Cantia Arboricultural Services

Amended Arboricultural Impact Assessment and Method Statement

CAS/2022/157D

For
Mr Gurvinder Sethi

Proposed Development Site
Tudor Lodge Hotel, 50 Field End Road, Harrow, HA5 2QN.
4726/APP/2024/979

Boyd Saunders
Dip Arb L4- Tech 'Arbor A'

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1.0 Introduction

1.1 Instruction

1.1.1 Cantia Arboricultural Services were instructed to undertake a tree survey and provide arboricultural advice on the site known as Tudor Lodge Hotel, 50 Field End Road, Harrow, HA5 2QN to accompany a planning application.

1.1.2 The site visit was carried out on Thursday 14th July 2022, between the hours of 1030-1545hrs (315 minutes) and weather conditions were noted as clear with visibility conducive of surveying.

1.2 Aim of Report

1.2.1 To survey in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' to plot and assess the quality of the existing trees located on site and within 15m of proposed development operations.

1.2.2 To assess the impact of the proposed development upon trees located on site and within the immediate vicinity. To provide advice on trees requiring removal and outline protective measures for trees marked for retention.

1.2.3 To provide a work specification as required by retained trees to accommodate the proposed development.

1.2.4 To provide recommendations and guidance on how trees and other vegetation may be successfully retained within the proposed development

1.3 Documentation & Disclosure

1.5.1 The following documentation has been made available

- Existing and Proposed Site Plans - 1921_Existing_9_Hotel 4_2 - Sheet - A09 - EXISTING BLOCK PLAN.dwg, 1921_Proposed shed_Nov 2024_1 - Sheet - A09 - PROPOSED BLOCK PLAN.dwg, 1921 - A09 - EXISTING BLOCK PLAN.dwg, 1921 - A09 - EXISTING BLOCK PLAN_P1.pdf, 1921 - A10 - EXISTING GF PLAN_P1.pdf, 1921 - A11 - EXISTING 1F PLAN_P1.pdf, 1921 - A12 - EXISTING ROOF PLAN_P1.pdf, 1921 - A20 - EXISTING ELEVATION 1 OF 2_P1.pdf, 1921 - A21 - EXISTING ELEVATION 2 OF 2_P1.pdf, 1921 - A30 - EXISTING SECTION AA_P1.pdf, 1921 - A90 - PROPOSED BLOCK PLAN.dwg, 1921 - A90 - PROPOSED BLOCK PLAN_P1.pdf, 1921 - A100 - PROPOSED GF PLAN_P1.pdf, 1921 - A101 - PROPOSED 1F PLAN_P1.pdf, 1921 - A102 - PROPOSED ROOF PLAN_P1.pdf, 1921 - A200 - PROPOSED ELEVATION 1 OF 2_P1.pdf, 1921 - A201 - PROPOSED ELEVATION 2 OF 2_P1.pdf & 1921 - A300 - PROPOSED SECTION AA_P1.pdf, 1921 - A100 - PROPOSED GF PLAN.pdf, 240917 - A90 - PROPOSED BLOCK PLAN.

2.0 Site & Tree Discussion

2.1 Site Description

2.1.1 Tudor Lodge is a detached Tudor Style 15th Century farmhouse which occupies a plot of approx. 3,750 square metres (0.92 Acre). The building is a grade 2 listed building (1358348).

Tudor Lodge Hotel as viewed from Main Entrance

2.2.2 The property faces South-eastwards with a main / vehicle entrance opening onto Field End Road. Hard surfaced vehicle parking areas are located to the Southeast and West of the main building. Immediately to the Northeast of the property is an area of common land which contains both areas of grass and some trees. The remainder of the boundary borders the land of various neighbouring properties.

2.2.3 Two detached buildings of a more modern design are present on the site, one located along the boundary to the West of the main building and the other located to the North of the main building. These buildings are identified as “Building 2” and “Building 3” on the Arboricultural Constraints Plan. This proposal is concerned with the extending of Building 3 (pictured below).

Building 3 seen to left of picture

2.2.4 Numerous small outbuildings and areas of hard surfacing are located around the site as would be expected of a hotel catering to the public. Decking located between the main building and the fence line with Field End Road was noted as being significantly decayed and caution was required whilst traversing it. At the time of survey contractors were present removing this decking.

2.2 Access

2.2.1 Vehicle and plant access to site is unencumbered via Field End Road and existing areas of hard surfacing located around the property.

2.3 Proposal

2.3.1 The proposal is the erection of a two-storey side and single storey rear extension to building 3 and the construction of a new shed.

2.4 Scope of Report / Limitations

2.4.1 This is a preliminary assessment from ground level and observations have been made solely from a visual perspective for the purposes of assessment in terms relevant to planning and development. No invasive or other detailed internal decay detection devices have been used in assessing internal conditions.

2.4.2 All individual trees within a 15m radius of the development that have a stem diameter over 75mm at 1.5m above ground level have been surveyed. Each tree is surveyed and allocated an identifying number. Then data is collected and individual trees measured with regards to their height, stem size, canopy size and potential to pose a material constraint to development. Subject trees are each allocated one of four grade categories (A, B, C or U) indicating their quality. Trees, groups and hedges have been graded upon individual merit in the context of their existing surroundings regardless of any proposed development of the site.

2.4.3 Any conclusions relate to conditions found at the time of inspection. Any alteration to the site that may affect the trees that are present or have a bearing on planning implications (including level changes, hydrological changes, extreme climatic events or other site works) will necessitate a re-assessment of the trees and the site and render any previous advice/ findings invalid.

2.4.4 Trees are living organisms and even apparently healthy trees cannot be considered completely safe due to forces of nature and environmental fluctuations which dictate a natural failure rate of intact and healthy trees.

2.4.5 Where there are access restrictions data has been estimated. This is reflected in the survey schedule with a (#) symbol before measurement.

