



ROAVR | GROUP

Project: 24_5837_10_57
Site: 102 Leeds Road, Liversedge, WF15 6AA
Client: S Osborne



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Project Number:	24_5837_10_57
Report Type:	Tree Survey & Arboricultural Impact Assessment
Site Address:	102 Leeds Road, Liversedge, WF15 6AA

Role:	Name:	Date:
Instructing Party	S Osborne	16/10/2024
Customer	S Osborne	28/10/2024
Surveyor	Alexander Barnes - BSc Arb, MArborA	28/10/2024
Consultant	Alexander Barnes - BSc Arb, MArborA	11/11/2024

Revision History		
Date:	Version number:	Summary of changes:
11/11/2024	1.0	First Review (Internal)
11/11/2024	1.0	First Issue
17/12/2024	1.2	Updated plans changes to sections 4.1.2, 4.5 & 4.15.

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Validation Statement for the Local Planning Authority.

This report includes the following for LPA validation purposes:

- A **tree survey and tree constraints plan** showing the existing trees, their category rating and above and below ground constraints shown on an OS extract OR a topographical survey
- An **arboricultural impact assessment** which describes how the development will affect local character from a tree perspective
- **Appendices** highlighting tree related information including the **arboricultural data tables**

Customer Action Points.

- reporting complete - send to your Local Planning Authority
- on planning award contact us with your decision notice

1. Introduction & Scope:

This is a BS5837 compliant arboricultural assessment report providing detailed and sufficient information for the Local Planning Authority to be able to consider the effect of the proposed development on local character and amenity from a tree perspective.

Our brief has been to obtain details of the tree population on site with a view to assessing any arboricultural constraints.

The report details all trees over 75mm at 1.5m above ground level that are relevant to the siting of the proposed development. The crowns and stems were inspected from the ground using the 'Visual Tree Assessment (VTA)' method; non invasive techniques were used at this stage. A sounding hammer was used to determine the presence of any decay.

The position of the trees on the site is illustrated on the tree constraints plan and information about the tree stock and its current condition is given within the arboricultural data tables.

Trees were grouped or designated woodlands as per the allowance in the British Standard when the area in question was uniform in terms of species, age or geography.

It will assist the planning process by discussing the impact that the proposals will have on the existing tree stock.

An Arboricultural Impact Assessment is included at Section 4 which details the constraints placed on the proposed development from the rooting area of the trees below ground and above ground by virtue of their size and position.

Report Author.

ROAVR (ROAVR Group) was formed in 2010 and since then has carried out arboricultural consultancy Nationwide with directly employed consultants. Our consultants are all individual members of the Arboricultural Association and the report author is listed in the document control sheet.

Photographic Plates.



Photographic plate showing T1 (right) and offsite tree T6 (left). (ROAVR, 2024)



Photographic plate showing the basal area of T1 (left) and the proposed development area (right). (ROAVR, 2024)



Photographic plate showing off site tree T9. (ROAVR, 2024)



Photographic plate showing the basal area of off site tree T6 and the difference in ground level between the site and the offsite trees to the west. (ROAVR, 2024)

2. Site Conditions & Site Surroundings

- 2.1 The site is situated in Heckmondwike in the Kirklees Metropolitan Council control area. The site is located on the north side of the town and has an urban feel.
- 2.2 The site is home to a semi detached residential dwelling with associated hard and soft landscape.
- 2.3 The wider locality is predominantly residential housing. The site is accessed via a private access road just off the adjacent public highway.
- 2.4 A desktop assessment has highlighted that the site is not located within a Conservation Area but that there is an area of TPO protected trees on the plot. ID number 42/80/a4.
- 2.5 All desktop assessment data was cross checked and validated on the 11/11/2024 using the web portal provided by the local planning authority.

[https://mapping.kirklees.gov.uk/connect/analyst/mobile/#/main?mapcfg=Tree%20Preservation%20Orders%20\(Public\)&lang=en-gb](https://mapping.kirklees.gov.uk/connect/analyst/mobile/#/main?mapcfg=Tree%20Preservation%20Orders%20(Public)&lang=en-gb)

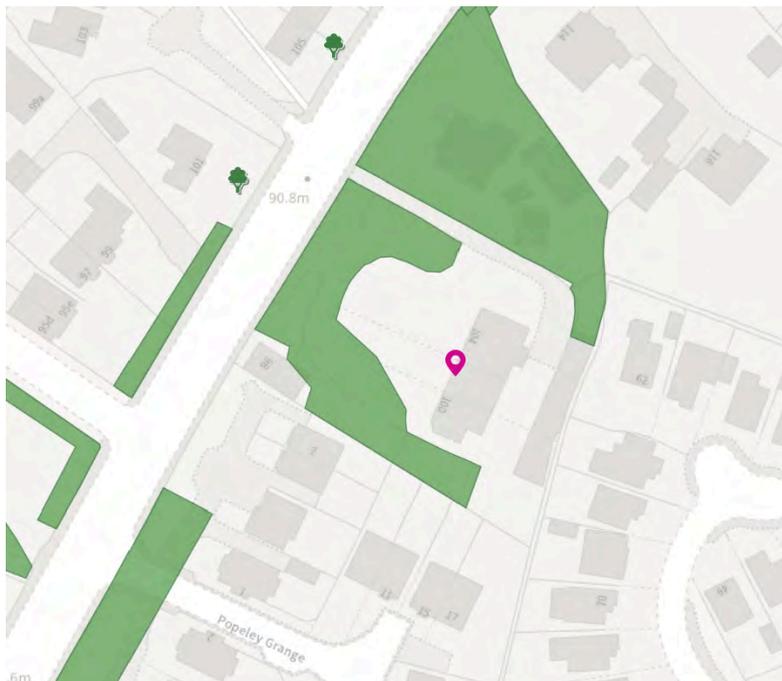


Image plate showing the desktop analysis results of the surveyed plot. (Kirklees Metropolitan Council, 2024)

