

**Arboricultural Method Statement** 

**Manor Coliving Limited** 

Colne Spring Villa Colney Heath Hertfordshire AL4 OPB

11 December 2024

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### Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on 12 June 2024 from Manor Coliving Limited to attend Colne Spring Villa, Coursers Road, Colney Heath to undertake an arboricultural survey to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of trees and Tree Constraints Plan, Arboricultural Impact Assessment, Arboricultural Method Statement and Tree Protection Plan.

## **Executive Summary**

This report describes the extent and effect of the proposed development on individual trees and groups of trees within and adjacent to the site.

Trees within the site were surveyed; using a methodology guided by British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' ("BS5837").

Subsequently, this report has been produced, balancing the layout of the proposed development against the competing needs of trees. This report comprises all of the requisite elements of an arboricultural implications assessment, method statement and supporting plans.



Figure 1: OS Map (Bing Maps).



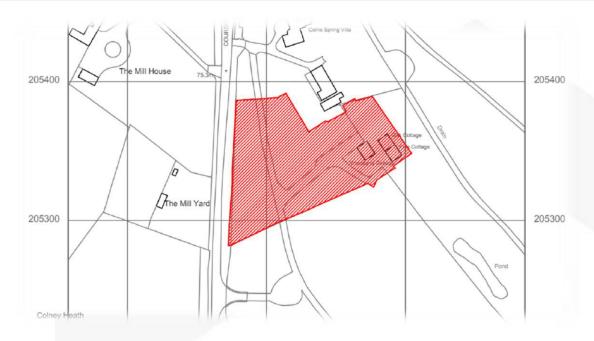


Figure 2: Land Registry Plan, drawing number: 08224-00 (Ridgeway Surveys).



### **Proposed scheme**

The proposal is to construct 9 accommodation properties and a shared communal building.



**Figure 3:** Proposed Level 00 Plan, drawing number: 775CDAZZ00DRA050100\_REV11 (Create Design and Architecture).



#### **Checklist for Submission to Local Planning Authority**

Tree survey	$\checkmark$
Tree constraints plan	$\checkmark$
Arboricultural impact assessment	$\checkmark$
Arboricultural method statement	$\checkmark$
Tree protection plan	$\checkmark$

This report and its appendices precisely follow the strategy for arboricultural appraisal intended to provide local planning authorities with evidence that trees have been properly considered throughout the development process.

It is the conclusion of this report that the overall quality and longevity of the amenity contribution provided for by the trees and groups of trees within and adjacent to the site will not be adversely affected as a result of the local planning authority consenting to the proposed development. It is considered that any issues raised in this report, or beyond the scope of it can be dealt with by planning conditions.



## **General Information**

**Client: Manor Coliving Limited** 

Site: Colne Spring Villa, Colney Heath, Hertfordshire, AL4 OPB.

Brief proposal description: 9 accommodation properties and a shared communal building.

Table 1: Documents referred to.

Document	Reference No.
Topographical / Site survey drawing	08224-001
Proposed layout drawing	775CDAZZ00DRA050100_REV11
Landscape master plan drawing	N/A
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Arboricultural Impact Assessment	Arbtech AIA 01
Tree Protection Plan	Arbtech TPP 01



## **Tree Survey**

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Anthony Jones between 10 July 2024- 11 July 2024.

A total of 74no. individual trees and 8no. groups of trees were surveyed. Details for each are provided in the Schedule of Trees (Appendix 1).

Table 2: Documents upon which this tree survey has been based.

Document	Originator	Reference Number	Title
Survey base drawing	Ridgeway Surveys	08224-001	Topographical Survey

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser, and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (i.e. not in relation to the proposed development).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without, stating at Annex B:

The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications.

Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.



## **Arboricultural Impact Assessment**

Table 3: Documents upon which this assessment has been based.

Document	Originator	Reference Number	Title
Survey base drawing	Ridgeway Surveys	08224-001	Topographical Survey
Site Plan	Create Design and Architecture	775CDAZZ00DRA050100_REV11	Proposed Level 00 Plan

Several issues may need to be addressed in an arboricultural impact assessment between the trees and the proposed development, these are as follows:

- The effect and extent of the proposed development within the root protection areas (RPAs) of retained trees;
- The potential conflicts of the proposed development with canopies of retained trees; and
- The likelihood of any future remedial works to retained trees beyond which would have been scheduled as a part of usual management.

Table 4: Impacts upon the RPAs of retained trees.

Tree Number	Species	Structure	RPA (m²)	Incur (m²)	sion (%)
G02	A Group	Plot 01 building	55.4	2.9	5.2
G05	A Group	Plot 06 building	91.6	3.5	3.8
G05	A Group	Plot 06 and 07 Parking bays	91.6	15.9	17.4
G05	A Group	Plot 06 waste and bike storage	91.6	9.69	10.6
G05	A Group	Plot 07 waste and bike storage	91.6	9.69	10.6
G05	A Group	Plot 07 building	91.6	14.4	15.7
G05	A Group	Plot 07 decking	91.6	9.55	10.4
G05	A Group	Plot 08 bike and bin storage	91.6	9.5	10.4
G05	A Group	Parking bay plot 08	91.6	23.9	26.1
G05	A Group	Plot 08 decking	91.6	5.37	5.9
G05	A Group	Plot 08 hard surface	91.6	1.67	1.8

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Tree	Species	Structure	RPA	Incur	sion
Number	эрссісэ	Structure	(m²)	(m²)	(%)
T32	Common	Plot 09 building	239.3	2.02	0.8
	Hornbeam				
T32	Common	Plot 09 decking	239.3	0.15	0.1
132	Hornbeam	1 lot 05 decking	233.3	0.13	0.1
T33	Common	Plot 09 building	58.6	0.38	0.6
133	Oak	1 lot 05 building	36.6	0.38	0.0
T34	Common	Parking have	196.2	5.2	2.7
134	Oak	Parking bays	130.2	3.2	2.7
T34	Common	Plot 09 building	196.2	1	0.5
134	Oak	Flot 05 building	190.2	1	0.5
T43	Common	Parking bays	233.5	6	2.6
143	Beech	Faiking Days	233.3	0	2.0
T61	European	Access read	97.6	0.0	10.0
T61	Larch	Access road	87.6	8.8	10.0
T66	European	Access road	40.7	1	2.5
100	Larch	Access road	40.7	1	2.5

These impacts can be seen on the Arboricultural Impact Assessment drawing number Arbtech AIA 01.



#### Trees to be removed

The total number of trees to be removed for this scheme in 12no. individuals, 3no. groups and the partial removal of 1no group as a part of this development.

A breakdown of all tree removals and pruning works can be seen in Table 8: Summary of Tree Works

Table 5: Number of individual trees to be removed.

U			С
2	0	3	7

Table 6: Number of groups to be removed.

U			С
0 (0)	0 (0)	3 (1)	0 (0)

() = partial removal of a group.

Canopy cover is ecologically important and the loss of canopy cover by this tree will be mitigated with planting within the development.



## **Arboricultural Method Statement**

The purpose of this method statement is to demonstrate how any aspect of the development that has potential to result in loss or damage to a tree may be implemented and provide an adequate level of protection for those trees that are to be retained during the proposed works.

Details of key site personnel, including site/project manager will be submitted to the Council's Tree Officer before the commencement of site works.

This method statement is to be approved and agreed to in writing by all key personnel before the commencement of site works.

No site personnel are to be present and no demolition, site clearance, building work or delivery of materials is to occur until the protective measures are in accordance with this method statement and the Tree Protection Plan drawing number Arbtech TPP 01.

Protective measures will be in accordance with this method statement and the Tree Protection Plan; drawing number Arbtech TPP 01 will remain unaltered and in situ, unless otherwise specified, for the entire duration of the construction.

Table 7: Documents upon which this assessment has been based.

Document	Originator	Reference Number	Title
Survey base drawing	Ridgeway Surveys	08224-001	Topographical Survey
Site Plan	Create Design and Architecture	775CDAZZ00DRA050100_REV11	Proposed Level 00 Plan



#### Tree Works

For reasons of public safety, all tree works referred to herein must be carried out before any site personnel commencing works or any building materials being delivered.

Table 8: Summary of Tree Works.

No.	Species	Works	Category
G01	A Group	Fell all trees in plantation group and remove stumps where required	B2
G04	A Group	Fell all trees in plantation group and remove stumps where required	B2
G05	A Group	Partial fell trees and remove stumps northeast of existing track	B2
G06	A Group	Fell all trees in plantation group and remove stumps where required	B2
T01	European Larch	Fell tree	U
T06	Common Oak	Prune: selective branch reduction pruning and crown lifting on east side of crown to achieve a 2 m clearance from building	B2
T07	Common Oak	Fell tree and grind out stump	C21
T08	Common Oak	Fell tree and grind out stump	C12
T10	Scots Pine	Fell tree and grind out stump	B12
T11	Common Oak	Prune: selective branch reduction pruning and crown lifting on east side of crown to achieve a 2 m clearance from building	B12
T12	Common Oak	Fell tree and grind out stump	C21
T22	Common Oak	Fell tree and grind out stump	U
T23	Common Oak	Fell tree and grind out stump	C12
T30	Common Hornbeam	Prune: selective branch reduction pruning and crown lifting on east side of crown to achieve a 2 m clearance from building	B12
T31	Common Oak	Fell tree and grind out stump	C12
T33	Common Oak	Prune: selective branch reduction pruning and crown lifting on east side of crown to achieve a 2 m clearance from building	B12



No.	Species	Works	Category
T35	Common Oak	Prune: selective branch reduction pruning and crown lifting on east side of crown to achieve a 2 m clearance from building	B12
T36	Common Oak	Fell tree and grind out stump	B12
T42	Common Oak	Fell tree and grind out stump	B12
T40	Common Oak	Fell tree and grind out stump	C12
T41	Common Oak	Fell tree and grind out stump	C12

#### **Notes**

All tree work is to be undertaken in accordance with British Standard BS 3998:2010, Recommendations for tree work. All arising's are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber Lorries, tractors, excavators, or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

#### Tree removal

A tree should be felled in one piece only when there is no significant risk of damage to people, property, or protected species (see Annex A).

