Arbor-Eco Consultancy

PRE-DEVELOPMENT ARBORICULTURAL SURVEY
AND
ARBORICULTURAL IMPACT ASSESSMENT

At:

33 CEDAR CRESCENT,
NORTH BADDESLEY,
HAMPSHIRE

Report to

MR & MRS RUDDAM

This report was compiled by
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This report is the responsibility of Arbor-Eco Consultancy.
It should be noted that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment.

Report Number: MB240118-01

February 2024

EXECUTIVE SUMMARY

1. The proposed development is lightweight, of timber construction and will be hand-built over existing hard surface with the exception of an area 1 m x 1.5 m adjacent to the Oak tree (T2) as shown on Tree Protection Plan, drawing Number MB240118-01-01 in Section 5.

2. The development will not require the removal of any trees.

3. In support of the application, the retained Arboricultural Consultant has engaged with the business providing the garden room and they have issued a statement that the construction shall be carried out over three days. The foundation design will take account of the tree with a foundation base constructed of timber and position over the existing hard surfacing.

4. The uprights shall be made of wood, 100 mm x 100m and inserted into he ground to a depth of 450 mm. The holes are to be hand dug and the posts will be concreted into the ground within an impermeable 'bag' or sheath.

5. A montage of trees currently at the site and an indication of the location of the garden room is shown in Appendix 6 of this report.

Whilst Arbor-Eco Consultancy supports application for the proposed development, this report will not guarantee its overall success.

CONTENTS

1. INTRODUCTION

1.1 PROJECT BACKGROUND

Mr Mark Rides, on behalf of Mr & Mrs Ruddam, commissioned Arbor-Eco Consultancy to compile an Arboricultural Impact Assessment following the undertaking of an Arboricultural Survey of trees situated on land at 33 Cedar Crescent North Baddesley.

The appointed contractors for this project are Johnsons Garden Buildings Ltd, Wimborne. The site is within the administrative boundary of test Valley Borough Council and within the county of Hampshire.

This report details the impact that the proposed development will have upon the site's existing tree stock and sets out recommendations for the subsequent mitigation or avoidance of impact. The study has been completed in accordance with guidance contained within British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

1.2 SITE DESCRIPTION

The proposed development of land is located within a populated area of North Baddesley and situated towards the northern fringes of the settlement. The site is situated off Cedar Crescent, minor road. The site comprised of the exiting residential property, areas of hard surfacing, and bound by a boundary features. The trees surveyed were growing to the rear of the site and within the rear aspect garden. On of the trees was situated within an off-site position.

The site is delineated from neighbouring land by a mix of fencing, vegetation and boundary features. To the northern and southern boundaries, the site abuts further properties off Cedar Crescent, minor road. The eastern boundary was demarcated by Cedar Crescent, minor road. The western boundary was delineated by properties off Rownhams Lane, minor road. The site is centred at National Ordnance Survey Grid Reference SU 38768 20193.

The topography of the survey area is terraced to the rear aspect for ergonomic use of the garden and the front aspect falls steeply towards Cedar Crescent, minor road. Arbor-Eco Consultancy, Tree Protection Plan, Drawing Number MB240118-01-01 in Section 5 indicates the location of the trees surveyed.

1.3 DEVELOPMENT PROPOSALS

It is understood that the site surveyed will be the subject of a planning application to include the deconstruction (by hand) of the existing gazebo and the construction of a new outdoor room that will improve the living space for the family and be utilised as an office (working from home since the pandemic is now considered the norm).

It is worthy of note that the trees both on and off-site shall be protected and any conflict with the proposed development will be stringently mitigated against by using modern construction and design techniques. The construction contractor should be congratulated for their diligence in protecting all trees at this site from any development works.

1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the client in addition to information collected by Arbor-Eco Consultancy. The documents and drawings considered are detailed within Table 1.1.

Author	Document	Document Number	Date
Mr Mark Rides	Topographical Survey Drawing	01	Jan 2024
Mr Mark Rides	Proposed Outdoor Office	01	Jan 2024

Table 1.1: Documentation Provided

2. STATUTORY PROTECTION

2.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

Examination of Test Valley Borough Council (2023) TPO Register (pdf document) accessed on 13th February 2024, indicated that all of the trees surveyed at the site are the subject of a Tree Preservation Order (TPO).

It is not clear if all trees are protected under TPO.TVBC.492 dated 14-Apr-98 and therefore, obtaining the hardcopy document from the Local Authority would clarify this.

The Town and Country Planning (Tree Preservation) (England) Regulations 2012, Part 4 – Applications for Consent under Tree Preservation Orders states that an application for consent to the cutting down, topping, lopping or uprooting of any tree in respect of which an order is for the time being in force shall be made in writing to the authority on a form published by the Secretary of State for the purpose of proceedings under these Regulations.

Until such time as the application has been granted no works must be undertaken on the trees identified as being subject to TPOs that contravene the order. Works include pruning, topping, lopping, uprooting or wilfully damaging these trees. Any proposed pruning works will need to be fully specified and agreed within any planning application. If works are not included within the planning application, a separate TPO application will be required to be submitted to the Local Authority for permission to undertake any works (approximately an 8-week process).

