

## ARBORICULTURAL REPORT

Part 1 Tree Survey Part 2 Arboricultural Impact Assessment

RELATING TO PROPOSED DEVELOPMENT UPON LAND AT CENTRIC CLOSE CAMDEN

> Our Reference JTK/9198/so

Revision A December 2016

CLIENT Fairview Homes Limited 50 Lancaster Road Enfield Middlesex EN2 0BY

# IAN KEEN LIMITED

Part 1

### TREE SURVEY

OF LAND AT CENTRIC CLOSE CAMDEN

> Our Reference JTK/9198/so

CLIENT Fairview Homes Limited 50 Lancaster Road Enfield Middlesex EN2 0BY

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#### 1. Objective

**1.1** To assess the condition of the trees and provide sufficient information to enable decisions to be made on planning aspects of the site and its potential development.

#### 2. Notes

- **2.1** The assessment was carried out from ground level from within the site or from any adjacent public place.
- **2.2** The assessment has been carried out following the guidelines set out in *BS 5837:2012 Trees in relation to design, demolition and construction -* Recommendations
- **2.3** The survey was conducted by Jago Keen, MSc, Dip.Arb., MArborA, MICFor 12<sup>th</sup> May 2016.
- **2.4** This survey is intended for planning purposes only and may not include all shrubs and small trees on site. The survey is not suitable for the design of foundations.

#### 3. Tree Identification and details

- **3.1** As annotated on the drawing. Please note that sketch drawings or drawings marked 'not to scale' are indicative only, and tree positions should not be relied upon for design or setting out.
- **3.2** Details of each individual tree are recorded in the Schedule of Trees at Appendix 1 of this report.

#### 4. Site Description

- **4.1** The area subject of this survey consists of an industrial park known as Centric Close set to the west of Oval Road in Camden. The site is rhomboidal in outline and served by an access point from Oval Road. The site is bounded to the north, east and south by residential properties and to the west by a railway line beyond which is further residential properties.
- **4.2** The site itself is fully occupied by buildings and hard surfacing hence there are no trees upon the site.
- **4.3** Adjoining the site, within gardens of properties fronting Oval Road, are trees of varying size, with most being small trees of little merit other than the screening they provide between dwellings and industrial units.
- **4.4** Two larger trees are found within the garden to the south of the site but these are either remote from the site or separated from the site by the substantial retaining wall.

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#### 5. Geology

5.1 This information is obtained from the (online) 'Geology of Britain Viewer' that contains British Geological Survey materials © NERC [2015]. The geological information given in this report should not be relied upon by other parties who are advised to carry out their own assessment of the site conditions to suit their own needs.

Bedrock Geology

**5.2** London Clay Formation - Clay, silt and sand. Sedimentary Bedrock formed approximately 34 to 56 million years ago in the Palaeogene Period. Local environment previously dominated by deep seas.

Superficial deposits

5.3 None recorded.

#### 6. General Guidance Notes for Development

- 6.1 These notes are provided as a guide to the designer. They represent my personal views of the tree stock, which trees should be retained and how they should be protected. The views expressed have not been subject to consultation or discussion with any other party.
- 6.2 Ideally, building lines should be at least 2m outside the root protection area to provide working space for construction however protection measures can be taken if such clearance, in isolated cases, is not achievable. Service runs should be routed outside the root protection area. Limited use may be made for parking, drives or hard surfaces within the root protection areas, subject to advice from a qualified arboriculturist.
- 6.3 On residential developments consideration must be given to future tree growth and orientation, i.e. adverse shading and blocked views from windows raise concerns for incoming residents, which may lead to pressure to fell or remove trees in the future. Wherever possible arrange or orientate windows to primary rooms parallel or tangentially to tree canopies to lessen the conflict.

Signed:

16<sup>th</sup> May 2016

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Appendix 1

SCHEDULE OF TREES UPON LAND AT CENTRIC CLOSE CAMDEN

> Our Reference JTK/9198/SO

I A N K E E N

## Key to Schedule of Trees

Column Heading	Explanation
Tree No.	Unique number corresponding with number on plan
Species	English names
Ht (m)	Height in metres
Branch Spread	Crown radius in metres to cardinal points of the compass
Stem diameters (cm)	All measurements conform to Annex C of BS 5837:2012
	Single stem - Stem diameter in centimetres measured at 1.5m above ground level.
	Multi-stemmed tree with 2 to 5 stems – Diameter of each stem
	Multi-stemmed tree with more than 5 stems – Average stem diameter and number of stems
Height of crown clearance	Height in metres between the ground and underside of canopy
Height of first major branch	Height from ground level to base of first major branch and the approximate
and direction	direction of growth
of growth	
Abbreviations as suffix to a dimension	Suffix 'e' denotes an estimated dimension.
	Suffix 'av' denotes an average dimension
Age class	Age Class definitions:
	Y = Young S = Semi-mature E = Early mature M = Mature O = Over mature
Category grading and	Summary of BS 5837: 2012 categorisation:
contribution (yrs)	<ol> <li>Trees that do not warrant consideration for retention:</li> <li>U = 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.</li> </ol>
	2. Trees to be considered for retention: A1, 2 or 3 = trees of high quality and value (substantial contribution >40 yrs)
	B1, 2 or 3 = trees of moderate quality and value (significant contribution >20 yrs)
	C1, 2 or 3 = trees of low quality and value (but adequate, ie >10 yrs or young trees – until new planting can be established)
Estimated remaining	Useful estimated remaining contribution of the tree or tree group
contribution	
Condition	Brief description including physiological and structural defects
Preliminary management recommendations	Describes current arboricultural requirement for the tree in its current context
Root protection radius	Radius of minimum root protection area in metres calculated from section 4.6 and Annex D of BS5837:2012
Root protection area	Total area of minimum root protection area extrapolated from root protection radius