- 2.6 Works to protected trees require consent from the local planning authority. In the case of TPO's an application must be made. In the case of conservation areas a notification must be made. TPO applications take up to eight weeks, conservation area notifications take six weeks.
- 2.7 Certain exemptions apply; for example the removal of deadwood. In the case of dangerous trees 5-days written notice should be given to the local authority (in the cases of immediate danger the work should proceed, but the local authority contacted as soon as possible afterwards) with the works evidenced by photographs and video where possible. You should also check to ensure the works are exempt from the requirements of a felling licence.

<https://www.legislation.gov.uk/ukxi/2012/605/regulation/14/made>

- 2.8 It should be noted that planning consent overrides protected trees, where the works or removal are necessary for development to proceed and have been highlighted in the tree survey documents.
- 2.9 Bats. Under current legislation it is an offence to 'intentionally or recklessly disturb a bat' or 'damage, destroy or block access to the resting place of any bat'. For further details consultation must be made with the Statutory Nature Conservancy Organisation. Where relevant any current ecological surveys for the site will take precedence in this matter. Trees provide numerous 'potential roosting features' for a wide range of bat species. It is therefore crucial that any trees proposed for removal are checked by an appropriately competent person before any felling or ivy stripping works commence.

<https://www.bats.org.uk/advice/bats-and-the-law>

- 2.10 Birds. It is an offence to kill, injure or take any wild bird; or take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore work likely to disturb nesting birds must be avoided from late March to August. All birds, their nest and eggs are protected by law.

<https://www.rspb.org.uk/birds-and-wildlife/advice/wildlife-and-the-law/wildlife-and-countryside-act/>

3. Drawings

- 3.1 Appended to this report is a tree constraints plan and a tree assessment plan.
- 3.2 The tree constraints plan has been produced using an OS supplied .dwg (AutoCAD) base plan as no topographical survey was available. Tree positions and data have been applied using our survey handset as an onsite exercise with the constraints plan being produced as a PDF through Auto CAD.
- 3.3 An autoCAD .dwg file of the tree constraints is available on request for project stakeholders to utilise.
- 3.4 The *Tree Constraints Plan* shows the existing layout. For each tree the stem location is indicated and scaled according to its diameter, the canopy is indicated according to measurements taken along the four cardinal points of the compass. Root protection areas (RPAs) are indicated which are calculated according to the guidelines within BS 5837 (2012).
- 3.5 Where appropriate, the shapes of the RPAs have been amended to reflect actual site conditions or where trees have been heavily pruned. The 'original' RPAs are indicated as a dashed line whereas the amended RPAs are indicated as a solid line. Any variation to this approach will be highlighted on the appropriate plans.
- 3.6 The *Tree Assessment Plan / Arboricultural Impact Assessment* indicates the tree constraints with the proposals overlaid. Where applicable, this plan shows where works are proposed in Root Protection Areas and which trees are to be pruned or removed. This plan accompanies the Impact Assessment which is to be found in Section 4.
- 3.7 The *Tree Protection Plan (if applicable)* shows the protection measures that are to be installed during the construction phase. This plan accompanies an arboricultural method statement where applicable and commissioned.

4. Arboricultural Impact Assessment - Site Specific

Tree Quality Statement.

The tree cover at 102 Leeds Road consists of mature remnant trees of fair quality that contribute positively to the amenity and ecological value of the site and its surroundings. These trees play an important role in supporting the local urban forest. The principal tree on the site, T1 is a mature Lime located in the rear garden which provides substantial amenity and ecological benefits, enhancing both the property and the wider area.

4.1 Description of The Proposed Development

The drawings listed in the table below were used by ROAVR to produce the Arboricultural drawings referenced in this report. If your plans change (either before or after planning submission), then the tree drawings will require updating. This report cannot be submitted in support of a scheme that varies from the drawing reference number shown in box one below as the Impact Assessment (Section 4) will not be valid.

Drawing Name / No.	Date Issued To ROAVR	ROAVR Drawings Issue Date:
102 Leeds Road.dwg	22/10/2024	12/11/2024
102 Leeds Road.dwg	21/11/2024	16/12/2024

4.1.1. It is proposed to erect a single storey rear garden outbuilding.

4.1.2. The table below summarises the potential impact on trees due to various activities.

Trees Potentially Affected:

Tree or Tree Group	Impacts
T1 to T9	No direct impacts can be retained and protected throughout construction.

4.2. Tree Removal.

4.2.1. No trees to be removed.

4.2.2. Details specific to each tree can also be found in the Tree Data Schedule.

4.3. Mitigation Planting.

4.3.1. No trees to be removed so no mitigation planting is considered necessary.

4.4. Impact on Tree Canopies.

4.4.1. No pruning works are required to facilitate the proposed development as the canopy of T9 oversails the proposed outbuilding.

4.5. Impact on Tree Roots.

4.5.1. No impact on tree roots.

4.6. New Surfaces.

4.6.1. No new hard surfaces are proposed within the Root Protection Areas of any trees.

4.7. Underground Services.

4.7.1. No underground services are contained within the proposals submitted for assessment.

4.8 Changes in Ground Levels.

4.8.1 No changes in ground level are contained within the proposals submitted for assessment.

4.9 Soil Compaction.

4.9.1 The majority of tree roots lie within the upper soil horizons. This is because the availability of oxygen decreases with depth and roots need to breathe to stay alive. In addition, nutrients are more readily available in the form of organic matter close to the soil surface.

