# 4<sup>th</sup> September 2010

Ref:ha/aia1/adelaideph

Your Ref:

Ms E Bland KSR Architects 14 Greenland Street London NW1 0ND

Dear Ms Bland

# Trees and Proposed Development at: Former Adelaide Public House, Elsworthy Rise, London NW3

Further to your request, I am pleased to provide my arboricultural report herewith.

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

Yours sincerely

July &

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



Registered Consultant





# **Arboricultural Implications Assessment Report**

Site: Adelaide P H (former), Elsworthy Rise W3

Date: 4<sup>th</sup> October 2010

Prepared by: Hal Appleyard Dip. Arb. (RFS), F.Arbor.A, MICFor.

Ref: ha/aiams/adelaideph/e

### **Appendices:**

- 1. Tree Survey Schedule and Tree Protection Plan
- 2. Example of site monitoring record
- 3. Method Statement for Trial Pit Investigations (tree roots)

## Summary and Conclusions

It is proposed to demolish the existing public house and construct a terrace block of new three-storey residential houses. The site is bounded by retaining and boundary walls, which separate the site from the neighbouring properties to the west and the public road Elsworthy Rise to the east. Roots from neighbouring trees will have been restricted in their lateral spread into the site by the presence of the structures, acting as root barriers. It is recommended, as a precaution, to undertake some preliminary manual excavations to assess any rooting within the site, in order that the tree owners can be informed of any findings.

Subject to the implementation of the tree protection precautions, none of the trees at this site will be adversely affected by the construction work.

## 1.0 Introduction

- 1.1 A planning application for the demolition of existing buildings and construction of new dwellings with subterranean parking area is in preparation for consideration by the Local Planning Authority.
- 1.2 A tree survey of the site has been carried out in accordance with the guidance set out in BS 5837:2005 'Trees in relation to construction- Recommendations' in February 2010, the details of which are included at Appendix 1.



1.3 The principal trees in question and which are in consideration, grow in neighbouring land of Elliot Square and two trees grow within the pavement of Elliot Rise. No trees are contained within the site.

## 2.0 Tree Appraisal

- 2.1 The trees are described in the Appendix 1 and include mature Lime and Ash species. Tree Nos 1-5 grow beyond the site boundary, which comprises a 2-3m brick wall and fencing. Land on the western side of the site is somewhat higher than that within the site.
- 2.2 The branches of these trees have grown over the boundary line and over-hang the site. Some pruning to reduce the extent of over-hang has been carried out, which has removed the oppressive growth but retained the trees as an amenity.



P1 Boundary Trees over-hanging the site have been pruned back.

The under-storey Laurel shrubs are to be removed as part of the proposals but which will have no impact upon the general character of the area.



2.3 The roots of these trees, including T1 at the front of the site adjacent to Adelaide Road, have been restricted from growing in a westerly direction by the presence of the retaining wall. Excavations within the site therefore are unlikely to present risks to the trees, but I recommend undertaking some precautionary, preliminary manual excavations in order to assess any rooting that may be present. Assessing the extent of rooting in the areas shown on the Tree Protection Plan (TPP) at **Appendix 1** can assist in advising the tree owners about tree condition and safety.



P2 Retaining structures at the base of T1 (Lime)

The concrete surround (arrowed) for the inspection chamber is certain to prevent, yet further any lateral root spread from T1 (arrowed) into the site.

2.4 A mature Sycamore T5 is also growing off-site and no access was available to inspect this tree thoroughly but from available vantage points this tree is adequately protected from construction by its separation to the site and the position of the boundary structures, whose foundations will have acted as a root barrier.





P3 Boundary Wall, whose foundations act as a root barrier for T5 (arrowed)

- 2.5 The two street trees, T6 and T7 are low grade with reference to the BS table 1. T6 has some significant branch damage and appears stressed and weakened. T7 is a new planting and has yet to make much of an impression upon the landscape.
- 2.6 In summary, the trees that grow off site are unlikely to be affected by the proposals. Their canopy spread has been reduced back and any oppressive growth has been removed. Their root spread is most likely to have been restricted from growing into the site and the potential for root loss is therefore remote. The two street trees are of little consequence to this scheme where neither is affected.

# 3.0 Root Investigations

3.1 In order to assess any level of root ingress and encroachment into the site, trial pit investigations should be carried out under specialist supervision. These works are to be undertaken in accordance with our method statement, which is attached here at Appendix 3.