Apart from limited exceptions, permission must be sought from the local planning authority by submitting a standard application form. The form is available from the Local Authority Planning Portal. It is important that the information on the form makes clear what the proposed work is and provides adequate information to support the case.

The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a full planning permission. For example, the Order is overridden if a tree has to be removed to make way for a new building for which full planning permission has been granted. Conditions or information attached to the permission may clarify what work is exempt.

Further examination of Test Valley Borough Council (2023) TPO Register (pdf document) accessed on 13th February 2024, did not confirm whether the site is situated within a Conservation Area.

The existence of the Conservation Area confers a degree of statutory legal protection upon the trees, with a stem diameter of greater than 75mm (at 1.5 m above ground level), growing within it. In particular it should be noted that prior to undertaking any works to trees within a Conservation Area it is necessary to submit a Section 211 Notice to the Local Planning Authority giving six weeks' notice of the proposed works. In practice the submission of a planning application containing fully specified details of proposed tree works will usually meet this requirement.

An authority may treat a planning application for development in a Conservation Area that includes specified tree work as a Section 211 Notice if the applicant has clearly stated that it should be considered as such. However, if work is proposed to trees other than those immediately affected by a proposed development then a separate Section 211 Notice should be submitted. Where an authority has granted planning permission for development in a conservation area, only tree works necessary to implement the development may be carried out. The authority may use conditions or informatives attached to the permission to clarify this requirement.

2.2 PROTECTED SPECIES

Birds

The Conservation of Habitats and Species Regulations 2017 (as amended) places a duty on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds. Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Several bird species are Species of Principal Importance for Nature Conservation in England, making them capable of being material considerations in the planning process.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (generally March to September). If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

Bats

Bats and the places they use for shelter or protection (i.e., roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017, as amended (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong. As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

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

2.3 LAND DESIGNATIONS (NATURAL ENGLAND)

For land you own or occupy, Natural England can select all or part of it for protection. Natural England will do this when it believes the site has features of special interest, such as its:

- wildlife
- geology
- landform

Natural England will 'notify' (or designate) the land as a site of special scientific interest (SSSI).

33 Cedar Crescent is not situated within a designated site at the time of the search.

2.4 OCCUPIERS' LIABILITIES ACT 1957 AND 1984

An occupier of premises owes the same duty, the "common duty of care", to all his visitors whether by invite or otherwise. The common duty of care is a duty to take such care as in all the circumstances of the case is reasonable to see that the 'visitor' will be reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there or for purposes other than that which they have been invited (trespassers).

3. ARBORICULTURAL IMPACT ASSESSMENT

3.1 INTRODUCTION

All trees within and closely surrounding the site have been surveyed and each has been identified with a unique number. The location of the trees can be found on Drawing Number MB240118-01-01 in Section 5.

Strong considerations and discussion have taken place to design the proposed with the safety and protection of all trees surveyed.

A schedule of the trees surveyed can be found within Appendix 1.

3.2 DEVELOPMENT DESIGN AND LONG-TERM IMPACTS

3.2.1 Potential Impact on the Amenity Value of Trees

Impacts

Tree Removal

The proposed development will not require the removal of any trees to permit its successful implementation.

Proposed Tree Works

None required.

Mitigation/Avoidance

The existing trees will be protected with the use of appropriate tree protection barriers and supervision from the retained Arboricultural Consultant.

3.2.2 Proximity of Trees to Proposed Structure

Impacts

Branch Spread

It is evident that an existing tree management regime existed, in the form of pruning as observed at the time of the survey (pruning cuts evident), and it is noted that any future conflict that may arise from the proposed development can be appropriately managed through continued management works to the tree's canopy. So long as such works are completed in accordance with best practice guidance, they will not cause significant harm to the health or amenity value of the tree.

Shading

The proposed development will experience some shading during the day as the sun tracks across the horizon. The height of the canopy, orientation of the building and aspects of the windows would suggest that this will be felt in the late afternoon when shade will be welcome for a glass and timber building.

Leaf Litter, Fruits, Pollen, Sap etc.

The trees are species associated with significant fruit fall, leaf and branch drop or sap exudate problems, however, the inconvenience experienced can be overcome by implementing good housekeeping.

Mitigation/Avoidance

Trees adjacent to this site may be the subject of cyclical pruning as the trees continue to grow. Further works may be required in the future to prevent conflict occurring. However, such works will not be significant as to impact the long-term visual quality of the trees.

Any shading felt inside the building will likely be a welcome feature as climate change has inflicted a number of heatwaves and a drought in recent years.

With respect to leaf litter, it is noted that the sweeping up of leaves and cleaning of gutters, which may become blocked by falling leaves, is considered to be routine seasonal household maintenance and, as such, no notable conflict with the proposed development is considered to occur.

