



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6

See the accompanying report
for more photographs

Drawing No: CCL 09948 / TCP Rev: 1

Title: Tree Constraints Plan (Existing Layout)

Siter: 12 Copse Wood Way Ha6 2UE

Scale: 0 5 10m 1:200 Paper Size: A1



Tree Retention Categories

Stems & canopies shown

Category A tree

Category B tree

Category C tree

Category U tree

Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.

Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees

Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.

Trees unsuitable for retention due to their very poor condition.

Existing Layout (Blue)

Diagram showing tree constraints plan with various tree labels (T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17) and group labels (G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18).

Tree Constraints Plan

BS 5837 Root Protection Area (radius = 1xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.

Root Protection Area having been amended to account for site conditions

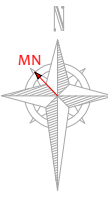
T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

Photo 1

MN = Measured North:

Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.

Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m ²	Square (m)
T1	Cherry	4.5	1.5	8	2.8
T2	Plum	5.5	3.8	45	6.7
T3	Holly	5	3.6	41	6.4
T4	Oak	12	6.6	137	11.7
G5	Monterey Cypress	10	3.6	41	6.4
G6	Holly	5	3.6	41	6.4
G7	Cherry Laurel	6	3.0	28	5.3
G8	Lawson Cypress	8	3.6	41	6.4
T9	Camellia	8	4.7	69	8.3
G10	Portuguese Laurel	6	3.6	41	6.4
T11	Plum	7	5.2	84	9.1
T12	Oak	20	8.9	248	15.7
G13	Hornbeam	20	6.6	137	11.7
T14	Beech	8	2.3	16	4.0
T15	Oak	20	8.4	222	14.9
G16	Yew	4	1.4	7	2.6
T17	Lawson Cypress	10	6.0	113	10.6
G18	Lawson Cypress	6	4.8	72	8.5



Tree Constraints Plan

(Existing Layout)

Excerpts from the
Arboricultural
Impact Assessment

The Proposal

It is proposed to demolish the existing house and construct a new detached residential property with a larger footprint. It is also proposed to demolish the existing shed within the rear garden and construct a new summer house/gym with a larger footprint. The existing layout is indicated in black, the buildings to be demolished are indicated in blue, the footprint of the proposed layout is indicated in pale green as indicated on the plans in Appendix 6.

Existing vehicular access from Copse Wood Way shall be maintained and resurfaced.

Overview Table

The table below summarises the potential impact on trees due to various activities.

Activity	Trees Potentially Affected
Tree Removal: Retention Category A	None
Tree Removal: Retention Category B	None
Tree Removal: Retention Category C	C5, C6, C7, G8 (9 trees), T9, G10, T14, G16
Tree Removal: Retention Category U	T9, G10, T14, G16
Tree Pruning	T4, G8 (1 tree), T14, G18
RPA: House Foundations	T4, G18
RPA: Summer House Foundations	C3, T14, T15
RPA: Garden Wall Foundations	T13, T2, T4
RPA: New Hard Surface	T2, T4, G8 (1 tree)
RPA: Underground Services	None Anticipated
RPA: Change of Ground Levels	None
RPA: Soil Compaction	T2, T3, T4, G8, T11, G13, T14, T15, G18 (preventable by installing tree protection measures)

Other potentially damaging activities often associated with construction sites include demolition or the careless use of plant machinery, hazardous materials, or fires.

All of the above potential impacts are considered in detail throughout this section. Section 5 specifies the measures proposed to minimise all possible potential risks of damage to the retained trees.

Summary

In order to facilitate the development, it is proposed to remove 22 Retention Category C trees which are located internally to the site. These are all relatively small trees and are mostly hidden from public vantage points. Consequently the impact of tree removal on local amenity shall be minimal.

It is proposed to prune back the lower branches of T4 that are growing towards the proposal in order to create a clearance distance of 2.5m and to trim the overhanging foliage of G18, back to the boundary.

It is also proposed to grown lift one tree within G8 and T14 to ensure an adequate clearance height so as to prevent accidental breakage.

Foundations for the new house are proposed within the Root Protection Areas of T4 and G18. However, the proposed pruning coupled with the sympathetic foundation design shall ensure no detrimental impact on trees.

Foundations for the new summer house are proposed within the Root Protection Areas of G13, T14 and T15. However, the proposed above ground types will have almost no impact on the root system and on the soils in which the roots grow.

