

ARBORICULTURAL METHOD STATEMENT REPORT BS 5837:2012 'Trees in relation to design, demolition, and construction' - recommendations

PURSUANT TO DISCHARGE CONDITIONS 13 and 14

SITE:

Land surrounding Snowman and Casterbridge House, Belsize Road, Camden,

NW64DP

CLIENT:

London Borough of Camden

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DATE: November 2020 OUR REF: SHA 1032

OUR CONTACT DETAILS: 01245 210 420 sharon@sharonhosegoodassociates.co.uk

Executive summary

This report provides information in accordance with the tree related planning conditions 13 and 14 for development at Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP. All information provided is in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

This report follows a detailed Arboricultural Impact Assessment reference *SHA 1032 AIA* dated May 2020. To prepare this report, the latest Civil and Structural Engineering and Landscaping drawings have been reviewed, and beneficial changes made to the drainage proposals. These minor ammendments do not significantly deviate from the approved drainage works. There are no significant changes to tree impacts, and no changes to the tree surgery schedule from the approved Arboricultural Impact Assessment.

The purpose of this report is to provide information in relation of planning conditions and to provide information for works on site. The key areas of information are the following:

- The tree protection plans for tree works, construction and external works (appendix 2) which shows areas where method statements apply
- The tree surgery schedule (appendix 4)
- The Arboricultural Method Statements at 5.0.

Arboricultural site supervision is recommended at the following key stages:

- During the installation of the pads near T13 and T14 and timber posts near T9, T10 and T12
- During the installation of services within the root protection areas
- During grading down of an artificial mound near T2 and T3
- During changes of hard surfaces near trees.
- During changes to the wall alignment near T59. Note that tree planter retaining boundary walls will be retained, although they may be repaired and lowered to planter ground level.
- During the installation of play equipment/cycle storage near trees

Visits will be recorded and the site supervision notes will be sent to London Borough of Camden tree team via the client, as an audit trail.

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1.0 Introduction

- 1.1 This report is for the purpose of providing information to comply with the requirements of planning conditions 13 and 14 for "Construction of a new health and community centre (Use Class D1), relocation of existing residential car park, along with landscaping, associated access, demolition of link bridge between Phases 2 and 3 and cycle parking" at Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP.
- 1.2 This report follows the approved Arboricultural Impact Assessment reference SHA 1032 AIA.
- This report is intended for submission to the London Borough of Camden and for use by the contractor on site. Technical words are described in the glossary at appendix 9.

2.0 Statement of instructions and issues discussed

- 2.1 I was instructed by Wates on behalf the London Borough of Camden to carry out the following:
 - Work with the team to discuss the tree issues
 - An Arboricultural method statement required by condition 13 of planning consent
 - A tree protection plan and tree protection specification
 - A site supervision schedule as required by condition 14 of planning consent All works are to BS 5837:2012 'Trees in relation to design, demolition and construction – recommendations' (BS).
- 2.2. The issues discussed are the condition of the trees on site, the impact from the approved development and the long term view of the treescape for the site.

3.0 The trees:

3.1 *Generally*: There are 66 individual trees, 2 hedges and 4 groups of trees which form the subject of this survey. Full details of the trees are found in the tree tables at appendix 1 of the Arboricultural Impact Assessment and I do not repeat the information here. The development results in the removal of 18 trees and 1 hedge. In addition, 2 trees and 2 small groups of elder are recommended for removal due to their poor condition. The important trees near the frontage are retained There has been considerable design team and client discussion to maximise tree retention and to ensure significant tree planting

3.2. *Legislation:* The trees are not protected by a Tree Preservation Order and the site is not in a Conservation Area.

4.0 The approved development

- 4.1 Planning consent for "Construction of a new health and community centre (Use Class D1), relocation of existing residential car park, along with landscaping, associated access, demolition of link bridge between Phases 2 and 3 and cycle parking" at Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP
- 4.2 Planning conditions require the following pre-commencement information:

| 13 | Trees: retained and protected on site |
|----|--|
| | Prior to the commencement of any works on site, details demonstrating how trees to be retained shall be protected during construction work shall be submitted to and approved by the local planning authority in writing. Such details shall follow guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction". All trees on the site, or parts of trees growing from adjoining sites, unless shown on the permitted drawings as being removed, shall be retained and protected from damage in accordance with the approved protection details. |
| | Reason: To ensure that the development will not have an adverse effect on existing trees and in order to maintain the character and amenity of the area in accordance with the requirements of policies A2 and A3 of the London Borough of Camden Local Plan 2017. |
| 14 | Tree protection |
| | Prior to the commencement of construction/demolition works on site, tree protection measures shall be installed in accordance with approved Tree Protection Plan. The protection shall then remain in place for the duration of works on site and works should be undertaken in line with the approved arboricultural method statement, unless otherwise agreed in writing by the local authority. |
| | Reason: To ensure that the development will not have an adverse effect on existing trees and in order to maintain the character and amenity of the area in accordance with the requirements of policies A2 and A3 of the London Borough of Camden Local Plan 2017. |

This report analyses the impact of the approved development and recommends measures for tree protection to ensure that conditions 13 and 14 are complied with.

5.0 Arboricultural method statement

5.1 <u>Generally</u>

Development can harm trees if not carried out carefully. Tree's crowns and trunks can be damaged by machinery or scorched by fire or chemicals. Trees roots can be asphyxiated and die if the rooting zone becomes compacted and the soil structure damaged. This can happen very easily, particularly on clay soils, even with the passage of light vehicles. Tree roots can be damaged by raising or lowering the ground level. In some cases it can take several years for the damage to become apparent. This report details how the approved development will take place whilst ensuring that the trees shown for retention can be protected, and for the protection of the soil in the areas for new planting.

- 5.1.1 *Fires:* Fires on site should be avoided if possible. If unavoidable, they should be situated far enough so that there is no risk of damage to the trees, taking into consideration the wind direction.
- 5.1.2 Site and fuel storage, cement mixing and washing points: All site storage areas, cement mixing and washing points for equipment and vehicles and fuel storage areas should be outside root protection areas unless otherwise agreed with the Local Planning Authority. No discharge of potential contaminants should occur within 10m of a retained tree stem or where there is a risk of run off into Root Protection Areas.
- 5.1.3 *Temporary buildings for site use:* Site cabins, trailers and other temporary buildings can sometimes be used in root protection area if consent is agreed by the local planning authority. This can be very useful if there is a robust existing hard surfacing in place. The method for installing the buildings, and assessment of whether ground protection is needed is to be agreed with the Arboriculturist and specified prior to installation.
- 5.1.4 *Protection of tree canopies:* Piling rigs and cranes are often used close to trees. Work must be carefully planned so that there is sufficient room to avoid hitting the canopy during transportation or operation. Arboricultural supervision may be required, however it is the responsibility of the contractor to assess and plan the work. Any access facilitation pruning required is detailed in the tree surgery schedule.

5.2 Tree surgery

Recommendations for tree works can be found in the tree surgery schedule in Appendix 4. All works shall be in accordance with '*BS 3998:2010 Tree work. Recommendations*'. The use of a competent tree surgery contractor is necessary to comply with this. The main contractor and tree surgery contractor must ensure that any necessary consents have been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works. Within root protection areas, stumps, shrubs and other vegetation must be removed by hand or using stump grinding machinery to minimize root damage of retained trees. Where poisoning of stumps is specified, this must be carried out by competent operatives. Only chemicals approved for this purpose and used in accordance with the manufacturer's instructions will be used.