The occupants have dealt with any inconvenience successfully in the past and there is no reason to doubt that this will continue. Nonetheless it may prove appropriate to use gutter guards, or otherwise enclosed gutters, to minimise the potential for leaf fall to cause blockage and an ongoing nuisance. This should be discussed with Johnsons Gardens Buildings to install such items.

3.3 Potential Impacts from Construction Processes of the Proposed Development

3.3.1 Potential Root and Canopy Protection

To prevent harm occurring to retained trees during development it is recommended that demolition and construction works are excluded from the Root Protection Areas (RPA) of retained trees. Additionally, works should not be undertaken beneath the canopy spread of retained trees where this can be avoided.

The RPA represents the minimum area around trees that must be left undisturbed to ensure their survival. The roots typically occupy the top 600 mm of soil and the fine roots which absorb water, oxygen and nutrients are situated in the top 100 mm of soil. Any incursion into the rooting zone of a tree can cause a notable impact upon a tree's health.

Where existing buildings and areas of hard surfacing exists within the RPA of retained trees it is very likely that the rooting will have occurred asymmetrically due to the hard structures and the morphology of the roots is such that they are likely to have formed a fan shape with many roots running parallel to the man-made structures rather than being offset so far in to the site. The current RPA is shown in accordance with the guidance within BS5837:2012 which is effectively a presumed calculation of the extent of a tree's root system that is required to ensure the continued vigour of a tree. For the benefit of this report, it is assumed that conflict with the roots of retained trees will be insignificant and that the roots shown within the site will be protected.

Demolition and construction work carried out within the RPAs of the retained trees will cause the greatest damage. Soil that has been compacted will not provide suitable conditions for the survival and growth of vegetation, whether existing or new, and is a common cause of post-construction tree loss on development sites. Compacted soil will adversely affect drainage, gas exchange, nutrient uptake and organic content, and will seriously impede or restrict root growth. The risk of soil compaction is greatest in soils with a significant clay content and in wet conditions. It can result from temporary or short-term loadings, such as the passage of a single vehicle, or from longer-term construction activities, including materials storage.

The RPA and canopy spread of each tree to be retained is shown on Arbor-Eco Consultancy, Tree Protection Plan, Drawing Number MB240118-01-02, Section 5. Additionally, details of the crown spread measurements are contained within Appendix 1 and a schedule of RPAs for trees on the site is located at Appendix 2.

<u>Impacts</u>

The proposed development of the site has been designed so that justifiable works are required within the RPAs of all trees surveyed.

The deconstruction of the existing building will be carried out by hand and conducted from the existing hard surfacing within the site. Therefore, it is considered that no significant impact with the retained trees shall occur. See Section 3.3.6 for more details.

Whilst it has been acknowledged that the proposed outdoor office is shown to be within the RPAs of the trees surveyed, there will be limited impact with the retained trees.

Utilising the existing footprint of the deconstructed building and installing the new foundations by hand it is considered that there is unlikely to be any conflict with the trees.

The intention is to raise the proposed outdoor office off the ground, placed upon elevated timber uprights (100 m x 100 m) excavated to a depth of 450 mm by hand and positioned at 1.0 m intervals. A timber framed foundation (pre-constructed) will be positioned on top of the upright support beams to avoid any compaction and consequent damage to the roots of the trees. See Section 3.3.9 for the installation of the uprights in proximity to trees.

Overall, it is considered that the potential for harm to occur to the root systems of retained trees can be adequately controlled through the adoption of appropriate working practices and erection of protective barriers to exclude access from vulnerable sections of trees RPAs.

Mitigation/Avoidance

Construction Exclusion Zones

To minimise the potential for harm to occur to the root systems and canopies of retained trees during development it will be necessary to implement construction exclusion zones throughout the site. These are areas surrounding the trees' RPAs and canopies in which no demolition or construction works, or related activities, will be undertaken. These zones will be demarcated by the erection of tree protection barriers prior to any works (with the exception of tree works) being carried out.

It is recommended that the exclusion zones are afforded protection at all times through the use of tree protection barriers (specified in accordance with BS5837:2012 or a variant of this agreed by the Arboricultural Consultant).

Where hard surfacing already exists on site, consideration should be given so that these areas will be retained and utilised as ground protection within the RPAs of retained trees until the replacement of hard landscaping is implemented into the construction phase of the development. The retention of the hard surfacing is deemed suitable ground protection and therefore the conflict with retained trees' roots is eliminated.

Where the replacement of hard surfacing is being considered then retaining the sub-base hard-core layer will also reduce the risk of root damage.

To minimise the potential for harm to occur to root systems of retained trees from hard surfacing creation it is proposed to replace the hard surfacing areas in accordance with a minimal-dig methodology. See Section 3.3.8 for further details.

Arbor-Eco Consultancy, Tree Protection Plan, Drawing Number MB240118-01-01, Section 5 indicates the location of tree protection barriers.

All works within the RPA of a retained tree should be carried out under the supervision of the retained Arboricultural Consultant (See Section 3.3.14 for contact details).