Where restrictions (e.g. lack of space, buildings, other features, land ownership or use, or other trees which are to be retained) cannot be overcome, trees should be dismantled in sections.

This also applies where a tall stump is being retained but where branches are to be removed/pruned.

Extensively decayed trees can be unpredictable when they are being felled, and special precautions should, therefore, be taken, such as the use of a winch to guide the direction of fall.



#### Stump removal – stump grinding

Stump grinding will be to a minimum of 300mm deep or to extend through the base of the stump leaving the major roots disconnected if the intention is to reduce the potential for the spread of Honey fungus.

The grinding residue will be treated as arising's and removed from site.

NOTE: Mechanical destruction of a stump by stump grinding is less disruptive to the site than digging out.

The hole left by stump removal will be filled with soil or other material. The filling should be appropriate for future site usage, and for any surface treatment that is to be installed.

Where future plant growth is desired, the backfill material will be firmed in 150 mm layers by treading, avoiding excessive compaction and destruction of the soil structure.

#### Stump removal - digging

Stump removal by digging out will include disposal/utilisation of woody material (see Clause 13).

NOTE: Mechanical destruction of a stump by stump grinding is less disruptive to the site than digging out.

Where possible when winching out a stump, a ground, or other type of anchor, will be used rather than a tree to be retained. If there is no alternative to using such a tree as an anchor, appropriate protective measures will be adopted.

#### After stump removal

The hole left by stump removal, whether by digging out or grinding, will be filled with soil or other material. The filling will be appropriate for future site usage and for any surface treatment that is to be installed.

Where future plant growth is desired, the back-fill material will be firmed in 150mm layers by treading, avoiding excessive compaction and destruction of the soil structure.



### Protected Species (general informative for tree works)

#### **Conservation Status of British Bats**

The consensus in Britain and Europe is that virtually all bat species are declining and vulnerable. Our understanding of population status is poor as there is very little historical data for most bat species. Certain species, such as the horseshoe bats, are better understood and have well-documented contractions in range and population size.

Given this general picture of decline in UK Government within the UK Biodiversity Action Plan has designated five species of bats as priority species (greater and lesser horseshoe bats, barbastelle, Bechstein's and pipistrelle). These plans provide an action pathway whereby the maintenance and restoration of the former populations' levels are investigated.

#### **Legal Status of British Bats**

Given the above position, all British bats, as well as their breeding sites and resting places, enjoy national and international protection.

All bat species in the UK are fully protected under the Wildlife and Countryside Act 1981 (as amended) through inclusion in Schedule 5. All bats are also listed on Annex IV (and some on Annex II) of the EC Habitats Directive giving further, European protection. Taken together, the Act and Conservation of Habitats and Species Regulations 2012 (as amended)\* make it an offence to; intentionally or deliberately kill, injure or capture (take) bats;

- Deliberately disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts;
- Possess or transport a bat or any part of a bat, unless acquired legally;
- Sell, barter or exchange bats, or parts of bats

The legislation although not strictly affording protection to foraging grounds does protect roost sites. Bat roosts are protected at all times of the year whether or not bats are present. Any disturbance of a roost due to development must be licenced.

\*the regulations that delivered by the UK's commitments to the Habitats Directive.



#### **Breeding birds**

All nesting birds are protected under the Wildlife and Countryside Act (as amended) 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. Furthermore, several birds enjoy further protection under that Act and are listed on Schedule 1 of the Act. These further protected birds are also protected from disturbance and it may be necessary to operate "no-go" buffer zones around such nests – typically out to 100m.

Planning policy guidance on the treatment of species identified as priorities under the biodiversity action programme suggests that local authorities should take measures to protect the habitats of these species from further decline through policies in local development documents and should ensure that they are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations. The conservation of these species should be promoted through the incorporation of beneficial biodiversity designs within developments.



## Sequencing of works

A logical sequence of events is to be observed and shall be phased as follows.

**Table 9: Sequence of Events** 

Stage	Event
Stage 1	Carry out tree works as specified within the summary of tree works
Stage 2	Installation of protective measures in accordance with the approved tree protection plan/s
Stage 3	Pre-commencement site meeting
Stage 4	Site set up
Stage 5	Undertake and complete construction works
Stage 6	Undertake external landscaping works outside of the construction exclusion zones
Stage 7	Removal of all machinery and materials from site
Stage 8	Dismantle and removal of protective measures
Stage 9	Undertake external landscaping works within the construction exclusion zones
Stage 10	Sign off from Project Arboriculturist



#### Protective Measures

Protective measures are to be installed immediately following the completion of the tree works and are to be sited and aligned in accordance with the tree protection plan (Arbtech TPP 01) before the commencement of any works or the introduction of any machinery or material to Site.

Upon installation of the protective measures around the retained trees, the Project Arboriculturist will visit the site to inspect and document the position and specifications of the protective measures.

If the protective measures and their positions do not comply with this arboricultural method statement document number Arbtech AMS 01 (11 December 2024) and tree protection plan drawing number Arbtech TPP 01, the Project Arboriculturist shall inform the client and fencing contractor so adjustments can be made.

When the protective measures comply with document number Arbtech AMS 01 (11 December 2024) and tree protection plan drawing number Arbtech TPP 01, the Project Arboriculturist will sign off the protective measures in writing to the client and will send a copy to the fencing contractor, site agent and local authority tree officer.

If the protective measures become damaged or there is any accident or emergencies involving trees, these areas are to be cordoned off immediately with high visibility plastic mesh fencing. The site agent is to photograph and document the damage and inform the Project Arboriculturist immediately after the incident and all work within this area is to cease until the Project Arboriculturist has visited the site. Any damaged sections of protective measures shall be replaced within 48 hours of the initial incident.

The protected area is sacrosanct and will not be invaded by the storage of materials, mixing of concrete or other products, accessed by machinery, equipment, or pedestrians or in any other way disturbed by construction activity.

The protective measures will remain in place until the completion of stage 7 (see Sequencing of Works), thereafter they will be carefully dismantled only with the agreement of the Project Arboriculturist and or the local authority tree officer.

The existing site boundary measures are to be retained for the duration of the development. If for any reason the existing boundary measures are not to be used protective barrier fencing is to be installed along the line of the boundaries and is only to be removed upon the written permission of the Project Arboriculturist upon the completion of the development or immediately before the installation of the permanent boundary measures.



The proposed hard surface access road resurfacing and installation is to be installed immediately to act as ground protection, where it is decided that this is not a viable option these areas are to be covered by ground boarding as designed by the project engineer to cope with any likely loading.

No equipment, vehicles or plant shall operate beyond the tree protection fencing. Booms, hoists, and rigs should be kept as far away from the canopies of retained trees at all times. Where it is necessary to operate within 5m of a tree canopy, it will be done with the utmost caution and under the control of a banks man. Damage to trees will be considered a breach of this tree protection plan, which in turn could be a breach of planning permission.

#### **Construction Exclusion Zone**

A construction exclusion zone (CEZ) as designated by the protective barrier fencing, is an area where there is to be no construction activity. Access to the area for construction personnel or machinery is strictly prohibited, unless detailed in the tree protection plan, and there is no scope for materials or waste storage; welfare facilities etc. There may be some construction activities planned for these areas (e.g. the installation of service trenches) these activities will be undertaken under direct, on-site arboricultural supervision.

#### **Protective Barrier Fencing**

Protective barrier fencing should be appropriate for the intensity and proximity of the development to protect trees where development activity is nearby.

<u>Default specification:</u> To comprise either 2.4m wooden site hoarding; or a 2.3m high scaffold framework, well braced to resist impacts, with uprights to be spaced at a maximum of 3.0m intervals and driven into the ground by a minimum of 600mm. On to this, standard anti-climb welded mesh panels are to be securely fixed to each other with at least two scaffold clamps and to the scaffold framework with wire.



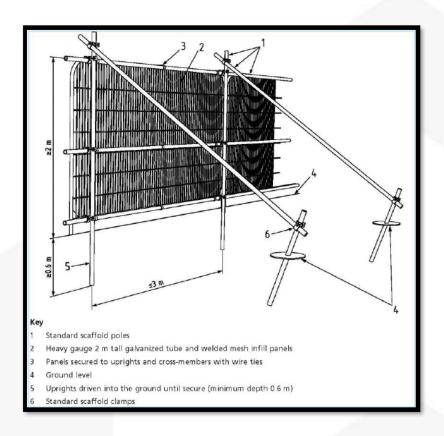


Figure 4: Default specification for protective barrier fencing (BS5837).

<u>Secondary specification:</u> To comprise of 2m tall welded mesh panels on rubber or concrete feet. Panels are to be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The panels will be supported on the inner side by stabiliser struts, which will be attached to a base plate and secured with ground pins.



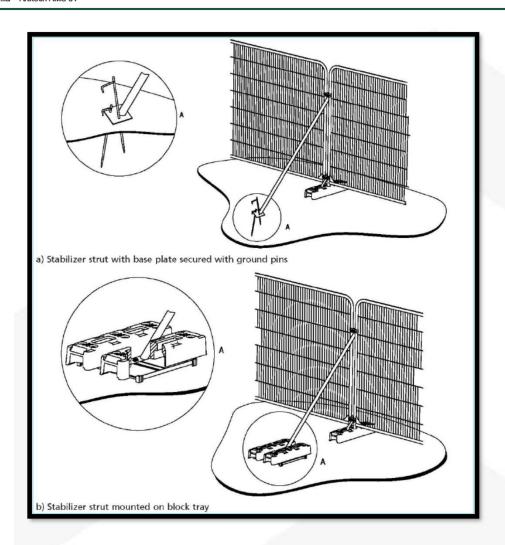


Figure 5: Examples of protective barrier fencing with above-ground stabilising systems (BS5837).

Signage denoting the words "tree protection area" at 5.0m intervals will be fixed to the protective barrier fencing (See Appendix 2).

Protective fencing is to be removed ONLY with the written permission of the Project Arboriculturist.



#### **Ground Protection**

The existing hard surfacing within the RPA of retained trees G05 and T01 as depicted on the Tree Protection Plan (Arbtech TPP 01) provides passive protection against compaction to the underlying soil and therefore must be retained for the duration of the project. If this is removed, it shall be done so under direct arboricultural supervision and replaced with suitable ground protection, suitable of withstanding the likely loading for the site.