2.4.6 The survey was carried out with the assistance (where required) of the following inspection equipment-

- Binoculars – Inspection of upper sections of the tree
- Sounding Mallet – Assessment of wood quality, decay extent
- Steel Probe – To test resistance of wood and depth of cavities
- Secateurs – Removal of basal growth & ivy to allow inspection
- DBH (diameter) Tape – Measurement of stem diameter
- Clinometer- To measure height of tree
- Laser measure – Measurement of canopy dimensions & tree location

2.5 Tree Discussion

2.5.1 A total of seven individual trees and three groups of trees fall within 15m of the proposed development and have been assessed in detail from ground level by visual means only. The Tree Survey Schedule, at Appendix 2, details the trees in respect of dimension and quality in accordance with the methodology set out in the British Standard 5837:2012. The following categories were recorded-

Category	Quantity	Identification Numbers
A	2	T01 & T29
B	5	G05, G06, T03, T25, T26.
C	2	G04 & T28
U	1	T02

2.5.2 Trees categorised as A or B are viewed as a constraint to development. Should any proposed development require the removal of trees/groups (or parts of groups) within these categories then it is likely that local authorities would require mitigation in the form of a robust soft landscaping/planting plan. Trees classed as category C are generally not viewed as a constraint although plans to remove large numbers of these would likely still require mitigation. Trees classed as category U are trees in irreversible decline unlikely to be in situ for more than 10 years. These trees are therefore not considered a constraint and also have no RPA (Root Protection Area) plotted.

2.5.3 Where trees have been surveyed and plotted in groups, they typically contain specimens of varying age class and size. Please take note of survey schedule for indication of average height/size and maximum height/size within group. Where groups of trees have been surveyed and plotted, the largest DBHs' of the trees located along the groups edge have been noted and used to indicate the maximum RPA potential.

2.5.4 Also noted on site were numerous small trees / woody shrubs too small to warrant inspection in accordance with BS5837 Trees in Relation to Design, Demolition and Construction 2012:Recommendations.

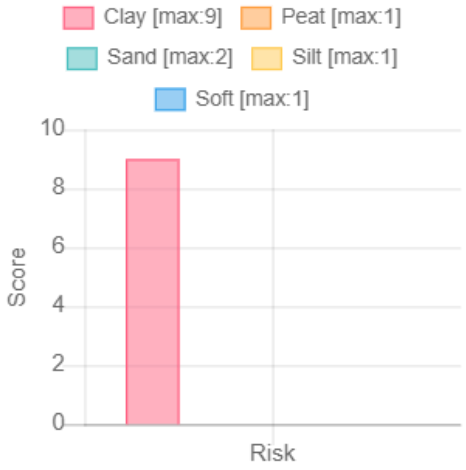
2.5.5 Searches carried out on Hillingdon Councils interactive map revealed that the site does not fall within a Conservation Area. However, the site is subject to a group Tree Preservation Order (TPO 461 20/06/1989) which affects an area in the Western section of the plot (please see below picture). This TPO covers –

- 2 x Blackthorn (*Prunus spinosa*)
- 2 x Hazel (*Corylus avellana*)
- 1 x Holly (*Ilex aquifolium*)
- 1 x Hornbeam /multi stemmed (*Carpinus betulus*).

This relates to trees numbered T28 Hazel, T29 Hornbeam and G05 Holly & Blackthorn within this report.

Tree Preservation Order - TPO 461 20/06/1989 in Green Hatch

2.5.6 Soil analysis provided by Terrasure/Airbus indicated a soil with high clay content (9/9). Therefore, there is a potential risk of indirect damage caused by soil shrinkage in periods of hot/dry weather. This information must be considered when designing foundations with a recommendation for either pile type foundations or a foundation depth in accordance with NHBC guidelines.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Score
Risk

3.0 Arboricultural Impact Assessment on Retained Trees

3.1 Demolition

3.1.1 No demolition is scheduled to take place within the measured RPAs' of trees marked for retention and therefore in this instance no specialised demolition techniques are required.

3.2 Construction

3.2.1 The foundations of the proposed extension will conflict with the measured RPAs' of the following trees

Tree Number / Species	Category	Conflict / Square Metres	Conflict % of Total RPA
T29 Hornbeam	A	4.9 sqm	1.9%
G06 Western Red Cedar	B	1 sqm	3.3%

The RPA and conflicts with G06 Western Red Cedars are based upon the largest stem DBH measurement of 260mm. The run contains a mix of stem sizes from 120-260mm. The stated conflict therefore represents the absolute maximum possible conflict which in the case of many of the stems will be less, or non-existent.
Therefore, a pre-emptive root pruning trench will be excavated. This must be implemented as outlined in section P4.2 of the Arboricultural Method Statement and where shown on the Tree Protection Plan CAS/2022/157C.

3.2.2 The foundations of the proposed new shed will conflict with the measured RPAs' of the following trees

Tree Number / Species	Category	Conflict / Square Metres	Conflict % of Total RPA
T25 Sycamore	B	11.8 sqm	12.8%

T26 Ash	B	20.7 sqm	18.3%

Therefore, in this instance pile foundations will be used to minimise impact upon the root zones. Typically, this could involve small piles with a pad or lintels set at or above ground level to support the structure and negate the requirement for excavation. These must be installed as outlined in section P5.0 of the Arboricultural Method Statement.

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3.2.3 No service run plans have been provided. It is assumed that existing ducts and runs will be utilised and augmented within the design. Adequate space exists on site so that any requirement for fresh runs can be located outside of the measured RPAs' of trees marked for retention.

Building 3 & area of proposed development (left)

3.3 Trees Requiring Removal

3.3.1 The proposal requires the removal of one small category c group of trees (pictured below)

3.4 Implications for Retained Trees

3.4.1 Trees marked for retention will require no additional pruning or intervention due to the proposed development.

4.0 Conclusions

4.1.1 The proposal requires the removal of one small category C group of trees.

4.1.2 Pre-emptive root pruning will be undertaken where very small conflicts exist between the foundations of the proposed design and the measured RPAs' of trees marked for retention.

4.1.3 Pile foundations will be utilised where conflicts exist between the new shed and trees marked for retention.

4.1.4 So long as the precautionary and protective measures outlined within this report are strictly observed and adhered to then the proposed development will have neutral impact upon trees marked for retention.

Arboricultural Method Statement

1.0 Summary

1.1 This document outlines the principles that are approved and enforced by the local planning authority, including site specific instructions on the methods required to protect the existing tree stock agreed for retention. These methods are set out in a logical sequence of operations with location of protective measures shown on the accompanying Tree Protection plan CAS/2022/157D.

