AFA CONSULTING

Arboricultural Report. Revision 1 – 46 Hollycroft Avenue:

Tree Survey,

Arboricultural Impact Assessment,

Arboricultural Method Statement, Tree Protection Plan & Mitigation Planting Scheme

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Site Address:

46 Hollycroft Avenue, London, NW3 7QN.

Arboricultural ASSOCIATION Professional Member

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Tree Preservation Orders **are not** present at this site. The site **is** within a Conservation Area.			

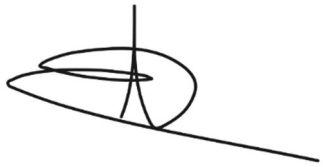
46 Hollycroft Avenue, London, NW3 7QN.

Dear Sirs,

We write further to a recent visit to 46 Hollycroft Avenue, London, NW3 7QN, where we conducted a full BS5837 arboricultural survey at the property.

Please find report overleaf.

Yours sincerely



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1. Report Summary

1.1 Site summary

1.1.1 The subject site is located at 46 Hollycroft Avenue, London, NW3 7QN. The proposal is to alter the landscaping of the front and rear gardens, including changes to existing garden walls, with the inclusion of access ramps.

1.2 Protected trees (Section 2.1)

1.2.1 None of the trees on the site are known to be currently protected by a Tree Preservation Order.

1.2.2 The site is within a Conservation Area.

1.3 Existing trees (Section 4.2)

1.3.1 A total of 6 trees, 2 groups of trees and 2 hedges were surveyed in May 2024.

1.3.2 These were surveyed and categorised in accordance with BS5837: Trees in relation to design, demolition and construction – Recommendations 2012.

1.3.3 These were categorised as follows:

A	B	C	U
0	4 trees & 1 hedge	1 tree, 1 hedge & 2 groups	1 tree

1.4 Consequences of development on trees (Section 5)

1.4.1 One offsite tree should be removed solely irrespective of the outcome of this proposal and just as good arboricultural practice.

1.4.2 One small tree and two hedges should be removed to facilitate this proposal.

1.4.3 The proposed scheme has been designed to accommodate the trees which will remain on site.

1.5 Tree works (Section 6.2)

1.5.1 With the exception of the removals, there are no significant tree works recommended as a direct consequence of this proposal.

1.5.2 Some minor pruning to crown lift one area of one tree in the front garden is recommended.

1.5.3 Pruning an offsite group behind the rear garden is recommended.

1.5.4 Four areas may require minor root pruning, ground slope and existing ground conditions/foundations may have already prohibited root growth in these areas, in which case no root pruning would be required.

1.6 Planting (Section 6.9)

1.6.1 To mitigate the tree and hedge losses and improve the arboricultural value and biodiversity of the site, tree planting is recommended.

1.6.2 A minimum of 3 individual trees are recommended for planting. This has been more than accounted for within the Project Planting Plan.

1.6.3 Replanting is specified by others, see accompanying document: 46HA_Planting & Furniture_20240625

1.7 Tree protection (Section 6)

1.7.1 To protect the root systems of retained trees during the construction period, the following are recommended:

1.7.2 The installation of one Protective Barrier Fence – See section 6.3.

1.7.3 The installation of three areas of temporary ground protection – See section 6.5.

1.7.4 The installation of two areas of permanent ground protection – See section 6.5.

1.8 Conclusion

1.8.1 The primary objective of the initial site appraisal was to identify which trees could and should be retained at the site, to investigate any associated conflicts with existing trees (in relation to the development proposal), and to provide this formal report detailing any preliminary tree surgery requirements and recommendations.

1.8.2 If the recommended tree protection measures are installed and monitored, and the sensitive works are adequately supervised, it is considered that the proposal can be successfully implemented while protecting the retained trees to a level which complies with current arboricultural standards.

2. Introduction

2.1 Survey details

Site address:	46 Hollycroft Avenue, London, NW3 7QN
Local planning authority:	London Borough of Camden
Tree Preservation Orders:	No
Conservation Area:	Yes
Survey date:	10/05/2024
Weather conditions:	Clear skies
Leaf cover:	Deciduous trees were in full leaf.
Surveyors' names:	Andy Fulbrook, Martin Grew

2.2 Background and site information

2.2.1 The site is a large, detached residential property and the associated landholding situated amongst other similar sized properties to the south of Hollycroft Avenue.

2.2.2 The site sits inside the Camden Conservation Area (see Appendix A).

2.2.3 There are no known Tree Preservation Orders at the site (see Appendix A).

2.2.4 A F A Consulting Ltd have not been made aware of any relevant planning history at the site.

2.3 Instructions

2.3.1 A F A Consulting Ltd was instructed by Fulwell Property Consultants Ltd to undertake a pre-application tree survey at 46 Hollycroft Avenue, London, NW3 7QN. Details of the locations of the trees can be found in Figures 1 & 2 Appendix E.

2.3.2 Areas of influence, target areas and retention values of each tree were carefully considered during the site survey.

2.3.3 Any queries relating to this report or any of the content within should be directed to the author:

2.3.4 A F A Consulting Ltd, 105 Ambleside Road, Lightwater, Surrey. GU185UJ. The site address should be used as a reference.

2.3.5 This report includes a full BS5837 Tree Survey Schedule, Arboricultural Impact Assessment (AIA), Arboricultural Method statement (AMS), Tree Constraints Plan (TCP) and Tree Protection Plan (TPP).

2.4 Documents supplied to arboriculturalist

2.4.1 PDF copies of existing and proposed plans, elevations and section drawings by GKS - Drawing numbers:

046-MK-E0122 – Draft

046-MK-E0141 – Draft

046-MK-E0163 – Draft

046-MK-P0122 – Draft

046-MK-P0141 – Draft

046-MK-P0163 – Draft

2.4.2 PDF copy of front and rear garden planting plan by Elizabeth Tyler

46HA_Planting & Furniture_20240625

2.4.3 DWG copies of existing and proposed plans by GKS - Drawing numbers:

046-MK-E0122 – Draft

046-MK-P0122 – Draft

2.5 Details of site and surroundings

2.5.1 The site is an irregular rectangular shape, with the detached house centrally placed, on the northern boundary. This leaves a steeply sloped front garden to the east, fronted by a boundary wall and the highway, access around the south of the house to a multi-level, landscaped rear garden in the west.

2.5.2 The front garden is bounded by retaining walls, ground level in the garden is significantly higher than at the pavement, and accessed by walled steps to the front door and a narrow path along the front of the house serves the side access. The ground slopes up from the front boundary wall to the house. There is one small Laurel hedge in the northern corner and several small shrubs with various low planting but no on-site trees in the front garden.

2.5.3 The front garden and its access from the highway are affected by three offsite trees, one semi mature Hornbeam and a large mature Plane tree in the pavement, and a mature Sycamore close to the highway but in the neighbouring property to the south. These trees have been included within the scope of this report.

2.5.4 One small newly planted staked tree in the highway, has not been surveyed due to its small stem diameter, however, it is proposed to be protected through this development.

2.5.5 The side access between the house and existing boundary fence is lined by an offsite group of small shrubs amongst low planting in the garden to the south.

2.5.6 The rear garden includes an open basement courtyard, and modern landscaping with a decked area and patio. Close to the western boundary, a small Camellia and line of pleached Hornbeams (hedge) are the only onsite tree features. Beyond the boundaries are several large trees and groups, the closest, that have an influencing effect on the site have been included in this report.

2.5.7 There was no evidence of prolonged waterlogging at the time of the survey.

3. Survey Results

3.1 Tree classification

3.1.1 Six individual trees, two hedges and two groups were surveyed in May 2024. The survey information is appended to this report. (See Appendix E)

3.1.2 All the trees were classed according to the classifications outlined within BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations.' (See Appendix D).

3.1.3 0 individual trees were classified as Category A. BS5837 considers that Category A trees are of high quality with an estimated remaining life expectancy of at least 40 years.

3.1.4 4 individual trees and 1 hedge were classified as Category B. BS5837 considers that Category B trees are of moderate quality with an estimated remaining life expectancy of at least 20 years.

3.1.5 1 individual tree, 2 groups and 1 hedge were classified as Category C. BS5837 considers that Category C trees are of low quality with an estimated remaining life expectancy of at least 10 years.

3.1.6 1 individual tree was classified as Category U. BS5837 considers that Category U trees are those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than ten years.

