

SJ Stephens Associates

ARBORICULTURAL, LANDSCAPE &
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Arboricultural Method Statement

- Tree Survey
- Tree Protection Plan
- Method Statement

For:-

An Extension

At:-

10 Maxwell Close
Hayes
UB3 3DX

On behalf of:-

Ms Famida Khan
10 Maxwell Close
Hayes
UB3 3DX

Prepared by:

Simon Stephens MA Oxon, Dip
Arb(RFS), MArborA, C Env. MICFor
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Survey Date: 8th October 2024
Report Date: 21st October 2024
Project no: 2369

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1 BACKGROUND

- 1.1** Planning Permission (ref: 58405/APP/2022/1130) has been granted for an extension at 10 Maxwell Close, subject to number of planning conditions. This Arboricultural Method Statement is intended to satisfy planning condition number 4, relating to tree protection. It develops the
- 1.2** Tree details are shown in the Tree Schedule in Appendix B and on the Tree Protection Plan in Appendix A. This plan also includes tree protection measures, which are specified in the Arboricultural Method Statement in section 5 below. Arboricultural supervision required during construction is detailed in section 6.
- 1.3** The tree survey was undertaken, and this report has been prepared by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.
- 1.4** This survey and report have been prepared in accordance with recommendations provided in BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations.
- 1.5** Documentation supplied:
 - Proposed Site Plan: drawing no MC-02A
 - Hillingdon Council Decision Notice, dated 18-07-2022

2 SURVEY DETAILS AND SCOPE

- 2.1 The site survey included trees and shrubs, within influencing distance of the proposed development, with a stem diameter over 75mm at 1.5m height, as shown located on the Tree Protection Plan, included as Appendix A.
- 2.2 Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.
- 2.3 Tree diameters were measured using a girthing tape and tree heights were measured using a hypsometer. Where use of a tape was restricted by site factors, diameters were estimated, with the diameter recorded in the tree schedule as eg “est 300”.
- 2.4 At the time of the survey, the weather was fine with no restrictions to visibility. Broadleaf trees were in leaf. There were no limitations to access around the trees.
- 2.5 Tree details are shown on the Tree Protection Plan included as Appendix A. Tree locations have been taken from the topographical survey provided. Where not included on the topographical survey, they have been determined by measuring distances from features shown on the plan, using a laser measuring device. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:
 - **Number:** an identity number for each tree, prefixed with a “T”, which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees are located close together and are similar in character and management requirements, they have been treated as a Group under a single number, prefixed with a “G”.
 - **Species:** common name.
 - **Tree height:** approximate height in metres.
 - **Stem diameter:** diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
 - **Branch spread:** approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.
 - **Canopy clearance:** approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
 - **Age class:** Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
 - **Condition:** features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
 - **Management Recommendations:** recommendations to ensure the health and safety of the tree, within the future development.
 - **Estimated Remaining Contribution:** <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.

- **Category grading:** tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
 - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal (Red)
 - Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)
 - Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
 - Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
 - Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

For category A, B and C trees, a subcategory has been allocated, providing information on the reasons for selection of a specific category, as follows:

- Subcategory 1: mainly arboricultural values.
 - Subcategory 2: mainly landscape values.
 - Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
- **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.
- **Root Protection Area (RPA):** the area in m², as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

3 SURVEY LIMITATIONS

- 3.1 No internal decay devices, or other invasive tools to assess tree condition, were used.
- 3.2 No soil excavation or root inspection was carried out.
- 3.3 This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.

- 3.4** The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees close to highly populated areas or public highways should normally be checked for safety annually by a suitably qualified person.

4 LEGAL PROTECTION OF TREES

- 4.1** The Hillingdon Council website was viewed on 21-10-2024, showing that the site falls within Tree Preservation Order NoTPO601.
- 4.2** No tree work must be undertaken without the approval of the Local Planning Authority.

5 ARBORICULTURAL METHOD STATEMENT

5.1 Site Overview

- 5.1.1** Planning permission has been granted for the construction of a part single storey side extension. The proposed site plan is included as Appendix F and is also shown, along with tree details, on the Tree Protection Plan attached as Appendix A.
- 5.1.2** The site is immediately adjacent to an area of public open space which contains the two fine mature trees shown in the photo in appendix E.