2.0 Important Tree Information

2.1 As the majority of tree roots are found in the upper metre of soil, development works, including for example even shallow excavation, soil compaction and soil contamination, can be harmful to trees in close proximity. Trees differ in their tolerance of root loss or disturbance, according to their age, species and/or condition. All protection works within this document will be in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'

2.2 An assessment of the site's tree stock has been undertaken and those trees to be retained are clearly shown on the Tree Protection Plan (TPP). A calculation has been made of the volume of soil required to ensure the survival of these and this is represented by the Root Protection Area (RPA) indicated by the magenta circles or squares around the retained tree on the plan.

2.3 The RPA has been used to inform the Construction Exclusion Zone (CEZ), the area to be protected during development by the use of barriers, ground protection and specialised construction techniques - outlined below:-

3.0 Sequenced Methods of Construction and Tree Protection

P1.0 Phase 1 - Pre-Contract Meeting

P1.1 If stipulated by the local authority an onsite meeting will be held with all relevant parties including the developer, appointed arboricultural supervisor and Local Planning Authority (LPA) representative.

P2.0 Phase 2 - Execute Agreed Tree Works

Tree Number	Proposed Works	Reason
G04	Removal	Removal required to accommodate proposal.
T29 & G06	Root Pruning	Pruning required to accommodate new foundation line.

P2.1 All tree work is to conform to BS 3998:2010 and to current arboricultural best practice. Tree works are to be undertaken by a professional and specialist arboricultural contractor, who carries the appropriate experience and insurance cover and following formal approval from the LPA

P3.0 Phase 3 - Tree Protection Barriers and ground protection

P3.1 In order to protect the tree stems from significant construction activity, protection barriers will be erected. See Plan for fencing location. Fencing should be of a reasonable standard and suitable for the purpose of preventing machinery entering the protected zones see example given below in appendix 1.

P3.2 BS5837 Trees in Relation to Design, Demolition and Construction (2012) requires that the root protection area be calculated for each tree marked for retention on the development. The root protection area is the minimum area in m2 which should be left undisturbed around each retained tree, including the delivery of machinery, materials, plant or equipment to the site or any adjacent land. The protective

measures will remain in situ until final completion, or a time agreed by the LPA and Contractor.

P3.3 Tree protection fencing will be required to be installed as shown on the Tree Protection Plan CAS/2022/157D. Fit for its purpose fencing must be installed after any required tree works and prior to any construction operations on site. Once the barriers have been properly erected in position, they are to be considered as sacrosanct and are not to be removed or altered in any way without prior approval from the LPA.

P3.4 Clear notices as shown below are to be fixed to the outside of the fencing with words such as 'Tree Protection Zone – Do not remove this fencing'. All operatives and other relevant personnel are to be informed of the role of the exclusion barriers and their importance. Protective fencing should remain in situ throughout the entire construction process. The site manager should be aware that it is his responsibility to maintain protective measures adequately and these should be casually inspected at regular intervals with written records of inspection.

P3.5 Where stipulated on the Tree Protection Plan ground protection should be laid. The gross weight of predicted traffic in the area should be calculated and ground protection laid as stipulated below –

- *For pedestrian access, a single thickness of scaffold boards placed on a driven scaffold frame, so as to form a suspended walkway or on a compressive- resistant layer such as, e.g. woodchip 100mm min, laid onto a geotextile membrane will be sufficient.*
- *For pedestrian operated machinery up to a gross weight of 2t inter linked ground protection boards places on top of a compression- resistant layer, as above, will be required.*
- *For machinery greater than 2t and engineered specification will be required.*

P3.6 If there is a requirement to move or carry out operations inside the area of protective fencing then ground protection should be laid over any exposed ground prior to movement or works commencing. This should be laid in accordance with section P3.5 of the Arboricultural Method Statement.

P3.7 When there is a requirement to carry out work in an area covered with ground protection then only the immediate area of work should have the protection rolled/scraped back. Once the task in hand is completed then ground protection should be instantly re-instated.

P3.8 Adequate room is available for the locating of compounds and material storage within the site boundaries and outside of any measured RPA.

P4.0 Phase 4 - Ground works

P4.1 Spoil, including soil and rubble surplus to requirements will be removed from site and not stored against any protective fencing.

P4.2 Where foundations require pre-emptive root pruning this should be excavated outside the line of foundation closest to the tree by hand or with the use of an air pick to a depth of 600mm. Roots discovered less than 25mm in diameter may be cut, roots greater than 25mm in diameter must only be cut after consultation with the project arboriculturalist and or the LPA. Once roots have been cut conventional excavation can be carried out. Where foundation trenches fall within or are in close proximity to

the measured RPAs' of trees marked for retention they must be lined with an impermeable sleeve to reduce risk of leeching into the root zone of the trees.

P4.3 Service runs to be located outside any indicated RPA.

P5.0 Phase 5 – Installation of Pile Type Foundations

P5.1 Designs for foundations that would minimize adverse impact on trees should include particular attention to existing levels, proposed finished levels and cross-sectional details.

P5.2 Where Pile foundations are selected then an investigation will be required to determine their optimal location whilst avoiding damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement, to a minimum depth of 600 mm.

P5.3 Piles to be installed near to trees must be of the smallest practical pile diameter as this reduces the possibility of striking major tree roots and reduces the size of the rig required to sink the piles.

P5.4 Pile holes must be lined with an impermeable sleeve to reduce risk of leeching into the root zone of the trees.

P5.5 If a piling mat is required, this must conform to the parameters for temporary ground protection given in section P3.5 of the Arboricultural Method Statement.

P6.0 Phase 6 - Dismantling Protection Barriers and Landscaping Works

P6.1 A minimum notice period of seven days will be given to the LPA prior to the dismantling of the protection barriers.

P6.2 All landscaping once the barriers have been removed will avoid soil re-grading and disturbance within the CEZ and no soil levels be altered after the protection barriers have been removed. All vehicles are strictly prohibited from entering any RPA once barriers are removed.

