

Arboricultural Impact Assessment

Kiln Place, Camden

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On behalf of Tree Aware UK Ltd
on
26/09/2014

The purpose of this document is to assess the trees and/or any significant vegetation at the site of Kiln Place, Camden to fully identify any constraints that the tree/trees or significant vegetation may pose to the proposed construction or design.

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1.0 Summary

The following points in this summary are intended for quick reference only and are explained in further detail in the report.

1.1 Overview of tree Constraints

Following a site inspection on the 23/01/2014, a general preliminary assessment of the site as a whole is that the existing trees located on the site should not pose a constraint to the construction as long as reasonable protection of the recommended retained trees is undertaken. This should be in the form of tree protection fencing and potential specialist construction techniques for the foundations such as raft and pile.

1.2 Overview of Construction Costs in connection to the tree

In terms of additional costs of the use of special construction techniques and providing adequate tree protection. It is deemed that the trees pose minimal to medium additional costs dependant on the final proposed design.

1.3 Notable Tree Constraints (Trees of a BS 5837 Category being either an A or B)

It was identified that 33 individual trees and 5 groups of trees within the boundary of the site as a whole were of the categories A or B. (Please see Appendix A, BS 5837 Tree Survey Schedule for specific tree details). Notable constraints on the individual proposed development sites are as follows.

Site 1 T77 category B tree

Site 2 T29 category B tree

Site 3 None

Site 4 None

Site 5 None

Site 6 None

1.4 Impact on Trees

There will be individual trees and groups of trees recommended for removal which will include the following;

G5 Category C

G6 Category C

G7 Category C

T25 Category U

T26 Category B

T27 Category C

T28 Category U

T30 Category C

T33 Category U

Trees T77 and T29 although category B trees cannot be viable retained based on the encroachment to their root protection areas from the proposed development.

2.0 Introduction

2.1 Instruction has been received from EC Harris LLP to assess the impact of the trees on the proposed design at Kiln place, Camden. The site comprises of 6 subdivided sites. These are labelled as

Site 1

Site 2

Site 3

Site 4

Site 5

Site 6

- 2.2 A BS 5837 Tree Survey in accordance to BS 5837:2012 "Trees in Relation to Design, Demolition, and Construction"- Recommendations was carried out on the 23/01/2014. The trees included in the survey (please see Appendix A) have been visually inspected from ground level. No climbing inspection or any decay detection equipment has been used/carried out.
- 2.3 As there are trees located adjacent to the site and on the subdivided sites this being within adjacent verges and green spaces, which could be contributing to the character of the area it is important to assess and ascertain the quality and value of the trees and the likely impact of these trees on the proposed construction. It is also worth assessing the impact the trees may have in the future to the building/property.
- 2.4 Dependant on their age, condition and species trees differ in their ability to cope with root disturbance and damage. Subsequently, tree roots which are commonly located within the top metre of soil can be affected by natural and manmade topography and structures, which can restrict, redirect and affect the tree roots growth rate. It is therefore important to consider all relevant factors when ascertaining the retention and or removal of trees.

3.0 Site Description

- 3.1 The site being Kiln place, Camden is within an urban environment that has sparse to medium tree cover. This is made up of predominantly street trees within the street/verges or on public open space. The trees are varied species of differing ages.

- 3.2 The site comprises of terraced properties and flats with small rear and front gardens and communal areas of open space. The majority of the area is flat in gradient with notable level changes occurring at Kiln place.

4.0 Impact on Trees

- 4.1 A total of 77 individual trees and 12 groups of trees have been assessed in accordance to BS 5837:2012 "Trees in Relation to Design, Demolition, and Construction"- Recommendations. Please see Appendix A for tree details in accordance to the methodology of BS 5837:2012.
- 4.2 The proposed development being made up of 6 sites does encroach in to the root protection areas of some trees. (Please see Appendix B, Root Protection Area Plan). The following trees will be affected in the form of encroachment to their root protection areas G5, G6, G7, T25, T26, T27, T28, and T77 from site 1, T29 from site 2 and T33 from site 3 as well as T30 and T32 at site 6 and T50 at site 5. These trees and groups are made up of category B and C trees. With trees T77 and T29 as well as T32 being category B trees.
- 4.4 As the proposed development will encroach significantly into the RPA of the following trees it is deemed that these trees cannot be viable retained and have to be removed to accommodate the proposed development.