4.9.2. Healthy soils contain about 25% air space between solid particles. Increased loading of the soils caused by construction activity causes air to be squeezed out as the soil becomes compacted preventing roots from breathing. Even an increase in pedestrian activity may cause some soil compaction.

4.9.3 It is important therefore that ground compaction and soil disturbance over Root Protection Areas should be avoided during the construction phase. This may be done by installing protective fencing and ground protection measures as recommended within a tree protection plan.

4.10 Demolition Activities.

4.10.1 The tree protection measures specified within a TPP should be installed prior to the commencement of all demolition activities (including soil stripping) to prevent any detrimental impact on tree health. Where this is not practicable, demolition of structures within Construction Exclusion Zones shall be undertaken very early on in the demolition phase and the protective barriers installed immediately thereafter.

4.11. Hazardous Materials.

4.11.1 All hazardous materials (including cement and petrochemical products) will need to be controlled according to COSHH regulations in order to ensure there is no detrimental impact on tree health. Provision shall need to be made to ensure that cement and cement run-off are contained outside of all Root Protection Areas.

4.12. Cabins and Site Facilities.

4.12.1. Consideration should be given to the location of any site welfare facilities in terms of potential impact on trees. Where it is proposed to install cabins or site facilities in Root Protection Areas, the appointed arborist should be consulted and approval obtained from the local authority.

4.13. Boundary Treatments.

4.13.1. No changes are proposed to the existing boundary features that might impact on trees.

4.14. Impact of Retained Trees on the Development.

4.14.1. Adequate space has been allowed between all retained trees and the proposed development works. Consequently the proposal shall not result in increased pressure to remove or prune any of the retained trees.

4.15. Summary.

4.15.1. The proposed development at 102 Leeds Road involves the construction of a single-storey rear garden outbuilding. The site features mature remnant trees of fair quality, which provide significant amenity and ecological value to the local urban forest. The principal tree, T1 (a mature Lime), along with other retained trees (T1 to T9), will not be directly impacted by the development. No tree removals, pruning, or changes to ground levels are required, and no new hard surfaces or underground services are proposed within Root Protection Areas. Protective measures, including fencing and ground protection, will be implemented to prevent soil compaction and ensure tree health during construction.

No mitigation planting is necessary as no trees will be removed. The design allows sufficient space between the development and retained trees, ensuring no future pressure to prune or remove these trees. Overall, the arboricultural impact of the proposal is minimal, with all trees being retained and protected throughout the construction phase.

5. Limitations

- 5.1 ROAVR has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.
- 5.2 This Report may not be relied upon by any other party without the prior and express written agreement of ROAVR. The assessments made assume that the land use will continue for their current purpose without significant change. ROAVR has not independently verified information obtained from third parties.
- 5.3 This report, video walkthrough, data tables and raw data remain the copyright of ROAVR until such time as any monies owed are settled in full and the report may be withdrawn at any time.
- 5.4 This report, site visit, plans and conclusions are proportional to the proposals and in some cases a simple plan based impact assessment may be all that is required.
- 5.5 Important - to ensure fair allocation of resources, we allow you ten working days to review the report and issue any feedback, beyond that changes are chargeable.
- 5.6 For references and further information regarding tree survey process visit: <https://www.roavr-group.co.uk/roavr-group/survey/sp-3-arboriculture/>

Should you require any further information, please do not hesitate to contact us at any time.

Mr. Alexander Barnes, BSc Arb, MArborA
Consultant Arborist

Alexander Barnes



Prepared by: Alexander Barnes
Checked by: Peter Haine

Appendix 1 – Site Location



(Google Earth, 2024)