3.2 Subject to the results of the trial pit analysis, the tree owners are to be provided with the information prior to commencement of construction, in order that they can take advice on any tree management that is prudent. The potential for root loss is low but should any take place this can be addressed through light canopy pruning should the need arise.

# 4.0 Tree Protection

- 4.1 In this case, excavations are required for the extension works. In order to provide effective protection to the neighbouring tree I recommend the following steps to be undertaken prior to commencement of construction:
- 4.2 i) Break out concrete or any hard standing areas.
  - ii) Under specialist supervision, hand excavate soil, retaining all significant, roots in line with location of proposed foundations and any subterranean walls.
  - ii) Professionally undertake root pruning (in accordance with guidance in BS 3998:1989 'Tree Work' and amendments).
  - iii) Cover exposed soil/roots with material (preferably water-absorbent) to prevent undue desiccation of soil and exposed roots.
  - iv) Subsequent to wall construction, back fill space between exposed soil and wall with a mix of graded top soil and sharp sand (not builder's sand) ratio of 50:50.
- 4.3 An example of the root excavations and retaining structures is provided below.
- 4.4 In this case, no tree protection fencing nor ground protection will be required to afford effective protection to off-site trees.
- 4.5 During the construction phases, it will be prudent to assess and monitor the condition of the trees and to determine whether any preservative measures should be implemented. An example of a site monitoring form is provided at **Appendix 2**.





# 4.6 Fig 1 Hand Excavations near boundary tree

## 5.0 Conclusions

- 5.1 The proposal for the construction of the terraced, residential block and associated undercroft garaging will have a low impact upon the neighbouring trees.
- 5.2 The boundary structures will have prevented lateral root growth into the site, however manual, preliminary excavations are prudent prior to commencement of construction.
- 5.3 The over-hanging branches have been pruned back from the former garden and demonstrate that this can be managed effectively without causing harm to amenity or the trees.
- 5.4 Subject to implementation of the precautions and recommendations set out above the trees can continue to contribute to private and local amenity.

Hal Appleyard 4<sup>th</sup> October 2010

# **APPENDIX 1**

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

## ACS Consulting (London) Tel: 020 8687 1214

# **Tree Survey Schedule**

Page 1

Surveyor:H. Appleyard Ref:ts1/adelaide

#### Site:Adelaide PH, Elsworthy Rise, NW3

#### Date: 10th February 2010

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
Τ1	Lime, Common	20	6 5 5 5	2.5	Mature	650e	12	7.8	Normal	Good	High	В	1,2	>40	Off-site tree Root pattern affected by structures Effective in the street scene
Τ2	Ash, Common	16	6 5 7 2	4	Mature	400	12	4.8	Normal	Good	Medium	В	1,2	>40	Off-site tree One of a group Over-hanging branches; within Elliot Square; roots deflected by boundary retaining wall
Т3	Ash, Common	16	2 6 5 2	6	Mature	350	12	4.2	Normal	Good	Medium	В	2	>40	Off-site tree One of a group Over-hanging branches; within Elliot Square; roots deflected by boundary retaining wall; dense ivy on stems
Τ4	Ash, Common	16	3 5 5 3	3	Mature	450e	12	5.4	Normal	Good	Medium	В	2	>40	Off-site tree One of a group Over-hanging branches; within Elliot Square; roots deflected by boundary retaining wall; private garden tree
Τ5	Sycamore	18	5 6 6 4	8	Mature	650e	10	6.5	Normal	Good	Medium	В	1,2	>40	Off-site tree Branches hitting structures Roots deflected by structures; canopy over- hanging buildings
Τ6	Cherry, Flowering	8	5 3 3 3	2	Mature	220	12	2.6	Moderate	Fair	Medium	С	1,2	20-40	A sparser than normal canopy Broken & split branches Significant damage to main branch over road; roots affecting pavement surface; street tree

#### 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.
- 4. Stem Diameter is the diameter of the stem measured in millimetres at 1.5m from ground level or just above ground level for multi stemmed trees. 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 and 10 for multi-stemmed trees.

- 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).
- 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 5837:2005 Table 1 category and refers to tree/group quality and value; 'A' - High, 'B' - Moderate, 'C' - Low, 'R' - 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.