4.0 General Principles for Tree Protection

4.1 A copy of this AMS and the attached TPP is to be retained on site at all times and all personnel associated with the construction process will be made familiar with the principles within.

4.2 No fires are to be lit on site at any stage during the construction process.

4.3 A designated storage area is to be created away from retained trees. All materials for construction purposes are to be stored in this compound. Care must be taken to avoid the leakage or leaching of noxious materials into the soil.

4.4 No materials will be stored or left stacked in positions around the site other than within the storage compound area.

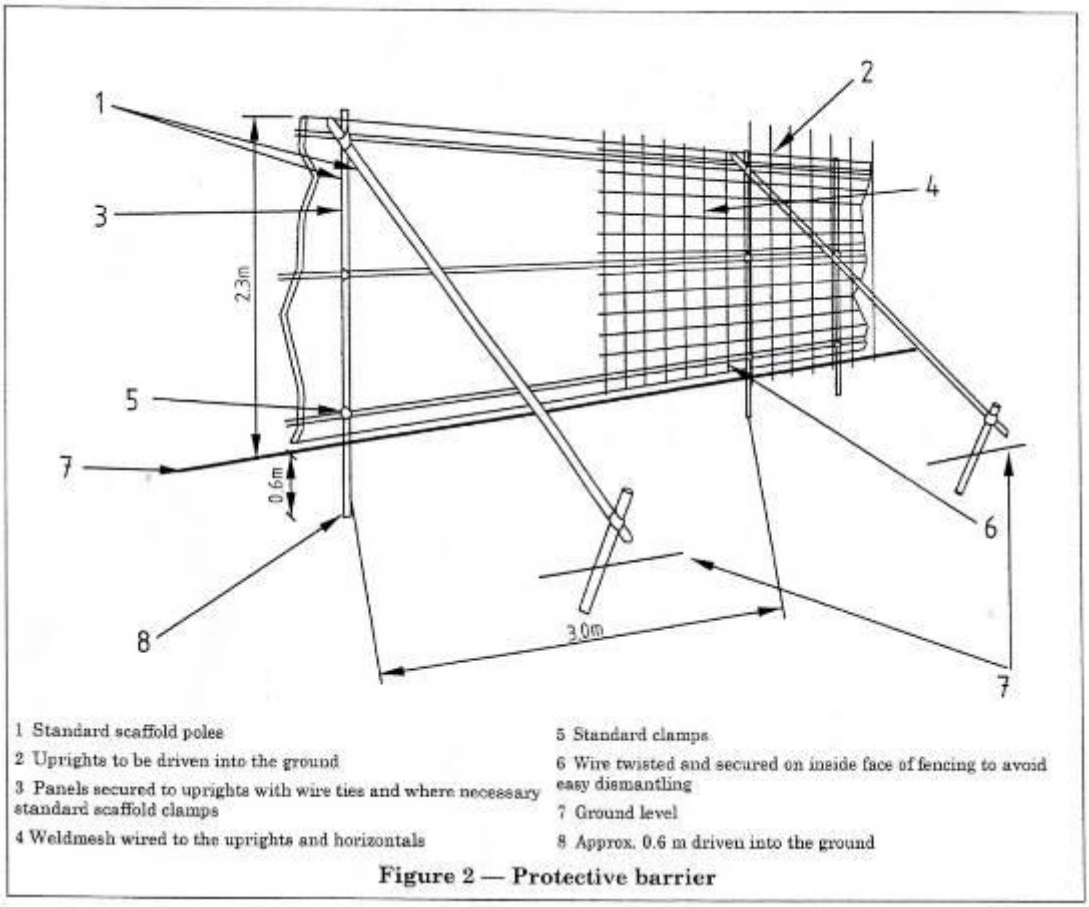
5.0 Communication Details, Monitoring and Compliance

5.1 In order to ensure that the principles of tree protection set out in the statement are adhered to, it is important to set out communication details for key individuals and tasks that require monitoring. These details should be retained by all relevant parties and available on site at all times. Relevant parties will be advised of any changes in personnel or contractor during the development process.

5.2 Before construction begins written confirmation that the developer/contractor or its agents agree to comply in full with the principles set out within this Method Statement will be lodged with the LPA.