Appendix 2 – Arboricultural Data Tables

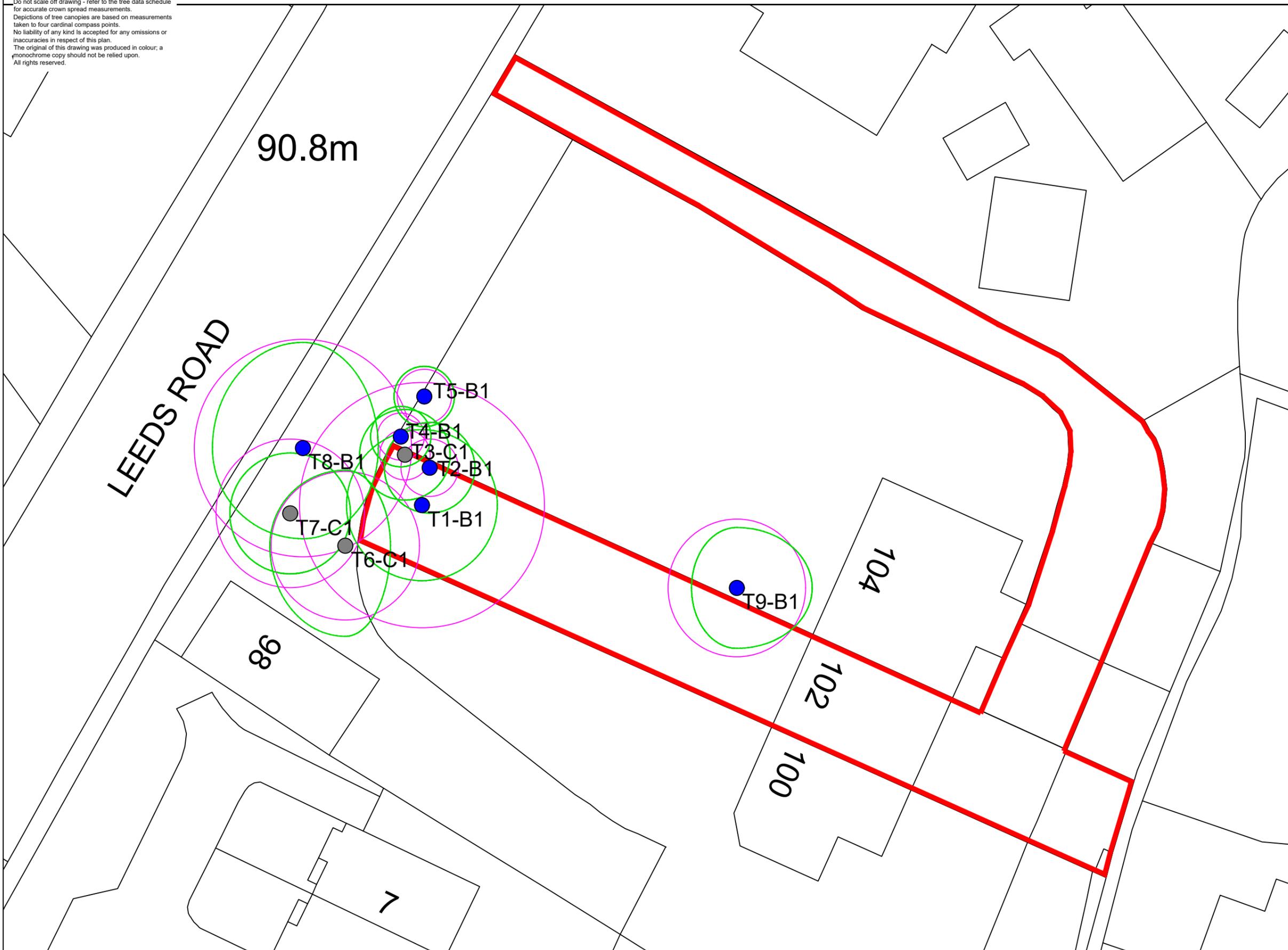
Key to Arboricultural Data Tables

Tree Number	Reference no. T1, T2 etc. for trees; H for hedgerows; G for Groups and W for woodlands.
Species	Tree species <i>Fagus sylvatica</i> ; <i>Quercus robur</i> - Latin names.
Age Class	The estimated age class of the tree (relative to species) Y - Young SM - Semi-mature EM - Early-mature M - Mature OM - Over-mature or V - Veteran
Height (Crown Height)	Height of the tree in metres. (Height of the crown above ground level in metres)
Number of Stems	Number of clear stems above 1.5 metres
Diameter at Breast Height	Diameter of stem (mm) at breast height (1.5 metres above ground).
Crown Spread (N, S, E, W)	The maximum spread of the tree's canopy measured from the stem in four directions (North, East, South, West).
Life Expectancy	Estimated safe, usable life expectancy.
Physical Description	Details of tree type, quality, location etc
Comments	Any comments or remarks recorded by the surveyor
Management Recommendations	Recommendations (regardless of the development proposals if available) for removal, retention and/or remedial arboricultural works.
RPA offset from stem	Radius of the root protection area measured in metres
Category Rating	<p>Tree categorisation based on section 4.5 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations:</p> <p>A – Trees of high quality with an estimated remaining life expectancy of at least 40 years. B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. 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 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</p> <p>Subcategories: 1: Mainly arboricultural & aesthetic qualities 2: Mainly landscape qualities 3: Mainly cultural values, including conservation</p>

Tree Number	Species	Age Class	DBH	Height (crown height)	N	E	S	W	Condition	Life Expectancy	Physical Description	Comments	Management Recommendations	RPA offset from stem.	Category Rating
T1	<i>Tilia X europaea</i> (Common Lime)	M	677	20(5)	5	5	5	5	Fair	20+	/		Remove deadwood from Crown.	8.12	B1
T2	<i>Prunus avium</i> (Wild Cherry)	M	158	7(3)	3	3	3	3	Fair	20+	/	/	/	1.9	B1
T3	<i>Ulmus glabra</i> (Wych Elm)	SM	139	7(1)	1	3	3	3	Fair	20+	/	/	/	1.67	C1
T4	<i>Ilex aquifolium</i> (Holly)	M	130	4(1)	1	2	2	2	Fair	20+	/	/	/	1.56	B1
T5	<i>Ilex aquifolium</i> (Holly)	M	150	4(1)	1	2	2	2	Fair	20+	/	/	/	1.8	B1
T6	<i>Acer platanoides</i> (Norway Maple)	M	410	12(6)	6	5	3	6	Poor	10+	/	Major deadwood in the Crown recommended for removal. Offsite tree no access to stem estimated DBH. Ground level in the trees position is roughly 1.5 metres lower than the ground level of the site.	Remove deadwood from Crown.	4.92	C1
T7	<i>Tilia X europaea</i> (Common Lime)	M	410	12(6)	6	4	4	4	Poor	10+	/	Ivy on tree. Unable to inspect stem due to Ivy. Offsite tree no access to stem estimated DBH. Ground level in the trees position is roughly 1.5 metres lower than the ground level of the site.	/	4.92	C1
T8	<i>Fraxinus excelsior</i> (Ash)	M	600	20(6)	6	7	5	6	Fair	20+	/	/	/	7.2	B1
T9	<i>Betula pendula</i> (Silver Birch)	M	380	12(2)	2	4	5	4	Fair	20+	/	Offsite tree no access to stem estimated dbh	/	4.56	B1

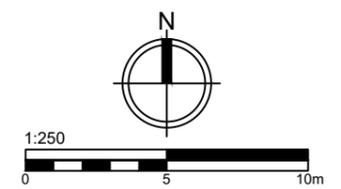
Appendix 3 – Arboricultural Plans

General Notes
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
 The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
 All rights reserved.



