

'No Dig' Surfacing

Trees can be affected by construction within the RPAs either through the direct damage caused by the removal of roots, compaction of the rooting environment or secondary damage such as poisoning through leaks and spills (oils, fuels, etc.) or through de-icing (road salt, etc.).

Proposed hard surfacing within the RPAs of retained trees is to be designed so that it can be situated above the existing soil level and to minimise any adverse impact upon the tree RPAs, as the use of traditional foundations can result in excessive root loss through direct removal of roots during excavation and by compaction of the soil beneath the excavation, as such this 'traditional' type of foundation should be avoided.

When designing hard surfacing that is to be situated within RPAs, the design team need to pay particular attention to the proposed usage (pedestrian, domestic traffic, delivery vans, Emergency vehicles, HGVs etc.), the existing and proposed levels of hard surfacing and finished floor levels, edging types and details, proximity to tree trunks and surface rooting, contamination capture, SUDs, etc.

Possible sub-bases (foundations systems) for hard surfacing situated within the RPAs of retained trees could include:

- A proprietary system such as a multi-dimensional confinement system (Cellweb TRP or similar);
- Engineered solution such as a road deck, bridge, etc.

An engineered solution is likely require a level of excavation for site specific investigations to locate roots to aid in foundation design so that a suitable foundation can be designed to avoid roots and for the installation of the structure.

NE: The use of a multi-dimensional confinement systems and or an engineered solution 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.

Utility apparatus

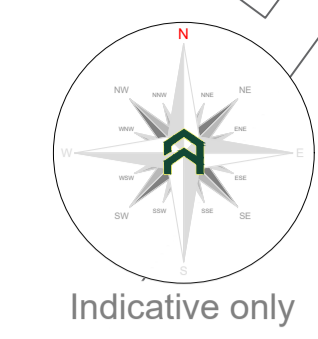
Underground utility apparatus
Mechanical trenching for the installation of underground apparatus and drainage sewers any roots present and can change the local hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the route and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside of RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts, all inspection chambers should be sited outside of the RPAs.

Where underground apparatus is to pass within the RPAs, detailed plans showing the proposed route should be drawn up in conjunction with the project arboriculturist. In such cases trenchless insertion methods should be used with entry and retrieval pits being located outside of the RPAs. If this option is not feasible and providing roots can be retained and protected excavations should be undertaken using hand held tools (air-spade, forks, shovels) or a combination of trenchless and manual excavation (broken trench).

Any design and installation should be undertaken in accordance with the National Joint Utilities Guidelines (NJUG).

Above-ground utility apparatus
Above-ground apparatus (including CCTV cameras and lighting) should be sited to avoid the need for detrimental tree pruning, as such the current and future crown size of the tree should be assessed.

Tree branches can be pruned back with care to provide space, though it is not appropriate for repetitive and significant tree work to be an initial design solution unless this is a suitable management outcome for the tree. Any pruning should be undertaken in accordance with BS3998:2010



Arboricultural Impacts

Impacts	Nos. of trees
Trees to be removed	4
Groups / Hedges to be removed (Partial removal of groups)	1 (0)
Trees with proposed incursions into RPAs	3
Groups / Hedges with proposed incursions into RPAs	0
Trees that will require pruning	0
Groups / Hedges that will require pruning	0
Trees to be transplanted	0
Groups / Hedges to be transplanted	0

No.	Species	Proposed structure	Incursion
T05	Common Beech	Patio and extension	RPA
T07	Common Ash	Shed	RPA
T08	Common Oak	Shed	RPA

Arboricultural Impacts - RPAs (Area)

No.	Species	RPA (m ²)	Incursion (m ²)	(%)
T05	Common Beech	56.6	0.2	0.4
T05	Common Beech	56.6	4	7.1
T07	Common Ash	33.0	1	3.0
T08	Common Oak	58.6	1.2	2.0

Tree Work Schedule

No.	Species	Works	Category
H01	Various	Fall to ground level; grind stumps	C2
T01	Common Holly	Fall to ground level; remove stump	C1
T02	Sycamore	Fall to ground level; remove stump	C1
T03	Sycamore	Fall to ground level; remove stump	C1
T04	Common Holly	Fall to ground level; remove stump	C1

All tree work is to be undertaken in accordance with British Standard BS 5898:2010 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.

No. of individual trees to be removed

U	A	B	C
0	0	0	4

No. of groups / hedges to be removed

U	A	B	C
0 (0)	0 (0)	0 (0)	1 (0)

() = Partial removal of a groups

Arboricultural Method Statement

All tree work is to be undertaken in accordance with British Standard BS 5898:2010 Tree work - Recommendations. Please refer to Arbtech Consulting Ltd. Tree Schedule, Arboricultural Method Statement and Tree Protection Plan, for full details of all surveyed trees and how all aspects of the development may be implemented without detriment to retained trees.



Project:

14 Bawtree Road,
Uxbridge,
UB8 1PU

Client:

Naresh Kumar Ghai

Drawing:

Arboricultural Impact Assessment

Based on:

20066-GAA-ZZ-ZZ-M2-T-0001.dwg

Drawing No:

Arbtech AIA 01

Date:

May 2022

Scale:

1:100 @ A1

Rev:

EK

Drawn:

Key:

Tree Nos.:	T01	Tree Canopies:		Trunks:	
RPAs:		Category 'B' trees:		Category 'C' trees:	
Category 'C' groups:		Trees to be removed:		Existing Site (OS file):	
Proposed Site:		Demolition:		Incursion - Structures:	
Replacement Structures:		Incursion - Hard surfacing:		Incursion - Fences:	

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 on 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 design or method statement. An architect or structural engineer should be consulted 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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Note: The existing structure is to be demolished and replaced with a shed/bike store.

Proposed bin storage area screened by Instant ivy screen 1200mm high

Existing brick wall & piers retained

Existing tarmac footpath

Proposed small tree / large shrub to provide enhancement to street scene

Eastern boundary: Proposed timber close board fence 1500mm high dropping down to 1200mm high

Pedestrian timber gate & close board fence: 1800mm high

Issue: Proposed building situated within the RPAs of tree T05.
Solution: Roots will be uncovered using manual excavation techniques under direct arboricultural supervision and pruned at a 200mm offset from the proposed building line as indicated by the dashed cyan line.

Issue: Proposed hard surfacing situated within RPAs of trees T05.
Solution: Proposed surfacing to be designed in conjunction with an arboriculturist so that it can be constructed entirely above the existing soil level.

Issue: Proposed shed situated within the RPA of trees T07 and T08.
Solution: The shed base will be designed in conjunction with an arboriculturist so that it can be constructed entirely above the existing soil level.

Issue: Proposed boundary fences situated within the RPAs of retained trees T05 - T08.
Solution: Excavations of posts of the proposed boundary fences within RPAs are to be undertaken manually under arboricultural supervision; posts may need to be relocated if roots in excess of 25mm diameter will be affected

Proposed timber close board fence 1800mm high & native hedgerow planting

Proposed shed / bike store

Proposed woodland planting

Proposed climbers planted along new fence

Proposed timber close board fence 1800mm high & native hedgerow planting

PROPOSED FUTURE APPLICATION

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