Appendix 1: Tree Protection Fencing

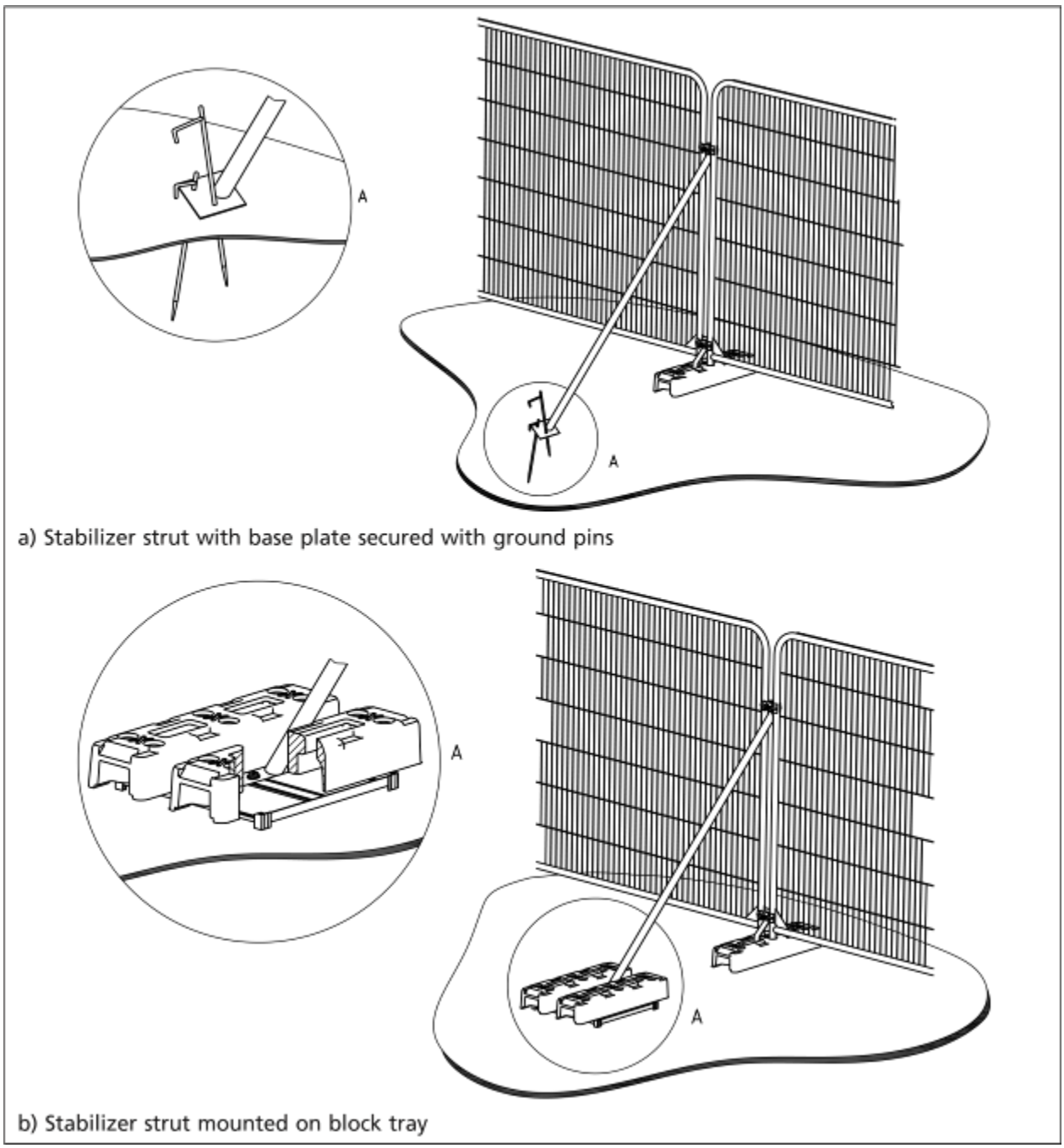
High Traffic Areas



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6 m driven into the ground

Figure 2 — Protective barrier

Low Traffic Areas



Appendix 2 - Tree Schedule Explanatory Notes

Ref.no	Identifies trees, groups and hedges on the accompanying plan.
Species	Common names are provided to aid wider comprehension.
Height	Describes the approximate height of the tree measured in metres from ground level
Canopy Spread	Indicates the crown radius from the base of the tree in four compass directions, recorded to the nearest metre.
Ground Clearance	Height of crown clearance above adjacent ground in metres.
DBH (mm)	DBH is the diameter of the stem measured in cm at 1.5m from ground level for single stemmed trees or just above root flare for multi-stemmed trees. Stem Diameter may be estimated where access is restricted.
RPR (cm)	Root Protection Radius (RPR) is area required to be protected measured radially from the trunk centre.
RPA (m2)	Root Protection Area (RPA) is the minimum rooting area in m2 which should remain undisturbed around each tree.
Age Class	Age of the tree expressed as Y- Young, MA- Middle-Aged, EM- Early Mature, M- Mature or OM- Over-Mature
General Condition	Overall condition of tree expressed as :Good, Fair, Poor, Dead
Physioloical and structural condition	May include general comments about growth characteristics, how it is affected by other trees and any previous surgery works. Also specific problems such as dead wood, pests, diseases, broken limbs. Etc
Estimated Remaining Years	Categorised in year bands of less than 10, 10+, 20+, 40+
BS Category	B.S. Cat refers to (BS 5837:2005 Table 1) and refers to tree/overall group quality and value; 'A' - High; ‘B’ - Moderate; 'C' - Low; 'U' - Remove.
Sub Category	Sub Cat refers to the retention criteria values where 1 is arboricultural, 2 is landscape and 3 is cultural including conservational, historic and commemorative

Appendix 3 – Tree Retention Category (as per cascade chart, Table 1, B.S. 5837:2012)

Tree Category	Description
A	Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years. 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).
B	Category B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. 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.
C	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 150 mm. Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.
U	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 are dead or are showing signs of significant, immediate, and irreversible overall decline.

BS5837 Survey Data

Ref.	Species	Measurements	General Observations	Category	Recommendations
G01	Hazel (Corylus avellana) Yew (Taxus sp.)	Height (m): 9 Stem Diam (mm): 150 Life Stage: Mature Rem. Contrib.: 10+ Years	Group of poor quality yew / Hazel with dbh up to 150mm. Discolouration of foliage noted on yew	C2 RPA Area: 11 sq m, plus a 1m buffer.	
G02	Hazel (Corylus avellana) Bay Tree (Laurus nobilis) Laurel Cherry (Prunus laurocerasus)	Height (m): 15 Stem Diam (mm): 200 Life Stage: Over Mature Rem. Contrib.: 20+ Years	Group of poorly maintained trees with max dbh @ 200mm (bay) Three of the five specimens in the group lean heavily over the highway. Canopies noted lower than 3m over public footpath	C2 RPA Area: 146 sq m, plus a 1m buffer.	Crown lift to 3 metres for pedestrian access.
G03	Elder (Sambucus nigra) Silver Birch x5 (Betula pendula)	Height (m): 18 5 stems Life Stage: Early Mature Rem. Contrib.: 30+ Years	Birch dbhs 150, 210, 150, 180, 200 Elder dbh 130.90 Stems approx 2m from fenceline	B1,2 RPA Area: 49 sq m, plus a 1m buffer.	
G04	Hawthorn x3 (Crataegus sp.) Holly x3 (Ilex sp.) Hazel x5 (Corylus avellana)	Height (m): 8 11 stems Life Stage: Early Mature Rem. Contrib.: 20+ Years	Group of unremarkable trees. One dead hawthorn within group	C2 RPA Area: 17 sq m, plus a 1m buffer.	Remove deadwood stem