3.2 Nesting birds and potential bat habitat

3.2.1 Most of the trees surveyed as part of this report contained good bird nesting habitat.

3.3 Ash dieback

3.3.1 Ash Dieback was not found at the site.

4. Recommendations

4.1 Guidance for retaining trees through development

4.1.1 In accordance with BS 5837:2012 Trees in relation to design, demolition, and construction. Recommendations, category A and B trees should be retained by way of appropriate design as part of any development proposal unless absolutely unfeasible, and in such instances should be replaced with mitigation planting. Category C trees are not considered to be constraining and can be removed where appropriate, although mitigation planting is still required. Category U should not be retained regardless of the design and development.

4.2 Site recommendations

4.2.1 The most common conflict between retained trees and construction work is the protective measures required to adequately prevent any damage being caused to them or their respective Root Protection Area (RPA). In this instance the collective RPA (which would need to be fenced off) of any retained tree or tree group would not be very large, as there are no significantly sized trees at the site. However, it should be noted that the complex topography and limited front garden have reduced the work and material storage space available.

4.2.2 The Category B pleached Hornbeam trees forming H2 in the rear garden are in good condition and are positioned in a conspicuous location. Loss of these trees would adversely affect the arboricultural value of the site.

4.2.3 The four Category B trees T1 (Common Hornbeam), T2 (Oriental Plane: both in planting pits in the pavement), T3 (Sycamore: to the south), and T6 (Copper Beech: northeast of the rear garden) are offsite but close to the development boundary. These trees are all worthy or retention, they are in good condition and are positioned in conspicuous locations. Loss of these trees would also adversely affect the local landscape.

4.2.4 The individual tree/shrub, T4 (Camellia: rear garden), offsite groups of trees/shrubs G1 (Mixed species: southern boundary), and G2 (Cherry Laurel & Laburnum: western boundary), and hedge H1 (Cherry Laurel: northern boundary, front garden), are all Category C arboricultural features. They would offer some constraint to development of the property boundaries, removal of H1 would be necessary. Whilst the loss of this Category C feature will have an impact on the arboricultural value of the site, this would be mitigated with newly proposed tree planting of more suitable species with greater appropriateness to the site. This will quickly increase the arboricultural and landscape value of the site and the impact of the loss will be negated.

4.2.5 The individual Category U offsite Ash tree, T5, has limited life expectancy due to poor biomechanics and primary failure of the main union. This tree should be removed to fulfil the tree owner's duty of care and remove the hazard of further failure into the rear garden of No. 46 Hollycroft Avenue. This is an offsite tree within a Conservation Area and permission should be sought from the owner and local authority before any tree work is undertaken, however, this area would be an excellent location for new tree planting to improve the biodiversity of the site.

4.2.6 As this site is within Redington Frognal Conservation Area, no tree works should be carried out until the appropriate consents are gained from the local Council Planning Department.

4.2.7 To mitigate the loss of the small Camellia (T4), pleached Hornbeam hedge (H2), and Laurel hedge (H1), and to improve the arboricultural and landscape value, and biodiversity of the site, new planting is proposed (see Project Planting Plan). Two trees in the front garden which form an aesthetic feature of the street screen and landscape plan and five in the rear garden to increase canopy cover and help screen against the future likely loss of the neighbouring Ash tree.

5. Arboricultural Impact Assessment

5.1 Tree removals and tree surgery works

5.1.1 The recommendations made here relating to tree retention, removal and planting are informed by current arboricultural, planning, and urban design best practice, primarily British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations,' which advocates a pragmatic approach to tree removal and retention, based on sustainability.

5.2 Trees requiring removal ***irrespective*** of the proposal

5.2.1 It is considered that the following trees should be removed irrespective of the outcome of this proposal:

5.2.2 One offsite tree should be removed solely as good arboricultural practice and irrespective of the proposal. Permission from the landowner must be sought but is obviously not guaranteed. For that reason, the project mitigation, protection scheme and methodology have been written assuming that this tree will not be removed, as a worst case scenario. Certain following elements may not be required, if permission is granted by the local authority and the tree owner, and this tree can be removed.

5.2.3 T5 – Common Ash (*Fraxinus excelsior*) : Fell to ground level.

Reason: Partial primary failure of the main union has already occurred, and limb/stem shedding is considered highly likely.

Impact: Some short-term impact to boundary screening and arboricultural value. However, with mitigation planting, a mid to long term positive gain in visual, landscape, arboricultural and habitat value.

5.3 Trees requiring removal ***to facilitate*** the proposal

5.3.1 It is considered that the following features should be removed to facilitate this proposal:

5.3.2 Two hedges should be removed to facilitate the proposal.

5.3.3 H1 – Cherry Laurel (*Prunus laurocerasus*) : Fell and remove stumps.

Reason: To facilitate construction of the boundary wall and the green roofed bin and cycle store.

Impact: Some short-term impact to visual amenity, boundary screening and habitat value. However, with mitigation planting, a mid to long term positive gain in visual, landscape, arboricultural and habitat value.

5.3.4 H2 – Hornbeam (*Carpinus betulus*) : Fell to and remove stumps.

Reason: To make room for the seating area and associated landscaping, to better utilise the western corner of the garden.

Impact: Some short-term impact to visual amenity, arboricultural and habitat value. However, with mitigation planting, a mid to long term positive gain in visual, landscape, arboricultural and habitat value.

5.3.5 T4 – Camellia (*Camellia japonica*) : Fell to and remove stumps.

Reason: To facilitate construction access to rear boundary fence and side boundary wall and provide new planting opportunity.

Impact: Minimal short-term impact to visual amenity, arboricultural and habitat value. However, with mitigation planting, a mid to long term positive gain in visual, landscape, arboricultural and habitat value.

5.4 Trees requiring remedial work ***to facilitate*** the proposal

5.4.1 One tree and one offsite group of trees require remedial work to facilitate the proposal.

5.4.2 T3 – Sycamore (*Acer pseudoplatanus*) : Crown lift of secondary growth only, over the proposed footpath to achieve 2.5m ground clearance.

Reason: To clear existing and proposed pedestrian route to the side access for the rear garden.

Impact: Very minor pruning is required here. Negligible impact to visual amenity and no impact to arboricultural value or longevity.

5.4.3 G2 – Mixed species group : Nuisance prune (this group is leaning on the partially collapsed rear boundary fence) and cut the overhang back to boundary line.

Reason: To remove the nuisance and to facilitate replacement of the damaged rear boundary fence.

Impact: Some short-term impact to visual amenity. A positive benefit to new onsite planting opportunity and site security.

5.4.4 Four trees may require minor root pruning. Below ground investigation has not been undertaken, however, the proximity to existing foundations, retaining wall, other hardscaping and the steep ground is likely to have already prohibited root encroachment into the areas requiring excavation to facilitate the development.

5.4.5 T1 – Hornbeam (*Carpinus betulus*) : Possible minor root pruning.

Reason: Removal of the existing front retaining wall and its foundation to prepare subbase/foundation for the new wall and ramp.

Impact: Due to the age and distance from the Hornbeam to the existing front retaining wall, it is unlikely that any roots have grown below the foundation, in the front garden. Below ground works may uncover some roots that may require some pruning. Very minor pruning if any is required here. Negligible if any impact to vitality or longevity is expected.

5.4.6 T3 – Sycamore (*Acer pseudoplatanus*) *:* Possible minor root pruning.

Reason: Excavation for the foundations of the new garden wall/retaining wall.

Impact: Due to the level change and engineered and shallow nature of the proposed foundations, a shallow excavation is required and minimal root pruning if any is required. Minimal if any impact to vitality or longevity is expected.

5.4.7 T5 – Common Ash (*Fraxinus excelsior*) : If not felled, possible minor root pruning.

Reason: Excavation for the foundations of the retaining wall and steps.

Impact: Due to level change, existing gravel ground cover and the shallow nature of the proposed foundations, a shallow excavation is required and minimal root pruning if any is required. Minimal if any impact to vitality or longevity is expected.

5.4.8 G1 – Mixed group : Possible minor root pruning.

Reason: Excavation for the foundations of the new garden wall.

Impact: Due to the age of the shrubs, level change, and historic ground works for basement and landscaping, it is unlikely many roots have grown below the boundary. Very minor pruning if any is required here. Negligible if any impact to vitality or longevity is expected.