The following information must be sought:

- Current employers, public and product liability insurance
- Waste carriers licence
- Qualification and experience of key personnel, including relevant NPTC certificates
- COSHH assessment
- Tool and task based risk assessment, including a Working at Height Risk Assessment
- Site specific risk assessment
- Emergency procedure plan
- Method Statement

A list of suitable tree surgeons is found at: <u>http://www.trees.org.uk/find-a-</u>

professional/Directory-of-Tree-Surgeons

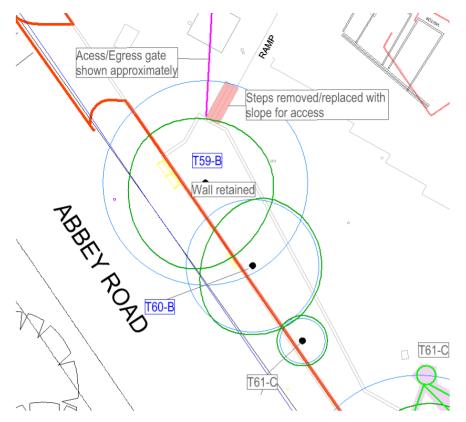
The London Borough of Camden may prefer to use their own contractors. The contact is 0207 974 444.

Bio security measures are important and found at <u>https://www.forestry.gov.uk/biosecurity</u>

5.3 Tree protection during works including hoarding and site set up

The tree protection fencing is to be erected in the locations shown on the tree protection plans (appendix 2) to a specification found at appendix 3. The fencing is to be erected before any machinery enters site. Where site hoarding is to be erected near trees, they will be installed by above ground support such as stillages. Only where this is not possible will the hoarding be installed by hand digging, and shifting the hole slightly if there is a root with a diameter greater than 25mm. The holes are to be lined with impermeable plastic sheeting to prevent the alkalinity of concrete from scorching the end of roots and locally raising the PH.

Ground protection is to comprise of existing hard surfacing within the root protection areas of trees to be retained where it is exists and is possible. The hard surfacing should then only be removed before the external works phase. The existing drives to the car parks will be used for the access for the heavy machinery and lorries during works. There is a change in level of three steps to the north of T59 (see plan 1 overleaf) which will be addressed by the site team to ensure safety for vehicles.



Plan 1 – extract from SHA 1032 TPP2 A -do not scale. North is vertical.



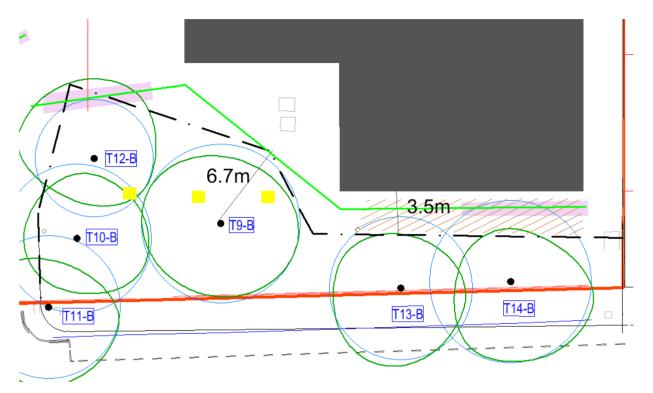
Photo 1 of site entrance where a ramp will be created instead of steps. The wall acts as a tree protection fencing barrier for passing lorries in connection with works.

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5.4 Foundation installation

This applies to T13 and T14. The pads profect 500mm. This coincides with the requirement for new drainage (see 5.5). The tree protection fencing will be installed, set back 2m to enable working room.



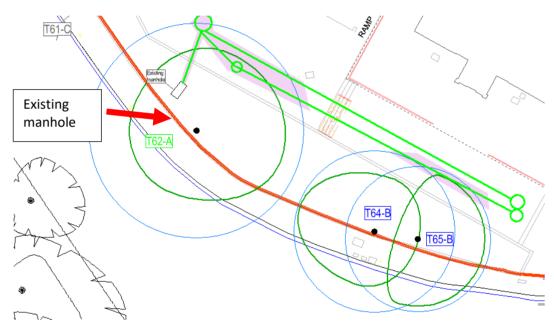
Plan 2 – extract from SHA 1032 TPP2 A -do not scale. North is vertical.

- Mark the area where the method statement applies with spray paint
- Under arboricultural supervision skim off the soft surface using a small smooth bucket. Remove the turf from the root protection area. The pads will be dug by a digger with a smooth bucket
- The roots will be pruned cleanly with bypass secateurs by the arboricultural consultant.
- The trench will be dug down to the minimum and all roots within this depth will be pruned.
- A record will be made of the number, location, diameter and depth of the roots.
- The tree side edge of the trenches for the pads will be faced with a double vertical wall of damp hessian, pegged in place with pins. This is to prevent desiccation of the roots and act as a soft barrier.
- An impermeable plastic sheet will be placed next to the hessian and pegged at the top to keep in place. This is to prevent the alkalinity of the concrete from leaching through the hessian onto the cut roots.

The construction footprint, and up to the northern boundary wall will be excavated and sheet piled. As the wall acts a root barrier, there will be no issue with offsite T32 and only light tip pruning is required to avoid conflict with the piling rig.

5.5 Installation of services

5.5.1 New drainage is required throughout the site, and this has been the subject of intense team discussion to minimise the impact on trees to be retained. I am satisfied that the best outcome has been achieved that will meet drainage requirements and minimises impact. However, there are still areas where drainage impinges on the root protection areas which I discuss in turn.



Plan 3 – extract from SHA 1032 TPP2 A -do not scale. North is vertical.

The green lines are the locations for drainage (surface and foul) and the pale pink hatching is where the installation will be observed. The drainage pipes are too deep and large to be underground moled or directionally drilled under the root plate.

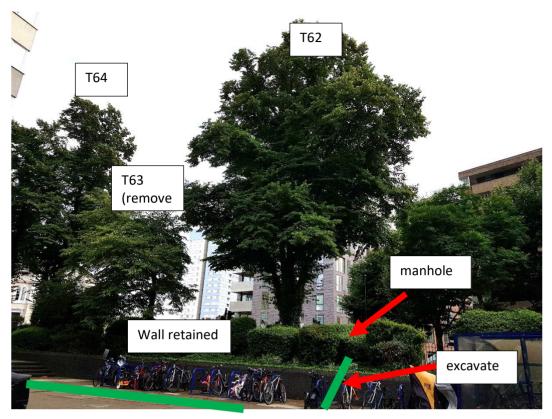


Photo 2 looking south. Green lines – approximately location of underground services.

There is an existing manhole in the raised planter in which the trees are growing. This will need to be connected to the lower hard surfaced area below the wall. This short stretch of excavation will be carried out by a combination of hand digging, and where not possible due to site conditions, by a smooth bucket 300mm wide. This will be supervised by the arboriculturist and a note will be made of roots present. Where possible, roots (diameter greater than 25mm) will be retained with smaller roots pruned with bypass secateurs. It may not be possible to keep the larger roots, depending on the rooting pattern of this tree, and they may need to be pruned.

The wall will be breached to ensure that the pipes can connect to the line to the south of the wall (shown diagrammatically on photo 2 above). It is likely that, despite the calculated root protection area, the majority of the roots are within the planter, but there may be deeper roots below the planter wall's foundation growing under the hard surface. The manhole and underground services will be dug under arboricultural supervision. Where possible, a broken trench method will be used. This means digging an entry area, and retaining as many roots as possible and placing the service pipes underneath, backfilling and starting the next short stretch. The success of this depends on the rooting depth and architecture of the tree, but the intention is to retain roots, wrapping them temporarily in hessian to prevent desiccation, installing the pipe and backfilling with good quality top soil*. The ground conditions and root

architecture may be such that a broken trench is not feasible. If so, the roots will be pruned by the arboriculturist and recorded. If they consider that the root pruning requires compensatory crown pruning (to balance the root-shoot ratio and to lower the centre of gravity) a discussion will take place with the tree officer at London Borough of Camden to agree the amount of work.

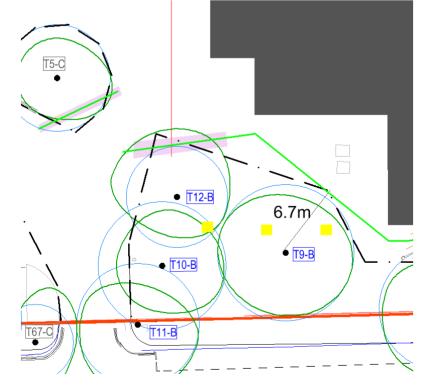
*This is an opportunity to improve the soil with good quality top soil to the landscape architects specification and incorporate beneficial organic soil additives including biochar.