Ref.	Species	Measurements	General Observations	Category	Recommendations
G05	Plum (Prunus domestica) Hawthorn x2 (Crataegus sp.) Holly x3 (Ilex sp.)	Height (m): 14# 6 stems, avg.(mm): 300 Life Stage: Over Mature Rem. Contrib.: 30+ Years	Group of poorly maintained trees with max dbh @ 320. Trees in physical contact with adjacent building	B2 RPA Area: 21 sq m, plus a 1m buffer.	Reduce group to approx 8m. Prune away from property to give 3m clearance
G06	Western Red Cedar x12 (Thuja plicata)	Height (m): 18# 12 stems Life Stage: Mature Rem. Contrib.: 30+ Years	12 stems - 200, 170, 200, 240, 250, 250, 260, 250, 150, 200, 220, 120	B2 RPA Area: 48 sq m, plus a 1m buffer.	
G07	Holly x4 (Ilex sp.) Pear x2 (Pyrus sp.) Leyland Cypress x2 (Cupressocyparis leylandii X)	Height (m): 12 8 stems Rem. Contrib.: 20+ Years	Group of unremarkable trees with varying life stages Largest dbh pear @ 340mm	C2 RPA Area: 55 sq m, plus a 1m buffer.	
G08	Laurel Cherry x2 (Prunus laurocerasus) Hazel x5 (Corylus avellana)	Height (m): 9 7 stems, avg.(mm): 150 Life Stage: Mature Rem. Contrib.: 20+ Years		C2 RPA Area: 10 sq m, plus a 1m buffer.	
G09	Pine (Pinus sp.) Lawson Cypress (Chamaecyparis lawsoniana) English Yew (Taxus baccata) Copper Beech (Fagus sylvatica purpurea)	4 stems Life Stage: Mature Rem. Contrib.: 30+ Years	Group of trees located outside the Northern boundary of the site with DBHs up to approx. 120mm.	B2 RPA Area: 868 sq m, plus a 1m buffer.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T01	Horse Chestnut (Aesculus hippocastanum)	Height (m): 17 2 stems, diam(mm): 940, 760 Spread (m): 5.5N, 5.5E, 8S, 7W Crown Clearance (m): 2 Lowest Branch (m): 1.5(W) Life Stage: Over Mature Rem. Contrib.: 30+ Years	Ivy cover on main stem to approx 2m. Leaf minor damage noted on lower canopy - approx 15-20% of canopy affected. Canopy noted as sparse to se. Some minor dieback noted at tips. Historic pruning wounds visible throughout canopy - healing wood present.	A2 RPA Radius: 14.5m. Area: 661 sq m.	
T02	Cherry (Prunus sp. 'Cherry')	Height (m): 5 Stem Diam (mm): 90 Spread (m): 0.5N, 0.5E, 0.5S, 0.5W Life Stage: Dead		U RPA None - due to Retention Category of U.	Remove tree.
T03	Ash (Fraxinus sp.)	Height (m): 14 Stem Diam (mm): 400 Spread (m): 4N, 3E, 4S, 4W Crown Clearance (m): 3 Lowest Branch (m): 3.5 Life Stage: Mature Rem. Contrib.: 20+ Years	Tree has been previously (poorly) heavily reduced with historic pruning wounds visible @ approx 10m. Some pruning stubs show a distinct lack of healing wood. Deadwood noted throughout canopy. Historic wound noted on main stem to North @ ground level with bark necrosis- healing wood present.	B2 RPA Radius: 4.8m. Area: 72 sq m.	Remove deadwood & bad pruning stubs.
T04	Yew (Taxus sp.)	Height (m): 11 Stem Diam (mm): 230 Spread (m): 3N, 2E, 4S, 2W Crown Clearance (m): 3 Life Stage: Over Mature Rem. Contrib.: <10 years	Tree in decline. Foliage necrosis Significant die back	U RPA None - due to Retention Category of U.	
T05	Yew (Taxus sp.)	Height (m): 10 Stem Diam (mm): 230 Spread (m): 2.5N, 2.5E, 5S, 3W Crown Clearance (m): 3.5 Life Stage: Over Mature Rem. Contrib.: <10 years	Dieback noted throughout canopy. Tree is in significant decline	U RPA None - due to Retention Category of U.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T06	Yew (Taxus sp.)	Height (m): 5 2 stems, diam(mm): 100, 90 Spread (m): 2N, 2E, 2.5S, 2W Life Stage: Mature Rem. Contrib.: <10 years	Dieback/ decline	U RPA None - due to Retention Category of U.	
T07	Not identified (Not identified)	Height (m): 4 Stem Diam (mm): 320 Spread (m): 0.5N, 0.5E, 0.5S, 0.5W Life Stage: Dead	Dead stem covered in ivy Investigation with metal probe revealed significant decay	U RPA None - due to Retention Category of U.	Remove tree.
T08	Yew (Taxus sp.)	Height (m): 10 Stem Diam (mm): 190 Spread (m): 1N, 5E, 5S, 0.5W Life Stage: Over Mature Rem. Contrib.: <10 years	Poor foliage cover Die back noted throughout canopy. Prolific ivy cover throughout canopy	U RPA None - due to Retention Category of U.	
T09	Yew (Taxus sp.)	Height (m): 6 Stem Diam (mm): 90 Spread (m): 0.5N, 0.5E, 2S, 3W Life Stage: Early Mature Rem. Contrib.: 20+ Years	Small suppressed tree with asymmetric growth	C1 RPA Radius: 1.1m. Area: 4 sq m.	
T10	Yew (Taxus sp.)	Height (m): 10 3 stems, diam(mm): 140, 220, 120 Spread (m): 3N, 1E, 3.5S, 4W Life Stage: Over Mature Rem. Contrib.: 20+ Years	Foliage discolouration noted throughout canopy. Sparse foliage cover. Prolific ivy cover throughout canopy.	C2 RPA Radius: 3.4m. Area: 36 sq m.	
T11	Yew (Taxus sp.)	Height (m): 8 Stem Diam (mm): 150 Spread (m): 0.5N, 1.5E, 4S, 0.5W Life Stage: Early Mature Rem. Contrib.: 20+ Years	Suppressed tree with asymmetric growth. Foliage discolouration noted	C1 RPA Radius: 1.8m. Area: 10 sq m.	
T12	Yew (Taxus sp.)	Height (m): 6 Stem Diam (mm): 100 Spread (m): 2N, 2E, 2S, 2W Life Stage: Semi Mature Rem. Contrib.: 10+ Years	Suppressed tree with asymmetric growth. Poor foliage cover	C1 RPA Radius: 1.2m. Area: 5 sq m.	