G5 Category C

G6 Category C

G7 Category C

T25 Category U

T26 Category B

T27 Category C

T28 Category U

T29 Category B

T30 Category C

T33 Category U

T77 Category B

- 4.5 Trees T32 and T50 root protection areas are encroached into only by a minimal amount; as such these trees can be viably retained.
- 4.6 With the above listed trees requiring removal to accommodate the proposed development. The following trees within each site can be retained as they are not impacted by the proposed development.

T24 Category C
T31 Category B
T32 Category B
T42 Category B
T43 Category C
T44 Category C
T45 Category C
T46 Category B
T50 Category B
G8 Category C

For the locations of the trees to be retained and removed please see "Tree Removal and Retention Plan/Tree Protection Plan"

5.0 Conclusions and Recommendations

- 5.1 Based on the above it is recommended that T77 and T29 be removed. The remaining affected trees by the proposed development these being G5, G6, G7, T25, T26, T27, and T28 from site 1 and T33 from site 3 as well as T30 from site 6 should also be removed due to encroachment into their root protection areas and a replacement scheme proposed. Please see design and access statement for details.
- 5.2 Trees T32 and T50 have minimal encroach, as such with basic tree protection these trees can be viable retained.

- 5.3 To ensure adequate tree protection is used and supplied, an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) have been produced and will be submitted with this planning application.

Appendix A BS 5837 Tree Survey Schedule

Please note that where this symbol is displayed after a figure, the figure is an estimate.

Sequential Reference Number	Species (Common Name)	Height	Stem Diameter	Branch Spread				First Significant Branch	Canopy Height	Life Stage	General Observations	Estimated Remaining Contribution	BS 5837 Category
				N	S	E	W						
T1	Ornamental Pear	6m	90mm	1m	1m	1m	1m	2m	2m	Y	Tree leans northwards, rocking at root plate. <u>Recommend re-stake tree</u>	10+	C
T2	Oak	3m	10mm	1m	1m	1m	1m	1m	1m	Y	Small recently planted tree	10+	C
T3	Ornamental Pear	7m	95mm	1m	1m	1m	1m	2.5	2m	Y	Small young tree, slight movement in root plate. <u>Recommend re-stake tree</u>	10+	C
T4	Ornamental Pear	7m	85mm	1m	1m	1m	1m	2m	3m	Y	Small young tree	10+	C
T5	London Plane	25m+	770mm	6m	7m	6m	4m	5m	4m	M	Large tree suppressed by T6, tree leans eastwards	20+	B
T6	London Plane	25m+	550mm	8m	3m	2m	6m	6m	6m	M	Tree suppressed by T5, evidence of lower limb removal	20+	B

T7	Alder	6m	90mm	1m	1m	1m	1m	2m	2m	Y	Young tree in good condition	10+	C
T8	Alder	8m	105mm	1m	1m	1m	1m	2m	3m	Y	Young tree in good condition	10+	C
T9	Cherry	3m	45mm	1m	1m	1m	1m	2m	2m	Y	Newly planted tree	10+	C
T10	London Plane	25m+	565mm	6m	5m	6m	5m	2.5m	4m	M	Tree previously reduced with re-growths evident, limb reduce back from lamp post	20+	B
T11	Norway Maple	20m+	620mm	5m	2m	2m	4m	2.5m	5m	M	Tree suppressed by building and has been previously reduced	20+	B
T12	Norway Maple	20m+	510mm	5m	2m	2m	5m	4m	6m	M	Tree suppressed by building and has been previously reduced	20+	B
T13	Norway Maple	20m+	490mm	6m	2m	2m	5m	4m	6m	M	Tree suppressed by building and has been previously reduced	20+	B
T14	Cherry	6m	250mm	2m	2m	2m	2m	2m	3m	EM	Tree recently reduced showing signs of re-growths, tree leans slightly	10+	B
T15	Cherry	8m	350mm	2m	2m	2m	2m	3m	4m	M	Dead tree with decay at base	Under 10	C