The area around T62 is the most complex. There are other areas where the drainage run is within the root protection are where installation is more straightforward, but still requiring site supervision. The trees where this applies are shown on the plan *SHA 1032 TPP2 A* by a green line with pale pink hatching, namely T5, T14, T62, T64, T65 and T66.

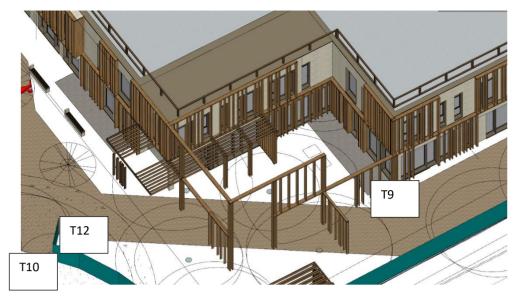
5.5.2 Electricity cables are required, and I have reviewed the drawing showing their proposed locations. There will be no major issues as most root protection areas can be avoided. Where this is not possible, the installation of the cables will be supervised. Given the required depth and diameter of the cables, this is far easier to install and retain roots than the drainage runs.

5.6 Installation of the timber structure to the south of the building:

The area where this applies is shown by the yellow post squares on plan *SHA 1032 TPP A* affecting T9, T10 and T12.



Plan 4 – extract from SHA 1032 TPP2 A -do not scale. North is vertical.



Plan 5 Snapshot of the timber structure looking north-west.

The timber frame structure will be installed using screw piles (or similar to be agreed) following root investigation under arboricultural supervision along the lines of posts. The view above shows the location of the proposed structure relative to the nearest trees, T9, T10 and T12. It is likely that the narrower spaced vertical timbers will not need foundations, but be supported by the corner and the larger timbers and the horizontal support.

5.7. <u>Removal of hard surfacing within the root protection areas</u>

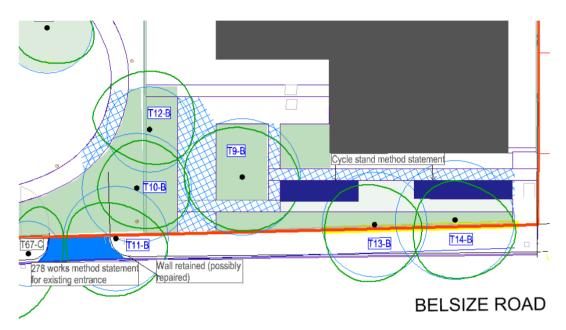
The hard surfacing will remain in place during works and lifted at the external works stage. The following method statement will be observed:

Lift the concrete/tarmac/play surface using handheld tarmac spade or a digger pulling backwards to lift the hard surfacing whilst keeping the ground underneath intact. In my experience, using a smooth bucket digger carefully can lift large slabs relatively easily without disrupting the ground beneath. There may be a sheath of fine feeder roots and main structural roots beneath the concrete. Great care must be taken to avoid scuffing and damaging these roots. Once removed, the exposed soil must be immediately covered with a suitable backfill medium such as good quality top soil.

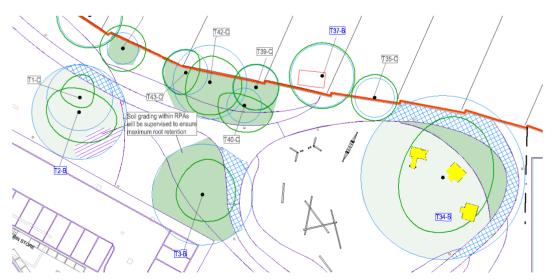
The works should not take place in frosty or hot sunny dry weather as this can harm fine roots. If roots are accidentally damaged, then the arboricultural consultant must be contacted immediately.

5.8 Installation of hard surfacing within the root protection areas

The areas to which this apply are shown on the tree protection plan *SHA 1032 TPPA 3* at appendix 2 by blue cross hatching. The principle is that the roots will be unaffected by level changes and lack of opportunities for gaseous exchange and water infiltration. All hard surfacing within the site boundary adjacent to trees to be retained will be porous. This applies to new surfacing near the building and on the path around the perimeter of the site.

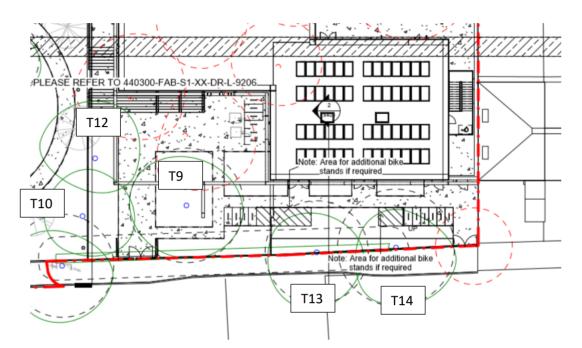


Plan 6 – extract from SHA 1032 TPP3 A -do not scale. North is vertical. Blue crossed hatching is the area where arboricultural method statements apply. Green is where new landscaping method applies.



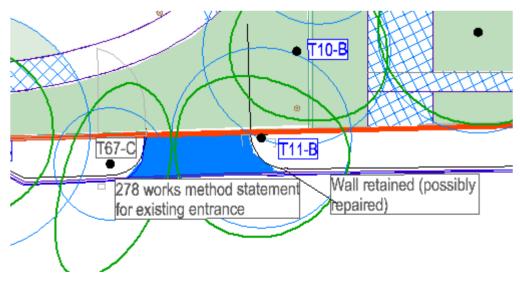
Plan 7 – extract from SHA 1032 TPP3 A -do not scale. North is vertical. Blue crossed hatching is the area where arboricultural method statements apply. Blue is where new landscaping applies.

The surfacing will be self binding gravel which has some porousity, and will be edge with a metal/timber strip. The advantage of this material is that it has a shallow construction depth, which means that levels are achievable close to the building.



Plan 8 – extract from 440300-FAB-S1-XX-DR. Do not scale, north is vertical. Self binding gravel shown speckled.

The Section 278 works will be respectful of the trees to be retained and will be supervised by an arboriculturist. Note this is the existing entrance which will be closed to vehicles.

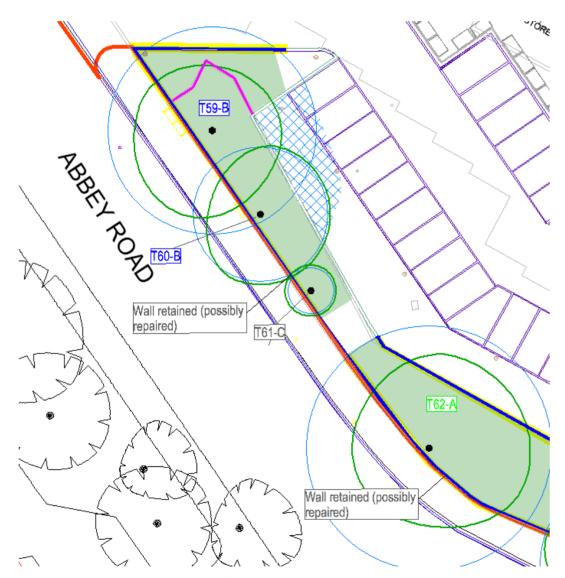


Plan 9 – extract from SHA 1032 TPP3 A -do not scale. North is vertical.

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5.9 Boundary treatment

The retaining walls around the raised planter are essential to tree stability as roots are likely to be tracking down the sides of the wall and using them for support. The walls may need repairing in some areas, but the integrity of the wall will be retained. The soft landscaped bed around T59 will be increased. The existing wall is shown pink on the plan extract below. This will be lowered to the top of the existing ground level and hidden beneath planting. The foundations for the new wall will be minimal and designed to minimise impact on tree roots by either a steel pin and ground beam or pads. The areas where works to the walls are sensitive and require arboricultural supervision are shown by yellow hatching along the blue line of the wall, as per the plan extract below.