5.2 Construction Access and Site Set up

- 5.2.1** All construction traffic will enter the site from Maxwell Close.
- 5.2.2** If required, materials will be stored on the drive.
- 5.2.3** Storage of cement, concrete, oil, fuel, bitumen, chemicals or materials – such as treated timber products - that could have toxic leachate must not be permitted within the Root Protection Area of any retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.2.4** No site offices will be required.

5.3 Tree Work

5.3.1 No tree work is proposed.

5.4 Root Protection Areas

5.4.1 Root Protection Areas are shown for all trees in the tree schedule included as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan included as Appendix A. Where there are physical obstructions to root growth the Root Protection Area should be shown as an equivalent area that is more likely to reflect actual root growth. The Root Protection Area shows the area around a tree in which all construction activity must normally be excluded, unless appropriate protection measures are implemented.

5.5 Tree Protection Fencing

5.5.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, included as Appendix A. This will provide full protection of the Root Protection Areas of all retained trees, other than for:

- areas shaded/hatched cyan on the Tree Protection Plan, indicating Ground Protection Areas, where roots must be protected, as described in section 5.6 below.
- areas cross hatched red on the Tree Protection Plan, where there will be excavation at the edge of Root Protection Areas, but where hand excavation must be used, as described in section 5.7, to minimise potential root damage.

5.5.2 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D. Alternatively, weldmesh panels can be supported on blocks, providing the blocks are pinned to the ground with road pins, or similar, and the panels are braced, as per Figure 3 of BS5837:2012, which is also reproduced in Appendix D.

5.5.3 After erection of Tree Protection Fencing and installation of ground protection, 2 days notice must be given to the Local Planning Authority before construction starts on site.

5.5.4 Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the arboricultural consultant or the Local Planning Authority.

5.5.5 Weatherproof notices must be fixed to the Tree Protection Fencing, and maintained, stating:-

TREE PROTECTION AREA

KEEP OUT

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS
AND A TREE PRESERVATION ORDER

CONTRAVENTION MAY LEAD TO CRIMINAL PROSECUTION

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONS:

- The Protection Fence must not be moved
- No person or machine must enter the area
- No materials or spoil must be deposited

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN
PERMISSION OF THE LOCAL PLANNING AUTHORITY

5.6 Ground Protection Areas

- 5.6.1 The Ground Protection Area, which is hatched cyan on the Tree Protection Plan, contains hard surfacing which is protecting any underlying roots and which must stay in place during the construction period unless further protection measures are implemented.
- 5.6.2 The Ground Protection Area, which is shaded cyan on the Tree Protection Plan, contains soft areas where ground protection must be laid to protect any underlying roots.
- 5.6.3 The Tree Protection Fencing must be erected 1.2m from the building line, with the ground between the fencing and the building protected by either 25mm plywood or side butting scaffold boards, on top of a compressible layer of sand or woodchips, laid onto a geotextile. Alternatively, Maxitrack mats, supplied by the Marwood Group, (www.marwoodgroup.co.uk) or Euro Mat or Pro Mat panels, from Ground Guards (www.ground-guards.co.uk), or a similar approved recycled product, can be used, laid on a compressible layer of sand or woodchips, laid onto a geotextile, with adjacent panels held together with connectors.
- 5.6.4 Ground protection must be laid before any construction starts on site and must be maintained in good condition until all construction operations have been completed. Ground protection must be fit for purpose and be replaced with an alternative product if panels start to move or any sign of ground compaction is seen.

5.7 Hand Dig Area

- 5.7.1 The Hand Dig trench, shown cross-hatched red on the Tree Protection Plan, must be dug to formation level or a depth of 1m by hand, neatly severing any roots found, using secateurs or a hand saw. Any further excavation required, either to a greater depth or further from the trees, can be carried out with an excavator, since it is unlikely that further significant live roots will be found.

- 5.7.2 Heavy-duty polythene must be used to line the side of the trench adjacent to the trees, before concrete for foundations is poured, to avoid the toxic affects of cement on tree roots.
- 5.7.3 On no account must use of an excavator be used in the top 1m of the Hand Dig area, which would rip roots and cause unnecessary damage.

5.8 Services

- 5.8.1 All services to and from the new extension will be routed from the house so no trenching will be required.