5.5 Root Protection Areas (RPAs)

5.5.1 The identification of Root Protection Areas is the primary means by which retained trees are protected on construction sites. No unspecified activity should occur within any prescribed RPA. Access should only be permitted with prior approval of the local planning authority, and encroachment should normally only take place if the ground beneath is suitably protected.

5.5.2 BS 5837:2012 provides arboriculturists with a method to determine the extent to which excavations associated with construction works might have a damaging effect on the roots of adjacent trees. The Standard enables an RPA to be calculated from the diameter of each retained tree, and this is usually described as a circle with a radius at the prescribed distance from that tree.

5.6 RPAs and the subject site

5.6.1 The RPAs of the retained trees are calculated as recommended within BS 5837:2012. These areas are shown as shaded grey areas with a solid orange line on Figure 1 – TCP, and Figure 2 - TPP.

5.6.2 Following the removal work, there is still a requirement to work within the RPA of retained trees T2 (Oriental Plane), T3 (Sycamore), T5 (Common Ash, if it hasn't been removed with the neighbour's permission), and T6 (Copper Beech). Ground protection, Protective Barrier Fencing, and arboricultural supervision will all be needed to mitigate any likelihood of damage being caused to these trees. A small area of root pruning is required to facilitate the proposal. These are detailed in Figure 2 TPP.

5.6.3 A portion of the RPA T3 (Sycamore) is currently protected from any damage by the existing hardstanding of the front path in the front garden, this will be replaced with a suitable compaction controlled permeable surface and become permanent ground protection.

5.6.4 The foundation for the southern boundary wall within the RPA of T3 will require specialist design and reinforcement, to reduce the impact on the rooting environment of T3. This may involve trial holes to find gaps between roots and a poured, reinforced foundation.

5.6.5 If permission for the removal of T5 (Common Ash) is not granted by the tree owner, some ground protection is required to avoid compaction and contamination by cement.

5.6.6 The new path and seating area within the RPA of T6 (Copper Beech) will require permanent ground protection and compaction control.

5.6.7 The new path and seating area are within the RPA of offsite tree T6 (Copper Beech). To permanently protect this area from compaction, a no-dig cellular confinement system (100mm Cellweb TRP or similar) must be installed over appropriate membranes and filled with 4/20 clean granite or basalt (Limestone degrades the structural plastics). The outline of the path and seating area are complex flowing curved lines, and these types of system are best installed in rectangular sections. However, only the cells that sit within the required paving/gravelled area need to be filled with the stone and compacted. The cells adjacent to the path can be filled with good quality topsoil and planted through. This forms the subbase, and a permeable surfacing can then be applied, to follow the designed curves.

5.6.8 The cellular confinement system must be installed after the Hornbeam trees have been felled and ground out and the soil there made good. No machine compaction of the soil is permitted within the RPA of T6.

5.6.9 All manufacturers' recommendations and installation instructions must be followed.

5.6.10 Alterations to ground levels to achieve safe access ramps is required within the RPAs of T1 (Oriental Plane), and T3 (Sycamore). Build up of ground level must be done using structural soil and permeable surfacing with due consideration for drainage for the area behind retaining walls.

5.6.11 The alteration of ground level on the existing terrace in the vicinity of T2 (Oriental Plane) and T3 (Sycamore) must be kept to a minimum and be done using good quality topsoil with a high organic content, this should not be compacted, rather heeled-in prior to planting at the landscaping stage of the project.

5.6.12 A new gravel and paving garden path and seating area is proposed within the RPA of offsite Copper Beech, T6. This must be constructed as "no-dig" using a cellular confinement type compaction control layer such as Cellweb TRP.

5.7 Protective Barriers Fences (PBF)

5.7.1 BS 5837:2012 recommends that the RPAs of the subject trees should be protected by the erection of barriers, the preferred form of which consists of welded mesh 'Heras' type panels 2 metres high, mounted on a braced scaffolding frame as detailed in Figure 2 & 3 of BS 5837:2012 (example detail in Appendix F). The barriers should carry laminated signs stating: "Construction exclusion zone – No Access," or similar. It is recommended that gaps should be left beneath the bottom of any perimeter site fencing and the ground to allow for the passage of foraging mammals.

5.8 Shading

5.8.1 The proposed design is sympathetic to the retained trees and there will be no need for future pruning or removals to avoid conflict between the buildings and retained canopy cover.

5.9 Services

5.9.1 The Tree Protection Plan, showing the constraints posed by retained trees will be passed to the infrastructure engineers to inform their design, ensuring that all services avoid areas of potential conflict.

6. Arboricultural Method Statement

6.1 Sequence of works

6.1.1 The sequence of works should be as follows, key points and relevant involvement by the project arboriculturalist are identified:

1. Seek permission from the owner to fell T5 Common Ash.
2. Tree removal and other facilitative works
3. Site layout marking
4. Supervised repair/replacement of rear boundary fence
5. Installation of fencing and temporary ground protection
6. Pre commencement meeting (RPAs and material storage areas to be appraised and understood – Project Arboriculturalist to attend and document)
7. Supervised demolition, using hand tools only within RPAs – Project Arboriculturalist to attend and document
8. Supervised root pruning, using hand tools only – Project Arboriculturalist to attend and document
9. Building materials/plant deliveries
10. Demolition/Construction works – Monthly inspections by Project Arboriculturalist to monitor tree protection
11. Mitigation planting
12. Project sign off by Project Arboriculturalist

6.2 Tree works

6.2.1 H1 Cherry Laurel – Fell and remove stumps.

6.2.2 H2 Hornbeam – Fell and remove stumps.

6.2.3 T4 Camellia – Fell and remove stump.

6.2.4 T3 Sycamore – Crown lift, to 2.5m above proposed southern side access and landing only, removing secondary growth only and using drop crotch pruning technique.

6.2.5 G2 Mixed Group – Prune back to boundary.

6.2.6 T1 Common Hornbeam – Supervised root pruning to facilitate retaining wall, bin and cycle store floor, and ramp.

1 area (approximately 3.5m along the boundary wall from the edge of the existing side access stair) of hand tool excavation to a depth suitable for the wall foundation, store slab, and ramp subbase is required. Any roots encountered are to be pruned using sharp secateurs or a pruning saw.

6.2.7 T3 Sycamore – Supervised root pruning to facilitate garden wall and retaining wall.

1 area (approximately 4.3m along the southern boundary from the highway and 2.6m along the new retaining wall east of the ramp path) of hand tool excavation to a depth suitable for the wall foundation. Roots encountered are to be pruned using sharp secateurs or a pruning saw at the supervising arboriculturalist's discretion, additional soil amelioration works may be ordered, to improve the vitality of the tree following root pruning.

6.2.8 T5 Common Ash – Supervised root pruning to facilitate retaining wall and steps.

1 area (approximately 5.5m around the southern corner of the lawn, with and extended area for the steps) of hand tool excavation to a depth suitable for the wall/step foundation. Roots encountered are to be pruned using sharp secateurs or a pruning saw at the supervising arboriculturalist's discretion, additional soil amelioration works may be ordered, to improve the vitality of the tree following root pruning.

6.2.9 G1 Mixed Group – Supervised root pruning to facilitate garden wall.

1 area (approximately 8m along the southern boundary wall) of hand tool excavation to a depth suitable for the wall foundation is required. Any roots encountered are to be pruned using sharp secateurs or a pruning saw.

6.2.10 Any future works that might be necessary should comply with the recommendations contained within British Standard 3998:2010 'Tree Work' and undertaken with the consent of the local planning authority if such consent is required.

6.3 Protective Barrier Fencing (PBF) on the subject site

6.3.1 Once installed and inspected at the pre-commencement meeting, no part of the Protective Barrier Fencing shall be moved, altered or removed before project sign off. Where unforeseen conflicts arise during the development process the Project Arboriculturalist shall be consulted.

6.3.2 One fence is required.

6.3.3 The location of the fence is critical to the appropriate placement of the permanent ground protection in the area of T6 (Copper Beech). Careful laying out of the site is recommended to assure proper placement of the fence.

6.3.4 PBF1 will start from the new southwestern boundary fence, close to the stem of T5 (Common Ash) and follow the new lawn retaining wall giving a 1m clearance and working access around the proposed lawn retaining wall, the fence will turn back towards the western corner of the garden and then turn northwards to form the rectangular area of the cellular confinement system, before finally abutting the northwestern boundary fence. PBF1 encloses the otherwise unprotected areas of RPA belonging to T5, T6, and G2. There is to be no construction access to the west of the fence at any time.