Plan 10 – extract from SHA 1032 TPP3 A -do not scale. North is vertical.

The existing railings along Belsize Road frontage, directly in front of the building will be removed and replaced, using the existing footings of the piers/posts where possible, and each

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hole will be lined with plastic to prevent the alkalinity of concrete from locally raising the soil PH and scorching roots.

5.10 Installation of soft landscaping

Within the root protection areas of trees to be retained, the preparation of soil for planting and turfing will be carried out by hand. Cultivation will be kept to a minimum and new topsoil must not exceed 100mm in depth within 1m of the stem. Top soil and other materials will be transported by wheelbarrow on running boards when working near trees. The removal of a large artificial mound near T2 and T3 will be supervised.

5.11 Installation of play equipment and cycle storage

A discussion with the play equipment and cycle storage contractors will take place with the arboriculturist to ensure minimum dig installation. The arboriculturist will inspect this work and ensure that where concrete is used, that a plastic sheet is used as a barrier between the concrete and soil. This is to ensure that concrete does not scorch roots and locally raise the soil PH.

6.0 Conclusions

- 6.1 This report provides information in accordance with the requirements of condition 13 and the compliance condition 14 and follows consultation with design team members.
- 6.2 The site will be supervised at key stages of development as detailed in the site supervision schedule at appendix 1 and reported to the London Borough of Camden.

7.0 Recommendations

- 7.1 That a copy of this report, including the site specific method statements and tree protection plans are kept on site at all times, is part of the site induction, and is sent to the relevant contractors.
- 7.2 That the arboricultural method statements are observed by all site personnel and supervised at key stages by the project arboricultural consultant. Short supervision reports are to be written after each inspection as a record of compliance and audit trail to the Local Authority.
- 7.3 That the foundation design takes into account trees to be retained, trees to be removed and trees to be planted.

- 7.4 That there are no ground level changes with the area shown on the plan by tree protection fencing.
- 7.5 That the tree protection fencing is installed before machinery enters the site for demolition, and remains in place until the soft landscaping stage.
- 7.6 That the tree works listed in this report which are required to facilitate planning consent, and/or for safety reasons are carried out prior to works commencing on site.
- 7.7 That there is a pre-commencement meeting with the site manager and that the tree officer is invited to this meeting.
- 7.8 That if not already felled, that the hazardous lime tree, T55 is felled as soon as practical. This has been brought to the attention of the tree officer after the tree survey.

Sharon Durdant-Hollamby

FICFor FArborA BSc (Hons) Tech. Cert. (Arbor A)

Director Sharon Hosegood Associates Ltd Appendix 1

Site supervision schedule in detail Handy pull out sheets – What You Need Know

1. Key personnel

Wates will be carrying out the contract and the work will be supervised at key stages by Sharon Hosegood Associates (SHA). I am a suitably qualified chartered arboriculturist (see appendix 10), and will be carrying out the work. If I am unable to carry out unscheduled supervision due to an emergency, another chartered arboriculturist, Ian Lee MICFor, Principal Arboriculturist on the SHA team will carry out the work. The tree officers will be kept informed of progress and any deviations or variations from this schedule and the method statement.

2. Arboricultural input and site supervision schedule

| Stage and likely date | Activity and who is involved | Reference documents |
|------------------------|---|------------------------------|
| Pre-commencement | Tool box talk | This document; in particular |
| meeting | Main contractor | SHA 1032TPP1 A and 2, |
| | Demolition contractor | section 5.24 and the tree |
| | Tree surgeon | surgery schedule at |
| | Arboricultural consultant | appendix 4. |
| | Arboricultural officer | |
| | | |
| Installation of piling | Tool box talk | This document; in particular |
| mat | To observe installation of piling | SHA 1032TPP2 A and |
| | mat near trees – note in some | section 5.4 |
| | cases this combines with the | |
| | installation of services, in particular | |
| | near T13 and T14 | |
| Installation of | Tool box talk | This document; in particular |
| services | To observe service installation near | SHA 1032TPP2 A and |
| | trees. | section 5.5 |
| Installation on | Tool box talk | This document; in particular |
| timber structure to | To observe rooting patterns of | SHA 1032TPP2 A and |
| the south of building | trees and ensure there are no | section 5.6 |
| | conflicts | |
| Removal of surfaces | Tool box talk | This document; in particular |
| | To observe surface removal near | SHA 1032TPP3 A and |
| | trees. | section 5.7 |

| New hard surfacing | Tool box talk | This document; in particular |
|----------------------|-------------------------------------|------------------------------|
| | To observe surface change near | SHA 1032TPP 3 A and |
| | trees. | section 5.8 |
| Wall changes | Tool box talk | This document; in particular |
| | To observe wall changes near | SHA 1032TPP 3 A and |
| | trees. | section 5.9 |
| | | |
| Grading of soil near | Tool box talk | This document; in particular |
| T2 and T3 | To observe removal of artificial | SHA 1032TPP 3 A and |
| | mound | section 5.10 |
| | | |
| Routine visits | These will take place every 8 | These may be carried out |
| | weeks, coinciding with the stages | virtually where no active |
| | above where possible. A tool box | supervision of a specific |
| | talk will be carried out to any new | task is required, and |
| | staff and contactors where | reported to the tree officer |
| | necessary | |

3. How this will be communicated

- 3.1. The site office will contain the following:
 - Arboricultural impact assessment SHA 1032 AIA dated May 2020 and this method statement SHA 1032AMS Nov 2020. The tree protection plans within the report are to be kept with other site plans.
 - The handy pull out sheets 'What you need to know about trees and Site Supervision Schedule (edged turquoise)
- 3.2. The availability and summarised contents of this information will be part of site induction for new personnel.
- 3.3. During each site supervision, the arboricultural consultant will carry out a tool box talk to the relevant personnel. This will be hand written and signed by relevant parties.
- **4.** After each site supervision, a short report will be sent to London Borough of Camden tree officers and the planning case officer. This creates a useful audit trail for both parties

5. What happens when things change, and, in an emergency

If there is a deviation for practical reasons on any matter affecting trees which is not outlined in the method statement or this document, Wates site manager and/or project team, will contact the arboricultural consultant in the first instance, and then the tree officers will be contacted by phone, followed up by email. Works near trees will stop until the opinion of the consultant and the approval (or otherwise) by the tree officers is given. In an emergency, the site manager will contact his team, the tree officer and the consultant before taking action. The site manager will record any incidences with photographs and a contemporaneous hand written and signed note outlining:

- The date and time
- The location of tree issue
- What happened
- When the tree officers were contacted and their response
- When the consultant was contacted and their response

What you need to know about trees at Land surrounding Snowman and Casterbridge House, Belsize Road,

Works on this site near trees are complex and non-standard. Ensure you have the following documents:

- Arboricultural Impact Assessment (SHA 1032AIA)
- Arboricultural Method Statement (SHA 1032AMS)
- The tree protection plans in colour A1 SHA 1032TPP1, SHA 1032TPP2 and SHA 1032TPPB 3

The site will be monitored at key stages identified overleaf and at 8 week intervals (coinciding visits where possible).

Key areas of concerns

- Tree surgery to be carried out outside of bird nesting season
- Piling mat near T13 and T14
- Installation of services near T5, T12, T13, T14, T62, T64, T65 and T66
- Removal of hard surfaces near trees
- Installation of hard surfaces near trees
- Boundary treatments

The tree protection and ground protection must be installed prior to demolition and be braced and signed. It must not be breached during the project. Any deviation from the method statement could lead to a breach of planning condition.