5.9 General measures

- 5.9.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.9.2 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.
- 5.9.3 If any tree shown for retention is removed, uprooted or destroyed, another tree must be planted in the same location, at a size and species to be agreed in writing with the Local Planning Authority.
- 5.9.4 A copy of this report and the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

5.10 Arboricultural Supervision

- 5.10.1 A qualified Arboricultural Consultant must be retained during the period of construction to carry out the following:
- to liaise with the contractor, prior to construction starting on site, to ensure this Arboricultural Method Statement is fully understood and can be complied with in full. If any revisions are required, a revised Arboricultural Method Statement must be approved by the Local Planning Authority, prior to construction or demolition starting on site.
 - as necessary, to advise on any issues at the request of the local planning authority, the developer, architect or contractor.

The details of any site visit must be recorded using a site visit proforma, with copies circulated to the contractor, developer and the local authority Tree Officer within 3 working days of the visit.

6 ARBORICULTURAL IMPACT ASSESSMENT

- 6.1 No tree work is proposed and protection measures have been specified to protect the Root Protection Area of all retained trees, other than for T1, where there will be excavation within 2.7m², or less than 1% of the Root Protection Area. This is most unlikely to have any impact on the tree, particularly as it is in an area of existing hard surfacing where there is unlikely to be any root growth.
- 6.2 Since the existing house is already shaded by T1 and T2, construction of this small extension will make no difference to the sustainability of the trees.
- 6.3 Provided the recommendations in this report are followed, the risk of any arboricultural impact of this development on existing trees will be minimal.

7 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
- *BS3998:2010 Tree Work. Recommendations.*
- *NJUG 10: Guidelines for the planning, installation and maintenance of Utility Services in proximity to trees. (Published by the National Joint Utilities Group) Issue 2:16th November 2007.*
- *Common sense risk management of trees (FCMS024). Published by the National Tree Safety Group (www.ntsgroup.org.uk)*

BS 5837: TREE CATEGORY GUIDE

Category U: Unsuitable for retention, trees with less than 10 years life expectancy.

Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation.

Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained.

Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not significantly constrain the layout.

Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting.