New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

NOTE The ground protection might comprise one of the following:

- a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, 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 2t, 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 t gross weight, an alternative system (e.g. proprietary system 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.

For situations other than those described in a) or b), the ground boarding is to be designed by a suitably qualified person to an engineering specification in conjunction with arboricultural advice, to be able to support the expected loading to be placed upon it.

In all cases, the objective of the ground boarding is to avoid compaction of the soil beneath, so that tree root function remains unimpaired.



#### Demolition

Before the demolition of the existing site features, all tree works are to have been completed, tree protection measures are to be in place as per Arbtech Consulting Ltd. tree protection plan document number Arbtech TPP 01 and have been signed off and a copy of the demolition method statement has been submitted and approved by the Project Arboriculturist to ensure that there is no conflict with this method statement.

All demolition work within or immediately adjacent to RPAs or canopies of retained trees is to be undertaken under the direct on-site supervision of an arboriculturist.

#### **Hard Surfacing**

Where it is required for hard surfacing is to be removed and or re-surfaced within the RPAs of retained trees it is to be undertaken under direct on-site arboricultural supervision, during the landscaping phase of the development.

The wearing course will be broken up using a handheld pneumatic breaker, hand tools and wheelbarrows to break up and remove the surfacing. Where is necessary to remove the subbase, this is to be undertaken using a fork to loosen the material and moved using shovels and wheelbarrows.

In some situations, and at the discretion of the arborist it may be possible to use an excavator using a hydraulic breaker and a suitably sized toothless grading bucket. If an excavator is to be used it must be situated outside of the RPAs, on top of the hard surfacing working away from the RPAs or from ground boarding.

Whichever system is used there is to be **NO** disturbance of the soil beneath. If roots are found they are to be covered over with damp hessian and a layer of either sharp sand, wood chip or topsoil will be applied as soon as practicably possible to prevent desiccation.

#### **Existing Underground Services**

Existing services within the site should be retained wherever possible. Where existing services within RPAs require upgrading, the utmost care must be taken to minimise disturbance, and where feasible trenchless techniques are to be employed, and only where necessary should open excavations be considered.



#### Construction

Before the construction of the proposed development, a copy of the construction method statement will have been submitted and approved by the Project Arboriculturist to ensure that there is no conflict with this method statement.

All excavations and construction work within or immediately adjacent to RPAs or canopies of retained trees is to be undertaken under the direct on-site supervision of an arboriculturist.

#### Foundations design

The use of traditional strip foundations can result in excessive root loss and as such should be avoided.

Designs for foundations that would minimize the adverse impact upon trees soul include particular attention to the existing levels, proposed finished levels and cross sectional details. Site specific and specialist advice should be sought from the project engineers and arboriculturist.

Root damage can be minimized by using:

- Piles with site investigation used to be determined their optimal location whilst avoiding damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement, to a minimum depth of 600mm;
- Beams, laid at or above ground level, and cantilevered as necessary to avoid tree roots identified by site investigation.

Where a slab for minor structures (e.g. shed base) is to be formed within the RPA, it should bear on the existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced ground.

Slabs for larger structures (e.g. dwellings) should be constructed with a ventilated air space between the underside of the slab and the existing soil surface (to enable gas exchange and venting through the soil surface. In such cases, a specialist irrigation system should be employed (e.g. roof run-off redirected under the slab). The design of the foundation should take into account of the effect on the load bearing properties of the underlying soil from the redirected roof run-off. Approval in principle for a foundation that relies on topsoil retention and roof run-off under the slab should be sought from building control authority prior to this approach being relied upon.

Where piling is to be installed near to trees, the smallest practical pile diameter should be used, as this reduces the possibility of striking major tree roots, and reduces the size of the rig required to sink the piles. If a piling mat is required, this should conform to the parameters for ground



boarding. Use of the smallest practical piling rig is also important where piling within the branch spread is proposed, as this can reduce the need for access facilitation pruning. The pile type should be selected bearing in mind the need to protect the soil and adjacent roots from the potentially toxic effects of uncured concrete, e.g. sleeved bored piles or screw piles.

#### **Hard Surfacing**

New hard surfacing to be situated within the RPAs of retained trees is to be designed in conjunction with arboricultural advice to accommodate the likely loading. The design will not require excavation however the removal of the turf layer or other surface vegetation may be acceptable if necessary, but ideally, the construction will be situated entirely above the existing ground level.

Appropriate options for the sub-base of hard surfacing situated within the RPAs of retained trees include multi-dimensional confinement systems (CellWeb<sup>TM</sup> or similar). Alternatively, piles, pads or elevated beams can be used to bridge over the RPAs or following exploratory investigations to determine location, to provide support within the RPAs while allowing retention of roots of 25mm or greater in diameter.

An exploratory investigation is to be undertaken manually under arboricultural supervision using hand tools (See Manual excavation).

Before the installation of the hard surfacing within the RPAs vegetation may be removed using hand tools or sprayed with an approved non-residual herbicide such as 'Glyphosate'.

NOTE: The use of a multi-dimensional confinement system will affect the finished level of the hard surfacing by raising the levels and needs to be taken into consideration when designing foundations and setting the finished floor level of adjacent buildings.



#### Multi-dimensional confinement system

If a multi-dimensional confinement system (such as CellWeb<sup>™</sup> or similar) is to be used it is to be laid entirely above the existing soil surface over a geotextile membrane and or a bi-axel geo-grid (such as Tensar TriAx). Prior to this any small hollows on the surface may be filled with clean sharp sand (not builders' sand) to a maximum depth of 150mm. The 'CellWeb' is to be backfilled by hand with a no-fines aggregate of 20mm − 30mm. The use of an excavator/machinery to fill the confinement system may be possible at the discretion of the Project Arboriculturist.

The area of 'CellWeb' shall be covered with permeable geotextile fabric and the finished wearing course laid on top. The wearing course shall be permeable to both water and air to comply with 'SUDS' regulations.

Edge supports of an appropriate size and strength will be set above ground level and will be secured with either haunching or steel pins driven into the ground. The outer edge of the supports may be banked up with clean topsoil.

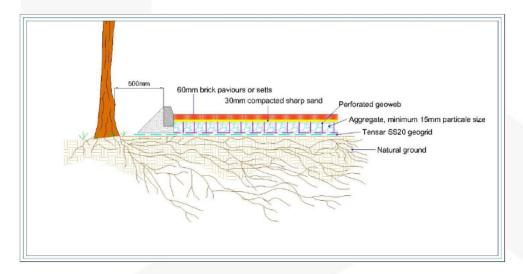


Figure 6: Typical cross-section for multi-dimensional confinement system using kerb edging



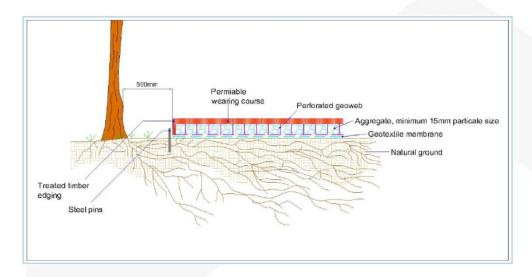


Figure 7: Typical cross-section for multi-dimensional confinement system using timber edging



#### Installation of a multi-dimensional confinement system

#### a) Prepare the surface

- Remove any surface rocks and debris;
- Create a level surface by filling in any hollows with clean angular stone or sharp sand;
- Do not level off any high spots or compact the soil through rolling.

#### b) Layout Geotextile membrane

- Layout the permeable Geotextile membrane, overlaying edges of the required area by 300mm;
- Overlap any joints by 300m or more.

#### c) Layout multi-dimensional confinement system (MDC)

- Layout the collapsed MDC system on-top of the Geotextile membrane;
- Place one steel pin into the centre cell at one end of the panel and secure it into the ground;
- Pull out the MDC to its full length (see manufacturers specifications), place a steel pin
  in the centre at the opposite end and secure it into the ground;
- Pull out the MDC to its full width (see manufacturers specifications), and secure each corner into the ground with steel pins;
- Create a panel to the correct size using the required number of steel pins (as per the manufacture specifications);
- Makes sure all cells are fully extended (as per manufactures specifications);
- Staple adjacent panels together (as per manufacturers specifications);
- If a curved shape is required, the panels are to be cut down to the required size and shape once the MDC is pinned out. Do not curve or bend panels into place.

#### d) Infill with clean angular stone

- The infill material must be a clean (no fines) angular stone (as per manufactures specifications)
- Do not use M.O.T type 1 or crushed stone with fines within or adjacent to RPAs;
- Infill the MDC cells with clean angular stone, working towards the tree using the infilled panels as a platform;
- No compaction is required of the infill. Do not use a whacker plate, roller, or any other means of compaction.

#### e) Edge restraints

 All kerb edging will be situated on top of the MDC within RPAs, do not excavate within RPAs to install kerb edging;



- Where edging is required for light structures, a peg and treated timber board edging is normally acceptable;
- Other options include wooden sleepers, plastic, or metal edging;
- The outer edges of the supports may be banked up with clean topsoil and or mulch.

#### f) Wearing course

- Install a permeable geotextile membrane, overlapping any joints by 300mm before laying the wearing course;
- Surfaces can include block paving, asphalt, loose gravel, resin-bound gravel, concrete
  etc.;
- Within RPAs the wearing course shall be permeable to both water and air.



#### Decking

The decking framework and posts within G05 and T32 are to be designed so that all the framework is situated entirely above the existing soil level and individual posts may be movable to prevent damage of roots 25mm or greater in diameter

Any roots that are to be cut will be cleanly severed by the project arboriculturist using a suitable hand saw or secateurs. The edge of all excavation closest to the retained trees will be covered over with damp hessian to prevent drying out, and where necessary be shuttered to prevent soil collapse or contamination by concrete.

#### Concrete foundations

Before concrete being poured to form the foundations within or immediately adjacent to the RPAs of retained trees the excavation is to be lined and sealed to prevent any leaching of the concrete into the soil and causing desiccation of retained roots by concrete runoff.