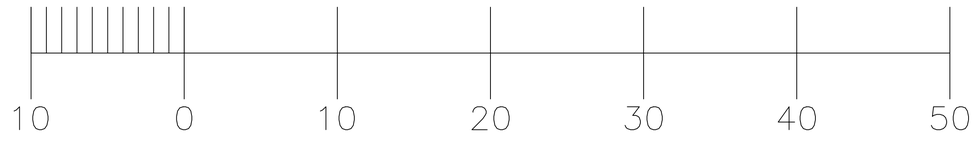
Ref.	Species	Measurements	General Observations	Category	Recommendations
T13	Leyland Cypress (Cupressocyparis leylandii X)	Height (m): 17 Stem Diam (mm): 300 Spread (m): 3.5N, 3.5E, 3.5S, 3.5W Crown Clearance (m): 4 Lowest Branch (m): 4(E) Life Stage: Mature Rem. Contrib.: 20+ Years		C2 RPA Radius: 3.6m. Area: 41 sq m.	
T14	Horse Chestnut (Aesculus hippocastanum)	Height (m): 17# Stem Diam (mm): 370 Spread (m): 5N, 3E, 7S, 5W Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 20+ Years		B2 RPA Radius: 4.4m. Area: 61 sq m.	
T15	Hazel (Corylus avellana)	Height (m): 10 6 stems, diam(mm): 120, 160, 200, 120, 100, 100 Spread (m): 4#N, 4E, 4S, 4.5W Life Stage: Mature Rem. Contrib.: 20+ Years	Lapsed Hazel coppice	C2 RPA Radius: 4.1m. Area: 53 sq m.	
T16	Yew (Taxus sp.)	Height (m): 8 2 stems, diam(mm): 270, 130 Spread (m): 3#N, 2.5E, 4.5S, 5W Life Stage: Mature Rem. Contrib.: 30+ Years	Tree has assymetric growth due to larger adjacent trees	C1 RPA Radius: 3.6m. Area: 41 sq m.	
T17	Hazel (Corylus avellana)	Height (m): 10 2 stems, diam(mm): 120, 120 Spread (m): 4.5N, 1E, 2S, 6W Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	Tree in xclose proximity to adjacent listed building	C2 RPA Radius: 2.0m. Area: 13 sq m.	
T18	Leyland Cypress (Cupressocyparis leylandii X)	Height (m): 9 Stem Diam (mm): 170 Spread (m): 2.5N, 2E, 3S, 2W Crown Clearance (m): 2 Lowest Branch (m): 1.8 Life Stage: Early Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 2.0m. Area: 13 sq m.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T19	Leyland Cypress (Cupressocyparis leylandii X)	Height (m): 6 Stem Diam (mm): 80 Spread (m): 2N, 2E, 2.5S, 2W Life Stage: Early Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 1.0m. Area: 3 sq m.	
T20	Ash (Fraxinus sp.)	Height (m): 14# Stem Diam (mm): 160 Spread (m): 0.5N, 2E, 5S, 4W Crown Clearance (m): 2 Lowest Branch (m): 3 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Tree in physical contact with adjacent building	C1 RPA Radius: 1.9m. Area: 11 sq m.	Prune away from building to give 3m clearance
T21	Yew (Taxus sp.)	Height (m): 7.5 2 stems, diam(mm): 190, 190 Spread (m): 0.5N, 6E, 4.5S, 3W Crown Clearance (m): 1 Life Stage: Mature Rem. Contrib.: 30+ Years	Tree has been pruned to fenceline (likely by neighbour) with arisings stacked at vase of tree behind shed Tree in close proximity to adjacent building	C1 RPA Radius: 3.2m. Area: 32 sq m.	Prune away from property to give 3m clearance
T22	Ash (Fraxinus sp.)	Height (m): 19 Stem Diam (mm): 320# Spread (m): 7#N, 7E, 5S, 7W Crown Clearance (m): 1 Lowest Branch (m): 3(S) Life Stage: Mature Rem. Contrib.: 30+ Years	Tree straddles boundary line. Minor deadwood noted throughout canopy. Tree in physical contact with adjacent building	B1,2 RPA Radius: 3.8m. Area: 45 sq m.	Prune away from adjacent building to give 3m clearance
T23	Mountain Pine (Pinus mugo)	Height (m): 5 2 stems, diam(mm): 120, 100 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Life Stage: Semi Mature Rem. Contrib.: 40+ Years		C1 RPA Radius: 1.9m. Area: 11 sq m.	
T24	Holly (Ilex sp.)	Height (m): 5 2 stems, diam(mm): 160, 110 Spread (m): 1.5N, 1.5E, 1.5S, 1.5W Life Stage: Early Mature Rem. Contrib.: 40+ Years		C1 RPA Radius: 2.3m. Area: 17 sq m.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T25	Sycamore (Acer pseudoplatanus)	Height (m): 20 Stem Diam (mm): 450 Spread (m): 3N, 5.5E, 6S, 3W Crown Clearance (m): 1 Lowest Branch (m): 1.5(N) Life Stage: Mature Rem. Contrib.: 30+ Years		B1,2 RPA Radius: 5.4m. Area: 92 sq m.	
T26	Ash (Fraxinus sp.)	Height (m): 20 Stem Diam (mm): 500 Spread (m): 6N, 3.5E, 9.5S, 6W Crown Clearance (m): 1 Lowest Branch (m): 2 Life Stage: Mature Rem. Contrib.: 30+ Years	Significant wound noted on main stem to NW @ approx 2m above ground level- investigation with metal probe revealed decay to 23cm. Adequate healing wood present around wound. Numerous historic pruning wounds visible throughout canopy- most show adequate healing wood.	B1,2 RPA Radius: 6.0m. Area: 113 sq m.	
T27	Leyland Cypress (Cupressocyparis leylandii X)	Height (m): 18 Stem Diam (mm): 440 Spread (m): 4N, 3.5E, 5.5S, 5W Crown Clearance (m): 3.5 Lowest Branch (m): 3(N) Life Stage: Mature Rem. Contrib.: 30+ Years		C1,2 RPA Radius: 5.3m. Area: 88 sq m.	
T28	Hazel (Corylus avellana)	Height (m): 10 12 stems, diam(mm): 190, 150, 130, 140, 100, 100, 100, 140, 100, 100, 120, 120 Spread (m): 5.5N, 7E, 5S, 5W Life Stage: Over Mature Rem. Contrib.: 20+ Years	Lapsed coppice Tree in physical contact with adjacent buildings. Tree provides screening	C1,2 RPA Radius: 5.3m. Area: 88 sq m.	Reduce tree to approx 2-3m and allow to regenerate naturally
T29	Hornbeam (Carpinus betulus)	Height (m): 20# 3 stems, diam(mm): 420, 460, 420 Spread (m): 8#N, 8E, 5.5S, 8#W Crown Clearance (m): 1.5 Lowest Branch (m): 1.5(E) Life Stage: Mature Rem. Contrib.: 40+ Years	Mushroom noted growing around root plate. Ivy cover on main stems hinders detailed inspection. Tree in physical contact with adjacent building	A1,2 RPA Radius: 9.0m. Area: 254 sq m.	Prune away from property to give 3m clearance