3.3.2 Site Construction Access

Impacts

Construction access to the site will need to make use of the existing access routes in to the site off Cedar Crescent, minor road.

Mitigation/Avoidance

Due to the restricted access through the property to the rear aspect garden, no impact to the trees is likely.

3.3.3 Contractors Parking

Impacts

Vehicles cannot access the rear aspect garden of the site.

Mitigation/Avoidance

The location of contractor parking will occur to the front aspect of the site.

The Johnsons Garden Buildings Ltd contractors (and landowner) are to ensure that all highway laws are respected and no parking is to occur on any highway verge or obstruct neighbouring land access.

3.3.4 Site Cabins and Welfare Facilities

Impacts

There is no requirement for site cabins and the welfare facilities will be provided by the client.

Mitigation/Avoidance

None required.

3.3.5 Delivery and Storage of Materials

Impacts

The proposed locations for site deliveries and materials storage during the development is yet to be determined; however, it is likely the existing garage will be utilised for the storage of materials for this project and therefore occur outside of the RPAs of retained trees.

Mitigation/Avoidance

Ensure no storage occurs upon un-surfaced ground within the defined RPAs of the retained trees via the installation of protective barriers.

3.3.6 Demolition of Existing Structures

Impacts

The proposed development of the site will require the deconstruction of the existing garden building to provide the space required to construct the new outdoor office.

The location of any construction machinery will remain outside of the RPAs of retained trees or upon the existing hard surfacing at the property.

Mitigation/Avoidance

The initial 'breaking up' of any hard surface within the RPA of the retained trees should be done by hand if possible. Lifting paving slabs can be carried out by hand. The removal of any hard surfacing within the RPA of retained trees should be carried out under the supervision of the retained Arboricultural Consultant (See Section 3.3.14).

Arbor-Eco Consultancy, Tree Protection Plan, Drawing Number MB240118-01-01, Section 5 indicated the locations of the tree protection measures for this activity.

3.3.7 Construction of Buildings

Impacts

The proposed construction of the new outdoor office is unlikely to require the erection of scaffolding due to the light construction activity to erect the outdoor office.

Work to install foundation for the proposed development will have the greatest potential for damage to retained trees. Traditional foundations will not be used due to the incursion in to the RPAs of retained trees.

The proposed construction of the new residential property has been considered with retained trees. It is deemed that using a hand-dig solution will eliminate any significant impact with the trees.

Mitigation/Avoidance

It has been declared by Johnsons Garden Buildings Ltd that there will be limited impact with the retained trees. Utilising the existing footprint of the deconstructed building and using a technical hand-dig solution there is unlikely to be any conflict with the trees.

Utilising the existing footprint of the deconstructed building and installing the new foundations by hand it is considered that there is unlikely to be any conflict with the trees.

The intention is to raise the proposed outdoor office off the ground, placed upon elevated timber uprights (100 m x 100 m) excavated to a depth of 450 mm by hand and positioned at 1.0 m intervals. A timber framed foundation (pre-constructed) will be positioned on top of the upright support beams to avoid any compaction and consequent damage to the roots of the trees. See Section 3.3.7.

The potential for direct damage to the stems of the trees will be controlled by the installation of protective barriers as shown on Arbor-Eco Consultancy, Tree Protection Plan, Drawing Number MB240118-01-01, Section 5.

3.3.8 Construction of New Hard Surfacing

Impacts

There has been no indication that the existing hard surfacing will be renovated or replaced.

Mitigation/Avoidance

None required.

3.3.9 Boundary and Ancillary Structures

Impacts

It is not understood if any existing man-made boundary features are to be replaced or renewed. The timber support uprights are being installed 450 mm below ground level and within the RPAs of the retained trees. Therefore, the mitigation measures will be utilised for this work and supervised by the retained Arboricultural Consultant (See Section 3.3.14 for contact details).

Mitigation/Avoidance

The location of any concrete foundations and supporting posts needs to be carefully considered to ensure no damage to the adjacent trees occurs. For example, due to the highly alkaline leachate produced during

the curing process of wet concrete, the concrete should not be poured within the RPA of a retained tree unless an impermeable liner has been installed.

Additionally, any new fence posts should not be constructed within 1.0 m of the stem of any retained tree. Consideration for the use of half-panels to relocate fence posts away from retained trees by measuring site boundaries beforehand is recommended. This will reduce the amount of excavation for post foundations required within the RPAs of the retained trees. Any excavation for fence posts in RPAs will need to occur by hand and under arboricultural supervision to ensure no root damage occurs.

In accordance with BS5837:2012 all areas of construction activity within the RPA should be supervised by the retained Arboricultural Consultant (See Section 3.3.14 for contact details).

3.3.10 Site Gradients

Impacts

There is no declared intention to alter the gradients at this site.

Mitigation/Avoidance

None required.

3.3.11 Service Requirements

Impacts

There are already services within the site and it is considered that various opportunities to create new service connections without harming trees exist.

The outdoor office will be fitted with electricity and internet services. There is adequate opportunity to install both without any damage to the roots of the retained trees.