#### Manual excavation

Excavation within RPAs will be undertaken by hand under direct on-site arboricultural supervision of the required depth of the foundation; Or to a minimum of 600mm deep of any excavation, whether for proposed foundations, hard surfacing, or underground services. The total depth of the manual excavation will be determined by the arboriculturist whilst on site.

The soil is to be loosened with the aid of a fork or pickaxe and then cleared with the aid of an Air-spade, Air-vac and or shovel. Any roots found will be cleanly severed by the Project Arboriculturist with either a hand saw or secateurs.

Any roots found with a diameter of less than 25mm shall be cleanly severed by the Project Arboriculturist. Any roots of 25mm and above shall be excavated around without damaging them; the Project Arboriculturist shall decide if it is feasible or necessary to retain the root, if not it shall be severed.

The edge of the excavation closest to the trees will be covered with damp hessian to prevent soil collapse or contamination by concrete.

The soil beneath the depth may be sheet piled, regular piled or excavated deeper. Machinery may be used for this providing that it is situated outside of the RPA or has appropriate ground protection in place to move around on and work upon.



#### Prohibition

- Mechanical digging or scraping is not permitted within a defined root protection area or areas cordoned off by protective barrier fencing.
- No access will be permitted within the protected areas;
- No materials, equipment or debris will be stored within any of the fenced areas, or against the fencing;
- Fires are not permitted within 10m of any vegetation.
- Leaning objects against or attaching of objects to a tree is not permitted.
- Machinery, plant, and vehicles are not permitted to be washed down within 10m of vegetation.
- Chemicals and materials are not to be transported, stored, used, or mixed within a root
  protection area or areas cordoned off by protective barrier fencing.
- Cement silos, mixing site to be situated within a bunded area to prevent spillage/leaking
  of chemicals harmful to trees. These areas are to be sited well clear of protected trees.
- Refuelling of plant or machinery is prohibited within 10m of the construction exclusion zones.
- Allowance must be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.
- Where machinery is to be used within 5m of retained tree canopies a banks man will be required at all times whilst setting up, moving, or operating within this distance of retained trees canopies.
- Storage of all caustic material and chemicals are to be situated well clear of protected areas and preferably on lower ground if slopes are present, or to be situated within a bonded area to prevent any spills or leaks entering the ground.



### Site Management

The site manager will be responsible for briefing and inducting all personnel who will be working on any stage of this development and especially those who will be working within or adjacent to the canopies or RPAs of retained trees, and will make them aware of, and provide a copy of this method statement and tree protection plan drawing number Arbtech TPP 01; this is to include but not exclusively the movement and or operation of plant, excavations, unloading deliveries, mixing and or pouring of cement and concrete.

The site manager will be responsible for the day to day running and protection of all retained trees and for liaising with the project arborist about any tree-related matters and before any works that may or will affect the RPAs or canopies of retained trees; this is to include but not exclusively the movement and or operation of plant, excavations, unloading deliveries, mixing, pouring and storage of all caustic materials that may cause harm to retained trees.

Any incidents of damage to retained trees or tree protection measures will be documented by the site manager who will then report these incidents to the Project Arboriculturist immediately and make sure that works within this area cease until the project arborist has had an opportunity to inspect the damage and where appropriate, agree on a mitigation plan with the local planning authority tree officer.

The site manager may designate another person to take charge of briefing and inducting process of new site personnel or visitors in his absence.

If the site manager is replaced or is absent from the site for more than three consecutive working days, the project arborist will be informed, and a prestart meeting will be held with the new or acting site manager.

It is the responsibility of the site manager to ensure that the planning conditions attached to the planning consent are adhered to at all times and that a monitoring regime and supervision of any works within or adjacent to the RPAs are adopted.

If at any time pruning works are required other than those previously approved, permission must be sought from the LPA tree officer and once permission is granted, they are to be carried out by a suitably qualified person in accordance with BS3998:2010 Tree work – Recommendations.



#### Services

Existing services within the site will be retained wherever possible. Where existing services within RPAs require upgrading, the utmost care must be taken to minimise disturbance, and where feasible trenchless techniques are to be employed, and only where necessary should open excavations be considered.

Where new services are to be introduced into the site they will be located outside of RPAs, where they will not interfere with tree roots. If any excavations are required within the RPAs all trenches are to be excavated by hand and radially to the tree trunks under direct on-site arboricultural supervision and are to be carried out under NJUG guidelines.

Final positions of any proposed services will be verified and approved by the Project Arboriculturist and local authority tree officer before implementation.

#### **New Underground services**

Trenching for installation of underground services and drainage routes could sever any roots that may be present and as such adversely affects the health of the tree. For this reason, particular care will be taken in routing and methods of installation of all underground services. All underground services and drainage routes will be located so that no excavations are required within RPAs.

Where it has been impossible to keep underground services from passing through RPAs or within proximity to trees, these sections are to be installed in one of three ways in accordance with the guidance set out in National Joint Utilities Group guidelines (NJUG 4), under on-site arboricultural supervision.

#### Trenchless Techniques

There are three main types of trenchless techniques, these include, guided and unguided boring and pipe replacement by lining or bursting. These allow for the installation, maintenance, or renewal of underground services, without the disturbance of soil in which roots are likely to be growing. Starting and receiving pits for the boring machinery are to be located outside of the RPAs of any retained trees, with the bore depth being maintained at a minimum depth of 600mm below the existing ground level.

Techniques involving external lubrication of the equipment shall use no material other than water as other lubricants could contaminate the soil (e.g. oil, bentonite, etc.).



#### Manual Excavation

Excavation within RPAs will be undertaken by hand under direct on-site arboricultural supervision of the required depth of the foundation; Or to a minimum of 600mm deep of any excavation, whether for proposed foundations, hard surfacing, or underground services. The total depth of the manual excavation will be determined by the arboriculturist whilst on site.

The soil is to be loosened with the aid of a fork or pickaxe and then cleared with the aid of an Air-spade, Air-vac and or shovel. Any roots found will be cleanly severed by the Project Arboriculturist with either a hand saw or secateurs.

Any roots found with a diameter of less than 25mm shall be cleanly severed by the Project Arboriculturist. Any roots of 25mm and above shall be excavated around without damaging them; the Project Arboriculturist shall decide if it is feasible or necessary to retain the root, if not it shall be severed.

The edge of the excavation closest to the trees will be covered with damp hessian to prevent soil collapse or contamination by concrete.

The soil beneath the depth may be sheet piled, regular piled or excavated deeper. Machinery may be used for this providing that it is situated outside of the RPA or has appropriate ground protection in place to move around on and work upon.

#### Broken Trench – Hand Dug

This technique combines both trenchless techniques and manual excavation where excavation is unavoidable. Excavations will be limited to where there is clear access around and below the roots. All trenches shall be excavated by hand with the same precautions taken as for manual excavation. The open section of the trench will only be large enough to allow access for linking to the next section.



### Monitoring and Supervision

Where trees have been identified within this method statement and tree protection plan drawing number Arbtech TPP 01 for retention, there will be an auditable system of arboricultural monitoring. This is to extend to arboricultural supervision whenever demolition or construction activity is to take place within or adjacent to any canopy or RPA.

The development's tree protection measures are to be monitored and all demolition and construction works are to be undertaken within or adjacent to the RPAs of retained trees are to be supervised by Project Arboriculturist, who will be retained to record and report observations to the council at appropriate intervals.

#### Pre-commencement site meeting

Before the commencement of any works or machinery and materials arriving on site a precommencement site meeting involving the project arborist, landowner or agent, site manager, contractors and engineer (as appropriate) and the relevant LPA officers will be held to ensure that all aspects of the arboricultural method statement and tree protection are understood and for all parties to swap contact details (see Appendix 3).

#### Monitoring and supervision schedule

The initial monitoring visit will be to check that the tree protection measures are in the correct location and as specified within the approved method statement, if so to sign off their installation.

Thereafter, monitoring visits are to take place at regular intervals, to ensure that tree protection measures are in place and are functioning as designed or whenever necessary to undertake works to be carried out under arboricultural supervision. The frequency of the monitoring visits is to be agreed with the LPA tree officer at the pre-commencement site meeting.

A record of all arboricultural monitoring and supervision visits will be kept, and any faults will be logged, this will then be copied to the site agent, developer, and local planning authority in a digital format.

If during the development areas must be re-designed so that they would require changes to the approved arboricultural method statement or tree protection plan and so affecting retained trees the project arborist and LPA tree officer will be invited to attend a site meeting with all relevant parties. Before any changes being implemented these must have been approved in writing by the LPA tree officer.



## Supervision

The Project Arboriculturist will be required to attend site to directly supervise all demolition and construction works that are to be undertaken within or adjacent to the RPAs of all retained trees and will be advised a minimum of 72 hours before the commencement of any works that require his attendance, these will include:

- 1. Pre-commencement site meeting.
- Location of protective measures.
- 3. Installation of replacement hard surfacing within the RPAs of tree nos. G05, T02, T09, T16, T58, T66, T67, T69 and T70.
- 4. Installation of 'No Dig' hard surfacing within the RPAs of tree nos. G05, T34, T43, T61 and T66.
- 5. Supervised excavations for pile foundations for G02, G05, T32, T33.
- 6. Supervised excavations for decking posts for G05 and T32.
- 7. Any demolition and or excavations within or adjacent to RPAs, including foundations, hard surfacing or underground services (a non-exhaustive list).
- 8. Arboricultural sign off and removal of protective measures.

## Completion meeting

Once all construction works have been completed all materials and machinery has been removed from site the project arborist shall be informed and will invite the LPA tree officer to meet on site to discuss the process and discuss any final remedial works that may be required and to sign the development off so that the protective measures may be removed.