6.3.5 PBF1 is plotted as a solid purple line on the Tree Protection Plan: Figure 2 TPP.

6.4 Stem protection

6.4.1 Due to the close proximity of proposed building works to three offsite street trees, (including a new newly planted, staked young tree, which is too small to be included within the BS5837 Tree Survey), their stems should be individually fenced of using a frame and plywood enclosure. Examples of such fencing can be found in the safety guidance note: SGN2 Fencing protected trees, published by Barrel Tree Consultancy 2020. At no time should these be fixed directly to the trees' stems.

6.4.2 Individual stem protection should be installed around T1, T2, and the newly staked young tree opposite the main steps.

6.5 Works within RPAs

6.5.1 All works within RPAs must be supervised by the Project Arboriculturalist (Section 6.8).

6.5.2 A 2m wide area of ground protection is to be used to create a working zone between the existing front boundary wall and the new southern, ramped access path.

6.5.3 Similarly, a 0.5m wide area of ground protection is to be used between the existing front access path and the new southern, ramped access path.

6.5.4 Following the demolition of the existing front access path, the 0.5m strip will be extended to the lightwell to cover the area of exposed RPA.

6.5.5 These will protect against ground compaction and contamination during demolition and construction of the new hardscaping.

6.5.6 The ground protection is to be in the form of a minimum 150mm compressible material such as woodchip (if good quality well-rotted woodchip is used, it may be repurposed at the landscaping stage, within the garden as a mulch or soil improver), covered by a sheet of 18mm plywood or scaffold planks. This is suitable for pedestrian use and machines weighing less than 2 tons.

6.5.7 Once installed and inspected at the pre-commencement meeting, no part of the ground protection shall be moved, altered (with the exception of the additional area described at 6.5.4, following the removal of the front access path) or removed before project sign off. Where unforeseen conflicts arise during the development process the Project Arboriculturalist shall be consulted.

6.5.8 Part of the demolition of the existing front boundary wall is adjacent to the RPA of T1 (Hornbeam). This section of demolition must be carried out using hand tools (including a breaker) to avoid damage to the adjacent RPA and canopy by machinery.

6.5.9 Part of the retaining wall, garden wall and southern boundary wall are within the retained RPAs of T2 (Oriental Plane), and T3 (Sycamore). An engineered solution, designed by others, to allow for reinforced foundations and a reduced impact compressive load on the soil, by utilising pad or pile style foundations must be employed, to avoid excessive excavation or long strips of soil compaction.

6.5.10 Ground build-up below the proposed southern access ramp within the RPAs of T2 (Oriental Plane), and T3 (Sycamore) must make use of structural soil and be permeable, (permeable surfacing here too), without removing existing topsoil and rooting environment. The proposed solution is to remove existing vegetation then apply a suitable, permeable, stabilising membrane, and fill between the two new walls with structural soil, and finish with a permeable surface material. Provision must be made for draining the structural soil through the retaining wall.

6.5.11 If T5 (Common Ash) cannot be removed, some landscaping work proposed is within its retained RPA. This area is already covered by gravel, sheeting this unfenced area with 18mm shuttering plywood directly onto the gravel will protect this area of RPA from compaction and contamination whilst construction of the retaining wall and steps is completed. The existing lawn will be retained, and the historical addition of this feature is well above the expected rooting area of T5, none of the proposed works are likely to have any effect on the RPA if it still extends below the lawn, no further ground protection non the lawn is required.

6.5.12 The new path and seating area are within the RPA of offsite tree T6 (Copper Beech). To permanently protect this area from compaction, a no-dig cellular confinement system (100mm Cellweb TRP or similar) must be installed over appropriate membranes and filled with 4/20 clean granite or basalt (limestone degrades the structural plastics). The outline of the path and seating area are complex flowing curved lines, and these types of system are best installed in rectangular sections. However, only the cells that sit within the required paving/gravelled area need to be filled with the stone and compacted. The cells adjacent to the path can be filled with good quality topsoil and planted through. This forms the subbase, and a permeable surfacing can then be applied, to follow the designed curves.

6.5.13 The cellular confinement system must be installed after the Hornbeam trees of H2 have been felled and ground out and the soil there made good. No machine compaction of the soil is permitted within the RPA of T6.

6.5.14 All manufacturers' recommendations and installation instructions must be followed.

6.5.15 Permanent ground protection areas are shown as cross hatched pink areas with a solid pink outline on the Tree Protection Plan: Figure 2 TPP.

6.5.16 Temporary ground protection areas are shown as diagonal hatched pink areas with a solid pink outline on the Tree Protection Plan: Figure 2 TPP.

6.5.17 Several small areas of supervised root pruning are required within RPAs (see Section 6.2). All excavations to uncover roots will be carried out using hand tools only and any roots requiring pruning are to be carefully pruned using sharp secateurs or pruning saws to reduce the risk of pathogen infection.

6.5.18 Areas of hand dug root pruning are plotted as shaded brown area with solid brown outlines on the Tree Protection Plan: Figure 2 TPP.

6.6 Other general activities

6.6.1 Many of the activities which occur on construction sites are potentially damaging to trees. These include the location of site huts, parking arrangements, the storage of materials, the storage of rubbish, and the movement and operation of plant. It is important to understand the range of potentially damaging activities that might occur on a particular site and ensure at an early stage that these possible conflicts are recognised and avoided. Therefore, areas designated for site huts, parking and storage of materials should be identified prior to the commencement of works.

6.7 The subject site

6.7.1 There is limited working and storage space within the site, small areas with limited access are available to the north of the existing main steps, the highway will provide the most practical working and storage area. All works and storage must be kept away from the RPAs of retained trees. If necessary, aggregate type materials must be kept on vehicles on the highway until required. The appropriate permits and licenses must be sought to store/work on the highway.

6.7.2 No hazardous materials, fuel or cement are to be stored or mixed where a risk of spillage could affect retained trees either on or off site.

6.8 Site monitoring and supervision

6.8.1 BS5837:2012 Trees in relation to design, demolition and construction – Recommendations states:

Wherever trees on or adjacent to a site have been identified within the tree protection plan for protective measures, there should be an auditable system of arboricultural site monitoring. This should extend to arboricultural supervision whenever construction and development activity is to take place within or adjacent to any RPA. (BSI, 2012)

6.8.2 The pre-commencement meeting is held after all the above ground tree surgery works have been completed, and all the protective measures (fencing and temporary ground protection) are installed, but before any materials, plant or site office/facilities are delivered, and before any demolition, construction or ground works are started. In some instances, where demolition of fences or outbuilding is required to properly fence the site, this will be addressed with a combination of phased approach to fencing and supervised demolition within the AMS.

6.8.3 The pre-commencement meeting must be attended by representatives (with the authority to direct works), from the principal contractor, ground works contractor, project manager and the project arboricultural consultant, who will head the meeting and document proceedings.

6.8.4 The meeting provides an opportunity to discuss:

- Site layout, agreed entrance and egress routes, plant & material storage, and the storage and use of hazardous materials (fuel & cement, etc.)
- The tree protection measures.
- The relevant dos and don'ts to avoid any damage to retained trees and subsequent prosecution or failure to discharge planning conditions
- The programming of any phased works,
- The upcoming supervised works and site monitoring.

6.8.5 N.B. The local authority tree officer may request and or condition an invitation to the pre-commencement meeting.

6.8.6 Site supervision: In addition to the pre-commencement meeting and the final project sign off, there are several processes and instances throughout the proposed development that require arboricultural site supervision. An itemised schedule of supervision is appended to this report. See Appendix B.

6.8.7 Site monitoring: Due to the close proximity to the protected and retained trees on and off site, monthly inspections, to monitor the tree protection measures are required.

6.8.8 All elements of the protective measures shall be inspected and photographed by the Project Arboriculturalist. A record of inspection is appended to this report. See Appendix C.

6.8.9 Findings from site monitoring or supervision will be reported directly to the planning office of the local authority.

6.9 Replanting

6.9.1 Following the removal of the low-quality Camellia tree T4, and hedge H1 (Category C) with limited amenity value but some arboricultural and habitat value, and the better quality but small Hornbeam trees of H2 and to improve the arboricultural and landscape value, and biodiversity of the site the replanting of at least three new trees is recommended.

6.9.2 A separate planting scheme is being provided by others (See project Planting Plan). This has been reviewed by AFA and more than adequately provides suitable mitigation planting for the proposed tree and hedge removals.

