7th November 2014

Ref:ha/an1/6fairfaxrd

Your Ref:

Mr N Lunnis
NJL Design
Rose Cottage
Wood Walton
Huntingdon
Cambs
PE28 5YN

Dear Mr Lunnis

Trees and Out-house construction – 6 Fairfax Road, London NW6

Further to your instructions and my site and tree inspection, I am pleased to provide my recommendations for tree management and protection herewith as discussed.

I hope that the report is clear and helpful but if I can be of any further assistance, please do not hesitate to contact me.

Yours sincerely

Hal Appleyard
Dip. Arb. (RFS), F.Arbor.A, MICFor.
Arboricultural Association Registered Consultant

enc.

cc Client

Advice Note

Site/project: 6 Fairfax Road, London NW6

Date: 7th November 2014

Ref:ha/an/6farfaxrd

Subject: Trees and Construction – Out-building

1.0 Introduction

1.1 A modest garden building is proposed for to be constructed within the vicinity of retained trees at the above site. The base has been installed and the implications of this construction work upon the existing trees require assessment.

1.2 I have been appointed to inspect the trees and the construction, in line with existing proposals and to provide my assessment of the implications upon the trees and design.

1.3 I inspected the site and trees on 6th November 2014 and I have recorded the details of two trees in line with the guidance set out in BS5837:2012 'Trees in relation to design, demolition and construction – recommendations' (the BS).

2.0 The Trees and Site

2.1 The trees are located in the front and side of the main building and near to Fairfax Road. Consequently the trees do contribute to the quality of the street scene. No 6 Fairfax Road is a large residential house with modernised landscaping.

2.2 The details of the trees are provided in **Appendix 1** along with an extract from the BS detailing the grading system. Whilst both trees are reasonable, T1 the Sweet bay is of lower amenity and quality in my view than T2, which is more prominent and with fewer defects.

2.3 T1 is a garden ornamental tree with evergreen foliage. The immediate area surrounding the tree is somewhat dark as a result. The tree's trunk base stands upon a rise in the land when compared to the garden shed base that had been constructed around 1.5m to its east. Brick garden walls are located adjacent to the tree's west and north. The presence of these walls will have modified the tree's radial root spread and I expect most roots to exploit the garden land to the south of the tree and soil under the slab base to the east of the tree. The tree's canopy errs to the north and west although some drawn branches extend east over the slab base, which could be pruned to improve the tree's form. The canopy is low over the boundaries but the tree appears to be normally vigorous and dense.

2.4 It is evident that the relationship between the tree T1 and the garden shed base are long-standing and although some small roots appear to be uncovered recently, these are shallow roots growing the build-up of leaf and soil material, which accumulated against the former shed (since removed).

2.5 The Sycamore T2 is also typically vigorous but this is remote from the proposed out building and although it is possible that some roots may have extended to the area of construction for the new slab base, I believe these to be few in number and inconsequential to the condition of the tree. The tree is dense having been pruned in the past and some aesthetic improvement could be achieved by normal tree maintenance.

3.0 Impacts of existing construction on T1 Sweet Bay

3.1 At **Appendix 2** I have provided a plan to indicate the position of the Sweet bay in relation to the i) existing concrete slab and ii) the new base for the out-building.

3.2 I have also provided the BS root protection area based upon a calculation of the stem diameters. Clearly, this is disproportionately large and unrepresentative, in this case, of the likely root spread. I have also shown (as an irregular dashed line0 the area of land most likely to be exploited by the tree's roots. This takes account of the presence of local structures including the existing slab base and the boundary walls (in particular, their foundations). I accept that roots from T2 will have extended to a modest degree under the existing slab and associated area as well as under the adjacent pavement and neighbouring land but again, to a very modest degree in my view. Roots are most likely to preferentially grow in the soil of the garden, where moisture and nutrients are more plentiful.

3.3 Given the most likely rooting morphology of the tree, the construction of the new concrete slab will have used a proportionately low amount of likely rooting area including taking advantage of the existing structure. Although some roots may well have been encountered, exposed and reduced, I am content that these are opportunistic roots, which had exploited a build-up of soil in addition to the trees normal rooting pattern as described. Sweet Bay is a species well-recognised for tolerance for pruning; readily producing new shoots subsequent to pruning, which can be quite severe. Whilst I recommend covering the exposed roots and rooting area with a depth of well-rotted wood chip mulch, partly to retain moisture and partly to improve rooting environment, I expect the tree continue to grow effectively for the future in conjunction with the construction.