APPENDIX A

Key

Category U

Category A

Category B

Category C

Crown spread:
retained trees

Trees For Removal

Root Protection Area

Tree Protection Fence

Ground Protection Area
-existing hard areas

Ground Protection Area
-existing soft areas

Hand Dig Area

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JOB TITLE

10 MAXWELL CLOSE

DRAWING TITLE

TREE PROTECTION PLAN

DRAWING NUMBER

2369-01

REV

REVISIONS

SCALE

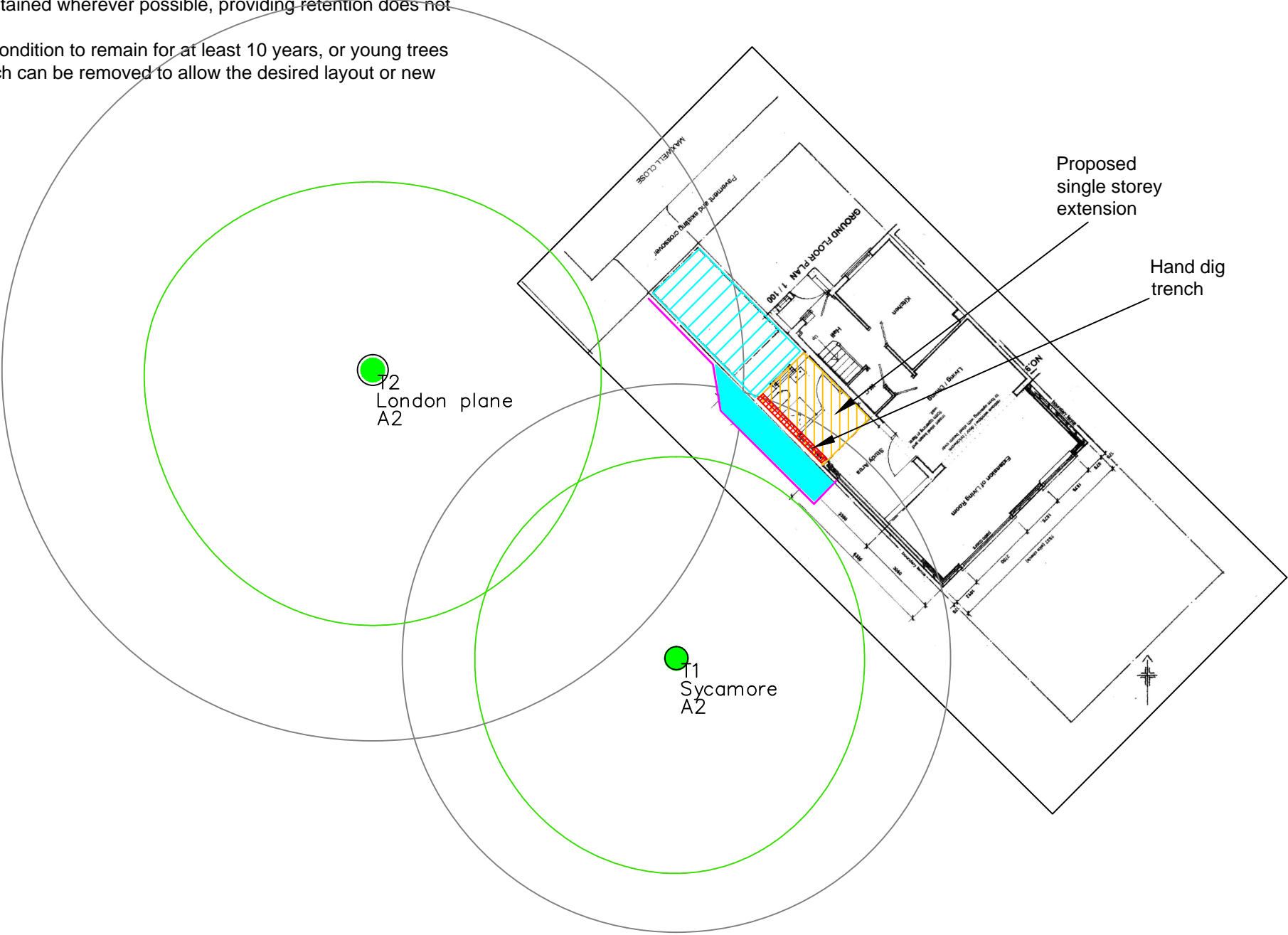
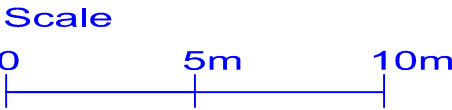
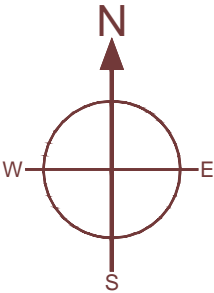
DATE

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Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Cleara- nce (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T1	Sycamore	16	850	7.5	8	7	7.5	3.5	Mature	Fine tree. Well balanced canopy. Good vigour.		>40	A2	10.2	327
T2	London plane	21.5	1150	7	9.5	8.5	8.5	2.0	Mature	3 way fork at 3.5m. Fine tree. Previous crwon reduction undertaken.		20-40	A2	13.8	598