#### Site:Adelaide PH, Elsworthy Rise, NW3

#### Date: 10th February 2010

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
Τ7	Thorn, Cockspur	6	2 2 2 2 2	2	Young	120	12	1.4	Normal	Good	Low	С	2	>40	Street tree A tree with insignificant defects

#### Notes:

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# Surveyor:H. Appleyard Ref:ts1/adelaide

# Table 1 — Cascade chart for tree quality assessment

TREES FOR REMOVAL								
Category and definition	Criteria							
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	<ul> <li>Trees that have a serious, irremincluding those that will become us loss of companion shelter cannot b</li> <li>Trees that are dead or are showi</li> <li>Trees infected with pathogens of or very low quality trees suppression</li> <li>NOTE Habitat reinstatement may be tree).</li> </ul>	DARK RED						
TREES TO BE CONSIDERED	FOR RETENTION							
Category and demittion	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	Identification on plan				
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or 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 which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN				
<u>Category B</u> Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE				
<u>Category C</u> Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is	Trees not qualifying in higher categories NOTE Whilst C category trees will u	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit sually not be retained where they would impose a s	Trees with very limited conservation or other cultural benefits ignificant constraint on	GREY				
suggested), or young trees with a stem diameter below 150 mm	according trees with a stell							



- 1. Undertake pre-commencement site meeting to agree tree protection methods and timings.
- 2. Carry out any permited tree works ask before beginning.
- 3. Undertake manual root investigation work and advise tree owners accordingly.
- 4. Undertake demoltion in accordance with contractor's specification
- 5. Clear debris from site.
- 6. Construction phase.
- 7. Undertake landscaping.





# **APPENDIX 2**

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

ACS Consulting T: 020 8687 1214	Arbor	icultural	Site S	Supervision Pag	e 1 ACS
Site:	1 Hyde Park, L	ondon			CONSOLTING
Inspected By:	H .Applevard				
Client:	RPC			Date of Inspection:	15/02/2007
Site Agent:	Shaun Clark			Time of Inspection:	3:30pm
Tree Protec	tive Fencing				
Tree protection	in correct locati	on			
Comments/Act	ion				
No action at this	stime				
Agreed Cor	nstruction Ex	clusion Zon	<u>ie</u>		
No debris within	construction ex	clusion zone			X
					23.4.2007
				Effective fencing in	position
Comments/Act	ion				poenieri
No action at this	s time				
Amendments	s to Docume	ntation Requ	uired		
No amendment	s required		<u></u>		
	5 required				
					THESE ARE PROTECTED TOPES
Comments/Act	ion				
Building works of	outside scope of	Method Stater	nent		
				+ 11111T	744C
					23. 4. 2007
	<u>orks</u>				
				Fencing with signs	
General Com	ments		_		
Tree protection	and on-site sup	ervsion effectiv	e and und	erstood.	

# **APPENDIX 3**

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



# Brief for Hand-excavated tree root investigation trial pits

- 1. Obtain any necessary licences/authorisation for excavation works from the appropriate agency or land owner.
- 2. Undertake Health and Safety risk assessments **<u>before</u>** proceeding.
- Obtain details (plan) of exact dimensions and location of proposed trial pits, access details and existing surface types. Trial holes to be no less than 750mm deep unless otherwise agreed.
- 4. Subject to written agreement, arrange access and commence works
- 5. Carefully lift existing surfaces and place stones, paving or flagstones, where possible in a retrievable location. Where turf or grass is the surface cut the turf for the entire trial pit area and store in a retrievable location for re-instatement when appropriate.

# (Note: in the case of concrete surfaces, mechanical or hydraulic hand machinery will be acceptable. Provisions for making good will be required and agreed <u>prior to commencement</u>).

- 6. With the use of hand tools, dig out the soil to expose roots to the agreed depth. Roots in excess in excess of **20mm** are to be retained.
- 7. Use hand brush (or compressed air) or similar to clear soil away from encountered roots before proceeding to use spades or forks to remove further soil. Hand excavations must limit so far as reasonably practicable, damage to the root bark or root wood.
- 8. Exposed roots are to be wrapped for identification with material. To prevent desiccation (drying out) of all roots, the sides of the trial pit should be covered with a damp material e.g. hessian or similar. No roots are to be left exposed for more than four hours. All exposed trial pits must be covered overnight.



Example of Root exposure and root identification

- 9. All spoil is to be placed upon boards, paving or sheeting in an agreed location, ready for backfilling when appropriate.
- 10. Exposed trial pits are to be fenced off and covered for safety reasons. All site users are to be made aware of their precise location.
- 11. Following root exposure obtain expert advice on any root treatments (e.g. pruning).