# **Appendix 1: Tree Survey Schedule**

Arbtech Consulting Limited is registered in England and Wales: 05678552. VAT: GB903660148

# BS5837:2012 Tree Survey

Client: Manor Coliving Limited

Project: Colne Spring Villa, Colney Heath, Hertfordshire, AL4 OPB

Survey Date: 09/07/2024 - 10/07/2024

Surveyor: Anthony Jones



# **Arbtech Consulting Ltd**

3 Well House Barns Chester Road Bretton

Cheshire CH4 0DH

Phone: 01244661170

Tree and Tag No		Hght		St	ems		rown			RP	Phys	Structural	Preliminary Recommendations	Cat
Species		(m)		No	Ø (mm)	Spread (m)		ear m)	Age	A (m²) R (m)	Condition	Condition	Survey Comment	ERC
G01													Estimated Measu	urements
A Group		21		1	480	N	3	7	М	A: 104.2	Fair	C: Fair		<b>B.2</b>
See comments for details						E	3	7 7		R: 5.75		S: Fair	riaritation crop of approxi 100. carry matter contact	20+ yrs
						S W	3	7				B: Fair	and pine trees planted 2-3 m apart. A number of trees in group are dead, declining or structurally failed. Measurements estimated and indicative of largest individual tree in group.	
G02													Estimated Measu	urements
A Group		21	:	1	350	N	3	8	М	A: 55.4	Fair	C: Fair		<b>B.2</b>
See comments for details						E	3	8		R: 4.19		S: Fair	Group of 14 early mature- mature larch plantation trees and 3	20+ yrs
						S	3	8				B: Fair	early mature oak trees located beyond fence line. Trees	,
						W	3	8					planted 2- 3 m apart. Minor root heave evident in 2 trees in group. Measurements estimated and indicative of largest individual tree in group.	
G03													Estimated Measu	urements
A Group		19		1	500	N	6	3	М	A: 113.1	Good	C: Good		<b>B.2</b>
See comments for details						E	6	3		R: 6		S: Good	Group of 6 trees located off the proposed site development.	20+ yrs
						S	6	3				B: Good	Species consist of beech, larch and pine. Measurements	,
						W	6	3					estimated and indicative of largest individual tree in group.	
G04													Estimated Measu	urements
A Group		21	:	1	430	N	3	9	М	A: 83.7	Fair	C: Fair		<b>B.2</b>
See comments for details						E	3	9		R: 5.16		S: Fair	Group of approx. 50 early mature- mature larch and pine	20+ yrs
						S	3	9				B: Fair	plantation trees. Trees planted 2-3 m apart. A number	
						W	3	9					recently failed and dead trees are within group. Measurements estimated and indicative of largest individual tree in group.	
Age Classifications:	N Y	Newly plan	ited		M Early M Matur	Mature		C	ondi	ion: C			Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definit	ition
	-	3	ıre		M Over	_				В		a	ERC: Estimated Remaining Contributio	uon

Tree and Tag No		Hght	9	Stems		own			RP	Phys	Structural	Preliminary Recommendations	Cat
Species		(m)	No	Ø (mm)	Spread (m)	Clea (m		Age	A (m²) R (m)	Condition	Condition	Survey Comment	ERC
G05												Estimated Me	asurements
A Group		21	1	450	N	3	9	М	A: 91.6	Good	C: Good		<b>B.2</b>
See comments for details					E S W	3 3 3	9 9 9		R: 5.39		S: Not visible B: Not visible	Plantation crop of approx. 300+ larch and pine trees planted 2-3 m apart with a number of self set birch and holly within group. Trees located off proposed site development.  Measurements estimated and indicative of largest individual	20+ yrs
												tree in group.	
G06												Estimated Me	asurements
A Group		20	1	420	N	3	7	М	A: 79.8	Fair	C: Fair		<b>B.2</b>
See comments for details					E S W	3 3	7 7 7		R: 5.03		S: Fair B: Fair	Plantation crop of approx. 40+ early mature - mature larch and pine trees planted 2- 3 m apart. A number of trees in group are dead, declining or have structurally failed. Measurements estimated and indicative of largest individual tree in group.	20+ yrs
G07												Estimated Me	asurements
A Group		18	1	370	N	4	3	М	A: 61.9	Good	C: Good		B.1.2
See comments for details					E S W	4 4 4	3 3 3		R: 4.43		S: Good B: Good	Group of 3 trees located off proposed site development. Species consist of larch, oak and hombeam. Measurements estimated and indicative of largest individual tree in group	20+ yrs
G08												Estimated Me	asurements
A Group		8	1	200	N	4	1	EM	A: 18.1	Good	C: Good		B.2
See comments for details					Е	2	1		R: 2.4		S: Good	Linear group of 6 semi mature - early mature trees located off-	20+ yrs
					S	4	1				B: Good	site on western boundary on road side verge. Species consist	20. 7.5
					W	4	1					of hawthorn, hornbeam, ash and hazel. Measurements estimated and indicative of largest individual tree in group.	
T01													
European Larch		18	1	340	N	3	8	М	A: 52.3	Dead	C: Poor		U
Larix decidua					E	3	8		R: 4.08		S: Poor	Dead tree.	n/a
					S W	2	8				B: Poor		
Age Classifications:	N Y SM	Newly plant Young Semi-matur		EM Early M Matu OM Over			C	ondit	ion: C S B	Stem		Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 de ERC: Estimated Remaining Contributio	finition

Tree and Tag No	Hal	h.#	St	ems		Crowi			RP	Dhus	Churchinal	Preliminary Recommendations	Cat
Species	Hgl (m		No	Ø (mm)	Spre (m		Clear (m)	Age	A (m²) R (m)	Phys Condition	Structural Condition	Survey Comment	Cat ERC
T02				(11111)	(III	'/	(111)		IX (III)			-	
T02		_		420		4.5	2.5	<b>-</b> 14	A - 70 0	Caral	C- C1		В. 2
Common Oak	16	D	1	420	N	4.5	3.5	EM	A: 79.8	Good	C: Good		B.2
Quercus robur					E S	6 6	3 2.5		R: 5.03		S: Good B: Good	Tree located at site entrance next to access road. No notable	20+ yrs
					W	5	2.5				b. Good	features observed.	
T03													
	18	0	1	E70	N	_	0.5	ΕМ	A. 147	Good	C. Cood		р э
Common Oak	18	8	1	570	N	5	0.5	EM	A: 147	G000	C: Good		<b>B.2</b>
Quercus robur					E S	6 6	0.5		R: 6.84		S: Fair B: Good	Tree located onsite. 300 mm diameter Cambium/ bark damage	20+ yrs
					W	5.5	0.5 0.5				D. G000	on north side of main stem, 1 m from ground level.	
					VV	5.5	0.5						
T04													
European Larch	18	8	1	230	N	1	7	EM	A: 23.9	Fair	C: Fair		C.2
Larix decidua					Е	1	7		R: 2.75		S: Good	Tree located onsite within plantation group. Evidence of minor	10+ yrs
					S	1	7				B: Fair	root heave at base of tree. Sparse crown.	
					W	1.5	7					•	
T05													
European Larch	18	8	1	230	N	1	7	EM	A: 23.9	Fair	C: Fair		C.2
Larix decidua					Ε	1	7		R: 2.75		S: Good	Tree located onsite within plantation group. Sparse crown.	10+ yrs
					S	2	7				B: Fair	Tree located offsite within plantation group. Sparse crown.	10. 713
					W	1.5	7						
T06													
Common Oak	16	6	1	280	N	5	1	EM	A: 35.5	Good	C: Good		<b>B.2</b>
Quercus robur					Ε	2.5	4		R: 3.36		S: Good	Tree located within plantation group. No notable features	20+ yrs
					S	4	4				B: Good	observed.	20. 7.0
					W	4.5	1					0555, 1041	
T07													
Common Oak	11	1	1	210	N	3.5	4	SM	A: 20	Good	C: Good		C.1.2
Quercus robur					Ε	3.5	4		R: 2.52		S: Fair	Tree located within plantation group. Prolific epicormic growth	10+ yrs
					S	5.5	3				B: Good	around main stem up to 3 m.	10. 113
					W	3.5	3						
Age Classifications:	N Newly p	olante	ed F	M Early	Mature	9	C	ondit	ion: C	Crown		Stems: Ø Diameter	
. gr c.mcciniounionio.	Y Young			M Matur				J <b>u</b> .t	S			(Eq) Equivalent stem diameter using BS5837:2012 def	finition
	SM Semi-m	atura		M Over					В			ERC: Estimated Remaining Contributio	

Tree and Tag No		labt	St	tems		Crowi			RP	Dhus	Ctwesternal	Preliminary Recommendations	Cat
Species		lght (m)	No	Ø	Spre		Clear	Age	A (m²) R (m)	Phys Condition	Structural Condition	Survey Comment	Cat ERC
T00				(mm)	(m	)	(m)		K (III)			•	
T08													
Common Oak		8	1	150	N	2	3	SM	A: 10.2	Good	C: Good		C.1.2
Quercus robur					E	2.5	2		R: 1.8		S: Good	Tree located within plantation group. 10 degree phototrophic	10+ yrs
					S	2	1.5				B: Good	lean to the south east.	
					W	2	1.5						
T09													
Common Oak		16	1	310	N	4.5	3	EM	A: 43.5	Good	C: Good		B.1.2
Quercus robur					Ε	4	1		R: 3.72		S: Good	Tree located within plantation group. 50- 100 mm diameter	20+ yrs
					S	6.5	2				B: Good	deadwood on west side of crown.	20 - 7.0
					W	6.5	2						
T10													
Scots Pine		20	1	470	N	3	15	М	A: 99.9	Good	C: Fair		B.1.2
Pinus sylvestris					Ε	3	15		R: 5.63		S: Good	Tree located within plantation group. 50- 100 mm diameter	20+ yrs
					S	2.5	15				B: Good	deadwood throughout crown.	20 - 7.0
					W	3.5	15						
T11													
Common Oak		18	1	310	N	4	0	EM	A: 43.5	Good	C: Good		B.1.2
Quercus robur					Ε	5	0		R: 3.72		S: Good	T	20+ yrs
					S	5	0				B: Fair	Tree located within plantation group. Powdery Mildew present in lower crown.	20+ yis
					W	5	0					iii lowel crown.	
T12													
Common Oak		11	1	200	N	3	1.5	SM	A: 18.1	Good	C: Good		C.1.2
Quercus robur					E	2.5	2		R: 2.4		S: Good		10+ yrs
					S	2	2				B: Good	Tree located within plantation group. No notable features observed.	10+ yis
					W	2.5	2					observed.	
T13													
Common Oak		16	1	250	N	3.5	1	SM	A: 28.3	Good	C: Good		B.1.2
Quercus robur					Ε	4	2		R: 3		S: Good	Tree located within plantation group. No notable features	20+ yrs
					S	3.5	1.5				B: Good	observed.	20. 713
					W	3.5	1					9350.104.	
Age Classifications:		y plant			Mature	9	C	ondit				Stems: Ø Diameter	inition
	Y Youn	•		M Matur					S			(Eq) Equivalent stem diameter using BS5837:2012 def	inition
	SM Semi	-matur	е (	OM Over	wature				В	Basal are	d	ERC: Estimated Remaining Contributio	