Key

- Trees
Showing Canopy extents, category colour and tag number (with category).
- 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.
- Category U**
Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.
- BS 5837:2012 Root Protection Area**



Tree Constraints Plan

Client: S Osborne

Site/Project: 102 Leeds Road, Liversedge, WF15 6AA

Scale/Sheet: 1:250 @ A3 Date: 11/11/2024

Drawing No	Rev	Drawn By	Checked By
24_5837_10_57	1	PH	MH

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 Beechwood Business Park, Inverness, IV2 3BW
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support@roavr-group.co.uk
 01463 667302

General Notes
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
 The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
 All rights reserved.

LEEDS ROAD

90.8m

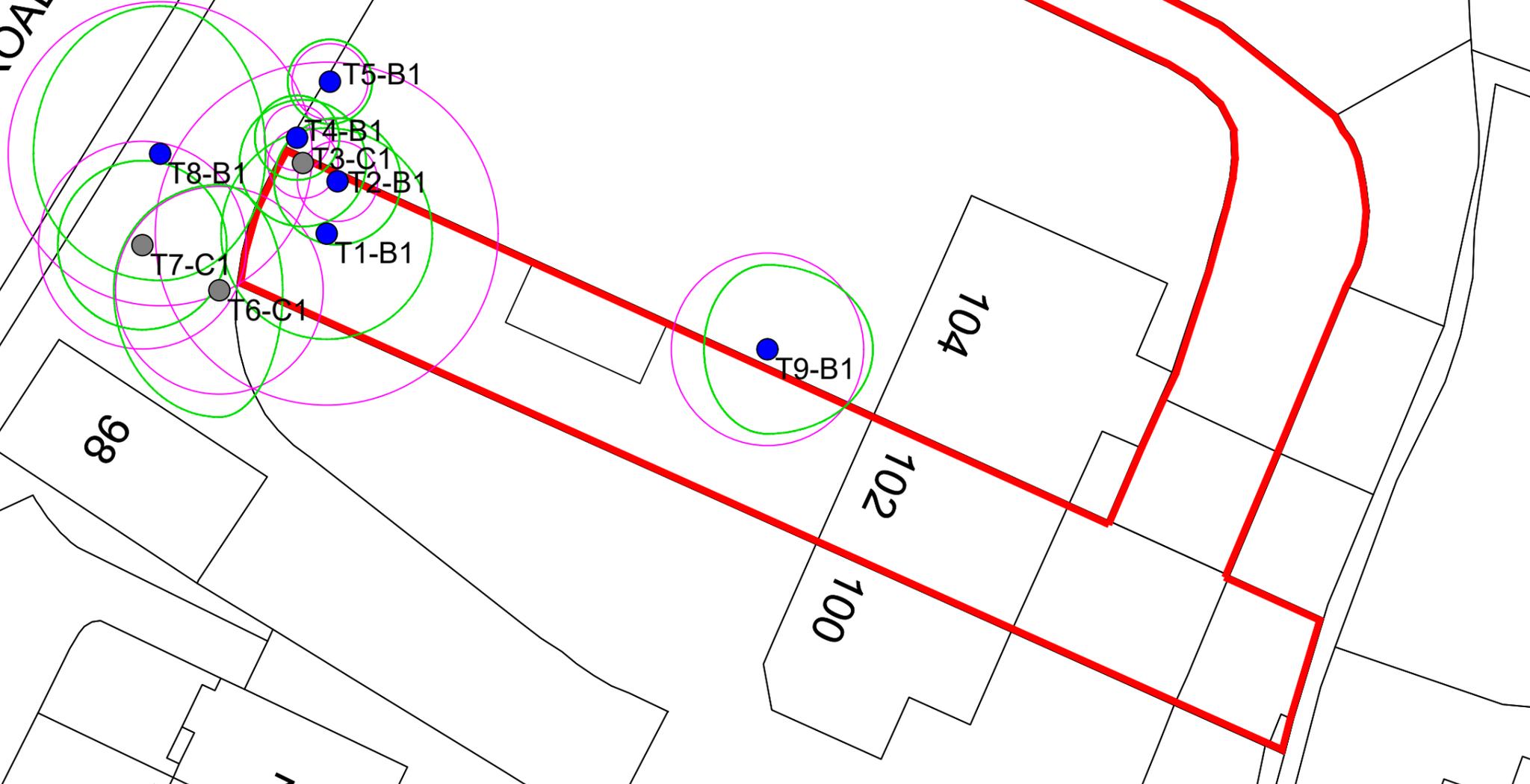
86

7

104

102

100



Key

- Trees Showing Canopy extents, category colour and tag number (with category).
- 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.
- Category U**
Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.
- BS 5837:2012 Root Protection Area

1:250

Tree Assessment Plan			
Client St Osborne			
Site/Project 102 Leeds Road, Liversedge, WF15 6AA			
Scale/Sheet 1:250 @ A3	Date 17/11/2024		
Drawing No 24_5837_10_57	Rev 2	Drawn By PH	Checked By MH

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Arboricultural Method Statement

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1. Method Statement [Introduction and Overview]
2. Site Inspection
3. Tree Works Schedule
4. Tree Protection Barriers Detailed Specification
5. Ground Protection Measures Detailed Specification
6. New Surfaces Detailed Specification
7. Limitations

Appendix 1 – Site Location

Appendix 2 – Tree Protection Plan

Validation Statement for the Local Planning Authority.