If in doubt phone (we are here to help):

Sharon Durdant-Hollamby at SHA 07943 853 525 or 01245 210420

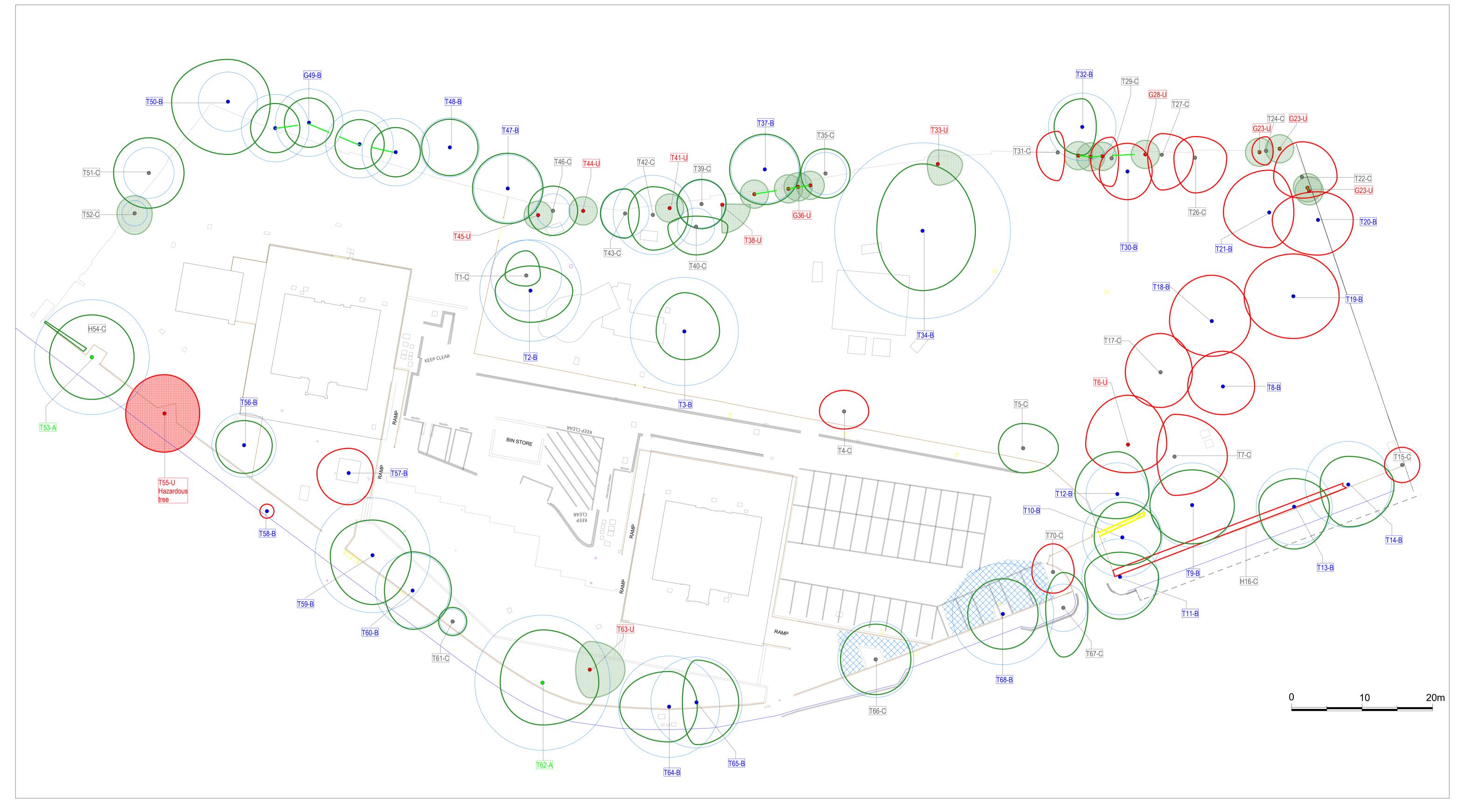
sharon@sharonhosegoodassociates.co.uk

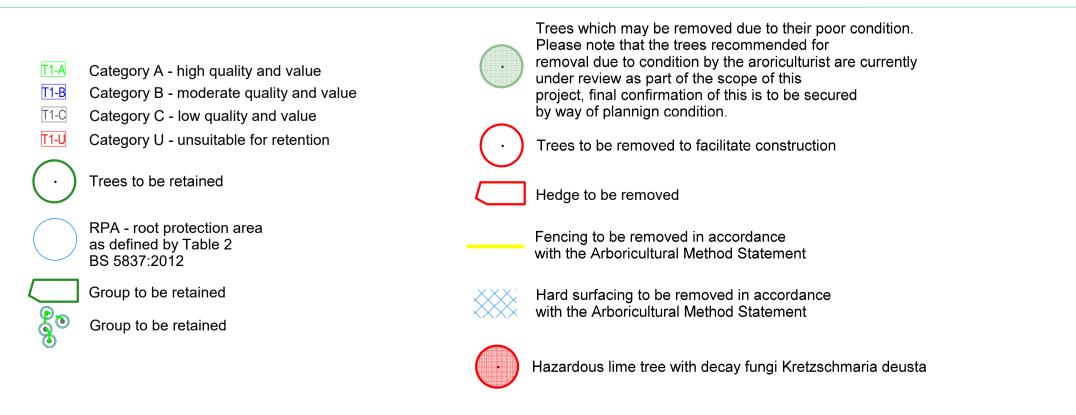
Appendix 2

Tree protection plan SHA 1032TPP 1 A for the demolition phase

Tree protection plan SHA 1032TPP 2 A for construction

Tree protection plan SHA 1032TPPB 3 A for external works





This is the first of three tree protection plans - this is for the tree removal/enabling works phase

Notes

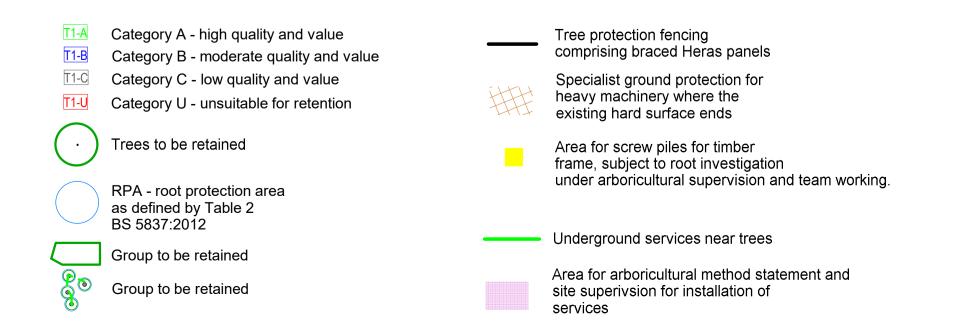
1. Contractors to check all dimensions on site 2. Discrepancies must be reported to the Arboricultural Consultant before proceeding The original of this drawing was produced in colour, a monochrome copy should not be relied upon.

It is the responsibility of the contractor to ensure necessary consents for tree works are in place

5. This drawing is copyright © Sharon Hosegood Associates Ltd







This is the second of three tree protection plans - this is for the construction phase

Notes

1. Contractors to check all dimensions on site 2. Discrepancies must be reported to the Arboricultural Consultant before proceeding The original of this drawing was produced in colour, a monochrome copy should not be relied upon.

It is the responsibility of the contractor to ensure necessary consents for tree works are in place

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t: 01245 210420

Sharon Hosegood

The London Borough of Camden

Site Address Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP.

Drawing Title Orientation Tree Protection Plan - construction

Drawn Authorized SMD-H SMD-H Date Drawing Number Scale Drawing Status

19.05.20 SHA 1032 TPP2 1:250@A1 For Issue Revision А



| Т1-А Т1-В | Category A - high quality and value Category B - moderate quality and value | Walls to be retained (they may | Re to hei in I |
|---------------|--|---|-------------------------|
| T1-C T1-U | Category C - low quality and value Category U - unsuitable for retention | Area for arboricultural method statement for hard surfacing (either new, or replacement) | |
| $\overline{}$ | Trees to be retained | Observation for removal of play mound | Nev stat |
| | RPA - root protection area as defined by Table 2 BS 5837:2012 | Area for arboriculutral method statement for new soft landscaping planting | |
| @0 @0 | Group to be retained Group to be retained | Area for arboricultural method statement for new lawn/meadow | |
| | | Area for arboricultural method statement for play installation | |

Retaining walls to be retained up to existing ground level. Reduced height of wall to be hidden by landscaping in larger bed. The walls cannot be removed.