Tree and Tag No	Hght	S	Stems		Crown			RP	Dhue	Structural	Preliminary Recommendations	Cat
Species	(m)	No	Ø (mm)	Sprea (m)		Clear (m)	Age	A (m²) R (m)	Phys Condition	Condition	Survey Comment	Cat ERC
T14												
Common Oak	16	1	350	N	6	3	EM	A: 55.4	Good	C: Good		B.1.2
Quercus robur				Ε	7.5	4		R: 4.19		S: Good	Tree located next to open garage and fence line boundary. No	20+ yrs
				S	5.5	3				B: Good	notable features observed.	
				W	5	2.5						
T15												
Common Holly	4.5	1	130	N	3	1.5	SM	A: 7.6	Good	C: Good		C.1.2
Ilex aquifolium				Ε	3.5	1.5		R: 1.55		S: Good	Tree located next to open garage and fence line boundary.	10+ yrs
				S	3.5	1				B: Fair	100 mm Longitudinal bark/ cambium damage on north west	
				W	2.5	1					side of basal area.	
T16												
Common Beech	17	1	560	N	5.5	1	EM	A: 141.9	Good	C: Good		B.1.2
Fagus sylvatica				Ε	6	1		R: 6.72		S: Good	Tree located within plantation group on fence line boundary.	20+ yrs
				S	5.5	0.5				B: Good	100 mm Longitudinal cavity on south east side of main stem,	•
				W	6	0.5					0.5 m from ground level.	
T17												
Downy Birch	7	1	440	N	3	1	М	A: 87.6	Decline	C: Poor		U
Betula pubescens				Ε	3	1		R: 5.28		S: Poor	Tree located on fence line boundary. Bark necrosis and	<10 yrs
				S	3	1				B: Fair	significant 1 m Longitudinal decay on south east side of main	120 /10
				W	3	1					stem. Historic pruning consistent with topping at 5 m from	
											ground level.	
T18												
European Larch	15	1	400	N	1	8	М	A: 72.4	Dead	C: Poor		U
Larix decidua				E	3	8		R: 4.8		S: Poor	Dead tree.	n/a
				S	1	8				B: Fair		
				W	1	8						
T19		_	0.55									
European Larch	15	1	350	N	1	4	М	A: 55.4	Dead	C: Poor		U
Larix decidua				E	3.5	4		R: 4.19		S: Poor	Dead tree.	n/a
				S	1	4				B: Fair		
				W	0.5	4						
Age Classifications:	N Newly plan	ted	EM Early	Mature			Condit	ion: C	Crown		Stems: Ø Diameter	
go c.accilloanono.	Y Young		M Matur			Ì		S	Stem		(Eq) Equivalent stem diameter using BS5837:2012 del	inition
	SM Semi-matu	ге	OM Over					В		a	ERC: Estimated Remaining Contributio	

Tree and Tag No		Hght	S	tems		Crowi	1		RP	Dhue	Structural	Preliminary Recommendations	Cat
Species		(m)	No	Ø (mm)	Spre (m		Clear (m)	Age	A (m²) R (m)	Phys Condition	Condition	Survey Comment	ERC
T20													
Common Oak		11	1	270	N	3.5	1	SM	A: 33	Good	C: Good		B.1.2
Quercus robur					E	3.5	2		R: 3.24		S: Good	Tree located with plantation group on southern boundary. No	20+ yrs
					S	3	2				B: Good	notable features observed.	
					W	3.5	1.5						
T21													
Downy Birch		15	1	310	N	5	1	EM	A: 43.5	Good	C: Good		B.1.2
Betula pubescens					E	3.5	1		R: 3.72		S: Good	Tree located with plantation group on southern boundary. No	20+ yrs
					S	4	1				B: Good	notable features observed.	•
					W	5	1						
T22													
Common Oak		15	1	320	N	3.5	1	SM	A: 46.3	Decline	C: Good		U
Quercus robur					Е	3.5	0		R: 3.83		S: Fair	Tree located near access road within plantation group.	<10 yrs
					S	2.5	0				B: Poor	Ganoderma sp. Located on north side of basal area. Sounding	,
					W	3	0.5					hammer- indicates hollowing on west side of basal area.	
T23													
Common Oak		19	1	470	N	4.5	5	M	A: 99.9	Fair	C: Good		C.1.2
Quercus robur					Ε	4	6		R: 5.63		S: Fair	Tree located within plantation group. Bleeding canker / black	10+ yrs
					S	6	6				B: Good	spot oozing on east and west side of main stem. 100 mm	,
					W	6	4					diameter deadwood present on north side of crown, 10 m from	
												ground level.	
T24		40		225 /5-	\ N	2	2.5	<b>514</b>		5 li	C. D.		
Common Oak		12	2	225 (Ed		3	2.5	EM	A: 22.8	Decline	C: Poor		U
Quercus robur					E S	2	2		R: 2.69		S: Good B: Poor	Previously coppiced tree located within plantation group. Both	<10 yrs
					W	2.5	3				D. P001	stems have significant 6 m dieback.	
					VV	2.3							
T25		10		E70	N	_	1.4	М	A. 147	Cood	C. Foir		D 1 2
Common Oak <i>Quercus robur</i>		18	1	570	N E	5 6	14 15	М	A: 147 R: 6.84	Good	C: Fair S: Good		B.1.2
Quercus Tobul					S	6	12		K. 0.04		B: Good	Tree located onsite on western boundary. 50-150 mm	20+ yrs
					W	6	12				D. 0000	diameter deadwood throughout crown. Partially ivy covered stem.	
Age Classifications:		wly plant	ed	_	Mature	)	C	ondit				Stems: Ø Diameter	
	Y You	•	•	M Matur					S			(Eq) Equivalent stem diameter using BS5837:2012 def	inition
	SM Ser	nı-matur	е	OM Over	wature				В	Basal area	3	ERC: Estimated Remaining Contributio	

Tree and Tag No	lla.	hŧ	St	tems		Crown			RP	Dhue	Structural	Preliminary Recommendations	Cat
Species	Hg (m		No	Ø (mm)	Spre (m		Clear (m)	Age	A (m²) R (m)	Phys Condition	Condition	Survey Comment	ERC
T26				(11111)	(	,	(1117		,				
Common Oak	1	R	1	380	N	8	4	М	A: 65.3	Good	C: Good		B.1.2
Quercus robur	1,	0	1	300	E	3	8		R: 4.55	Good	S: Good		
Quereus robui					S	6	7		11. 1.55		B: Good	Tree located off-site on road side verge. 100 mm diameter, 6 m length dead branch on south west side of crown, 6 m from	20+ yrs
					W	8	7					ground level.	
T27													
Common Oak	1	9	1	430	N	6	10	М	A: 83.7	Good	C: Fair		B.1.2
Quercus robur					Ε	6	10		R: 5.16		S: Good	Tree located onsite on western boundary. 100 mm diameter, 5	20+ yrs
					S	7	12				B: Good	m length dead branch west side of crown, 10 m from ground	20. 7.0
					W	7	8					level.	
T28													
Common Oak	1	9	1	1330	N	8.5	9	М	A: 707	Fair	C: Fair		A.1.2
Quercus robur					Ε	8.5	9		R: 15		S: Fair	Tree located on western boundary line. 100-400 mm diameter	40+ yrs
					S	8	5				B: Good	deadwood throughout crown. Ecologically important features	•
					W	9	10					observed.	
T29													
Common Hornbeam	1	5	3	510 (Ed	q) N	6.5	2	М	A: 117.5	Good	C: Good		B.1.2
Carpinus betulus					Е	7	1		R: 6.11		S: Fair	Tree located on western boundary. 300 mm longitudinal	20+ yrs
					S	4.5	4.5				B: Good	cavity on south side stem almost completely occluded. Three	
					W	6	4					codominant stems with included bark unions.	
T30													
Common Hornbeam	1	5	2	474 (Ed	q) N	6.5	0.5	М	A: 101.7	Fair	C: Good		B.1.2
Carpinus betulus					Ε	9.5	0		R: 5.68		S: Good	Tree located onsite on western boundary. 100 mm diameter	20+ yrs
					S	5.5	0.5				B: Fair	severed root on west side of tree.	
					W	8	2						
T31													
Common Oak	1	3	1	190	N	2	4	SM	A: 16.3	Fair	C: Fair		C.1.2
Quercus robur					Е	2	3		R: 2.27		S: Good	Tree located within plantation group. Leading stem has 1 m	10+ yrs
					S	3	3				B: Not visible	dieback. Basal area not visible due to surrounding	
					W	3	3					undergrowth.	
Age Classifications:	N Newly p	olant		•	Mature	)	С	ondit				Stems: Ø Diameter	
	Y Young			M Matu					S			(Eq) Equivalent stem diameter using BS5837:2012 defi	nition
	SM Semi-m	ıatur	е (	OM Over	wature				В	Basal area	1	ERC: Estimated Remaining Contributio	