											<u>Recommend remove tree</u>		
T16	Cherry	4m	90mm	1m	1m	1m	1m	2m	3m	Y	Small tree moving in root plate. <u>Recommend re-stake tree</u>	10+	U
T17	Cherry	5m	110mm	1m	2m	2m	2m	2m	3m	Y	Good conditioned tree	10+	C
T18	Sorbus	8m	80mm	1m	1m	1m	1m	2m	2.5m	Y	Good conditioned tree	10+	C
T19	Silver Birch	20m+	350mm#	4m#	6m#	4m#	3m#	2.5m	2m	M	Tree located in garden, tree has poor form	10+	C
T20	Cherry	5m	50mm	1m	1m	1m	1m	2m	3m	Y	Newly planted tree	10+	C
T21	Cherry	9m	370mm	3m	2m	3m	2m	2.5m	3m	M	Recently reduced, bark damage on limb re-growths present	10+	C
T22	Acer	5m	50mm	1m	1m	1m	1m	2m	2m	Y	Newly planted tree	10+	C
T23	Lime	18m	355mm	4m	3m	3m	4m	4m	5m	M	Good conditioned tree	40+	A
T24	Silver Birch	4m	40mm	1m	1m	1m	1m	2m	2m	J	Juvenile tree poorly staked <u>Recommend re-stake tree</u>	10+	C
T25	Weeping Willow	6m	140mm	2m	2m	2m	2m	2m	2m	SM	Dead Tree <u>Recommend remove tree</u>	Under 10	U

T26	Weeping Willow	7m	185mm	2m	3m	3m	3m	2.5m	1m	SM	Good conditioned tree one sided.	20+	B
T27	Weeping Willow	4m	110mm	2m	3m	2m	2m	2m	1m	SM	Leaning tree, with movement in root plate. <u>Recommend re-stake tree</u>	10+	C
T28	Willow	20m+	660mm 720mm	2m	2m	4m	2m	2m	2m	M	Poor conditioned tree, recently pollarded, tree is likely to be hollow. Bark loss evident. <u>Recommend remove tree</u>	Under 10	U
T29	Hawthorn	14m	400mm	4m	4m	4m	5m	2m	3m	M	Good conditioned tree	20+	B
T30	Elderberry	8m	175mm	2m	2m	2m	2m	1.5m	3m	M	Wire fencing wrapped around tree and is present within the trunk	10+	C
T31	Sycamore	25m+	750mm	2m	1m	3m	2m	2.5m	5m	M	Tree reduced recently with re-growths evident	20+	B
T32	Sycamore	25m+	1160mm	4m	3m	4m	4m	2m	7m	M	Tree reduced recently with re-growths evident	20+	B
T33	Sorbus	16m	610mm	3m	3m	3m	2m	2.5m	4m	M	Decay at base with fruiting bodies present. <u>Recommend</u>	Under 10	U

											<u>remove tree</u>		
T34	Conifer	8m	150mm 100mm 100mm	2m	3m	2m	2m	30cm	Ground level	SM	Multi stemmed tree with poor form	10+	C
T35	Cherry	2.5m	40mm	1m	1m	1m	1m	50cm	1m	Y	Good conditioned tree	10+	C
T36	Willow	2.5m	95mm	2m	2m	2m	2m	1m	30cm	Y	Good conditioned tree	10+	C
T37	Willow	3m	90mm	2m	2m	2m	2m	50cm	30cm	Y	Good conditioned tree	10+	C
T38	Sorbus	2m	50mm	1m	1m	1m	1m	1m	1m	Y	Good conditioned tree	10+	C
T39	Willow	5m	130mm	2m	2m	2m	2m	2m	30cm	Y	Bark damage on trunk	10+	C
T40	Willow	5m	80mm	2m	2m	2m	2m	30cm	30cm	Y	Good conditioned tree	10+	C
T41	Maple	25m+	730mm	8m	9m	8m	8m	2m	3m	M	Bark damage/decay at base north side of trunk. <u>Recommend monitor condition</u>	10+	C
T42	London Plane	25m+	965mm	10m	9m	9m	9m	2.5m	4m	M	Decay in limb east side of tree <u>recommend remove or reduce limb</u>	20+	B
T43	Acer	8m	75mm	1m	1m	1m	1m	1m	1m	Y	Good conditioned tree	10+	C