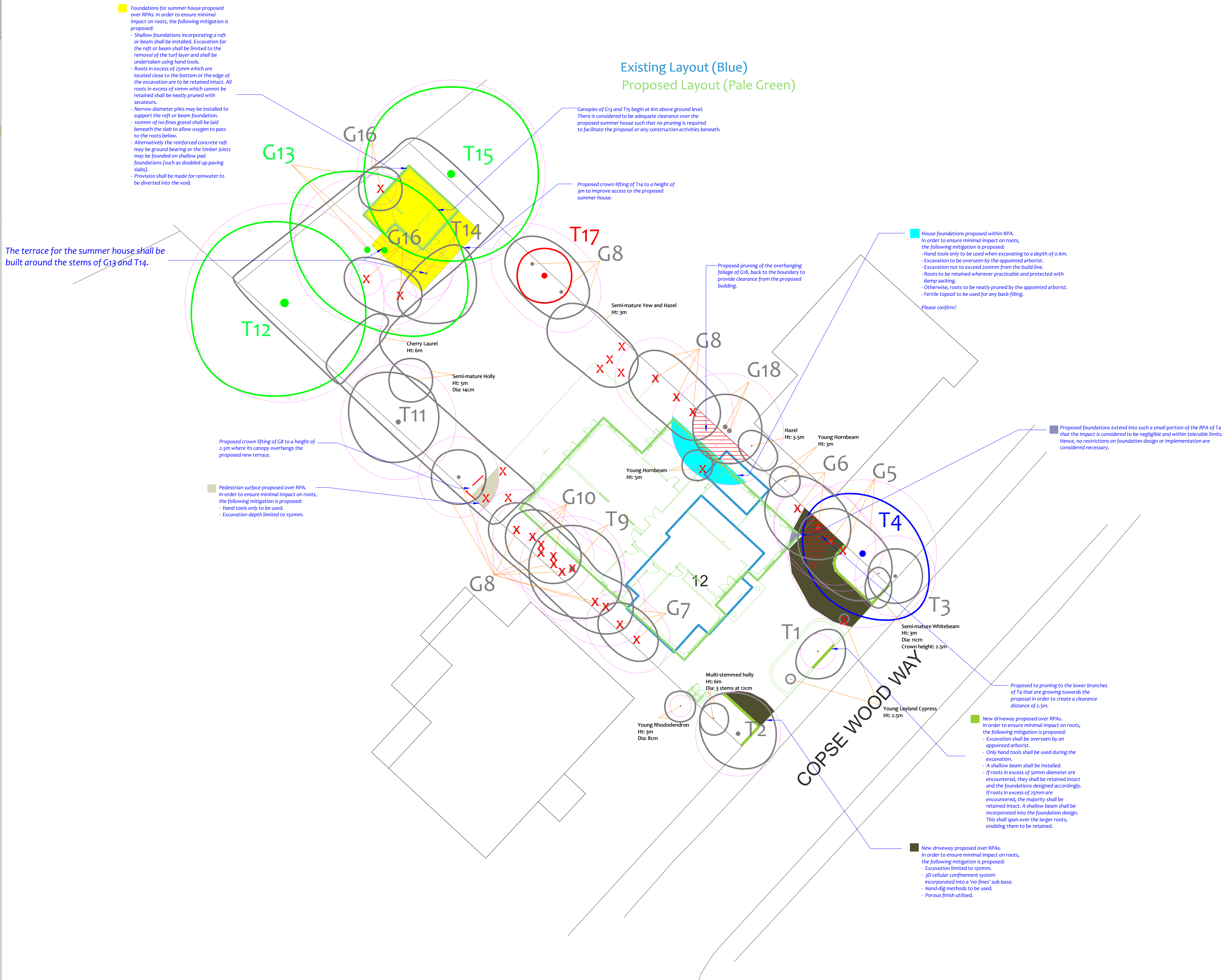
Garden wall foundations are proposed within the Root Protection Areas of T1, T2, T3 and T4. However, a watching brief and a sympathetic foundation design is proposed which shall ensure no detrimental impact on trees.

A new hard surface is proposed within the RPAs of T2, T4 and G8. However, the new hard surfacing within shall be installed sympathetically and with minimal excavation.

A suitable load spreading surface shall need to be maintained throughout the Restricted Activity Zones A.

Tree protection measures are specified throughout Section 5 that will ensure no negative impact on retained trees due to construction activity.

Adequate space has been allowed between the proposal and all trees such that no future pressure to overly-prune or remove trees shall occur as a consequence of the proposal.



Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

Tree Ref.	Species	Height (m)	Root Protection Area	
			Radius (m)	Area (sq m)
T1	Cherry	4.5	1.8	2.8
T2	Plum	5.8	3.8	45
T3	Holly	5	3.6	41
T4	Oak	12	6.6	137
G5	Monterey Cypress	10	3.6	41
G6	Holly	5	3.6	41
G7	Portuguese Laurel	3	2.8	31
G8	Lawn Cypress	8	3.6	41
T9	Camellia	8	4.7	69
G10	Portuguese Laurel	6	3.6	41
T11	Plum	7	5.2	84
G12	Plum	20	8.9	248
G13	Hornbeam	20	6.6	137
T14	Beech	8	2.3	16
T15	Oak	20	8.4	222
G16	Yew	4	1.4	7
G17	Lawn Cypress	10	6.0	113
G18	Lawn Cypress	6	4.8	72

Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

Drawing No:	CCL 09948		/ IAP Rev:
Title:	Impact Assessment Plan (Existing Layout with Proposals Overlaid)		
Site:	12 Copse Wood Way Ha6 2UE		



Tree Retention Categories
Stems & canopies shown

	Category A tree
	Category B tree
	Category C tree
	Category U tree

	Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
	Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees
	Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
	Trees unsuitable for retention due to their very poor condition.