Tree and Tag No	Hght		Stems		Cro	wn			RP	Phys	Structural	Preliminary Recommendations	Cat
Species	(m)	No	Ø (mn		pread (m)	Clea (m)		Age	A (m²) R (m)	Condition	Condition	Survey Comment	ERC
T32													
Common Hornbeam	16	10	727	(Eq) N		5	1	М	A: 239.3	Good	C: Good		B.1.2
Carpinus betulus				Е		5	0		R: 8.72		S: Good	Tree located off-site on western boundary. 10 stems of various	20+ yrs
				S		6	3				B: Good	size. Average stem diameter recorded.	20. 113
				W	1	6	1						
T33													
Common Oak	20	1	360	N		6	5	EM	A: 58.6	Good	C: Good		B.1.2
Quercus robur				E		5	3		R: 4.31		S: Good	Tree located within plantation group. No notable features	20+ yrs
				S		6	4				B: Good	observed.	
				W	1	8	12						
T34													
Common Oak	22	2	659	(Eq) N		6	4	М	A: 196.2	Good	C: Good		B.1.2
Quercus robur				E		8	3		R: 7.9		S: Good	Tree located near western boundary. Oak processionary moth	20+ yrs
				S		6	3				B: Good	identified on lower stem. Two codominant stems with a	•
				W	8.	.5	6					naturally formed union.	
T35													
Common Oak	18	1	290	N		4	2	EM	A: 38.1	Good	C: Good		B.1.2
Quercus robur				E		4	0		R: 3.48		S: Good	Tree located within plantation group. No notable features	20+ yrs
				S		5	1.5				B: Good	observed.	
				W		5	2						
T36													
Common Oak	13	1	240	N		4		SM	A: 26.1	Good	C: Good		B.1.2
Quercus robur				E		5	2		R: 2.88		S: Good	Tree located within plantation group. No notable features	20+ yrs
				S		4	3				B: Good	observed.	
				W	3.	.5	1						
T37													
Common Oak	18	2	633	(Eq) N		3	6	М	A: 181	Fair	C: Poor		C.1.2
Quercus robur				E		6	4		R: 7.59		S: Fair	Tree located onsite on western boundary. Eastern stem is	10+ yrs
				S		4	4				B: Good	completely dead. Western stem has substantial	
				W	l	8	8					deadwood in lower crown.	
Age Classifications:	N Newly pla	nted		arly Mat	ture		C	ondit				Stems: Ø Diameter	
	Y Young			ature					S			(Eq) Equivalent stem diameter using BS5837:2012 def	inition
	SM Semi-mat	ure	OM O	ver Mat	ure				В	Basal area	1	ERC: Estimated Remaining Contributio	

Tree and Tag No		Hght	S	tems		rown			RP	Phys	Structural	Preliminary Recommendations	Cat
Species		(m)	No	Ø (mm)	Spread (m)		ear m)	Age	A (m²) R (m)	Condition	Condition	Survey Comment	ERC
T38					-								
Common Oak		18	1	520	N	6	8	М	A: 122.3	Good	C: Good		<b>B.1.2</b>
Quercus robur					E	5	6		R: 6.23		S: Good	Tree located off-site on road side verge. No notable features	20+ yrs
					S	6	5				B: Good	observed.	
					W	7	8						
T39													
Common Oak		19	1	460	N	7	10	M	A: 95.7	Fair	C: Fair		<b>B.1.2</b>
Quercus robur					E	6	8		R: 5.51		S: Good	Tree located onsite on western boundary. 50-100 mm	20+ yrs
					S	7	8				B: Good	diameter deadwood throughout crown.	•
					W	8	8					-	
T40													
Common Oak		12	1	250	N	4	2	SM	A: 28.3	Fair	C: Good		C.1.2
Quercus robur					E	7	0		R: 3		S: Poor	Tree located within plantation group. Heavy 60 degree leaning	10+ yrs
					S	6.5	0				B: Fair	tree to the east.	,
					W	3	3						
T41													
Common Oak		3	1	110	N	1	1	Υ	A: 5.5	Good	C: Good		C.1.2
Quercus robur					E	3	1		R: 1.32		S: Good	Tree located within plantation group. No notable features	10+ yrs
					S	3	1				B: Good	observed.	10. 110
					W	3	1						
T42													
Common Oak		19	1	490	N	7	7	M	A: 108.6	Good	C: Good		<b>B.1.2</b>
Quercus robur					Е	3	7		R: 5.87		S: Good	Tree located off-site on western boundary on road side verge.	20+ yrs
					S	6	7				B: Good	No notable features observed.	,
					W	8	7						
T43													
Common Beech		20	2	718 (Ed	a) N	6.5	6	M	A: 233.5	Good	C: Good		A.1.2
Fagus sylvatica					Ε (	6.5	6		R: 8.62		S: Good	Tree located onsite next to western boundary. Two	40+ yrs
					S	6	8				B: Good	Codominant stems with a naturally formed union. Two dead	,
					W	6.5	6					branches 75-100 mm diameter 5 and 7 m in length on east side of crown, 3 m from ground level.	
Age Classifications:	N	Newly plant	ed	_	Mature		С	ondit				Stems: Ø Diameter	
		Young		M Matur					S	Stem		(Eq) Equivalent stem diameter using BS5837:2012 defi	inition
	SM	Semi-matur	е	OM Over	Mature				В	Basal area	a	ERC: Estimated Remaining Contributio	

Tree and Tag No	11		Sten	ns		Crowi	n		RP	Dhara	Structural	Preliminary Recommendations	0-1
Species	Hght (m)	N	lo	Ø (mm)	Spre (m)		Clear (m)	Age	A (m²) R (m)	Phys Condition	Condition	Survey Comment	Cat ERC
T44				(11111)	(III)	, .	(111)		,			-	
T44			_										
Common Oak	10	1	2	80	N	4	4	EM	A: 35.5	Good	C: Fair		B.1.2
Quercus robur					E	2	4.5		R: 3.36		S: Good	Tree located onsite on western boundary. 200 mm diameter	20+ yrs
					S	2	5				B: Good	torn limb on west side of crown, 4 m from ground level.	
					W	6	5						
T45													
Mountain Ash	5	1	8	30	N	1.5	1	SM	A: 2.9	Good	C: Good		C.1.2
Sorbus aucuparia					E	2	1		R: 0.96		S: Good	Tree located within plantation group. No notable features	10+ yrs
					S	1	1				B: Good	observed.	20 1 /10
					W	1	1						
T46													
Common Oak	6	4	3	78 (Eq)	N	3	2	SM	A: 64.6	Dead	C: Poor		U
Quercus robur					Ε	1	2		R: 4.53		S: Poor	Dead tree.	n/a
					S	1	2				B: Poor	beau tree.	.,, a
					W	3	2						
T47													
Common Oak	16	1	2	20	N	8.5	4	EM	A: 21.9	Good	C: Good		B.1.2
Quercus robur					Ε	3	5		R: 2.64		S: Good	Tree located onsite within plantation group. Asymmetrical	20+ yrs
					S	2.5	5				B: Good	crown due to neighbouring trees.	20. 7.0
					W	4	5						
T48													
Common Oak	8.5	1	1	60	N	3	2	SM	A: 11.6	Good	C: Good		C.1.2
Quercus robur					Е	2.5	0.5		R: 1.92		S: Good	Tree located within plantation group. No notable features	10+ yrs
					S	2.5	0				B: Good	observed.	10. 713
					W	2.5	0.5					353.733.	
T49													
Common Hazel	8.5	10	) 2	53 (Eq)	N	4	0	EM	A: 29	Good	C: Good		B.1.2
Corylus avellana					Ε	5	0		R: 3.03		S: Good	Tree located within plantation group. 10 main stems, average	20+ yrs
					S	3	0				B: Good	stem diameter recorded.	20 : /10
					W	3	0						
Age Classifications:	N Newly plan	nted	EM	Early I	Mature	)	C	ondit	ion: C	Crown		Stems: Ø Diameter	
	Y Young		M	Mature	Э				S	Stem		(Eq) Equivalent stem diameter using BS5837:2012 def	inition
	SM Semi-mate	ure	OM	Over N	<b>Mature</b>				В	Basal area	1	ERC: Estimated Remaining Contributio	

Tree and Tag No	11.	ıht -	S	tems		Crowi			RP	Dhue	Structural	Preliminary Recommendations	Cat
Species		n)	No	Ø (mm)	Spre (n		Clear (m)	Age	A (m²) R (m)	Phys Condition	Condition	Survey Comment	ERC
T50		·											
Common Oak	1	7	1	380	N	3.5	7	EM	A: 65.3	Good	C: Good		B.1.2
Quercus robur					E	3	7.5		R: 4.55		S: Good	Tree located within plantation group. Asymmetrical crown due	20+ yrs
					S	4	7.5				B: Good	to neighbouring trees.	20 - 7.0
					W	6	6						
T51													
Common Hazel		8	10	253 (E	q) N	5	2	EM	A: 29	Good	C: Good		C.1.2
Corylus avellana					Е	4.5	0.5		R: 3.03		S: Good	Tree located near western boundary. 20+ stems, average	10+ yrs
					S	3	2				B: Good	stem diameter recorded.	
					W	1.5	2						
T52													
Common Oak	1	2	1	700	N	3	4	М	A: 221.7	Dead	C: Poor		U
Quercus robur					E	6	4		R: 8.4		S: Poor	Dead tree.	n/a
					S	4	4				B: Poor	beau dec.	.,
					W	4	2						
T53													
Common Hazel		7	10	253 (E	q) N	2	2	EM	A: 29	Good	C: Good		C.1.2
Corylus avellana					E	5	0		R: 3.03		S: Good	Tree located near western boundary. 10+ stems, average	10+ yrs
					S	2.5	2				B: Good	stem diameter recorded.	10. 1.0
					W	3	2						
T54													
Common Oak	1	8	1	460	N	5	6	М	A: 95.7	Poor	C: Fair		U
Quercus robur					E	3	7		R: 5.51		S: Poor	Tree located on western boundary. Major bark necrosis and	<10 yrs
					S	5	5				B: Poor	honey fungus present on south west side of stem and basal	
					W	6.5	3					area. 50-150 mm diameter deadwood throughout west side of lower crown.	
T55													
Common Oak	2	20	1	1110	N	8	6	М	A: 557.5	Fair	C: Fair		A.1.2
Quercus robur					E	12	5		R: 13.32		S: Not visible	Tree located on western boundary line. Ivy covered stem	40+ yrs
					S	11	9				B: Good	restricting survey. Oak processionary moth present. 100-300	10. 713
					W	11	8					mm diameter deadwood throughout crown.	
Age Classifications:	N Newly	plante	ed	EM Early	y Matur	e	C	ondit	ion: C	Crown		Stems: Ø Diameter	
. ago olaooilloations.	Y Young	p		M Matu			•	J. Tull	S	Stem		(Eq) Equivalent stem diameter using BS5837:2012 defi	nition
	SM Semi-n	nature	е	OM Over		9			В		а	ERC: Estimated Remaining Contributio	