6.9.3 All planting is to be carried out in line with BS 8545: 2014 From Nursery to Independence.

6.9.4 The garden is cared for by a skilled maintenance team who will manage the planting and aftercare and any lost or defective trees will be replaced swiftly for a period no less than 5 years.

6.9.5 An automatic drip-line irrigation system will also be installed.

7. Methodologies and limitations

7.1 Information recorded during the tree inspection

7.1.1 Data such as species, size, age, and canopy spread has been recorded. During the inspection, the following specific details were focused on:

- Tree condition (whether or not the vigour or safety of the tree is noteworthy).
- Additional remedial requirements.
- With specific regard to Ash trees, whether the onset of Ash Dieback is becoming prevalent and whether or not pre-emptive removal would be prudent.

7.2 Method of inspection

7.2.1 During the inspection, trees were subjected to a basic visual tree assessment (VTA). The approximate girth measurement (mm) and tree height (m) was recorded, and the overall condition and vitality of the tree was identified.

7.2.2 VTA (Mattheck and Breloer 1994) has been identified as the industry's standard method of tree surveying for several years. The method incorporates visual observation and a knowledge of tree biology and physiology to determine the stability and overall condition of a tree. The VTA system considers the frequency and speed of adjacent use or traffic and assesses the vulnerability of the target. An example of a high target could be a dwelling. An example of a high frequency of adjacent traffic could be a busy road.

7.2.3 The VTA system adopted for this tree inspection report did not include any internal investigation measures.

7.2.4 This tree inspection is appropriate for the requirements of BS5837: Trees in relation to design, demolition and construction – Recommendations. This document does not constitute a tree hazard inspection/assessment, nor does it discharge any duty of care applicable to the tree or landowners.

7.3 Limitations of this tree inspection report

7.3.1 The conclusions and recommendations in this report are valid for a period of one year from the date of survey or till the next warning level weather event. Trees are living organisms subject to change; this validity period may be reduced should changes in condition occur to the subject(s) of the report or surrounding area. All recommendations are given in the context of the site's current usage; any change would dictate a re-inspection.

7.4 Protected species – Nesting birds and bats

7.4.1 The bird nesting season is widely accepted as starting on March 1st and ending on September 1st. However, it should be noted that some species' (such as pigeons) may nest well into September, and it is therefore imperative that if any works are to be undertaken outside of the dormant winter months, the trees are first subjected to a full nesting bird inspection.

7.4.2 Remedial tree surgery works should be avoided during the bird nesting season.

7.4.3 European legislation identifies bats as a protected species and it is therefore a criminal offence to disturb them, or their roosts (without the correct authority from DEFRA or English Nature). The relevant legislation in England & Wales is the Wildlife and Countryside Act 1981 and Conservation of Habitats & Species Regulations 2017.

7.4.4 It is possible that some of the trees surveyed as part of this report will contain temporary or permanent bat roosts as the trees are located in woodland areas and display the attributes required by bats (listed beneath).

7.4.5 The timing of any works recommended by this report are of significant importance as works in the summer could disturb bats which are bringing up their young in maternity sites, whereas works in the winter could disturb bats which are hibernating.

7.4.6 It is the landowner's responsibility, in addition to those conducting the works, to ensure that protected species, such as bats, have been considered before any actions are conducted that could disturb those animals. This legislation is still applicable regardless of the presence of a TPO or Felling Licence.

7.4.7 If a roost has been confirmed and is likely to be lost as a result of the necessary work, a European Protected Species (EPS) derogation licence is likely to be required. The issuing of this licence follows on from conducted surveys (with mitigation plans where relevant) and allows the works to be undertaken lawfully (an ecologist would be required to fulfil this requirement). EPS licences are granted by the relevant Statutory Nature Conservation Organisation (SNCO) and any questions should be directed to the licencing team of that SNCO. Where it is confirmed that a bat roost is not present, the work can proceed as planned.

7.4.8 The author of this report has limited ecological knowledge. However, further to research being undertaken, it seems reasonable to assume that a small number of the trees surveyed could be providing habitat for several species of bat. These could include Pipistrelle, Brown long-eared bat, Noctule, Barbastelle, Bechstein's bat and Natterer's bat.

7.4.9 It is therefore strongly recommended that an adequate bat survey be employed prior to any works commencing.

7.4.10 The following must be considered potential bat habitat:

- Woodpecker holes
- Cavities
- Vertical and horizontal splits or cracks
- Hollow sections
- Loose ivy
- Beneath loose bark
- Bat or bird boxes

7.5 Specific management for veteran trees

7.5.1 Veteran tree management is a specialised system which includes careful consideration and appreciation for a range of different strategies applying to the varying nature or setting of a tree or trees. The overall management is likely to have to encompass a variety of different principals, ranging from wildlife and conservation to health and safety and education.

7.5.2 When managing a single tree or group of veteran trees within a park or amenity area there are many issues which need to be considered, so that the tree can fulfil its purpose whilst contributing to wildlife and conservation and providing amenity in a way that supports and ensures its future survival. These types of management strategy could often be conflicting in other situations, but with veteran trees they are amalgamated and there are many different management principals which help to contribute to enhancing their special aspects.

7.5.3 Such principals typically include retention of, or in some cases encouragement of deadwood throughout the canopy is an important aspect of veteran tree management as it increases the biodiversity and ecological value of the tree by providing habitat which is becoming increasingly scarce in urban environments or where trees and public areas are to coexist. Another management strategy which is often attributed to veteran trees is active encouragement of tear cutting and coronet cutting, which are exceptionally good ways of artificially mimicking the sort of damage usually caused by storms and branch failure. This helps to enhance the special aspects of veteran trees as it provides habitats which support fungal activity and in turn support an entire ecosystem within the tree in a symbiosis that is often beneficial to many different species. It is important that the risk of the deadwood failing and causing damage to property or injuring people is reduced and this can be achieved by yearly inspections and in some cases larger pieces of deadwood are even braced within the tree to prevent them from falling out. In most instances removal of deadwood should be avoided (if safe to do so) and dead limbs should instead be stabilised (shortened) and retained so that they can continue to provide a niche habitat for a wide range of living organisms.

7.6 Ash dieback

7.6.1 There are an estimated two billion ash trees, including seedlings and saplings, across the UK and ash dieback will lead to the decline and death of the majority of these, with perhaps as many as 90% being infected. Four million of those trees are located within the urban environment, a further four million are adjacent to highways and nearly half a million large ash trees are growing next to the rail network. Over 125 million trees are growing in woodland areas.

7.6.2 Ash trees of all ages are affected by the disease, although it is easier to identify in young trees. Larger, mature trees, by their very size, present a much more dangerous situation and should therefore be surveyed by experienced and qualified tree experts so that any risk can be appropriately assessed, and suitable management recommendations prescribed.

7.6.3 Infected trees exhibit a number of symptoms including:

- The tips of shoots become black and shrivelled and side shoots on saplings die.
- Dead, blackened leaves can be seen, and veins and stalks of leaves turn brown.
- Dieback of branches, often with bushy, epicormic growth lower down in the crown, noticeable in mature trees.
- Long, thin, and diamond-shaped dark lesions appear on the trunk close to dead side shoots and may appear at the base of infected trees.
- In late summer and early autumn (July to October), small white fruiting bodies can be found on blackened leaf stalks.

7.6.4 As the fungus destroys the trees' vascular system, the lack of water and nutrient movement depletes energy reserves in the trees and makes them more susceptible to attack from secondary, root killing pathogens such as Honey Fungus (Armillaria spp.) which are widespread and common in soils. Another aggressive pathogen called Shaggy Bracket (Inonotus hispidus) also colonises Ash trees affected by Ash Dieback and can cause sudden catastrophic failure as both the cellulose and lignin within the trees' woody structure are depleted in equal measure. Both pathogens cause the tree to become brittle and lose branches eventually causing the death of the tree.

7.6.5 Harder to sport, legions at the base of the trees quickly develop into a butt or root rot and ultimately lead to the trees becoming unstable and dangerous. Worryingly, there may be no evidence of ash dieback in the canopy of these trees making them difficult to identify without a closer inspection. This is particularly true of Ivy-covered Ash trees.

8. Information Regarding Legal Constraints & Liabilities

8.1 Legislation

8.1.1 In accordance with the Health and Safety at Work etc. Act 1974, all occupiers have responsibilities to ensure the safety of those not in their employment. The "Occupier" is generally taken to mean any person occupying or having control of premises, in this case land.