Mitigation/Avoidance

The methodology for the installation, maintenance or removal of any services within an RPA will be in accordance with NJUG Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees'. This will include hand dug 'broken' trenches to ensure that maximum protection is given to tree roots.

It is advised that the installation of any new services and drainage occur outside the RPAs of the retained trees. It is also advised that CCTV and lighting columns should not be situated in locations which will place future pressure on trees for crown pruning due to visibility/shadowing. Any lighting bollards, road signage or similar structures that require to be fixed to the ground with underground services shall be fitted outside of the RPAs of retained trees.

All areas of construction activity within the RPA of a retained tree should be supervised by the retained Arboricultural Consultant (See Section 3.3.14 for contact details).

3.3.12 Soft Landscaping

Impacts

There is no requirement to carry out any soft landscaping.

Mitigation/Avoidance

Any soft landscaping within the construction exclusion zone will be undertaken by hand. A 500 mm radius from any new tree stem will remain uncovered by turf or other planting to allow penetration of water and air into the soil.

New tree planting should be carried out in accordance with British Standard 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

Any herbicide used during the development works shall be systemic, spot applied, and mixed according to manufacturers' recommendations.

3.3.13 Preconstruction Recommendations

Auditable systems of site monitoring should be made available to the Local Planning Authority/Arboricultural Officer and included within the program of development construction as recommended within BS5837:2012. This should include a schedule of events whereby periods of supervision or input from the Project Arboriculturist is required (See Section 3.3.14 for contact details).

A pre-commencement site meeting involving all interested parties should be convened to confirm;

- Confirmed location for Tree Protection Measures;
- Underground Services Installation Methodology;
- Site Compound location and set-up;
- Parking locations;
- Audit and Periods of Supervision.

3.3.14 Contact Details

Retained Arboricultural Consultant
Name: Marco Bartolini
Position: Arboricultural Consultant
[redacted]

Local Authority Contact Details
Position: Tree Officer
Address: Test Valley Borough Council, Former Magistrates' Court, Romsey, SO51 8AQ
[redacted]

4. ARBORICULTURAL METHOD STATEMENT

An Arboricultural Method Statement is considered not to be required for the site as this is a very light and small development proposal despite being within the RPAs of retained trees. Supervision by the Arboricultural Consultant or Arboricultural Officer, will ensure these elements can be carefully coordinated to ensure no tree damage occurs.

Planning Context; National Planning Policy Framework

It is important to note that trees are a material consideration in the UK planning system and existing trees are an important factor requiring forethought when assessing the development potential of a site, whether they are within the working area or within such proximity to it that they may be affected by construction operations.

Environmental Benefits of Trees

It is worthwhile noting that the trees can intercept many of the hostile elements humans and animals need shelter from. Trees provide shading and offer significant humidity regulation and a cooling effect felt at ground level. All trees will consume a considerable amount of ground water that will regulate the local hydrology and may assist with the removal of local flooding issues. A mature tree will consume tens of thousands of litres of water during a year. A group of trees can provide an element of acoustic dampening effect at ground level and growing next to a road many tree species have been linked with the sequestration of impurities from the atmosphere. Finally, the trees will provide some shelter from prevailing winds and inclement weather. Therefore, it can be seen that the trees will benefit, rather than hinder, the landscape in which they are growing.

5. DRAWINGS

1. Drawing MB240118-01-02 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.

N

1:125

0 5m

35

33

31

27

CEDAR CRESCENT

Access through garage

Storage Area

EXTENSION

PAVING

CEZ

GRASS

Tree Protective Fencing.

PAVING

Construction over existing hard surface

CEZ

PATH

T2-C1

Proposed Summer House

T3-B1

GRASS

CEZ

Existing outbuilding to be deconstructed by hand

GRASS

BORDER

T1-C1

Mini-piles (wooden) foundations

PATH

Key

- Trees (T1-B) — 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
- Proposed Summer House
- Existing hard Surface
- Mini Piles Foundation
- Existing Building to be Demolished
- CEZ — Construction Exclusion Zone

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Project
33 Cedar Crescent, North Baddesley.

Drawing Title
Tree Protection Plan

Scale	Date	DB	CB
1:125 - A3	13/02/2024	CS	MB

Drawing Number
MB240118-01-01

Rev
A

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APPENDICES

APPENDIX 1

Table A1.1 – Tree Survey Schedule

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Silver Birch Betula pendula	1	380	21.0	2.0 S	3.0	4.0	5.0	5.0	4.0	2.0	3.0	4.0	M	F	G	10+	C1	Artificial structures within RPA. Heavily pruned. Poor past management. Apical dieback evident. Major deadwood in crown.	Crown clean deadwood.
2	Pedunculate Oak Quercus robur	1	420	21.0	5.0 E	6.0	4.5	2.0	7.0	4.0	4.0	4.0	4.0	EM	F	G	10+	C1	Artificial structures within RPA. Heavily pruned. Asymmetrical crown. Poor past management. Apical dieback evident. Major deadwood in crown.	Crown clean deadwood.
3	Pedunculate Oak Quercus robur	1	450	23.0	2.5 N	6.5	7.0	4.0	5.0	3.0	3.0	3.0	3.0	M	G	G	20+	B1 Int	Artificial structures within RPA. Ivy on stem. Off-site tree. Restricted access prevented detailed assessment.	-

Key

Age Class
Y: Young = tree within first third of average life expectancy
EM: Early mature = tree within second third of average life expectancy
M: Mature = tree within final third of average life expectancy
OM: Over mature = tree beyond average life expectancy
V: Veteran = shows signs of retrenchment and in decline.
D: Dead.

