purpose of an Arboricultural Method Statement is to ensure that all site operations occur with minimal risk of adverse impact upon trees that are to be retained.

In relation to this development the Arboricultural Method Statement should address the following:

Action	Required
Tree Surgery	✓
Site set up and logistics	✓
Building demolition and removal of hard surfaces within RPAs	✗
Working space to construct new buildings within RPAs	✗
Installation of utilities within RPAs	✗
Site access, material storage contractor's parking and site compound location	✓
Protective barrier and ground protection location and specification	✓
Pre-commencement site meeting	✓
Arboricultural Clerk of Works supervision	✗
Audit timetable	✓



C157730-01-01

Legend

- Tree location and stem diameter
- Category B
- Category C
- Current canopy extent
- Root Protection Area
- Indicative tree shadow
- Survey Area

N

NOTES
All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with Project Arboriculturalist. Drawing to be read in conjunction with Preliminary Arboricultural Assessment and Tree Schedule. Drawing has been produced in colour and is based on digital informaton in .dwg format, aerial images and/or GPS location where appropriate. The original of this drawing was produced in colour - a monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.
Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the Project Arboriculturalist should works commence 12 months after the date of this survey.
SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.
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Project
Welcomb Street, Openshaw, Manchester

Drawing
Tree Survey Plan

Client
RPS Consulting UK & Ireland

Drawing Number	Revision
C157730-01-01	00
Scale @ A3	Date
1:1,000	May 2022
Approved By	Drawn By
AH	RP

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C157730-02-01

Legend

- Tree location and stem diameter
- Category B tree
- Category B tree to be removed
- Category C
- Category C tree to be removed
- Root Protection Area
- Current canopy - tree to be retained
- Proposed site plan
- Planning boundary

N

NOTES
All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with Project Arboriculturalist. Drawing to be read in conjunction with Preliminary Arboricultural Assessment and Tree Schedule. Drawing has been produced in colour and is based on digital informaton in .dwg format, aerial images and/or GPS location where appropriate. The original of this drawing was produced in colour - a monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.
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Project	Welcomb Street, Openshaw, Manchester
Drawing	Tree Retention Plan
Client	RPS Consulting UK & Ireland
Drawing Number: C157730-02-01	Revision: 00
Scale @ A3: 1:1,000	Date: October 2022
Approved By: AH	Drawn By: JR

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Appendix A - Tree Schedule

<table>
<tr><th>Measurements</th><th>Age Class</th><th>Overall Condition</th><th>Root Protection Area (RPA)</th></tr>
<tr><td>Height - estimated from ground level (m).</td><td>YNG: Young trees up to ten years of age.</td><td>G - Good: Trees with only a few minor defects and in good overall health needing little, if any attention.</td><td rowspan="5">• The RPA column gives the required area (m²).
• The RPA Radius column gives the radius (m) of an equivalent circle.
• The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the required rooting area in order for a tree to be retained.</td></tr>
<tr><td>Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837.</td><td>SM: Semi-mature, trees less than 1/3 life expectancy.</td><td>F - Fair: Trees with minor, but rectifiable, defects or in the early stages of stress from which it may recover.</td></tr>
<tr><td>Crown - crown spread estimated radially from the main stem (m).</td><td>EM: Early mature, trees 1/3 – 2/3 life expectancy.</td><td>P - Poor: Trees with major structural and/or physiological defects such that it is unlikely the tree will recover in the long term.</td></tr>
<tr><td rowspan="2">Abbreviations
Est - Estimated stem diameter
Avg - Average stem diameter
Max - Maximum stem diameter</td><td>M: Mature trees, over 2/3 life expectancy.</td><td>D - Dead: Trees no longer alive. This could also apply to trees that are dying and unlikely to recover.</td></tr>
<tr><td>OM: Over mature, declining or moribund trees of low vigour.</td><td colspan="2" rowspan="2">In the assessment, of the BS category, particular consideration has been given to the following
• The health, vigour and condition of each tree
• The presence of any structural defects in each tree and its future life expectancy
• The size and form of each tree and its suitability within the context of a proposed development
• The location of each tree relative to existing site features e.g. its screening value or landscape features
• Age class
• Life expectancy</td></tr>
<tr><td></td><td>V: Veteran, tree possessing certain attributes relating to veteran trees.</td></tr>
</table>

Structural Condition

The following has been considered when inspecting structural condition:
- The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay.
- Soil cracks and any heaving of the soil around the base.
- Any abrupt bends in branches and limbs resulting from past pruning.
- Tight or weak 'V' shaped forks and co-dominant stems.
- Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994).
- Cavities as a result of limb losses or past pruning.
- Broken branches or storm damage.
- Canker formations.
- Loose or flaking bark.
- Damage to roots.
- Basal, stem or branch / limb cavities.
- Crown die-back or abnormal foliage size and colour.
- Any changes to the timing of normal leaf flush and leaf fall patterns.