3.4 I have considered the possible effects of removing the concrete slab upon the tree and its root system. I expect roots from the adjacent tree to have exploited soil just beneath the existing and new concrete slab and removing the structure from above, will no doubt disturb and potentially remove more roots than if the base

were to be retained. Any benefits resulting from a very low increase in moisture availability will be outweighed by the risk of root loss in my view and I do not recommend any further construction or demolition in the vicinity of the tree.

3.5 As stated above, the tree's canopy form has become somewhat unbalanced in that it errs to the north and west and it possesses drawn and end-heavy branches in places. These are best pruned to reduce their length to be in line with the natural canopy form. The upper branches too can also be reduced lightly to improve the tree's overall form and appearance. This work will not only improve the tree's visual quality but improve tree anchorage and stability, where some roots may have been shortened during the construction work.

4.0 Conclusions and Recommendations

4.1 The construction of a new concrete slab base for a new out building is constructed using the existing footprint of a former garden shed base. T2 a mature Sycamore is remote from the construction and unaffected.

4.2 Some roots from the adjacent Sweet Bay, T1 have been exposed in the process but in my view these are shallow opportunistic roots exploiting a former build-up of leaf mulch and soil.

4.3 The amount of root spread disturbed or lost as a result of the construction work is low in my view and the future growth of the tree, well-recognised for tolerating pruning, will be unaffected.

4.4 Any modest soil environment improvements gained from removing the slab base will be outweighed by the potential for root loss and disturbance during the demolition exercise and I do not recommend further works in the vicinity of the tree.

4.5 The tree can be improved by light pruning and simple soil improvement measures.

Recommended Tree Works

Tree Works (Spec.)	Tree Nos	Visual Landscape Impact of Works*	Available Replacement Planting(Y/N)	Comments
Crown reduce by 1-2m all over to improve canopy form (Sp1); Crown lift to 2.5m (Sp4)	T2	None	-	Some minor imbalance to be rectified by light pruning; reduce the length of rogue, drawn branches
Crown clean(Sp3) Crown thin by 20% (Sp5)	T1	None	-	General tree management
Total		None		

*This is a preliminary visual appraisal based upon the opinion of the author having inspected the trees in the context of their current surroundings. – None (no change or beneficial impact) Negligible or indiscernible difference to treed landscape; Low – Noticeable but mitigated by retention of other landscape trees and features; Medium – Obvious but temporary alteration to the treed landscape; High – Obvious and permanent alteration to the landscape.

Visual receptors include the public or community at large, residents, visitors or other groups of viewers together with the visual amenity of potentially affected people.

Specifications for recommended tree works:

General

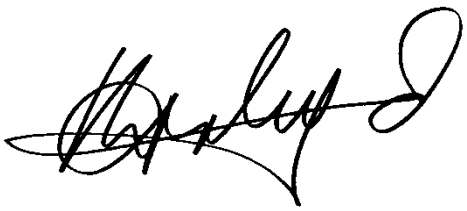
All work is to conform to BS 3998:2010 'Tree work – Recommendations' and with current arboricultural best practice. Tree works are to be undertaken by a professional and specialist arboricultural contractor, who carries the appropriate experience and insurance cover, equipment and PPE. All works and processes are to comply with all relevant Planning, Wildlife, Environmental, Conservation and Health and Safety legislation.

SP1. Crown reduction will include reducing the height and spread of a tree's canopy (branching structure) whilst retaining the tree's natural tree form (species determined). The amount of reduction is described in linear metres e.g. 2m (from 6m to 4m radial spread) or 3m (from 15m to 12m tree height). Crown reduction work will be undertaken for a specific purpose, which may include containing tree growth in a given location or reducing wind purchase and stress.

SP3. Crown Cleaning involves the removal of all dead wood small and large diameter, stubs and broken branches. Some small, densely arranged shoots (including epicormic shoots) will be thinned out or removed as recommended.

SP4. Crown lifting includes the removal of the lowest lateral branches and shoots, (which would not result in irrevocable tree injury), to a specific height above ground level measured in metres.

SP5. Crown thinning involves the removal of sub-lateral (secondary) branches to appropriate branch/shoot unions, removal of dead and damaged (crossing branches) with a view to reducing the crown density by a specified %, normally no higher than 30%.