8.1.2 Thus, there are clear legal responsibilities to assess risks that arise from trees and take suitable and sufficient steps to control such risks.

8.1.3 In addition, occupiers have duties under the Occupiers Liability Act 1984. This state (s2) that the occupier owes a "common law duty of care" to visitors and those who enter his land or premises, and this duty of care extends to trespassers. In Scotland there is no such distinction in the law.

8.2 Tree Preservation Orders & Conservation Areas

8.2.1 It is worth noting that tree protection status is subject to change, and it is therefore advisable that all relevant checks are made before any tree surgery works related to the recommendations outlined by this report are undertaken.

8.2.2 The recommendations outlined by this report such as pruning of roots and branches are subject to consent. Where statutory tree control measures such as Tree Preservation Orders (TPO) or Conservation Area status are applicable, the relevant application or notification process must be adhered to if tree surgery works are to be undertaken. For any tree surgery works to be undertaken the permission of the tree owner should also first be sought.

8.3 Ecological constraints associated with recommendations

8.3.1 Several acts and regulations such as The Wildlife and Countryside Act 1981, as amended, The Conservation of Species Regulations 2010 and the Rights of Way Act 2000 provide statutory protection of flora and fauna such as birds, bats and other species associated with trees. It is therefore advisable that a suitable contractor is used and ensures that no protected species are harmed whilst tree surgery works are being undertaken. The advice of an ecologist is advised prior to commencement.

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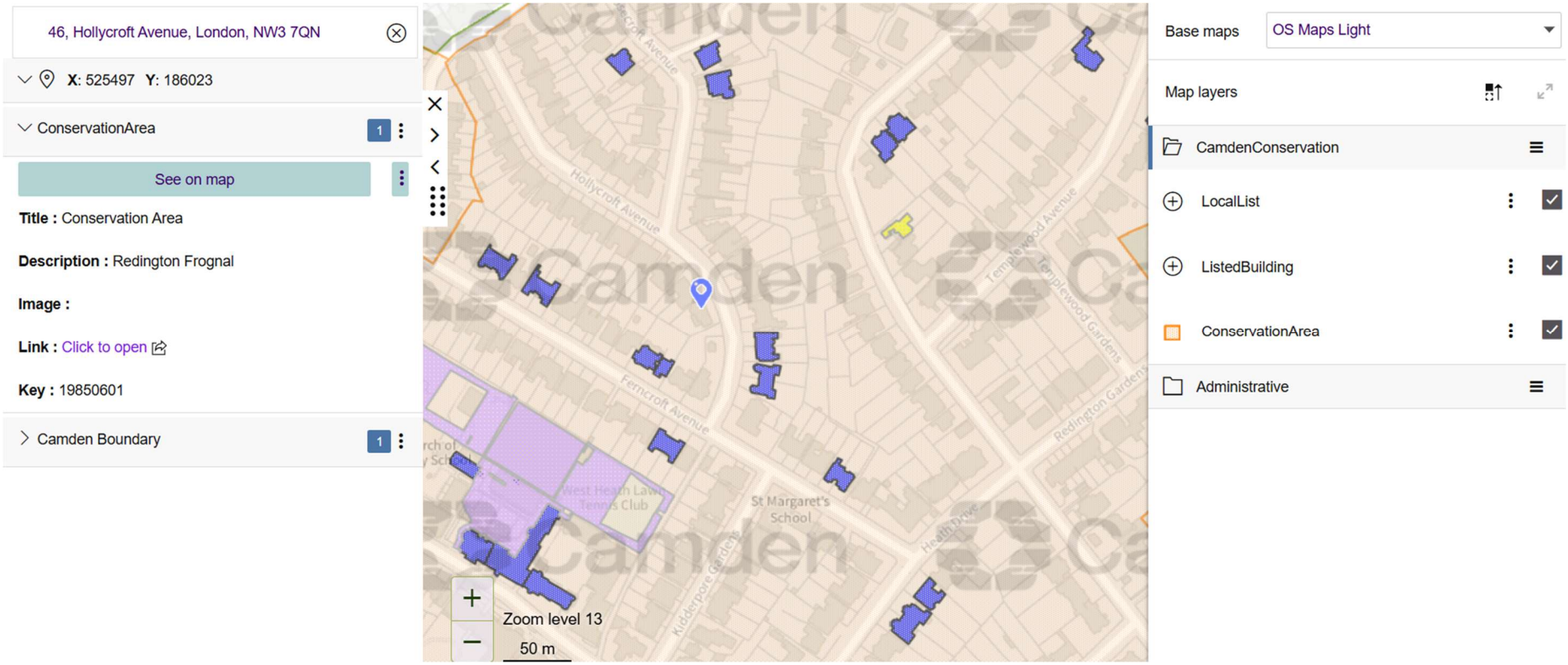
Screen grab from London Borough of Camden's interactive map. Site visited on 22/05/2024.

Site is within Waverely Conservation Area - Camden.

No known TPOs on site.



Schedule of supervision

The stages of the proposal that require arboricultural supervision are listed below:

	Item	Date Completed	Signed
1	Pre-commencement meeting: • Site or project manager to attend. • Tree protection measures to be inspected and any phased approach and supervision discussed and programmed. • Site layout, entrance & egress, plant & material storage and hazardous materials discussed.		
2	Rear garden fence repair (vicinity of T5, T6 and G2)		
3	Demolition of front boundary retaining wall (vicinity of T1)		
4	Root Pruning (vicinity of T1)		
5	Demolition of garden walls and hardstanding (vicinity of T2 & T3)		
6	Root Pruning (vicinity of T3)		
7	Sensitive excavation for foundations (vicinity of T2 & T3)		
8	Sensitive excavation (vicinity of G1)		
9	Sensitive excavation and root pruning (vicinity of T5)		
10	Preparation and installation of compaction control (vicinity of T6)		
11	Project sign off		

Tree protection monitoring - Monthly (from precommencement meeting)

Inspection record:

	Notes from site inspection	Date Completed	Signed
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Print duplicate pages if required.

AFA CONSULTING

BS 5837:2012 Table 1 – Cascade chart for tree quality assessment

APPENDIX D

Category and Definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.			DARK RED
	1. Mainly arboricultural values	**2. Mainly landscape values**	**3. Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value GREY	GREY

BS5837:2012 Tree Survey

Client: Fulwell Property Consultants
Project: 46 Hollycroft Avenue
Survey Date: 10/05/2024
Surveyor: Andy Fulbrook & Martin Grew

AFA Consulting Ltd
105 Ambleside
Lightwater
Surrey
GU18 5UJ
Phone: 0800 772 0303
Mobile: 07515 920686

Tree and Tag No / Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations / Survey Comment	Cat ERC
G1										Estimated Measurements	
A Group	8	2	156 (Eq)	N 1.5	2	M	A: 10.9	Fair	C: Fair		C.2
- -				E 1.5	2		R: 1.86		S: Fair	An off site boundary group providing limited visual amenity and good boundary screening.	10 to 20 yrs
				S 1.5	2				B: Fair		
				W 1.5	2						
G2										Estimated Measurements	
A Group	6	3	173 (Eq)	N 2	0	M	A: 13.6	Fair	C: Fair		C.2
- -				E 2	0		R: 2.08		S: Fair	An off site group comprised of Laburnum and Cherry Laurel. Provides good boundary screening.	10 to 20 yrs
				S 2	0				B: Fair		
				W 2	0						
H1										Estimated Measurements	
A Hedgerow	3	2	57 (Eq)	N 0.5	0	Y	A: 1.4	Fair	C: Fair		C.2
- *Spp.*				E 1	0		R: 0.66		S: Fair	A well clipped boundary hedge providing good screening.	>40 yrs
				S 1	0				B: Fair		
				W 1	0						
H2											
A Hedgerow	5	1	90	N 1	1	Y	A: 3.7	Good	C: Good		B.1.2
- *Spp.*				E 1	1		R: 1.08		S: Good	A well managed hedge comprised of pleached Hornbeam. Provides excellent visual amenity and bounds screening.	20 to 40 yrs
				S 1	1				B: Good		
				W 1	1						