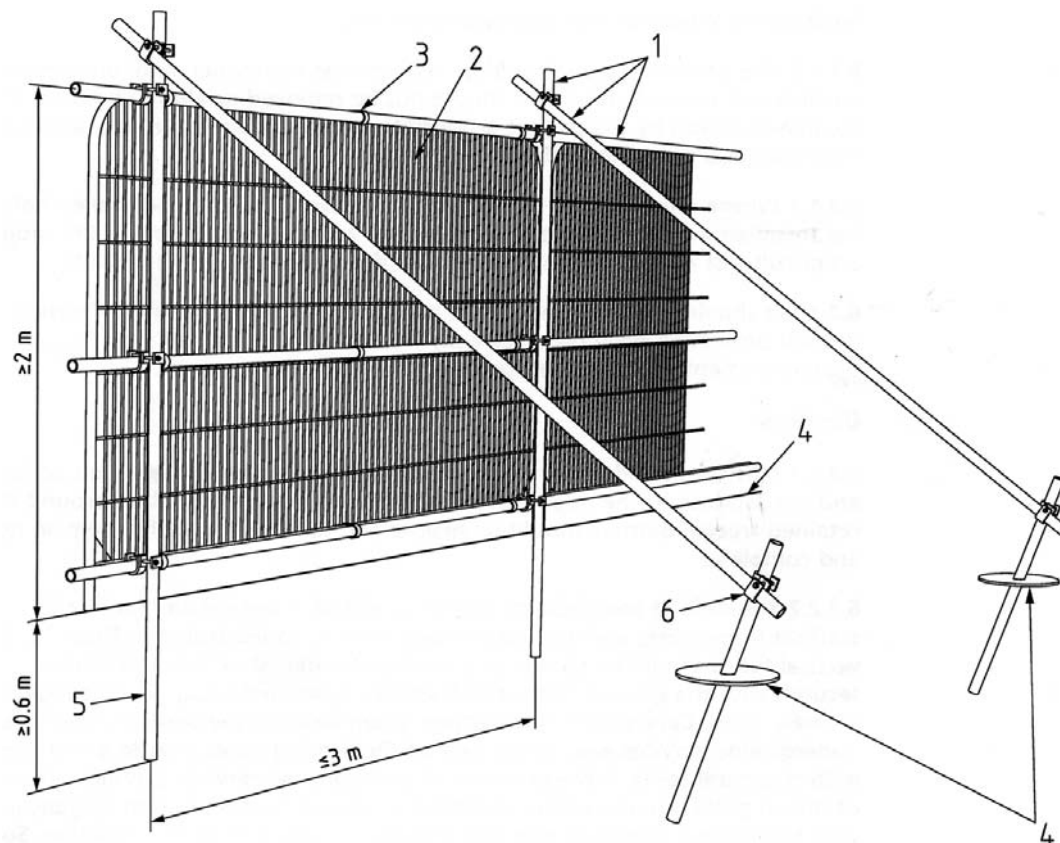
BS 5837:2012, Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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 10 years	<ul style="list-style-type: none">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 declineTrees 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 <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	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 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)	See Table 2
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	See Table 2
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	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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Figure 2

Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m galvanised 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