Hal Appleyard
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enc.
Appendix 1 Tree Survey schedule
Appendix 2 Tree and site plan

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Also at: Office Eighty Five, 272 Kensington High Street, London W8 6ND | Tel: 0208 687 1214
E: hal@acstrees.co.uk | Partners: H & A Appleyard

APPENDIX 1

ACS Consulting (London)
Tree Management Consultants
T: 020 8687 1214

ACS Consulting (London)
Tel: 020 8687 1214

Tree Survey Schedule

Site:6 Fairfax Road, London, NW6

Surveyor:H. Appleyard

Date: 6th November 2014

Ref:ts1/6fairfaxrd

Tree No.	English Name	Height	Crown Spread	Ground Clearance	Age Class	Stem Diameter	Protection Multiplier	Protection Radius	Growth Vitality	Structural Condition	Landscape Contribution	B.S. Cat	Sub Cat	Useful Life	Observations
T1	Sweet Bay	9	4 4 4 4	3/N3	Mature	700	12	8.4	Normal	Good	Medium	C	1,2	20-40	Multi stem; 300 x 4; mild weaknesses Drawn branches/end-heavy Roots deflected by walls and strucutres
T2	Sycamore	12	6 4 5 5	3/W3	Mature	460	12	5.5	Normal	Good	High	B	1,2	20-40	Die-back (minor) Reduced in past; dense canopy Root spread deflected by structures

Notes:

1. Height describes the approximate height of the tree in meters from ground level.
2. The Crown Spread refers to the crown radius in meters from the stem centre and is shown above on each of the four compass points (i.e. N, E, S, W) clockwise.
3. Ground Clearance is the height in meters of crown clearance above adjacent ground level together with the height and direction of the lowest branch
4. Stem Diameter is the diameter of the stem measured in millimetres at 1.5m from ground level. The diameter may be estimated (e), where access is restricted. An average (a) may be taken for tree groups. A full inspection is always recommended.
5. Protection Multiplier is 12 for single-stemmed trees; for multi-stemmed a cross-sectional area is calculated to derive the DBH, which in turn is multiplied by 12.
6. Protection Radius is a radial distance measured from the trunk centre and is used to calculate the BS RPA.
7. Growth Vitality - Normal growth, Moderate (below normal), Poor (sparse/weak), Dead (dead or dying tree).
8. Structural Condition - Good (no or only minor defects), Fair (remediable defects), Poor - Major defects present or suspected.
9. Landscape Contribution - High (prominent landscape feature), Medium (visible in landscape), Low (secluded/among other trees).
10. B.S. Cat. refers to British Standard 5837:2012 Table 1 category and refers to tree/group quality and value; 'A' - High, 'B' - Moderate, 'C' - Low, 'U' - Remove or very poor quality.
11. Sub Cat refers to the retention criteria values where 1 is Arboricultural, 2 is Landscape and 3 is Cultural including Conservation/ecological, historic and commemorative.
12. Useful Life is the tree's estimated remaining effective contribution in years.

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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	• 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; see **4.5.7**.*			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