New wall/repair of existing wall method statement.

This is the third of three tree protection plans - this is for the external works phase

Notes

- are in place

1. Contractors to check all dimensions on site 2. Discrepancies must be reported to the Arboricultural Consultant before proceeding The original of this drawing was produced in colour, a monochrome copy should not be relied upon.

It is the responsibility of the contractor to ensure necessary consents for tree works

5. This drawing is copyright © Sharon Hosegood Associates Ltd



Authorized : SMD-H 25.11.20

Rev : A Description : for AMS

А

Scale Drawing Status Drawing Number 19.05.20 SHA 1032 TPP3 1:250@A1 For Issue Revision

Appendix 3

Tree protection specification

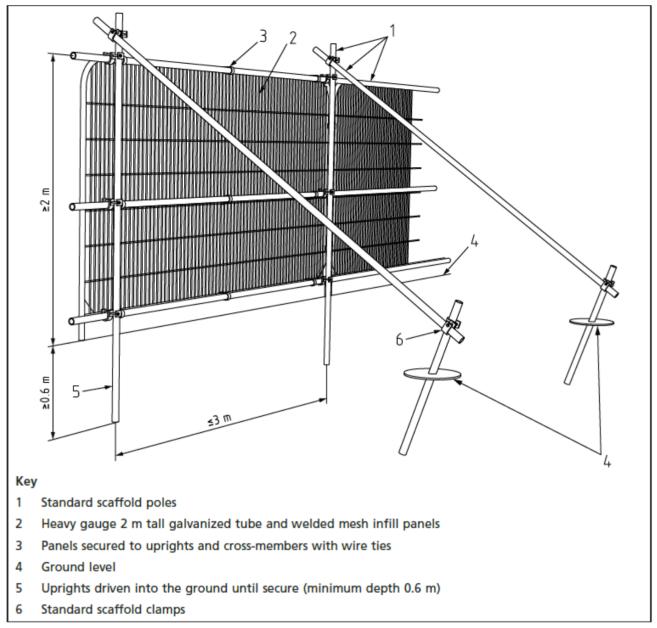


Figure 2 Default specification for protective barrier

Tree protection fencing specification from BS 5837:2012 Figure 2

Section 6.2.2 of BS.

Barriers should be fit for purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees(s). Barriers should be maintained to ensure that they remain rigid and complete.

The default specification is shown above at Figure 2. Care should be taken when locating the vertical poles to avoid underground services and structural roots. Where it is not possible to drive a pole into the ground, for example on hard surfacing, figure 3 overleaf, applies.

Site hoarding has been aligned near blocks G and E to act as tree protection.

BRITISH STANDARD

BS 5837:2012

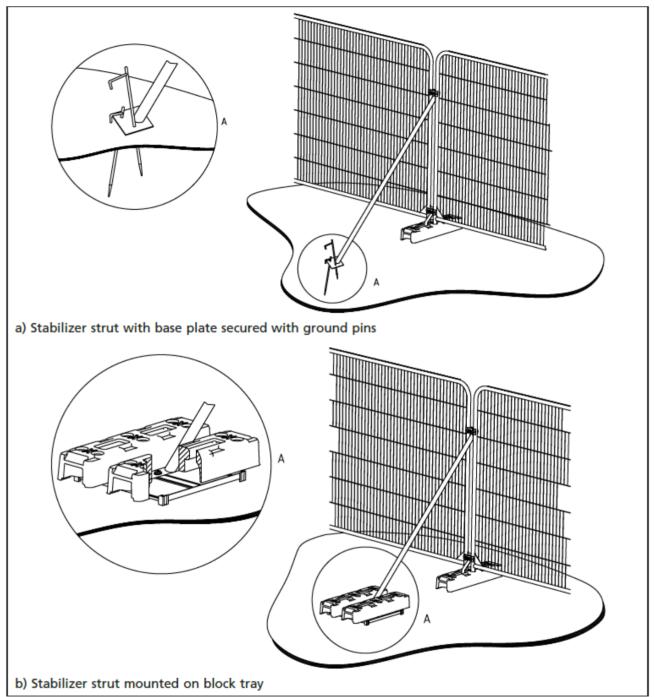


Figure 3 Examples of above-ground stabilizing systems

The location for the tree protection fencing is shown on the tree protection plan delineated by a black dashed line. The location of the fencing is out the outer edge of the root protection area and the dimensions from fixed points are shown on the drawings. All weather signs should be affixed to the barriers, no more than 12m apart. This forms the construction exclusion zone.



Suggested site warning sign format

London Borough of Camden

Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP SHA 1032 AMS November 2020

Ground protection during demolition and construction

Where working space temporary access is needed within the root protection area during works, fencing should be set back the minimum amount to achieve the required room. If there is existing hard surfacing in this area, it should remain during the works as ground protection. The suitability of this surfacing for ground protection, and whether it needs to be reinforced to bear the weight of machinery, should be assessed by an engineer and discussed with an arboriculturist.

Where the set back of the fencing exposes unmade ground, the ground must be protected before any works take place on site. This is to prevent root damage and soil compaction.

The ground protection might comprise of one of the following: (section 6.2.3.3 of BS)

- A) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;
- B) For pedestrian-operated plant up to a gross weight of 2 tonnes, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;
- C) For wheeled or tracked construction traffic exceeding 2 tonnes gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

Alternatively proprietary metal road plates could be used

The location for ground protection is shown on the tree protection plan by brown coloured hatching, identified in the key.

A bespoke ground protection under the cabins and site set up will be further designed between Higgins Homes, the arboricultural consultant and engineer and reported to the Arboricultural Officer by way of a site supervision note. Appendix 4

Tree Surgery Schedule

Tree surgery schedule

All works to be carried out in accordance with BS 3998:2010 'Tree works – Recommendations'. All pruning cuts to be made at suitable growing points in the line with the principles of 'Natural target pruning' to the branch collar. This table is from the Arboricultural Impact Assessment reference [3] AIA dated May 2020. The additional works in this table are in blue text.

| Tree no. | Species | Proposed works | Reason |
|-------------|--------------|---|---|
| T1 | Pear | Remove dead wood with a diameter greater than 25mm | For safety reasons |
| T2 | Lime | Remove dead wood with a diameter greater than 25mm Reduce western branch to suitable growing points | For safety reasons Due to decay on the upper side of the lowest branch west at the union of the branch |
| Т3 | Lime | Remove dead wood with a diameter greater than 25mm | For safety reasons |
| Т4 | Norway maple | Fell to ground level and remove stump | To facilitate works |
| Τ5 | Norway maple | Remove dead wood with a diameter greater than 25mm and crown lift to achieve 4m clearance on eastern side | For safety reasons To provide clearance |
| Т6 | Goat willow | Fell to ground level and remove stump | Poor structural form – potentially hazardous |
| T7 | Goat willow | Fell to ground level and remove stump | To facilitate works |
| Т8 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| Т9 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| T10 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |

| Tree | Species | Proposed works | Reason |
|-------------|----------|--|---|
| no. T11 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| Tree no. | Species | Proposed works | Reason |
| T12 | Sycamore | Remove dead wood with a diameter greater than 25mm Crown lift to achieve 4m clearance | For safety reasons To provide access |
| T13 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| T14 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| T15 | Hawthorn | Fell to ground level and remove stump | To facilitate works |
| H16 | Hawthorn | Fell to ground level and remove stumps | To facilitate works |
| T17 | Ash | Fell to ground level and remove stump | To facilitate works |
| T18 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| T19 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| Т20 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| T21 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| T22 | Beech | Fell to ground level and remove stump | To facilitate works |
| G23 | Elder | Fell to ground level and remove stump | To facilitate works and growing in an unsustainable location |
| T24 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| Т26 | Ash | Fell to ground level and remove stump | To facilitate works |
| T27 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| G28 | Elder | Fell to ground level and remove stump | To facilitate works and growing in an unsustainable location |

