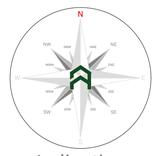
**Arboricultural supervision:**
Excavation for the installation of foundations within the RPA of tree 2 will be undertaken manually under strict arboricultural supervision.




## Tree Work Schedule

| No. | Species | Works | Category |
|---|---|---|---|
| 2 | Common walnut | Prune the northern aspect of the crown to the legal boundary to facilitate the construction of the proposed dwelling. | C1 |

All tree work is to be undertaken in accordance with British Standard BS 3998:2010 Tree work - Recommendations.
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.

## Foundations within RPAs

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.

This information is compliant with British Standard BS5837:2012 Trees in relation to design demolition and construction - Recommendations, section 7.5 Special engineering for foundations within the RPA.

## 'No Dig' Surfacing

Multi-dimmensional confinement system
Existing vegetation may be removed with hand tools or sprayed with an approved non residual herbicide such as 'Glyphosate'. The new hard surfacing will be constructed using a 'No Dig' surfacing situated entirely above the existing soil surface and where needed using a proprietary cellular confinement system (GeoWeb or similar) laid over a bi-axel geo-grid (tensar TriAx or similar). Proir 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 'GeoWeb' is to be back filled by hand with a no-fines aggregate of 20mm - 30mm. The area of 'GeoWeb' will be covered with a permeable geotextile fabric and the finished wearing course laid on top. Edge supports of an appropriate size and strength should be set above ground level and secured with haunching or steel pins driven into the ground. the outer edge of the supports may be banked up with clean top soil.
*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 levels of adjacent buildings.*

## Ground protection

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-resisiatnt 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 abole to support the expected loading to be placed upon it.

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

## Arboricultural Supervision

The arboricultural consultant will be required to attend site to directly supervise all demolition and construction works that have to be undertaken within the root protection areas. This will include:

1. Pre-commencement site meeting.
2. Supervised excavation of the foundations within the RPA of tree 2.
3. Installation of 'No Dig' hard surfacing within the RPAs of tree 4 and G1.
4. *Any additional demolition and or excavations within or adjacent to RPAs, including foundations, hard surfacing or underground services (a non-exhaustive list).*
5. Arboricultural sign off and removal of protective measures.

## Arboricultural Method Statement

Please refer to Arbtech Consulting Ltd. Tree Schedule and Arboricultural Method Statement, for full details on all surveyed trees and how all aspects of the the development maybe implemented without determent to retained trees.

**Arboricultural supervision:**
The 'no dig' sub-base, e.g. CellWeb™, will to be installed under strict arboricultural supervision in line with manufacturers guidelines for expected loading. The final surface treatment will be porous.

**Ground protection:**
Temporary ground boarding

0m 1m 3m 5m 10m 15m 20m

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

Project:
Barn to the west of Lordship Farmhouse
Pirton Road
Holwell
Hertfordshire
SG5

Client:
Netherdown (Herts) Ltd

Drawing:
Tree Protection Plan

Based on:
25-058-11

Drawing No:
Arbtech TPP 01

Rev:

Date:
Sept 2025

Scale:
1:100 @ A0

Drawn:
DM

Key:

| | | | | | |
|---|---|---|---|---|---|
| Tree Nos.: | 1 | Tree Canopies: | | Trunks: | |
| RPAs: | | Category 'U' trees: | | Category 'B' trees: | |
| Category 'B' groups: | | Category 'C' trees: | | Category 'C' groups: | |
| Incursion - Hard surfacing: | | Ground boarding: | | Arboricultural supervision - 'No Dig' HS.: | |
| Arboricultural supervision - Excavations: | | | | | |

All dimensions should be checked on site. No dimensions are to be scaled from this drawing.
Please notify us of any discrepancies found. Arbtech Consulting Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based.
This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.
This drawing is not to be read as a definitive part of the engineering or construction designs or method statement. An architect or structural engineer should be contacted over any matters of construction, detailing or specification and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.
This drawing was produced in colour - a monochrome copy should not be relied upon.

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