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APPENDIX 2

ACS Consulting (London)
Tree Management Consultants
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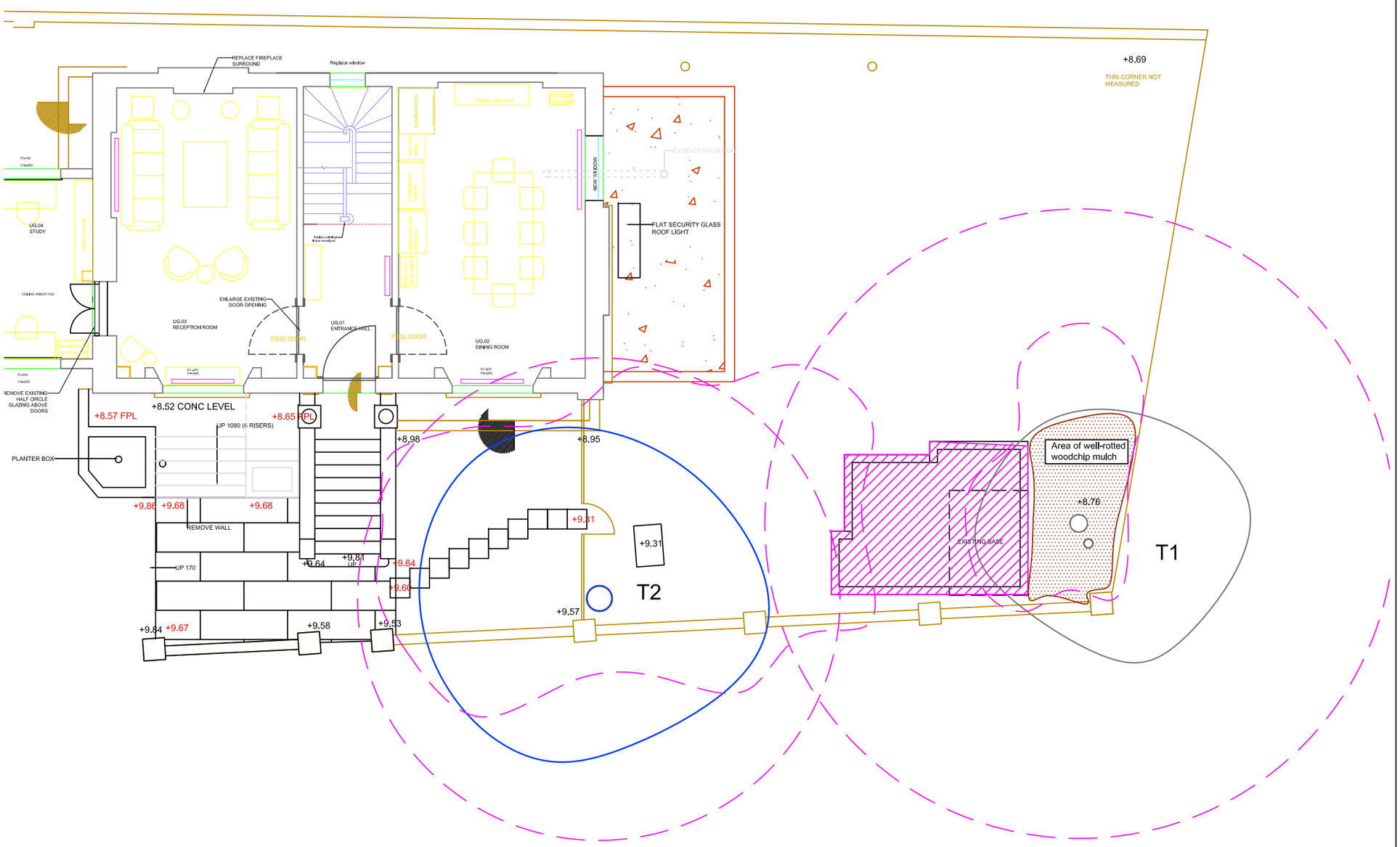
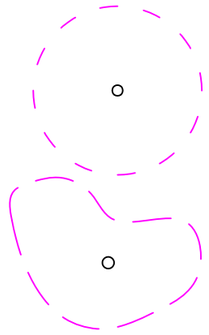


0 5 m 10 m 20 m

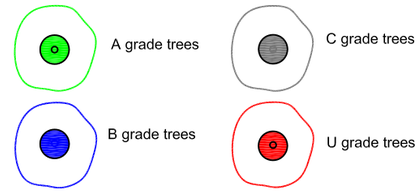
Scale: 1:200

ACS CONSULTING LEGEND

Indicative



BS Root Protection Area, (RPA) shown uniform (above left) but site features such as roadways, retaining walls and foundations, may modify root patterns and therefore the RPA shape (left).

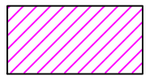


A grade trees

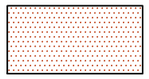
C grade trees

B grade trees

U grade trees



Area identified for hand excavations prior to construction of foundations. All work to be supervised by an arborist to advise upon root treatment where necessary.



Area identified for 50mm depth of well-roted wood chip mulch to prevent weed growth and introduce improved rooting environment.

Tree Protection Methods adopted on site.

1. Carry out any permitted tree works - ask before beginning.
2. Undertake manual excavations for new shed sub base.
3. Clear debris from site
4. Line exposed soil with impervious material
5. Construction phase.
6. Undertake landscaping.

Client : Shalini Misra Ltd.

Project : 6 Fairfax Road, London, NW6

Title : Tree Protection Plan

Scale : 1:100 A3

Date : Nov. 2014

Dwg No : TPP1_FR

Rev : -

Do not scale from this drawing. Any discrepancies are to be reported to ACS Consulting.
This drawing is to be used when printed to scale & in colour.

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