 	BS 5837 Root Protection Area (radius = 12xstem diameter)
	Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.
	Root Protection Area having been amended to account for site conditions

T1 = Tree No 1	G2 = Group No 2	H3 = Hedge No 3
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	Tree to be removed facilitate the propos
	Tree to be removed due to its low qualiti
	Proposed pruning

MN = Measured North:
Canopy spreads are sometimes measured to an approximate MN defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.

Tree Ref.	Species	Height (m)	Root Protection Area	
			Radius (m)	Area (sq m)
T1	Cherry	4.5	1.8	2.8
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Excerpts from the
Arboricultural
Method Statement

Section B: Restrictions on Activities – Specific Zones

Construction Exclusion Zones

Within Construction Exclusion Zones (shaded purple on the Tree Protection Plan) the following restrictions shall apply:

- Tree Protection Barriers shall be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and specified in Section 8-Tree Protection Barriers.
- No construction activity whatsoever shall occur.
- No vehicles or plant machinery shall be driven or parked.
- No tree works, other than those specified in this report shall be undertaken.
- No alterations of ground levels or conditions.
- No chemicals or cement washings permitted.
- No excavation whatsoever shall occur.
- No temporary structures.
- No spoil shall be stored.
- No fires shall be permitted.
- All hazardous materials (including non-essential cement products) shall be forbidden.

Restricted Activity Zone A

Within these zones (indicated on the Tree Protection Plan) access will be required to facilitate construction and some hard surfacing works will be required. The following restrictions shall apply:

- A suitable load spreading surface shall be installed and/or maintained as specified in Section 9 – Ground Protection Measures. This shall remain in place throughout the entire construction phase.
- Any resurfacing or installation of new hard surfaces shall be done strictly in accordance with the Guidelines in Section 10 – New Surfaces.
- Removal of existing structures such as, walls, steps and hard surfaces shall be undertaken using hand tools or a mechanical excavator operating from outside the Restricted Activity Zone and carefully marshalled by an appointed arborist.
- No new permanent or temporary structures shall be erected without written approval from the local authority.
- Existing ground levels shall be retained undisturbed or raised by no more than 150mm. Ground levels may only be raised using granular topsoil (not rich in clay) or where new surfacing is proposed.
- Excavation shall be limited to the adjacent foundations and trenches immediately alongside the proposed building foundations (if required for underground services). Such trenches shall be excavated using hand tools or a mechanical excavator operating from outside the Restricted Zone and carefully marshalled by the appointed arborist.
- No further excavation shall occur in this zone without consulting the appointed arborist and obtaining approval from the local authority.
- If roots are encountered in excess of 25mm diameter, they shall be retained wherever possible and protected with damp soil or sacking during times that they are unearthed. Any roots in excess of 10mm that need to be severed shall be pruned with secateurs.
- Storage of materials shall be limited to that which is required for the task in hand. Heavy materials that require storage for more than two days shall be stored outside the Restricted Zone.
- No spoil shall be stored.
- No fires shall be permitted.
- All hazardous materials (including non-essential cement products) shall be forbidden.
- No machinery in excess of 2m tall shall pass through or operate in this zone unless carefully marshalled in order to avoid damage to branches.

In order to ensure no significant impact on the root systems of T1, T2, T3 and T4 when installing the garden wall the following restrictions shall apply:

- Excavation shall be overseen by an appointed arborist.
- Only hand tools shall be used during the excavation.
- A shallow beam shall be installed.
- If roots in excess of 50mm diameter are encountered, they shall be retained intact and the foundations designed accordingly. If roots in excess of 25mm are encountered, the majority shall be retained intact. A shallow beam shall be incorporated into the foundation design. This shall span over the larger roots, enabling them to be retained.

Restricted Activity Zone B

Within these zones (indicated on the Tree Protection Plan) foundations are proposed for the new house and the outbuilding.