This report includes the following for LPA validation purposes:

- A **arboricultural method statement** which specifies tree protection measures and implementation strategy
- **Appendices** including the **tree protection plan**

1. Method Statement [Introduction and Overview]

1.1. Definition of Terms

Some terms used within the Arboricultural Method Statement have very specific meanings. These are defined below:

Root Protection Area (RPA). This is a theoretical area of ground around a tree where the roots are likely to proliferate. Ground disturbance in this area should be minimised in order to avoid significant impact on tree health. RPAs are indicated on all plans accompanying this report as a red or pink line.

Construction Exclusion Zone (CEZ). These zones are created to protect roots and canopies from inadvertent damage by construction activity. They are usually fenced off by protective barriers throughout the entire construction phase. No works are permitted in these zones other than minor landscaping works which do not require a change in ground level. Where practicable the entire Root Protection Area and the area beneath the tree canopy shall be treated as a Construction Exclusion Zone. These zones are shown on the Tree Protection Plan.

Restricted Activity Zone (RAZ). It is not always possible to create a Construction Exclusion Zone over the entire RPA. This is because access may be required or some works may be proposed within the RPA. In such circumstances a Restricted Activity Zone is created where limitations are placed on construction activity. Ground protection measures may be specified or the Restricted Activity Zone may be fenced off throughout part of the construction phase. See the legend on the Tree Protection Plan to identify these zones.

1.2. Tree Protection Barriers - Overview

The Tree Protection Plan indicates the location of all proposed tree protection barriers.

The barriers shall be installed prior to the commencement of any localised construction activity including soil stripping and delivery of materials. A detailed specification of the barriers can be found in sections below.

The tree protection plan also indicates where ground protection measures shall be installed / maintained as specified in sections 1.7 onwards (Restricted Activity Zones).

1.3. Planning Status

Tree protection measures specified within this report should be agreed with the local authority so that they may be conditioned upon planning consent.

The site manager must be familiar with all aspects of this Method Statement and should liaise with the author of this report for clarification, or regarding any unforeseen issues where trees may be impacted upon.

A copy of this Method Statement shall be available on-site at all times. All personnel working on the site shall be made aware of any sections appertaining to their work. This includes short term contractors and persons responsible for deliveries and installation of services.

1.4. Overview of Protection Measures

Below is a summary of the proposed protection measures:

Tree no.	Protection Measures	Timeline
T1 to T9	Retain and protect with braced HERAS fencing.	Pre-start

The above measures are described in more detail throughout the remainder of this section.

1.5. Timing of Operations

Activity within the site shall be phased according to the following chronology:

<i>Order Activity</i>	<i>Phase</i>	Phase Name	Works required
1st Phase		Pre-construction phase	Undertake a pre-start meeting with the builder, client and ACoW
2nd Phase		Protection phase	Install HERAS tree protection fencing and signage as highlighted on the TPP
3rd Phase		Ground Protection	N/A
4th Phase		Construction phase	Construction works commence with regular ACoW visits
5th Phase		Post Construction Phase	Remove tree protection measures and carryout any remedial works such as alleviation and radial mulching

Restrictions on Activities – Specific Zones

1.6. Construction Exclusion Zones

Within Construction Exclusion Zones (shaded purple on the Tree Protection Plan) the following restrictions shall apply:

Tree Protection Barriers shall be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and specified in Section 4 - Tree Protection Barriers.

No construction activity whatsoever shall occur.

No vehicles or plant machinery shall be driven or parked.

No tree works, other than those specified in this report shall be undertaken.

No alterations of ground levels or conditions.

No chemicals or cement washings permitted.

No excavation whatsoever shall occur.

No temporary structures.

No spoil shall be stored.

No fires shall be permitted.

All hazardous materials (including non-essential cement products) shall be forbidden.

Where hard surfaces are to be removed, this shall be done using hand tools or mechanical excavators operating from outside the Construction Exclusion Zone and marshalled by the appointed arborist.

Any structures shall be removed manually and without mechanical excavation.

1.7. Restricted Activity Zone A

Within these zones (shaded yellow on the Tree Protection Plan) tree roots are likely to be present. Access will be required to facilitate construction and some resurfacing works may be required. The following restrictions shall apply:

Any resurfacing shall be done strictly in accordance with the Guidelines in APN12 New Surfaces.

Removal of existing structures such as walls, steps and hard surfaces shall be undertaken using hand tools or a mechanical excavator operating from outside the Restricted Activity Zone and carefully marshalled by an appointed arborist.

A suitable load spreading surface shall be installed and/or maintained as specified in Section 5 – Ground Protection Measures. This shall remain in place throughout the entire construction phase.

No excavation shall occur in this zone without consulting the appointed arborist and obtaining approval from the local authority.

Storage of materials shall be limited to that which is required for the task in hand. Heavy materials that require storage for more than two days shall be stored outside the Restricted Zone.

No spoil shall be stored.

No fires shall be permitted.

All hazardous materials (including non-essential cement products) shall be forbidden.

1.8. Restricted Activity Zone B

Not required.

Restrictions on Activities – Throughout the Site

1.9. Canopy Protection

In order to protect tree canopies the following restrictions shall apply throughout the site:

No machinery shall pass beneath the crowns of trees without being carefully marshalled in order to ensure that no branches are damaged.