Ref.	Species	Measurements	General Observations	Category	Recommendations
T30	Laurel Cherry (Prunus laurocerasus)	Height (m): 10 4 stems, diam(mm): 140, 150, 140, 150 Spread (m): 3.5N, 4E, 4S, 3.5W Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 20+ Years	Tree in physical contact with adjacent building	C1 RPA Radius: 3.5m. Area: 38 sq m.	Reduce tree by 50% and allow to regenerate naturally
T31	Ash (Fraxinus sp.)	Height (m): 25 Stem Diam (mm): 520 Spread (m): 5.5N, 9E, 7S, 8#W Crown Clearance (m): 3.5 Life Stage: Over Mature Rem. Contrib.: 20+ Years	Significant amount of dead ivy in tree - hinders detailed inspection	B1,2 RPA Radius: 6.2m. Area: 121 sq m.	Strip tree of ivy to enhance aesthetic value and allow future detailed inspection
T32	Lawson Cypress (Chamaecyparis lawsoniana)	Height (m): 16 Stem Diam (mm): 270 Spread (m): 2.5N, 2.5E, 2.5S, 2.5W Life Stage: Mature Rem. Contrib.: 20+ Years	Wound on main stem to west @ ground level tob1.5m above ground level- heating wood present. Loss of primary leader noted @ 6m Sparse foliage cover	C2 RPA Radius: 3.2m. Area: 32 sq m.	
T33	Lawson Cypress (Chamaecyparis lawsoniana)	Height (m): 17 Stem Diam (mm): 400 Spread (m): 3.5N, 3.5E, 3.5S, 3.5W Life Stage: Mature Rem. Contrib.: 20+ Years	Sparse foliage cover	C2 RPA Radius: 4.8m. Area: 72 sq m.	
T34	Silver Maple (Acer saccharinum)	Height (m): 19 Stem Diam (mm): 1000 Spread (m): 5N, 5E, 5S, 5W Life Stage: Mature Rem. Contrib.: 30+ Years		B1 RPA Radius: 12.0m. Area: 452 sq m.	

Arboricultural Constraints Plan



KEY

- T1 — Existing Tree colour referenced in accordance with BS 5837 2012 as shown below
- Green – Cat A Trees of high quality and value
- Blue – Cat B Trees of moderate quality and value
- Grey – Cat C Trees of low quality and value
- Red – Cat U Trees that are dead or showing signs of irreversible decline
- Root Protection Area as calculated in accordance with BS 5837 2012
- Existing tree to be removed colour in accordence with BS 5837 as shown below.

REV.	DATE	INITIALS	DETAILS

CLIENT Jordan Wang	DWG. TITLE Arb Constraints Plan
SITE Tudor Lodge Hotel, 50 Field End Road, Harrow, HA5 2QN.	

DRAWN BY	CHECKED BY	SCALE	DATE	DWG NO.	REV.
BJS	BJS	1:200 @ A1	December 2024	CAS/2022/157D	

Please do not scale off this drawing. Tree locations not plotted to a topographical survey so locations cannot be confirmed, Dwg is to scale as indicated above.

Proposed Development Plan

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T23
T24
Hotel
T28
T25
T26
T27
Hotel
50
G05
SHED
SHED
T29
G06
Building 3
T33

KEY

T1 Existing Tree colour referenced in accordance with BS 5837 2012 as shown below

Green – Cat A Trees of high quality and value

Blue – Cat B Trees of moderate quality and value

Grey – Cat C Trees of low quality and value

Red – Cat U Trees that are dead or showing signs of irreversible decline

Root Protection Area as calculated in accordance with BS 5837 2012

Location of New Structure.

REV.	DATE	INITIALS	DETAILS

CLIENT Jordan Wang			DWG. TITLE Proposed Development Plan	
SITE Tudor Lodge Hotel, 50 Field End Road, Harrow, HA5 2QN.				
DRAWN BY BJS	CHECKED BY BJS	SCALE 1:100 @ A1	DATE December 2024	DWG NO. CAS/2022/157D

REV.

Please do not scale off this drawing. Tree locations not plotted to a topographical survey so locations cannot be confirmed, Dwg is to scale as indicated above.

Tree Protection Plan

KEY

T1 — Existing Tree colour referenced in accordance with BS 5837 2012 as shown below

Green – Cat A Trees of high quality and value

Blue – Cat B Trees of moderate quality and value

Grey – Cat C Trees of low quality and value

Red – Cat U Trees that are dead or showing signs of irreversible decline

Root Protection Area as calculated in accordance with BS 5837 2012

Approximate line of protective fencing to be erected in accordance with BS5837 and to be maintained throughout entire development process.

REV.	DATE	INITIALS	DETAILS
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CLIENT Jordan Wang	DWG. TITLE Tree Protection Plan
SITE Tudor Lodge Hotel, 50 Field End Road, Harrow, HA5 2QN.	

DRAWN BY	CHECKED BY	SCALE	DATE	DWG NO.	REV.
BJS	BJS	1:100 @ A1	December 2024	CAS/2022/157D	

Please do not scale off this drawing. Tree locations not plotted to a topographical survey so locations cannot be confirmed, Dwg is to scale as indicated above.