Physiological Condition
G: Good = no health problems
F: Fair = symptoms of ill health that may be remedied
P: Poor = poor health
D: Dead

Structural Condition
G: Good = no structural defects
F: Fair = remedial structural defects
P: Poor = significant structural defects
D: Dead

000: Estimated measurement due to access restrictions

RPA: Root Protection Area

Major deadwood: branches in excess of 50 mm diameter
Minor deadwood: branches/twigs less than 50 mm diameter

Int: Interim category due to access restrictions.

Table A1:1 Tree Survey Schedule

APPENDIX 2

Table A2.1 – Root Protection Areas of Trees Surveyed

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m^2)
1	Silver Birch	380	4.8	72
2	Pedunculate Oak	420	5.1	81
3	Pedunculate Oak	450	5.4	92
Key: 000: estimated dimensions due to access restrictions				

Table A2-1: RPA and Approximate Root Protection Radius of Trees Surveyed

APPENDIX 3

Headings for Protective Barrier Notices and Example Sign

Root Protection Area (RPA) Model Notice

DON'T excavate within this area
DON'T use any form of mechanical plant with this area
DON'T store materials, plant or equipment within this area
DON'T move plant or vehicles within this area

DO contact the Local Authority Arboricultural Officer or owner of the tree if excavation within this area is unavoidable
DO protect any exposed roots uncovered within this area with dry sacking
DO backfill with a suitable inert granular and top soil material mix as soon as possible on completion of work

ANY WORK in this area requires permission from the Local Authority Arboricultural Officer

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

TREE PROTECTION AREA

KEEP OUT !

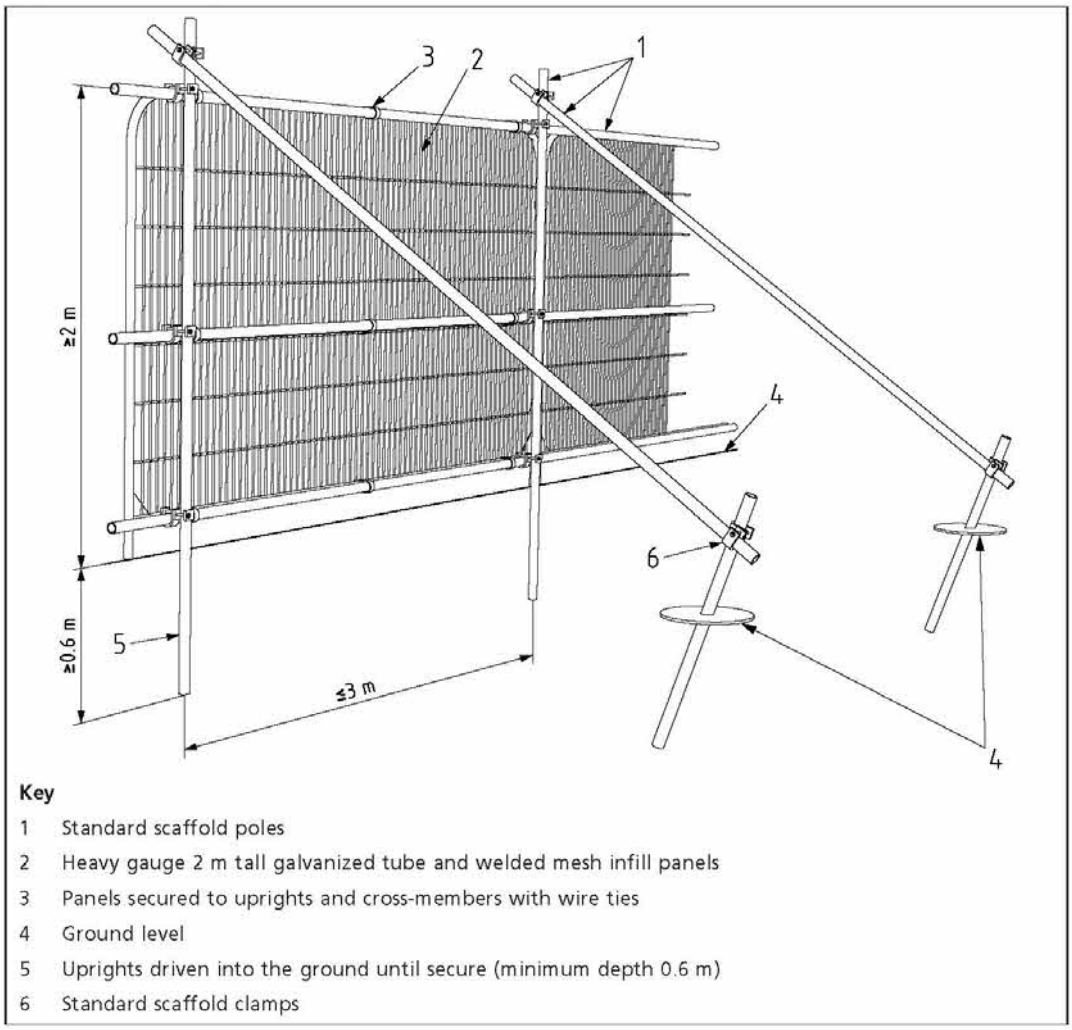
(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