| Tree | Species | Proposed works | Reason |
|------|-----------|--|---------------------------------------|
| no. | | | |
| T29 | Sycamore | Fell to ground level and remove stump | To facilitate works |
| Т30 | Pear | Fell to ground level and remove stump | To facilitate works |
| T31 | Ash | Fell to ground level and remove stump | To facilitate works |
| T32 | Sycamore | Light pruning back of any overhang if required | To facilitate works |
| T34 | Willow | Remove any dead wood with a diameter greater than 25mm and carry out a full climbing inspection as part of this work Crown reduce to previously pruned points | For safety reasons |
| T43 | Sycamore | Remove dead wood with a diameter greater than 25mm and sever ivy | Good practice and for safety reasons |
| Т53 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| Т55 | Lime | Fell as soon as practical | Hazardous tree – see survey sheets |
| T57 | Whitebeam | Fell to ground level and remove stump | To facilitate works |
| Т58 | Hornbeam | Fell to ground level and remove stump | To facilitate works |
| Т59 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| Т60 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| Т62 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| Т64 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |

| Tree no. | Species | Proposed works | Reason |
|-------------|---------|--|--------------------|
| T65 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| Т66 | Lime | Inspect stem area after removing epicormic growth and remove any dead wood with a diameter greater than 25mm | For safety reasons |
| T68 | Beech | Remove dead wood with a diameter greater than 25mm Prune to clear street light | For safety reasons |

Statement of methodology and reference material

London Borough of Camden Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP SHA 1032 AMS November 2020

Statement of methodology

Review of report by author dated May 2020 reference SHA 1032AIA. Series of online meeting with key consultants.

Received material

All plans relating to the design, D2819-FAB-S1-XX-M3-L-9000-200518, topographical drawing and construction management plan

440300-FAB-S1-XX-DR-L-9100[P02], 440300-FAB-S1-XX-DR-L-9201-P04, 440300-FAB-S1-XX-DR-L-9202-P04, 440300-FAB-S1-XX-DR-L-9203-P04, 440300-FAB-S1-XX-DR-L-9204-P04, 440300-FAB-S1-XX-DR-L-9301-P04, 440300-FAB-S1-XX-DR-L-9302-P04, 440300-FAB-S1-XX-DR-L-9303-P04, 440300-FAB-S1-XX-DR-L-9304-P04, 440300-FAB-S1-XX-DR-L-9305-P04, 440300-FAB-S1-XX-DR-L-9306-P04. _Construction Management Plan_oct 2020, 201021 - STN Sketch - Drainage and Existing Tree RPA, 440300-NBP-S1-XX-DR-E-9102, 440300-NBP-S1-XX-DR-M-5202, 440300-STN-S1-XX-DR-C-0501+-+Drainage+Layout, 20201023 ARP2 Rev Gantt rev 1 addendum 1 CMP, Abbey road site layout cmp addendum 2 rev 1(002)

Reviewed documents and text

BSI. BS 3998:2010 Tree work-Recommendations.
BSI. BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations
C. Mattheck 'The body language of trees' 2015

Caveats & Exclusions

Specific report caveats

- At the time of writing this report, the protected tree status is correct, however, this can change.
 Therefore I advise that a further check is made with [4] before any works to trees takes place.
- 2. No internal diagnostic equipment was used other than a sounding mallet and probe and all inspections where from ground level only, with the aid of binoculars where necessary.
- 3. The survey is concerned solely with arboricultural issues.
- 4. Any changes in ground level, or excavations near to tree roots not discussed within this report may change the stability and condition of the trees and a further examination would be required.
- 5. As trees are a dynamic living organism this report is only valid for a period of 12 months, in respect to their health and condition.
- 6. Only the trees listed in this report have been examined.
- 7. The measure of offsite trees have been estimated, except any crown within the site overhang which is measured. Where the crown of an onsite tree overhangs the boundary, the crown spread in this direction is also estimated.
- 8. The base and trunk of the offsite trees could not be examined, and therefore a full assessment of the trees condition could not be made.
- 9. Dense ivy and undergrowth prevent a full condition survey being carried out. The vegetation may be hiding structural defects.
- 10. The tree information is from the time of the survey. Some pests, diseases and fungi only appear seasonally, therefore it is possible not all issues that may affect the health of the trees could be observed.

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Tree related legislation affecting the site

Tree preservation orders

The Town and Country Planning (Tree Preservation) (England) Regulations 2012. No tree preservation orders affect the site.

Conservation Area:

The site does not lie in a conservation area.

Ecological considerations

The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees.

Occupiers Liability Act 1957 and 1984

The Occupiers Liability Act (1957 and 1984) places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore, this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of tree (National Tree Safety Group 2012)' states that 'The owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at Common Law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property'.

Common law enables pruning back to the boundary line providing the work is reasonable. Other restrictions, such as tree preservation orders/conservation areas still apply.

The owner of a tree is not obliged to trim their trees or hedges to prevent them from crossing over a boundary. Whilst the tree owner is not obliged to cut back the branches, the person whose property is overhung has the right to cut back the branches to the boundary providing there are no planning or legal restrictions on the trees such as Tree Protection Orders or if they are located in a church yard, in which case suitable consent must be obtained. Such pruning works must be undertaken to a suitable standard and must not cause damage to the tree.

The resulting debris remains the property of the tree owner, but you must not cause any damage to their property when returning it back to them and you do not have the right to trespass on the tree owner's property in carrying out the works. In the interests of good neighbourly relations, we would encourage neighbours to discuss their intentions with each other before carrying out such works, providing the work is reasonable and that the trees are not subject to TPO or Conservation Area protection.

Glossary

| Access facilitation pruning | One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary for operations on site. |
|------------------------------------|---|
| Anchorage | In trees, the holding of the root system within the soil, involving the flow of forces from the stem through the branches of the roots system to the cohesive root/soil interface. |
| Arboriculture | Formerly all aspects of the culture of trees, especially for forestry. Latterly, the art and science of cultivating and managing trees as groups and individuals, primarily for amenity and other non-forestry purpose. |
| Arboricultural method statement | Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained. |
| Arboriculturist | Person who has, through relevant education, training and experience in the field of trees in relation to construction. |
| Architecture | In a tree, a term describing the pattern of branching of the crown or root system. |
| Backfill medium | Material used for refilling an excavated planting hole. |
| Bark | A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm. |
| Biochar | The following is taken from http://www.carbongold.com/wp-content/uploads/2016/12/CG-Soil-Improver-info-sheet-1.pdf |
| | 'Biochar is highly porous and provides a permanent infrastructure for the colonization of beneficial micro-organisms. Biochar also alters the physical nature of soil to increase the water holding capacity and higher nutrient retention, reducing leaching an irrigation requirement. Other benefits to soil health include reductions in acidity, improvements of the cation exchange capacity; and efficiency of fertilisers – all of which cause an increase in plant productivity. |
| | Enriched Biochar Soil Improver contains biochar blended with multiple strains of mycorrhizal fungi and antagonistic trichoderma, along with actinomyces bacteria from wormcasts and trace minerals from seaweed. Apply to sterile, over-worked soils and substrates to improve soil fertility and reduce chemical inputs. (Carbn Gold website).' |
| | Shaffert and Percival: Influence of Biochar, Slow-Release Molasses's and an organic N:P:K fertiliser Arboriculture and Urban Forestry 2016.42(2): 102-110 |