Quality Assessment of Retention Category

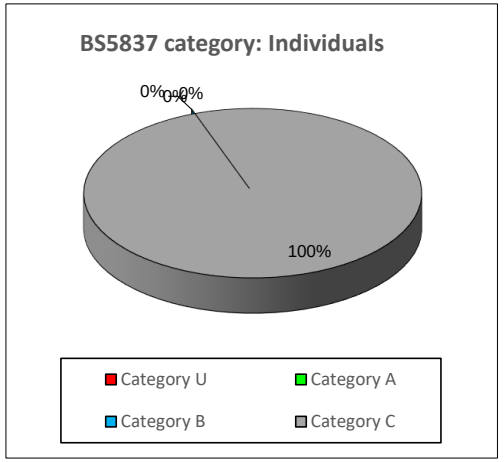
Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

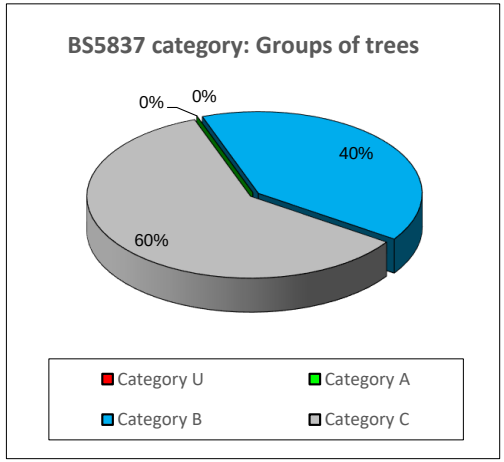
Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

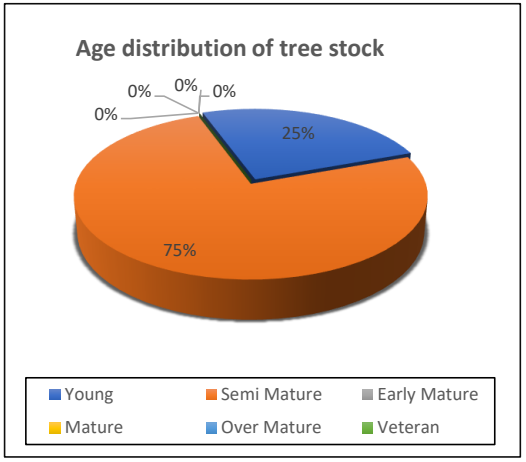
Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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 150mm.

Sub-categories: (i) - Mainly arboricultural value
(ii) - Mainly landscape value
(iii) - Mainly cultural or conservation value







Appendix A - Summary

	Individual Trees	Totals	Tree Groups	Totals
Category U		0		0
Category A		0		0
Category B		0	G1, G4	2
Category C	T1, T2, T3, T4	4	G2, G3, G5	3
	Total	4	**Total**	5

	Hedgerows	Totals	Woodlands	Totals
Category U		0		0
Category A		0		0
Category B		0		0
Category C		0		0
	Total	0	**Total**	0

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T1	Goat willow	9.0	2.0	2	240 260	5.0	2.0	5.0	5.0	SM	F	F	64	4.5	C 1	Typical crown form Minor deadwood in the crown Included unions observed
T2	English elm	15.0	2.0	1	450	6.0	6.0	6.0	6.0	SM	P	P	92	5.4	C 1	Apical dieback Branch stubs observed Building within the rooting area Estimated dimensions Hard surfaces within the rooting area Limited inspection due to access Limited inspection due to dense vegetation Minor deadwood in the crown Tree is showing signs of decline
T3	Goat willow	7.0	1.5	6	400	3.0	3.0	3.0	3.0	SM	P	F	72	4.8	C 1	Hard surfaces within the rooting area Building within the rooting area Minor deadwood in the crown Limited inspection due to access Estimated dimensions
T4	Goat willow	10.0	2.0	2	320 210	5.0	4.0	3.0	3.0	SM	P	F	72	4.8	C 1	Included unions observed Minor deadwood in the crown Building within the rooting area Estimated dimensions Hard surfaces within the rooting area Limited inspection due to health and safety concerns Estimated dimensions

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
G1	Norway maple Silver birch Elder Cherry	13.0	0.0	-	280	5.0	5.0	5.0	5.0	SM	F	G,F	41	3.6	B 2	Conjoined canopy Hard surfaces within the rooting area Included unions observed Branch stubs observed Provides screening Typical crown forms Self seeded trees present Pruning wounds observed
G2	Elder Silver birch Hawthorn Cherry Goat willow	9.0	0.0	-	150	2.0	2.0	2.0	2.0	Y SM	P	F	10	1.8	C 2	Conjoined canopy Hard surfaces within the rooting area Self seeded trees present
G3	Silver birch Goat willow Elder Apple	16.0	2.0	-	280	5.0	5.0	5.0	5.0	SM Y	F, P	F, P	41	3.6	C 2	Conjoined canopy Group is located off site but overhangs the study area Hard surfaces within the rooting area Limited inspection due to access Limited inspection due to dense vegetation Minor deadwood in the crowns Major deadwood in the crowns Included unions observed Tear wounds observed Branch socket cavities observed Estimated dimensions
G4	Norway maple	9.0	1.5	-	250	3.0	3.0	3.0	3.0	SM	F	F	28	3.0	B 2	No obvious defects observed Typical crown forms
G5	Silver birch Elder Rowan Goat willow Hawthorn	6.0	0.0	-	160	2.0	2.0	2.0	2.0	Y SM	F,P	F	14	2.1	C 2	Conjoined canopy Hard surfaces within the rooting area Limited inspection due to dense vegetation Limited inspection due to access Self seeded trees present Typical crown forms