If materials require installation or delivery beneath tree canopies, this shall be done without the use of overhead cranes.

If materials are to be installed or delivered close to tree canopies (but not beneath them) and a crane is required, they shall be carefully marshalled in order to ensure that branches are not accidentally damaged.

1.10. Site Hoarding

If site hoarding shall be installed over the Root Protection Area of any tree, the following restrictions shall apply:

Ground levels shall be maintained as existing.

Post holes shall not exceed 300mm x 300mm.

No post hole shall be excavated within 1.5m of any tree stem.

Post holes shall be excavated using hand tools or by a post-hole auger attached to plant machinery sited outside the Root Protection Area(s).

Roots in excess of 25mm shall be retained wherever possible.

Roots in excess of 10mm shall be pruned with sharp secateurs.

Pruning shall be minimal and only undertaken where absolutely necessary to facilitate the site hoarding. It shall be undertaken by a reputable tree surgeon working to BS 3998 (2010).

Cement products shall be mixed away from Root Protection Areas (see Section - 1.19 Hazardous Materials).

Site hoarding may be installed in place of the specified tree protection measures subject to the approval of the local authority with regard to its location and specification.

1.11. Fencing.

Where fence posts are to be installed within Root Protection Areas, the following restrictions shall apply:

All post holes shall be excavated by hand and kept as narrow as possible (maximum diameter 300mm).

Exploratory post holes shall be dug before committing to post / panel positions. If any roots in excess of 25mm are encountered they are to remain intact and the post hole shall be relocated slightly. The fencing system must permit such flexibility (i.e. where fixed panel widths are used, all post holes must be excavated before committing to the final location).

Any roots in excess of 10mm which are severed shall be neatly pruned back with secateurs. This will encourage healing and reduce the likelihood of infection.

Hedges may be planted within Root Protection Areas using hand tools to minimise excavation.

1.12. Demolition and Initial Ground Works

No demolition, removal of surfaces, or soil stripping shall commence until the protective fencing and ground protection measures are installed to the satisfaction of the local authority.

1.13. Underground Services

No underground services (including soak-aways) shall be located in any part of the Construction Exclusion Zones or Restricted Activity Zones unless done so in a manner detailed in a specific Method Statement and approved by the local authority.

1.14. Lighting, Bollards, CCTV and associated Cables

If any of the above are to be installed close to tree canopies or within Root Protection Areas of retained trees, installation methods shall be detailed in a specific Method Statement and approved by the local authority. Consideration should be given to the following:

Pruning of branches to enable sufficient clearance for light and views. Branches should be removed to the branch collar as per British Standard 3998 (2010).

Post holes must be excavated by hand or using an appropriate sized auger. No other form of mechanical excavation may be used.

Wherever possible, cables should be routed in a direction directly away from the tree stem rather than tangentially across the rooting zone. The location of all such cables shall be determined after consultation with the appointed arborist and approval by the local authority.

1.15. Use of Heavy Plant

All machinery operatives are to be made aware of any Construction Exclusion Zones and Restricted Activity Zones that apply to this site (see the Tree Protection Plan).

All machinery operatives are to respect these zones and ensure that no damage occurs to trees due to the careless use of machinery.

Mechanical excavators should have tracks rather than wheels to help spread their load. They should be carefully marshalled when working close to tree canopies.

1.16. Scaffolding

If scaffolding is required in areas containing ground protection measures, the protective boards shall need to remain in-situ and be strengthened and stabilised to bear the weight of scaffold poles.

Prior to the installation of any scaffolding within 0.5m of any tree branches, the appointed arborist shall be consulted to specify any pruning works that may be required.

1.17. Siting of Cabins and Storage of Materials

Cabins and heavy building materials may be located or stored anywhere outside of Construction Exclusion Zones and Restricted Activity Zones.

Any proposal to install cabins or materials within these zones shall be agreed in writing with the local authority prior to installation.

It may be acceptable to locate site cabins such that they act as a tree protection barrier and replace the specified protective fencing. Where this is being considered, written approval must be sought from the local authority.

1.18. Pedestrian Paving

If it is proposed to install new pedestrian surfaces over Root Protection Areas, excavation shall be limited to the removal of existing turf/vegetation plus an additional 50mm. Excavation shall be undertaken using hand tools only. Porous materials are preferred but not essential if the new surface covers less than 10% of the Root Protection Area. Paving with a thickness of 50mm bedded on mortar, or sand, bearing directly onto the ground, with a finished surface level with existing ground levels will be acceptable. No retaining kerbs shall be used.

1.19. Hazardous Materials

Any mixing of cement based materials shall take place outside the Construction Exclusion Zones and Restricted Activity Zones. Where cement is to be mixed on sturdy plastic sheeting e.g 1200 gauge DPM considerable distances from trees and water run-off cannot enter Root Protection Areas.

All other chemicals hazardous to tree health, including petrol and diesel, shall be stored in suitable containers as specified by current COSHH Regulations, and kept away from Root Protection Areas.

1.20. Removal of Tree Protection Barriers

This will be done after all major construction work is complete. Vehicular access will not be permitted within the Construction Exclusion Zones.

The local authority tree officer shall be made aware that the fencing is to be removed.

2. Site Inspection

2.1. Inspection Schedule

In order to ensure that the trees are adequately protected it shall be necessary to periodically monitor the works. This will be done by the local authority tree officer or an appointed arborist (Arboricultural Clerk of Works) who will provide the tree officer with a copy of inspection details.