APPENDIX 4

Details of Protective Barrier (Default and Variant)

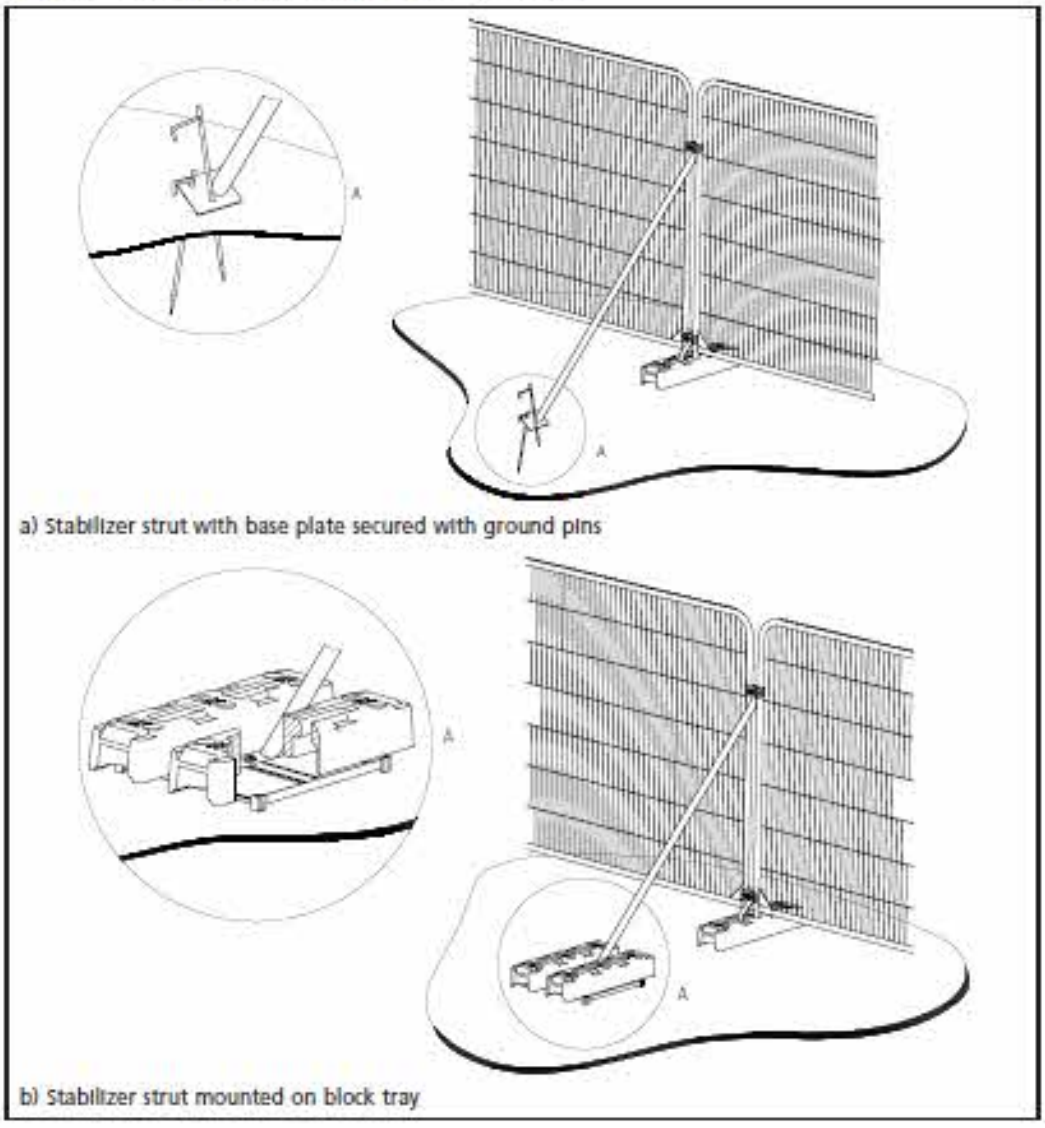
Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 3 **Examples of above-ground stabilizing systems**