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contributio

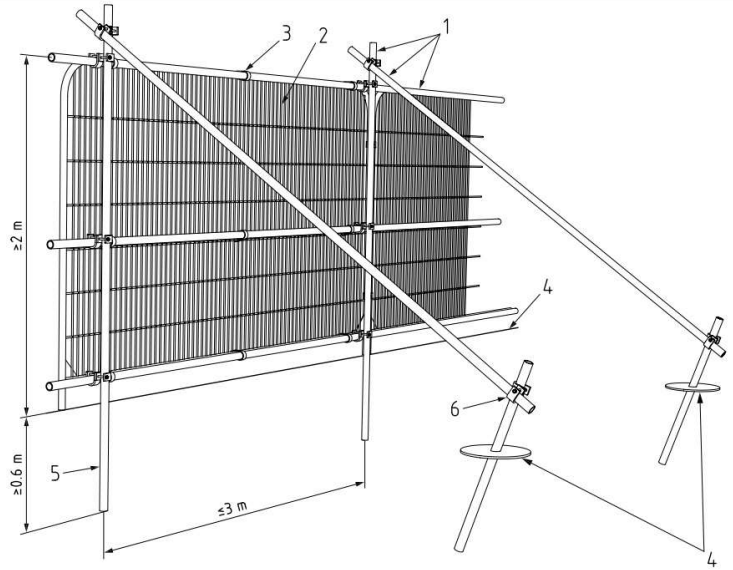
Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T1											
Common Hornbeam *Carpinus betulus*	10.5	1	220	N 3 E 3 S 4 W 3	3 3 3 3	SM	A: 21.9 R: 2.64	Good	C: Good S: Good B: Good	Off site tree providing good visual amenity. Upright growth habit with normal vigour and crown vitality.	**B.1.2** 20 to 40 yrs
T2											
Oriental Plane *Platanus orientalis*	17.5	1	760	N 5 E 6 S 4.5 W 4	7 7 7 7	M	A: 261.3 R: 9.11	Fair	C: Fair S: Fair B: Fair	An off site tree providing good visual amenity. Recently pollarded with approximately 4m of regenerative growth.	**B.1.2** 20 to 40 yrs
T3										Estimated Measurements	
Sycamore *Acer pseudoplatanus*	12.5	1	350	N 4.5 E 5 S 6 W 4.5	5 2.5 5 2	M	A: 55.4 R: 4.19	Fair	C: Fair S: Fair B: Fair	An off site tree providing limited visual amenity. Some cambium dysfunction visible in canopy (squirrel damage). Poor suppressed growth habit.	**B.2** 20 to 40 yrs
T4											
Japanese Camellia *Camellia japonica*	5	1	100	N 2 E 1.5 S 2 W 1	1 1 1 1	M	A: 4.5 R: 1.19	Good	C: Fair S: Fair B: Fair	Tree of moderate value providing all year interest and good visual amenity.	**C.1.2** 20 to 40 yrs
T5										Estimated Measurements	
Common Ash *Fraxinus excelsior*	12	2	375 (Eq)	N 4 E 4 S 4 W 4	3 3 3 3	M	A: 63.7 R: 4.5	Fair	C: Poor S: Poor B: Fair	An off site tree displaying poor biomechanics with failed union at approximately 2m. No evidence of ADB.	**U**
T6										Estimated Measurements	
Copper Beech *Fagus sylvatica 'Purpurea'*	17	1	850	N 6 E 6 S 6 W 6		M	A: 326.9 R: 10.2	Fair	C: Fair S: Fair B: Fair	A mature and prominent tree situated off site. Provides good visual amenity and wildlife value. Historically reduced and has a very dense canopy with significant regenerative growth. Situated 4.5m from boundary fence.	**B.1.2** 20 to 40 yrs

Age Classifications:
N Newly planted
Y Young
SM Semi-mature
EM Early Mature
M Mature
OM Over Mature

Condition:
C Crown
S Stem
B Basal area

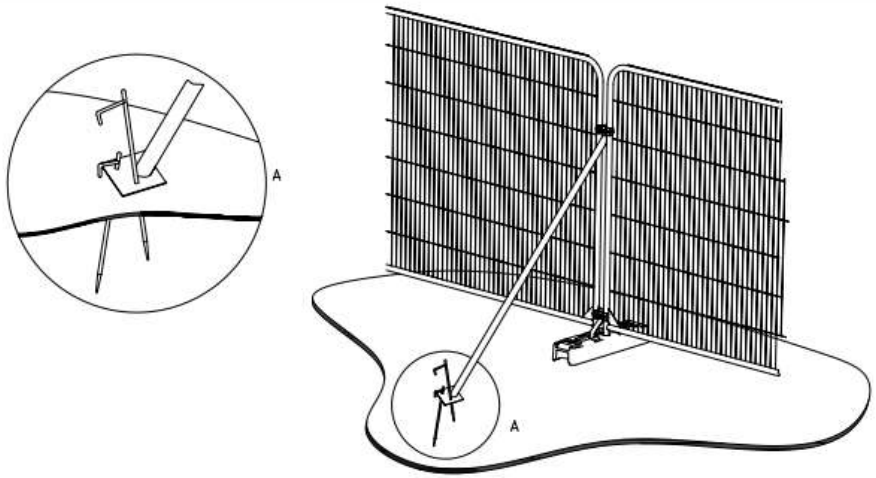
Stems:
Ø Diameter
(Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contributio