In order to minimise the impact on roots due to the installation of the house foundations, it is proposed to utilise the Hand-Dig Method as specified below. This shall be overseen by the local authority tree officer or an appointed arborist. The following restrictions shall apply:

- Excavation shall be overseen by the local authority tree officer or an appointed arborist.
- The excavation shall not extend more than 200mm beyond the footprint of the proposed building walls.
- Hand tools shall be used during the excavation to a depth of 0.6m. Below this depth, a mechanical excavator may be used.
- If roots in excess of 25mm diameter are encountered close to the edge of the excavation, they shall be retained wherever possible and protected with damp sacking during times that they are unearthed. Any roots that need to be severed shall be pruned with secateurs.
- No spoil shall be stored.
- No fires shall be permitted.
- All hazardous materials (including non-essential cement products) shall be forbidden.

In order to minimise the impact on roots due to the installation of the summer house foundations, it is proposed to utilise the Hand-Dig Method as specified below. This shall be overseen by the local authority tree officer or an appointed arborist. The following restrictions shall apply:

- Concrete strip foundations should not be acceptable in this area.
- Instead shallow foundations incorporating a raft or beam shall be installed. Excavation for the raft or beam shall be limited to the removal of the turf layer and shall be undertaken using hand tools.
- Roots in excess of 25mm which are located close to the bottom or the edge of the excavation are to be retained intact. All roots in excess of 10mm which cannot be retained shall be neatly pruned with secateurs.
- Narrow diameter piles may be installed to support the raft or beam foundation. In which case, trial pits shall be excavated to determine the location of the piles. Trial pits shall be 300mm x 300mm and excavated using hand tools to a depth of 600mm. Excavation shall be undertaken in the presence of the local authority tree officer or the appointed arborist. Soil shall first be loosened with a garden fork to ascertain if large roots are present before the loosened soil is removed with a spade. If roots in excess of 25mm are encountered, they shall be retained intact wherever possible and the pile shall be relocated. Roots in excess of 10mm shall be pruned using sharp secateurs. Beyond this depth, piles may be installed using an auger or piling rig. Pile diameter shall not exceed 250mm unless agreed otherwise with the local authority.
- 100mm of no-fines gravel shall be laid beneath the slab to allow oxygen to pass to the roots below.
- Alternatively the reinforced concrete raft may be ground bearing or the timber joists may be founded on shallow pad foundations (such as doubled up paving slabs).
- Provision shall be made for rainwater to be diverted into the void. In order to achieve this we recommend that a controlled amount of rainfall is discharged from the roof and diverted to the ground on all sides of the proposed structure. Gravel should also be laid in these areas to prevent the rainwater from washing away.
- No auger or piling rig in excess of 5m shall be used beneath any tree canopy without being carefully marshalled by the appointed arborist.

See Section 5 for
more restrictions that
apply throughout the site

Drawing No: CCL 09948 / TPP Rev: 1

Title: Tree Protection Plan (Existing Layout with Proposals Overlaid)

Site: 12 Copse Wood Way H&S JUE

Scale: 1:200 Paper Size: A1

01422 316660

Tree Retention Categories

Category A tree

Category B tree

Category C tree

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Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.

Trees unsuitable for retention due to their very poor condition.

Tree Protection Plan

Tree Protection Barriers:

Fixed protective barrier: The 'In-Ground System' or the 'Backstay System'. To remain in place for all construction activity

Construction Exclusion Zone
Stem protected to a height of 2.5m with thick cloth & wire
Tree Protection Basing 1.2 x 1.2 x 2.2m high 25mm plywood

Moveable protective barrier: The 'Backstay System'. To remain in place except when approved works are being undertaken in the Restricted Zone

Orange Barrier Mesh Fencing, HT 1m, on steel fencing pins and wooden posts
To remain in place throughout all construction activity

The 'Back Stay System'

2m x 3.5m wide mesh (or sheet metal) panels linked with anti-tamper couplings

Each panel attached to a back stay which is founded in an additional foot or mesh tray as illustrated

Minimum 50kg ballast to retain rear foot or tray (including the weight of the footings)

Alternate front feet to be secured with groundpins or additional ballast

The 'In-Ground' System

Verticals and horizontals secured with scaffold clips

Anti-climb wide mesh panel (or metal / 18mm ply sheets) firmly secured

2.0 metres

Standard scaffold poles driven 0.6m into the ground (sovereign timber posts in concrete foundations may be used outside of RPA's)

Scaffold pegs secured into the ground

Construction Exclusion Zone

Within this area the following restrictions shall apply:
No excavation or land regrading whatsoever
No storage of materials, rubble, soil or spoil
No fires within the exclusion zone or within 10m of any tree canopy
No the cabins or other temporary structures
No discharge of polluted water, cement or chemicals of any kind
No use of any machinery or passage or parking of vehicles
No tree works without council consent

Restricted Activity Zones

Restricted Zone A

Restricted Zone B

Restrictions are detailed within the accompanying Method Statement

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			Radius (m)	Area (sqm)	
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Tree Protection Plan

BS s837 Root Protection Area (radius = 12xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.

Root Protection Area having been amended to account for site conditions

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