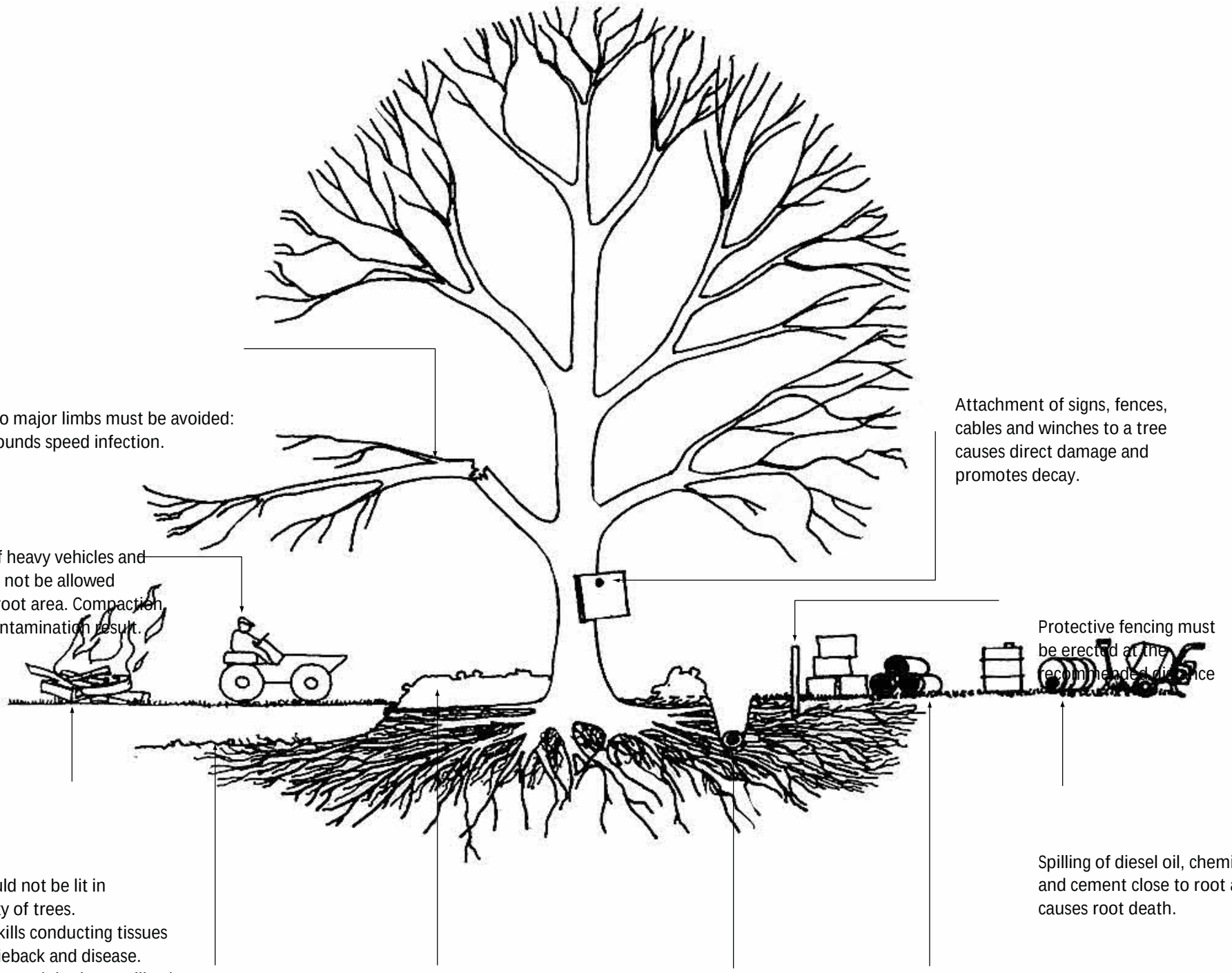


APPENDIX 5

Causes of death of a tree within a construction site - poster

Common Causes of Tree Death

The use of properly positioned protective fencing can prevent tree deaths occurring.
For site offices and contractors.



Damage to major limbs must be avoided: ragged wounds speed infection.

Attachment of signs, fences, cables and winches to a tree causes direct damage and promotes decay.

Parking of heavy vehicles and cars must not be allowed near the root area. Compaction and oil contamination result.

Protective fencing must be erected at the recommended distance

Fires should not be lit in the vicinity of trees.
The heat kills conducting tissues causing dieback and disease.
The soil beneath is also sterilised.

Spilling of diesel oil, chemicals and cement close to root area causes root death.

Lowering ground levels severs roots causing severe dieback and Instability.

Raising ground levels even for only a few weeks and by merely several centimetres can suffocate roots, close off the lenticels on the stem causing severe dieback or suffocation.

Trenches dug within root areas may sever roots, causing instability and reduce longevity.

Storage of materials within root area causes compaction and root suffocation.

Source: http://www.aie.org.uk/vault/dsp1.htm - Adapted by Marco Bartolini

APPENDIX 6

Photographic Montage