Tree and Tag No	Habt		Ste	ems		Crow			RP	Dhus	Structural	Preliminary Recommendations	Cat
Species	Hght (m)		No	Ø (mm)	Spre (m		Clear (m)	Age	A (m²) R (m)	Phys Condition	Condition	Survey Comment	Cat ERC
TEC				(11111)	_ (III	'/	(111)		IX (III)			-	
T56				200			0.5			6 1	6 6 1		0.4.0
Mountain Ash	9		1	200	N	3	0.5	EM	A: 18.1	Good	C: Good S: Fair		C.1.2
Sorbus aucuparia					E S	4 3.5	2 2.5		R: 2.4			Tree located within plantation group. Two codominant stems	10+ yrs
					W	3.5	1.5				B: Good	with an included union, 3 m from ground level.	
T57													
European Larch	20		1	290	N	2	12	М	A: 38.1	Fair	C: Fair		B.1.2
Larix decidua					E	2	12		R: 3.48		S: Good	T	20+ yrs
					S	2	12				B: Good	Tree located on fence line and part of original plantation crop.	201 yis
					W	2	12						
T58													
European Larch	20		1	280	N	3	12	М	A: 35.5	Fair	C: Fair		C.1.2
Larix decidua					E	3	12		R: 3.36		S: Poor	Tree located near gate entrance and access road. Tree part of	10+ yrs
					S	3	12				B: Good	original crop plantation. 1 m Longitudinal cavity on east side of	,
					W	1.5	12					main stem, 1 m from ground level.	
T59													
European Larch	20		1	260	N	1	5	М	A: 30.6	Fair	C: Fair		<b>B.1.2</b>
Larix decidua					E	2	5		R: 3.12		S: Good	Tree located near western boundary. Tree part of original	20+ yrs
					S	3	5				B: Good	plantation crop.	•
					W	0.5	5						
T60													
European Larch	20		1	180	N	2	6	М	A: 14.7	Fair	C: Fair		<b>B.1.2</b>
Larix decidua					E	2	6		R: 2.16		S: Good	Tree located near western boundary. Tree part of original	20+ yrs
					S	2	6				B: Good	plantation crop.	
					W	2	6						
T61													
European Larch	21		1	440	N	3.5	10	М	A: 87.6	Good	C: Good		B.1.2
Larix decidua					Ε	2.5	10		R: 5.28		S: Good	Tree located near access driveway. Dense undergrowth	20+ yrs
					S	3.5	10				B: Not visible	restricting survey. Tree part of original plantation crop.	,
					W	3	10						
Age Classifications:	N Newly pla	inted		M Early		9	C	ondi				Stems: Ø Diameter	
	Y Young		V						S			(Eq) Equivalent stem diameter using BS5837:2012 def	inition
	SM Semi-mat	lure	U	M Over	wature	;			В	Basal area	a	ERC: Estimated Remaining Contributio	

Tree and Tag No		Hght (m)	Stems		Crown				RP	Dhus	Ctwesternal	Preliminary Recommendations	C-1
Species			No	Ø (mm)	Spre (m		Clear (m)	Age	A (m²) R (m)	Phys Condition	Structural Condition	Survey Comment	Cat ERC
T62				(11111)	(	''	(111)		,				
European Larch		20	1	330	N	4	12	М	A: 49.3	Good	C: Good		B.1.2
Larix decidua			-		E	4	12		R: 3.96	-	S: Good	T	20+ yrs
					S	1.5	12				B: Not visible	Tree located onsite. Dense undergrowth restricting survey. Tree part of original plantation crop.	20 <b>T</b> yis
					W	2.5	12					rice part of original plantation crop.	
T63													
Common Oak		8	1	210	N	8	4	SM	A: 20	Fair	C: Fair		C.1.2
Quercus robur					Ε	3	4		R: 2.52		S: Good	Tree located onsite. 45 degree Phototrophic leaning tree	10+ yrs
					S	1	4				B: Good	towards the north.	/
					W	2.5	4						
T64													
European Larch		8	1	140	Ν	2	4	Υ	A: 8.9	Good	C: Good		C.1.2
Larix decidua					E	2	4		R: 1.68		S: Good	Tree located onsite. Tree part of original plantation crop.	10+ yrs
					S	2	4				B: Good	The located offsite. The part of original plantation crop.	•
					W	2	4						
T65													
European Larch		8	1	150	N	2	4	Υ	A: 10.2	Good	C: Good		C.1.2
Larix decidua					Е	2	4		R: 1.8		S: Good	Tree located onsite. Tree part of original plantation crop.	10+ yrs
					S	2	4				B: Good	The located offsite. The part of original plantation crop.	,
					W	2	4						
T66													
European Larch		19	1	300	N	2.5	10	М	A: 40.7	Good	C: Good		B.1.2
Larix decidua					E	2.5	10		R: 3.59		S: Good	Tree located next to access road. Tree part of original	20+ yrs
					S	3	10				B: Good	plantation crop.	
					W	2.5	10						
T67													
Common Oak		12	1	180	N	3.5	2	EM	A: 14.7	Good	C: Good		C.1.2
Quercus robur					E	2.5	2		R: 2.16		S: Good	Tree located next to access road. No notable features	10+ yrs
					S	3.5	2				B: Good	observed.	
					W	4	2						
Age Classifications:		y plant			Mature	е	C	ondit				Stems: Ø Diameter  (Fa) Farity least stem diameter using RS5927:2012 d	ofinition
	Y Youn			M Matur OM Over		,			S			(Eq) Equivalent stem diameter using BS5837:2012 d  ERC: Estimated Remaining Contributio	enniuon
	SIVI SelfIII	-matul	6	Owi Over	wature	,			В	Basal area	a	ERC: Estimated Remaining Contributio	

Tree and Tag No	Hal	h.#	Sto	Stems		Crown			RP	Dhus	Churchinal	Preliminary Recommendations	0-1
Species	Hgl (m		No	Ø (mm)	Spre		Clear	Age	A (m²) R (m)	Phys Condition	Structural Condition	Survey Comment	Cat ERC
T.00				(mm)	(m	1)	(m)		K (III)			•	
T68													
Common Oak	8.	5	1	140	N	4.5	6	SM	A: 8.9	Good	C: Good		C.1.2
Quercus robur					E	2.5	5		R: 1.68		S: Good	Tree located near to access road. No notable features	10+ yrs
					S	5	5				B: Good	observed.	
					W	5	6						
T69													
European Larch	18	8	1	230	N	2	12	М	A: 23.9	Dead	C: Poor		U
Larix decidua					Ε	2	12		R: 2.75		S: Poor	Dead tree.	n/a
					S	2	12				B: Poor	Dead tree.	.,,
					W	2	12						
T70													
Scots Pine	20	0	1	380	N	1	12	М	A: 65.3	Good	C: Good		B.1.2
Pinus sylvestris					Ε	3.5	12		R: 4.55		S: Good	Tree located next to access road. Basal area partially covered	20+ yrs
					S	4	12				B: Not visible	by log pile restricting survey. Tree part of original plantation	20 - 7.0
					W	2	12					crop.	
T71													
Common Beech	18	8	1	620	N	7.5	8	М	A: 173.9	Good	C: Good		A.1.2
Fagus sylvatica					Ε	8.5	3.5		R: 7.44		S: Good	Tree located onsite on western boundary. No notable features	40+ yrs
					S	6	4				B: Good	observed.	10. 713
					W	8.5	7					0.000.700.1	
T72													
European Larch	15	5	1	150	N	1	6	М	A: 10.2	Dead	C: Poor		U
Larix decidua					Ε	1	6		R: 1.8		S: Poor	Dood tree	n/a
					S	1	6				B: Poor	Dead tree.	nya
					W	1	6						
T73													
European Larch	15	5	1	200	N	1	6	М	A: 18.1	Dead	C: Poor		U
Larix decidua					Ε	1	6		R: 2.4		S: Poor	Dead tree.	n/a
					S	1	6				B: Poor	Dead tree.	11/4
					W	1	6						
Age Classifications:	N Newly p	olante	ed E	M Early	Mature	Э	C	ondit	tion: C	Crown		Stems: Ø Diameter	
	Y Young			Matur					S	Stem		(Eq) Equivalent stem diameter using BS5837:2012 def	inition
	SM Semi-m	ature	9 0	M Over	Mature	)			В		9	ERC: Estimated Remaining Contributio	

Tree and Tag No	Harlet	St	ems	Crown Spread Clear (m) (m)			RP A (m²) R (m)	Di	Character I	Preliminary Recommendations Survey Comment	
Species	Hght (m)	No	Ø (mm)			Age		Phys Condition	Structural Condition		
T74											
Field Maple	8	1	250	N	3	1 EM	A: 28.3	Good	C: Good		<b>B.1.2</b>
Acer campestre				E	3	1	R: 3		S: Good	Tree located off-site on road side verge. No notable features	20+ yrs
				S	2	1			B: Good	observed.	20. 7.0
				W	4	1					

Age Classifications:	N Newly pla	nted EM	Early Mature	Condition:	С	Crown	Stems:	Ø	Diameter
	Y Young	M	Mature		S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM Semi-ma	ure OM	Over Mature		В	Basal area	ERC:	Est	imated Remaining Contributio



# **Appendix 2: Tree Protection Notice**

(To be printed at A3 or larger)

# Tree Protection Area KEP OUT

# Do not move this fence

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS
AND/OR ARE THE SUBJECT 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



Unit 3, Well House Barn, Chester Road, Chester, CH4 0DH https://arbtech.co.uk - 01244 661170



# **Appendix 3: Contact Details**

Name	Position	Company	Contact
	Client		
	Agent / Project Manager		
	Tree Officer		
	Project Arboriculturist	Arbtech Consulting Ltd.	01244 661170 https://arbtech.co.uk
	Site Manager		
	Main contractor		



# **Document Production Record**

Document number	Editor	Signature	Position	Issue number	Date
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