T44	Acer	8m	70mm	1m	1m	1m	1m	2.5m	2.5m	Y	Young tree bark damage at base	10+	C
T45	Acer	8m	75mm	1m	1m	1m	1m	2.5m	3m	Y	Young tree bark damage at base	10+	C
T46	Hawthorn	6m	500mm#	4m#	3m#	3m#	2m#	1.5m	2.5m	M	Tree leans Eastwards, ivy covered at base	20+	B
T47	Hawthorn	4m	115mm	2m	2m	1m	1m	2m	1.5m	Y	Good conditioned tree	10+	C
T48	Hawthorn	6m	160mm	2m	2m	2m	2m	2m	1.9m	SM	Good conditioned tree	20+	B
T49	Acer	4m	70mm	1m	1m	1m	1m	2.3m	2m	Y	Good conditioned tree	10+	C
T50	Elder Berry	7m	210mm#	3m#	2m#	2m#	2m#	2m	2m	M	Good conditioned tree	20+	B
T51	Lime	25m+	650mm	4m	4m	4m	2m	4m	10m	M	Good conditioned tree, previously reduced	20+	B
T52	Lime	25m+	580mm	3m	3m	3m	3m	2m	4m	M	Good conditioned tree, previously reduce, epicormic growth present	20+	B
T53	Ash	20m+	505mm	5m	5m	5m	5m	3m	5m	M	Good conditioned tree	40+	A
T54	Ash	20m+	490mm	6m	5m	7m	6m	3m	4m	M	Good conditioned tree	40+	A

T55	Ash	12m	285mm	4m	5m	4m	5m	3m	4m	EM	Good conditioned tree	40+	A
T56	Silver Birch	20m+	250mm#	2m#	3m#	4m#	2m#	3.5m	2m	M	Tree suppressed by building	20+	B
T57	Ash	20m+	550mm	5m	6m	7m	7m	2.5m	5m	M	Good conditioned tree	40+	A
T58	Silver Birch	18m	350mm	4m	3m	4m	3m	2m	2m	M	Good conditioned tree, slight lean easterly	20+	B
T59	Ash	12m	410mm	3m	4m	5m	4m	2.5m	4m	M	Tree previously reduced	20+	B
T60	Conifer	18m	250mm	2m	2m	2m	2m	2m	1.8m	M	Good conditioned tree	40+	A
T61	Hornbeam	4m	60mm#	1m#	1m#	1m#	1m#	2m	2m	Y	Good conditioned tree	10+	C
T62	Silver Birch	14m	400mm	4m	4m	4m	5m	3m	4m	M	Good conditioned tree	20+	B
T63	Acer	3m	70mm	1m	1m	1m	1m	2m	2m	Y	Tree moving in root plate. <u>Recommend re-staking tree</u>	10+	C
T64	Cherry	8m	450mm	3m	3m	3m	3m	2m	4m	M	Tree has had large branch removed from canopy.	10+	C
T65	Eucalyptus	25m+	450mm#	2m#	2m#	2m#	2m#	6m	3m	M	Good conditioned tree	40+	A
T66	Silver Birch	9m	300mm#	4m#	3m#	3m#	3m#	2m	3m	M	Good conditioned tree	40+	A
T67	Silver Birch	14m	400mm#	4m#	4m#	3m#	3m#	3m	3m	M	Good conditioned tree, tree leans easterly	40+	A