| Biodiversity | The variability among all living organisms of an ecological complex. |
|--------------------------------|---|
| Biomechanical | Pertaining to the mechanical functions and properties of living organisms, such as trees. |
| Body language | In trees, the outward display of growth responses and/or deformation in response to mechanical stresses. |
| Branch | A limb extending from the main stem or parent branch of a tree. |
| Branch bark ridge | The raised arc of bark tissues that forms the acute angle between a branch and its parent stem |
| Branch collar | The swelling or roughened bark often found at the base of a branch which should be left intact if the branch is to be pruned off. |
| Brown-rot | A type of wood decay in which cellulose is degraded, while lignin is only modified. |
| Canopy | The topmost layer of twigs and foliage in a tree. |
| Co-dominant | In trees, a similarity between two or more stems or branches with regard to their size and their position within the canopy. |
| Column | In the wood or phloem of a tree, an axially elongated zone of tissue that is distinguished form the surrounding tissue; e.g. Live verses dead or decayed versus non-decayed. |
| Construction exclusion zone | An area based on the root protection area from which access is prohibited for the duration of the project. |
| Containerised tree | Tree grow using containerizing nursery production system. |
| Compartmentalise | The confinement of disease or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defenses operating at the boundaries of the affected region. |
| Crown | In arboriculture, the main foliage-bearing portion of a tree. |
| Crown lifting | The removal of shortening of the branches that form the lower part of the crown of a tree. |
| Crown reduction | Pruning in order to reduce the size of the crown of a tree. |
| Crown thinning | Pruning inside the crown of a tree in order to reduce its density. |
| Defect | In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment. |
| Dessication | The state of extreme dryness, the drying out of roots. |

| Dieback | The death of part of a plant, usually starting from a distal point and often progressing proximally in stages. |
|---------------------------------|---|
| Direct damage | Direct physical damage to a structure of surface from pressure exerted by the trunk or growing roots. |
| Epicormic | Pertaining to shoots or roots which are initiated on mature woody stems; shoots can form tin this way from dormant buds or they can be adventitious. |
| Failure | In connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil. |
| Flush cut | A pruning cut close to the parent stem which removes part of the branch bark ridge. |
| Foreseeable | In hazard assessment, pertaining to failure and associated injury of damage which are predictable on the basis of evidence from a tree and its surroundings. |
| Fungi | Organisms of several evolutionary origins, most of which are multicellular and grow as branched filamentous cells within dead organic matter or living organisms. |
| Hazard | A thing, a process or a potential event that has the potential to cause harm. |
| Included bark | Bark of adjacent parts of a tree (usually forked stems, acutely joined branches or basal flutes) which is in face-to-face contact; i.e. without a woody connection. Such a structure lacks inherent strength but is in many instances strongly reinforced by a surrounding 'shell' of wood. |
| Independent in the landscape | Point at which a newly planted tree is no longer reliant on excessive or abnormal management intervention in order to grow and flourish with realistic prospects of achieving its full potential contribute to the landscape. |
| Mulch | Material laid down over the rooting area of a tree or other plant to help conserve moisture, suppress weeds and encourage a beneficial microflora. |
| Mycorrhizal | Pertaining to an intimate symbiotic association between plant roots and specialised fungi. |
| Pathogen | A micro-organism that causes disease in another organism. |
| Pollard | A term for a pollarded tree |
| Pollarding | The complete or partial removal of the crown of a young tree so as to encourage the development of numerous branches; also, further cutting to maintaining this growth pattern. |

| Probability | A statistical measure of the chance that a particular event (e.g. a specific failure of a tree or specific kind of harm to persons or property) might occur. |
|----------------------------|---|
| Resistograph | The IML-RESI system is based on the measurement of drilling resistance. |
| | The IML-RESI operates in a similar manner to a normal drill. A drilling needle with a diameter of 1.5mm is inserted into the wood under constant drive. While drilling, the resistance is measured as a function of the drilling depth of the needle. The data is printed and stored electronically at a scale of 1:1 simultaneously. |
| | Although invasive the relatively small needle diameter causes very little damage, testing is normally only undertaken to confirm the remaining stem wall thickness in decaying trees. |
| Risks | The likelihood of the potential harm from a particular hazard becoming actual harm. |
| Root protection area | A layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. |
| Root flare | Thickened and expanded base of s tree stem at ground level form which buttress roots form. |
| Rootplate | The central part of the root system of a tree, consisting of the large- diameter main roots and a dense mass of smaller roots and soil. |
| SULE | Safe useful life expectancy of a tree (Barrell) |
| Stress | In plant physiology, a condition under which one or more physiological functions are not operation within their optimum range, for example owing to lack of water, inadequate nutrition or extremes of temperature. |
| Stub cut | A pruning cut which is made at some length distal to the branch bark ridge. |
| Target pruning | The pruning of a twig or branch so that tissues recognisably belonging to the parent stem or branch are retained and not damaged. |
| Tree Preservation Order | In Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees. |
| Tree protection plan | Scale drawing, informed by descriptive text where necessary, based upon the finalized proposal, showing trees for retention and illustrating the tree and landscape protection measures. |

| TreeRadar Inc. | This equipment is ground penetrating radar that scans the ground for objects and records the data from live roots on a field computer. |
|---------------------------------|--|
| Utility | An undertaker by statute that has a legal right to provide customer services (e.g. communication, electricity, gas and water). |
| Vigour | In tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth. |
| Vitality | In tree assessment, an overall appraisal of physiological and biomechanical processes, in which high vitality equates with near- optimal function, in which high vitality equates with healthy function. |
| Visual Tree Assessment (VTA) | In addition to the literal meaning, a system expounded by Matteck and Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria. |
| Wound | Injury caused to a tree by a physical force. |

My Experience and Qualifications



Sharon is an Expert Witness, chartered arboriculturist and Director of Sharon Hosegood Associates Ltd. Sharon had eleven years' experience as a local government tree and landscape officer before joining DF Clark Contractors as a tree consultant in 2005. In 2007 she formed an environmental practice in Essex with the owner. As managing director, she built up the ecological and arboricultural consultancy to a team of 20. She is a regular presenter and an occasional trainer for Trevor Roberts Associates. She appeared on BBC1 in July 2015 and September 2015, in 'Britain Beneath Your Feet' demonstrating tree radar at the Burghley Country Park, Lincs, with Dallas Campbell, the consumer programme 'Rip Off Britain', and latterly, again with tree radar equipment, Springwatch, investigating the rooting of the Major Oak at Sherwood Forest in June 2018. Sharon was the technical coordinator and chair of the Institute of Chartered Foresters national study tour 2016 'The streets of London'. In November 2018 Sharon presented at the Annual International Arboricultural Summit in Hong Kong. She became Vice President of the Institute of Chartered Foresters in April 2019.

| Specialties: | Trees in relation to development, including appeals and planning hearings |
|----------------------|---|
| | Tree root investigations, including TreeRadar |
| | Tree hazard evaluation |
| | Tree preservation orders |
| | Trees and well-being with community engagement |
| Professional bodies: | Vice President of the Institute of Chartered Foresters Fellow of the Institute of Chartered Foresters (ICF) Assessor for the ICF examination board Fellow of the Arboricultural Association |
| Qualifications: | Cardiff University Law School Bond Solon Civil Expert Certificate Arboricultural Associations Technicians Certificate BSc (Hons) Geography and Landscape Studies Managing Safely IOSH (2017) |
| Awards: | Top student award for the Technician's certificate in 2005 |
| | The Broomfield Hospital Woodland Management project she has managed between 2009 -2015 won the following awards: The Essex Biodiversity Awards (nomination) The Excellent Community Engagement Award (NHS Forest) Green Flag and Green Apple Award Highly commended for the Health Sector Journal Award 2013 |



ASSOCIATES

ARBORICULTURAL METHOD STATEMENT REPORT, AND SITE SUPERVISION SCHEDULE BS 5837:2012 'Trees in relation to design, demolition, and construction' - recommendations

PURSUANT TO DISCHARGE CONDITION 13 and 14

SITE:

Land surrounding Snowman and Casterbridge House, Belsize Road, Camden,

NW64DP

CLIENT:

London Borough of Camden

Sharon Durdant-Hollamby FICFor FArborA BSc (Hons) Tech Cert (ArborA)

> DATE: November 2020 OUR REF: SHA 1032

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London Borough of Camden Land surrounding Snowman and Casterbridge House, Belsize Road, Camden, NW6 4DP SHA 1032 AMS November 2020