<i>Order Activity</i>	<i>Phase</i>	Phase Name	Works required
1st Phase		Pre-construction phase	Pre-start ACoW visit with all interested stakeholders
2nd Phase		Protection phase	ACoW visit to sign off tree protection measures
3rd Phase		Ground Protection	N/A
4th Phase		Construction phase	Construction works commence with regular ACoW visits
5th Phase		Post Construction Phase	ACoW visit to supervise removal of protection measures and final site sign off.

Example ACoW sheet.



Woodland Solutions (Northern) Ltd t/a ROAVR Group
The Green House
Beechwood Business Park North
Inverness
IV2 3BL
www.roavr-group.co.uk
T: 01463 667302

SITE SUPERVISION FORM - ARBORICULTURAL
CLERK OF WORKS

DATE
CLIENT
TELEPHONE NUMBER
E-MAIL

TERMS AND CONDITIONS FOR THE PROVISION OF ARBORICULTURAL CONSULTANCY

Site:
Inspected by:
Site Manager:
Date of
Inspection:

Tree Protection Fencing.

Comments/Actions:

Ground Protection.

Comments/Actions:

Additional Comments.

Remarks:

I am aware of the tree protection requirements for this site and understand no retained trees must be damaged.

Signed:

Dated:

Name:

Company:

3. Tree Works Schedule

Tree Works Specification

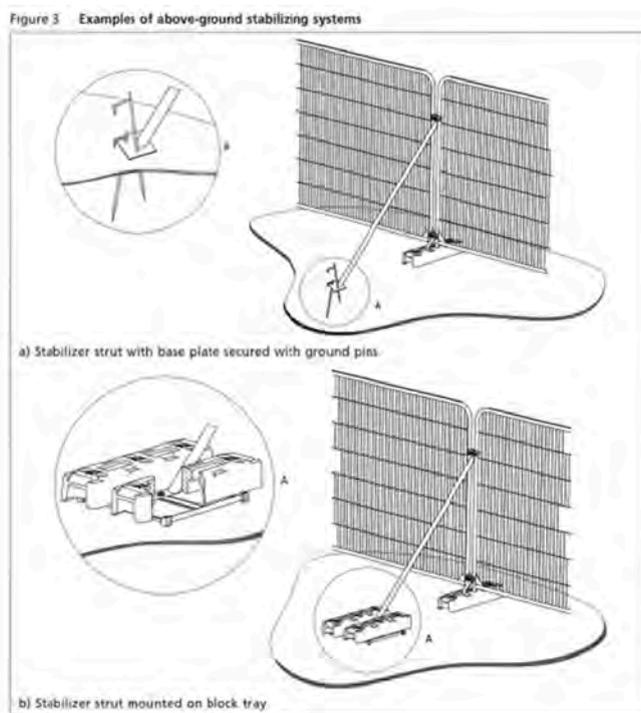
3.1.1. No tree works required

4. Tree Protection Barriers Detailed Specification

Tree Protection Fencing

The purpose of tree protection barriers is to keep construction activity away from Restricted Activity Zones or Construction Exclusion Zones. They should be appropriate to the nature and proximity of activity within the site. The barriers should be erected prior to the commencement of all activity including demolition, soil stripping and delivery of materials and demolition (except where existing structures require demolition to enable the barriers to be installed).

Barrier systems are specified below and should be installed according to the legend on the Tree Protection Plan.



Suitable weather-proof notices should be displayed to identify tree protection zones. They should state the purpose of the fencing and that it should not be moved, or traversed, other than by authorised personnel.



Example signage.

5. Limitations

- 5.1 ROAVR has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.
- 5.2 This Report may not be relied upon by any other party without the prior and express written agreement of ROAVR. The assessments made assume that the land use will continue for their current purpose without significant change. ROAVR has not independently verified information obtained from third parties.
- 5.3 This report, video walkthrough, data tables and raw data remain the copyright of ROAVR until such time as any monies owed are settled in full and the report may be withdrawn at any time.
- 5.4 This report, site visit, plans and conclusions are proportional to the proposals and in some cases a simple plan based impact assessment may be all that is required.
- 5.5 Important - to ensure fair allocation of resources, we allow you ten working days to review the report and issue any feedback, beyond that changes are chargeable.
- 5.6 For references and further information regarding tree survey process visit: <https://www.roavr-group.co.uk/roavr-group/survey/sp-3-arboriculture/>

Should you require any further information, please do not hesitate to contact us at any time.

Mr. Alexander Barnes, BSc Arb, MArborA
Consultant Arborist

Alexander Barnes



Prepared by: Alexander Barnes
Checked by: Peter Haine

Appendix 1 – Site Location



(Google Earth, 2024)

Appendix 2 – Tree Protection Plan

General Notes
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
 The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
 All rights reserved.

LEEDS ROAD

90.8m

86

7

T5-B1

T4-B1

T3-C1

T2-B1

T1-B1

T8-B1

T7-C1

T6-C1

8.1m

T9-B1

4.6m

104

102

100

Key

-  Trees
Showing Canopy extents, category colour and tag number (with category).
-  **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.
-  **Category U**
Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.
-  **BS 5837:2012 Root Protection Area**
-  **Tree Protective Fencing**
-  **Construction Exclusion Zone**



Drawing Title			
Tree Protection Plan			
Client			
St		Osborne	
Site/Project			
102 Leeds Road, Liversedge, WF15 6AA			
Scale/Sheet		Date	
1:250 @ A3		17/11/2024	
Drawing No	Rev	Drawn By	Checked By
24_5837_10_57	1	PH	MH



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