Examples of above-ground stabilising systems

Figure 3a

Stabiliser strut with base plate secured with ground pins

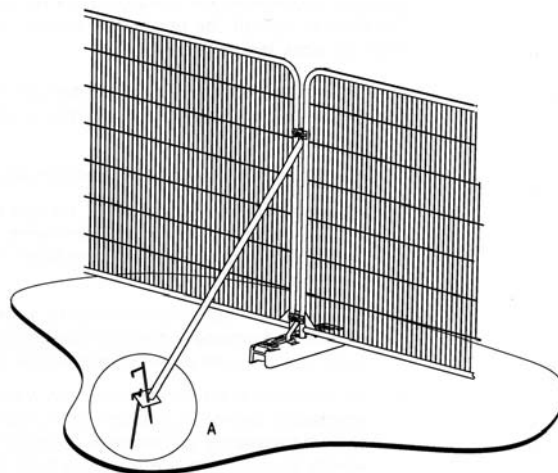
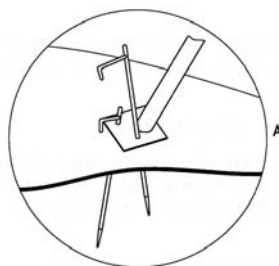
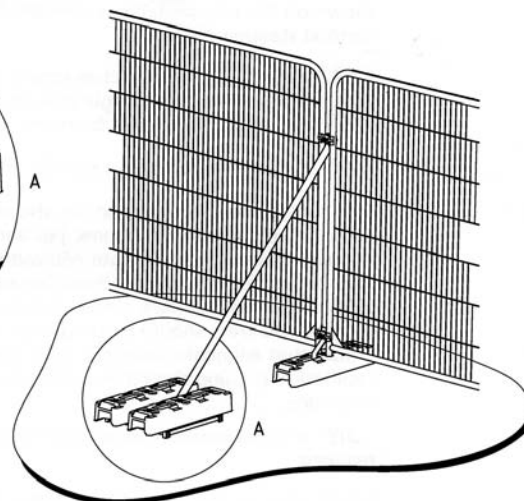
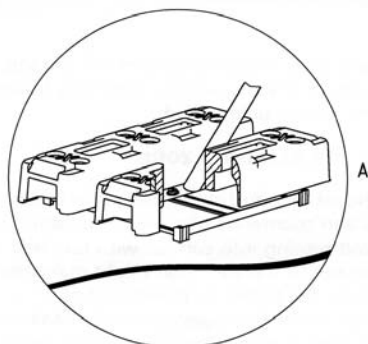
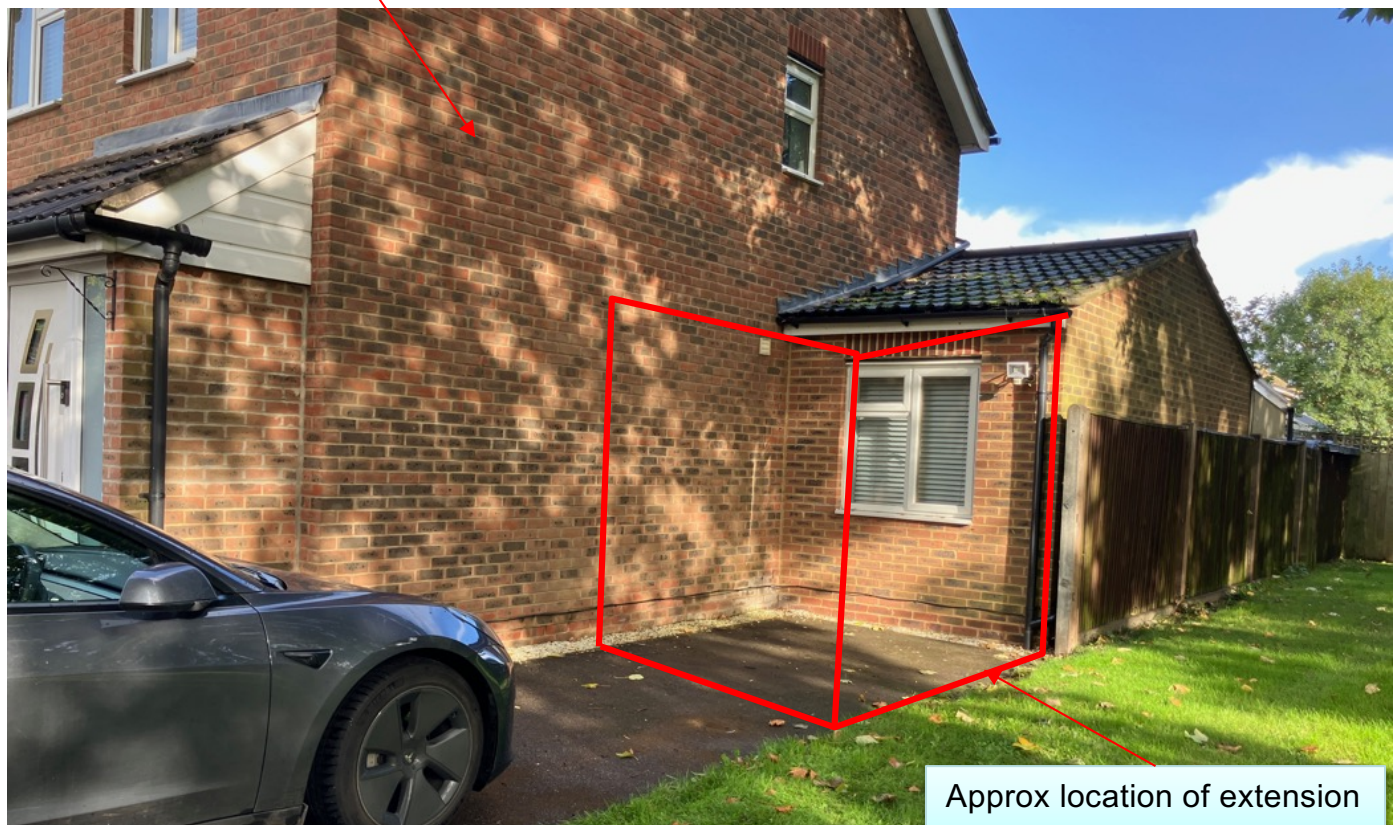
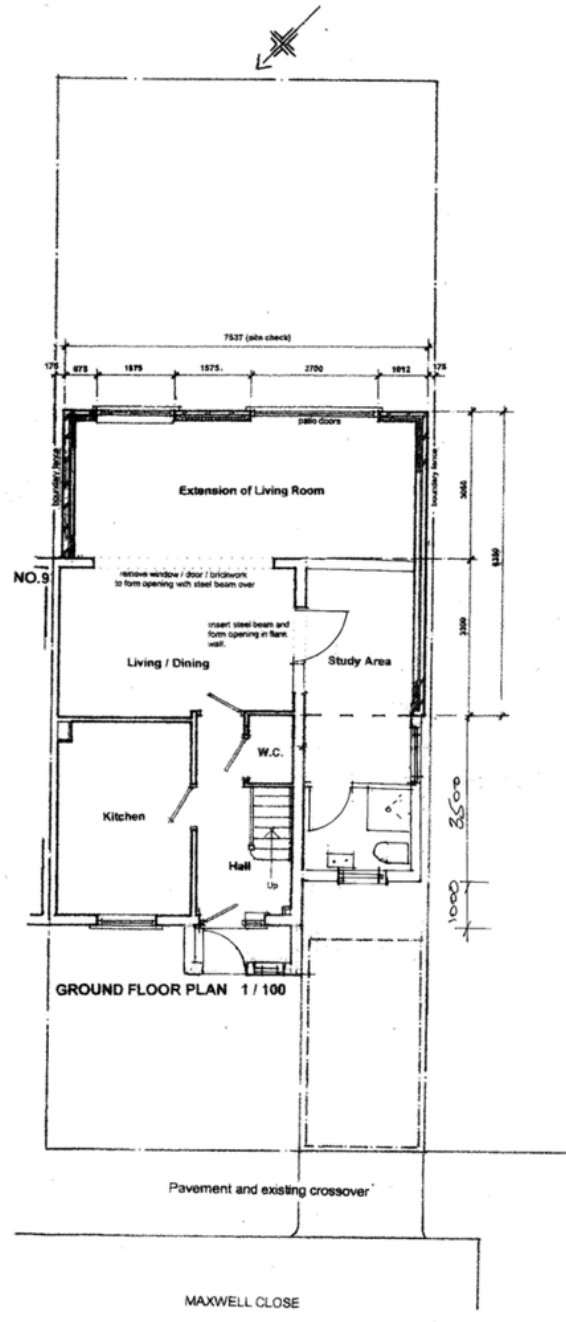