T68	Cherry	6m	180mm	2m	2m	2m	2m	2.5m	3m	SM	Poor conditioned tree, defect in trunk. <u>Recommend remove tree</u>	Under 10	U
T69	Cherry	4m	90mm	1m	1m	1m	1m	2.5m	2.5m	Y	Good conditioned tree	10+	C
T70	Cherry	4m	80mm	1m	1m	1m	1m	90cm	2.5m	Y	Tree moving in root plate. <u>Recommend re-stake tree</u>	10+	C
T71	Beech	25m+	740mm	7m	7m	8m	7m	2m	3m	M	Good conditioned tree	40+	A
T72	Acacia	10m	20mm#	3m	2m	2m	2m	2m	2.5m	EM	Good conditioned tree	20+	B
T73	Elder Berry	6m	100mm	2m	2m	2m	3m	1m	2.5m	M	Good conditioned tree	10+	C
T74	Cherry	12m	445mm	4m	4m	4m	3m	2.5m	3m	M	Tree has two growing leaders, tree previously reduced	10+	C
T75	Cherry	12m	230mm#	2m	3m	3m	3m	2m	2.5m	M	Good conditioned tree	20+	B
T76	Conifer	10m	200mm	2m	2m	2m	3m	1m	Ground level	M	Good conditioned tree	20+	B
T77	Ash	20m+	700mm#	3m	3m	4m	5m	2m	6m	M	Large Tree previously reduce with re-growths present, could not fully inspect, due to restricted access	20+	B

Sequential Reference Number	Species (Common Name)	Height	Stem Diameter	Branch Spread				First Significant Branch	Canopy Height	Life Stage	General Observations	Estimated Remaining Contribution	BS 5837 Category
				N	S	E	W						
G1	Hawthorn London plane Cherry Silver Birch Oak Sorbus	12m	570mm	5m	3m	4m	4m	2m	2m	SM/EM	Group of mixed trees species forming a seating area and walk way, generally in good condition with some average conditioned trees within group	20+	B
G2	Silver Birch	8m	300mm	2m	3m	2m	2m	2m	4m	EM	Large group of trees leaning northwards away from building	20+	B
G3	Silver Birch	16m	400mm	5m	2m	4m	3m	3m	4m	M	Poor formed group, one tree has dead leader. <u>Recommend remove dead leader.</u>	10+	C
G4	Cherry Apple	10m	350mm	6m	3m	3m	3m	2m	2m	M	Group of tree in a line, decay fruiting bodies on cherry. <u>Recommend monitor cherry tree</u>	10+	C

G5	Ash Elder berry Hawthorn sycamore	14m	250mm	3m	3m	3m	3m	2m	2m	SM/EM	Group has poor form, condition average	10+	C
G6	Holly Hawthorn Elder berry	8m	125mm	2m	1m	1m	1m	2m	1.5m	SM	Group contains poor formed specimens	10+	C
G7	Elder Berry	6m	180mm	2m	3m	2m	3m	20cm	1.5m	M	Poor formed trees within group, groups leans south westerly	10+	C
G8	Hawthorn Elder berry Sycamore	10m	410mm	2m	3m	4m	2m	4m	2m	M	Poor Formed group of trees, within reduced trees contained within group	10+	C
G9	Lime	25m+	720mm	8m	6m	5m	5m	3m	4m	M	Group of good conditioned trees	40+	A
G10	Beech Silver Birch Cherry	20m+	585mm	6m	6m	4m	6m	1m	3m	M	Group of good conditioned trees	20+	B
G11	Cherry Hawthorn Oak	25m+	550mm	5m	2m	2m	4m	2m	2m	SM/M	Large trees within group previously reduced, smaller trees also present in group	10+	C

G12	Conifer	12m	200mm	2m	2m	2m	2m	1m	Ground Level	M	Group of good conditioned trees	20+	B
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Appendix B Root Protection Area Plan

(Please see separate document)