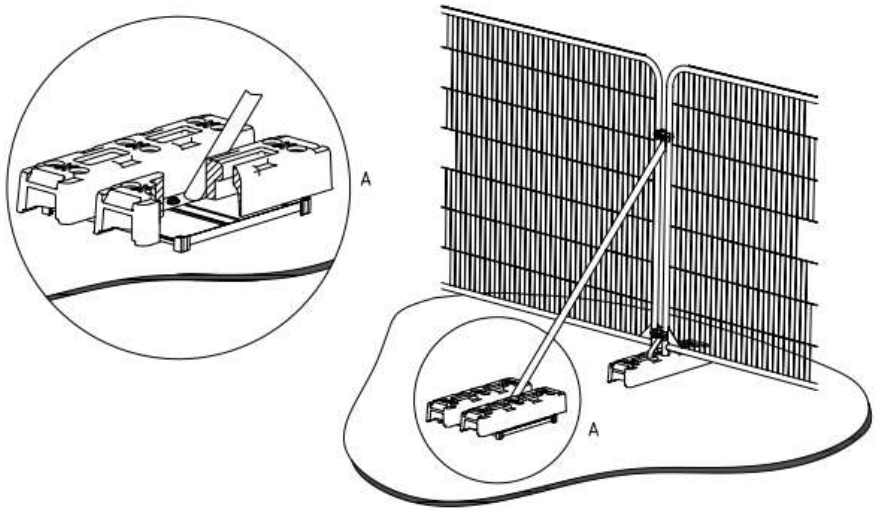


Key

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



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

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AFA CONSULTING

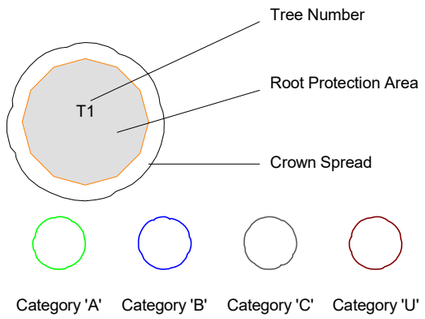
Tree Constraints Plan
46 Hollycroft Ave

SCALE : 1 : 250 @ A3

DATE : 04/06/2024

N

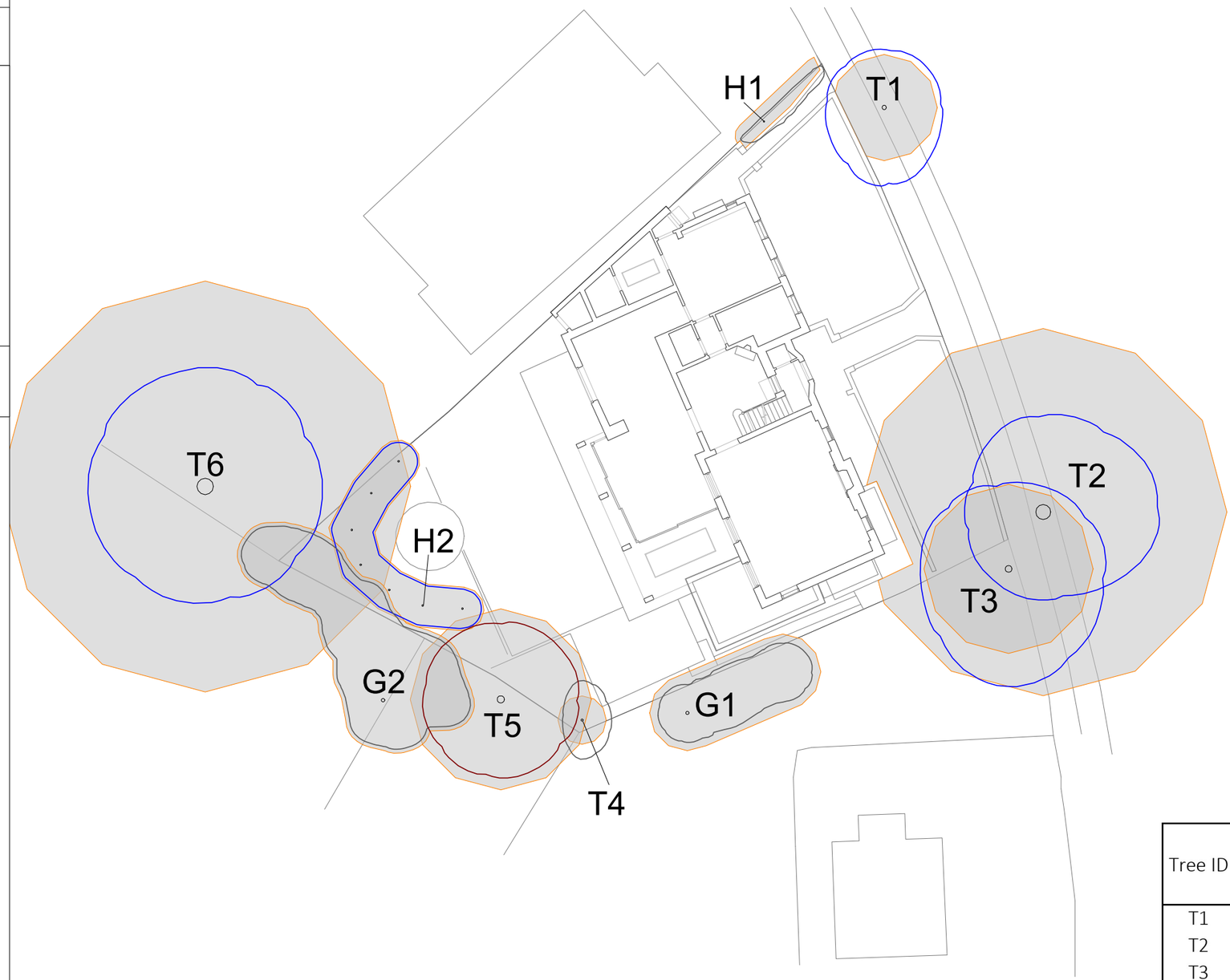
MAP FILENAME :
Figure 1 - TCP Hollycroft 2024



0 20m

Statutory protection checked on date above:
The site is within a Conservation Area.
(Redington Frognal CA)
No Tree Preservation Orders are present on site.

Further details can be found with Camden Council



Tree ID	Common Name	RPA Radius (m)	Category
T1	Hornbeam	2.64	B
T2	Oriental Plane	9.12	B
T3	Sycamore	4.20	B
T4	Japanese Camellia	1.20	C
T5	Common Ash	4.50	U
T6	Copper Beech	10.20	B
H1	A Hedgerow	0.68	C
H2	A Hedgerow	1.08	B
G1	A Group	1.87	C
G2	A Group	2.08	C

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AFA CONSULTING

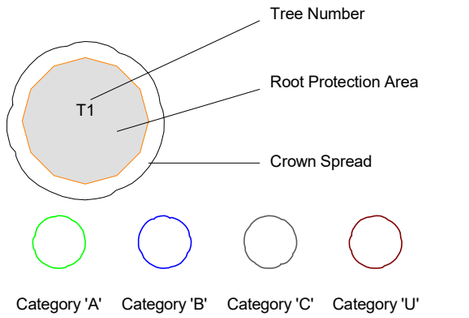
Tree Protection Plan - Revision 1
46 Hollycroft Ave

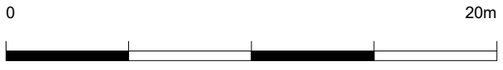
SCALE : 1 : 250 @ A3

DATE : 01/07/2024

MAP FILENAME : Figure 2 - TPP Hollycroft 2024 Rev 1

N





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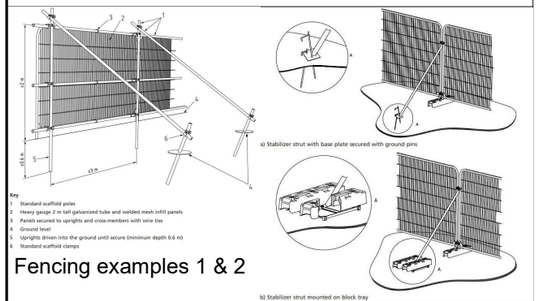

Fencing examples 1 & 2

- Material/Plant Storage
- Existing Hardstanding in RPAs
- Temporary Ground Protection
- Permanent Ground Protection
- Root Pruning
- Canopy Pruning
- Proposed Landscaping
- Existing Landscaping (Demolition)
- Proposed Landscaping
- Protective Barrier Fencing
- Arboricultural Supervision

IMPORTANT NOTE FOR RETAINED RPA's:

NO PLANT ACCESS.

NO UNSUPERVISIED CONSTRUCTION

HAND TOOLS ONLY.

NO MATERIAL OR WASTE STORAGE.

An above ground cellular confinement system (100mm Cellweb TRP or similar) must be used to create a subbase for the paved/gravel seating area and path within the RPA of T6.

For ease of installation this system is best installed in rectangular patterns, and should be used upto PBF1, instead of temoprary ground protection.

The cells ouside the required subbase can be filled with quality top soil rather than 4/20 clean stone (basalt or granite). They can then be planted through.

Stem protection

Existing wall foundation is older than T1 and likely to have prohibited root growth into the site. Demolition of the wall and its foundation adjacent to RPA, must be carried out using hand tools and under the supervision of the project arboriculturalist. If roots are encountered some minor root pruning may be required to facilitate construction of the ramp.

Possible material storage locations, on vehicles or pavement with appropriate licence/permits.

Temporary ground protection must be installed to protect RPAs from compaction and contamination.

Good quality topsoil with a high organic content must be used for the increase of ground level within RPAs at the landscaping stage, before new planting.

Stem protection - Staked, young tree.

Stem protection

Ground build up below new hard surfaces within retained RPAs is to be made up using structural soil and a permeable surface. This will form permanent ground protection.

Note: provision for drainage must be considered from behind the retaining wall.

Excavation for proposed retaining wall foudations is to be completed using hand tools and under the supervision of the project arboriculturalist. Minor root pruning of T3 may be required.

Demolition of existing garden/retaining walls within RPAs must be completed using hand tools and under the supervision of the project arboriculturalist.

Hand dug excavation with minor root pruning to facilitate the foundation of the new boundary wall, to be dug under the supervision of the project arboriculturalist.

Rear garden fence is to be replaced under the supervision of the project arboriculturalist, before errection of the Protective Barrier Fence PBF1.

Hand dug excavation with minor root pruning to facilitate the foundation of the new retaining wall and steps, to be dug under the supervision of the project arboriculturalist.

Supervision:

Pre-commencement meeting

Rear garden fence repairs, prior to Protective Barrier Fencing, PBF1.

Demolition of exising boundary wall and some foundations close to T1.

Demolition of existing garden wall and hardstanding within the RPAs of T2 & T3.

Excavation for wall foundations within the RPAs of T2 & T3.

Excavation for the wall foundation adjacent to G1.

Excavation for retaining wall/ step foundation for rear lawn within the RPA of T5.

Ground preparation and installation of compaction control in the RPA of T6.

Project sign off

Tree Work:

H1 - Fell and remove stumps.
H2 - Fell and remove stumps.
T1 - Possible minor root pruning.
T3 - Minor crown lift (to 2.5m) over new path.
T3 - Possible root pruning.
T4 - Fell and remove stump.
T5 - Possible root pruning.
G1 - Possible root pruning.
G2 - Cut overhang back to boundary line.

Tree Planting:

For new trees -
See Project Planting Scheme

Site Monitoring:

Monthly visits

Tree ID	Common Name	RPA Radius (m)	Category
T1	Hornbeam	2.64	B
T2	Oriental Plane	9.12	B
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