Figure 3b

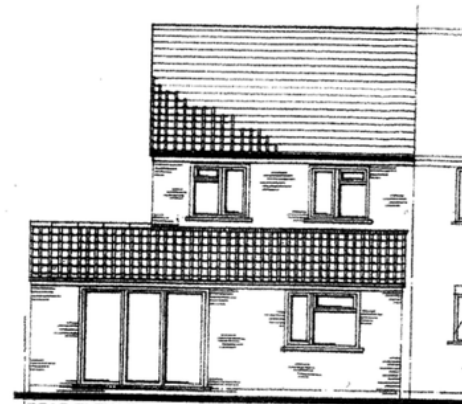
Stabiliser strut mounted on block tray







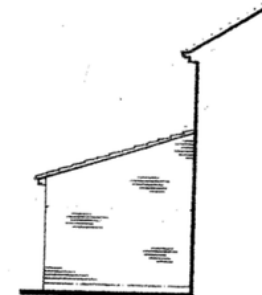
Proposed Ground Floor Plan



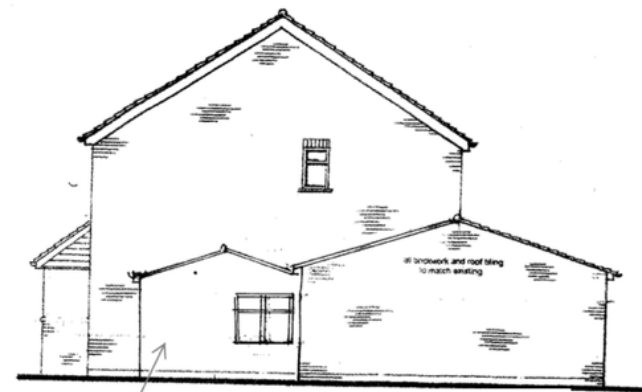
Proposed Rear Elevation



Proposed Front Elevation



**Proposed Side Elevation
(from No 9)**



Brickwork and roof tiles
and window to match
existing

Proposed Side Elevation

10 Maxwell Close, Hayes UB3 3DX
Proposed Single Storey Part Side Extension
Proposed Plans and Elevations
 Scale: 1:100@A3
 Drg No: MC-02A
 Date: 28-03 2022
 2/7/22 -Rev A -pitch roof slope changed