#### JTK/9198/so

#### SURVEY OF TREES AT CENTRIC CLOSE, CAMDEN

Tree No.	Species							Stem diameters (cm)								ch			ള			snj	a
		Ht	Bra	Branch Spread (m)			tem	2-5 stems					More than 5 stems		of crown ce (m)	irst brand lirection s point)	dass	grading	remainin ion (yrs)	Condition	Preliminary management	tion radi 1)	ction are m
		(m)	N	E	S	W	Single S	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems	Height o clearan	Height of fi (m) and c (compas	(compas Age	Category	Estimated contribut	Physiological / Structural	recommendations	Root protec (n	Root prote sq.
1	Group of sycamore	9av		5	av		25a	V							2	2N	S	C2	>10	Cluster of stems growing in corner of adjoining garden. Appears to have been reduced in height in the past and subsequently allowed to regrow.		3.00	28
2	Sycamore	9	4	2	0	3	30e								2	2NW	S	C1	>10	Stands within adjoining ground but leans over site. Main stem densely smothered in ivy preventing thorough inspection and accurate measurement.		3.60	41
3	Ash	15	7	5	6	7	656	;							7	7N	MI	B1	>20	Visually significant tree growing in adjoining garden. Some large pruning wounds associated with recent pruning. Appears to have been pollarded at circa 9 metres above ground level and subsequently regrown.		7.80	191
4	Sycamore	13	4	5	6	5	556	:							5	5N	MI	B1	>20	Reasonably well developed tree growing within adjoining garden. Lower stem smothered in ivy. Stands adjoining a retaining wall at a lower level than the site.		6.60	137



Part 2

ARBORICULTURAL IMPACT ASSESSMENT OF DEVELOPMENT PROPOSALS UPON TREES AT CENTRIC CLOSE CAMDEN

> Our Reference JTK/9198/so

> > **Revision A**



#### 1.0 Introduction

- **1.1** Instructions were received from Fairview Homes Limited to undertake an assessment of the impact upon or from trees of the construction of dwellings and associated infrastructure at Centric Close, Camden.
- **1.2** This assessment has been made by Jago Keen, MSc, Dip. Arb., MArborA, MICFor on the 5<sup>th</sup> December 2016.
- **1.3** This assessment will consider the impact upon trees of implementing the proposals and, vice versa, the effect of trees upon the proposals shown on the drawings, and with reference to the documents, listed below.
- **1.4** Drawings upon which this assessment has been made:

#### Table 1: List of drawings used as a basis for the impact assessment

Originator	Drg No	Title	Scale
AHMM	16041 (P00)_101	Centric Close	1:125 @ A1
		Proposed L00 Plan	
Ian Keen	0108/01	Tree Constraints Plan	1.200@A1
Limited	9196/01	Thee Constraints Plan	1.200( <i>W</i> A1
Ian Keen	$0108/02/P_{ox}$ A	Tree Protection Plan	1.200@11
Limited	9190/02/ <b>K</b> eV A	Thee Protection Plan	1.200( <i>W</i> A1

#### **1.5** Documents referred to in this report:

Table 2: List of documents used to inform the impact assessment

Originator	Title/Reference				
British Standards Institute	BS5837:2012 Trees in relation to design, demolition and				
Diffish Standards Histitute	construction – Recommendations				
Trees and Design Action	Trees in the townscape: A guide for decision makers				
Group					
Department for Communities	National Planning Policy Framework				
and Local Government					

- **1.6** A tree survey was undertaken by Ian Keen Limited on the 12<sup>th</sup> May 2016. A schedule of trees was used as the basis to prepare the Ian Keen Limited Tree Constraints Plan numbered 9198/01. Shown on that drawing are root protection areas for category A, B and C trees as defined by *BS5837:2012 Trees in relation to design, demolition and construction Recommendations.*
- **1.7** Tree cover at the site is limited to a few, mainly off-site trees along the eastern and southern boundaries.

# I A N K E E N

#### 2.0 General overview of development proposals

- **2.1** The drawings listed in Table 1 above set out the proposals for the construction of dwellings and associated infrastructure. A scheme of soft and hard landscape, including tree planting, is also indicated on that drawing.
- **2.2** The proposals do not require the removal of trees and include the provision of new planting to ensure the character of the area is enhanced.
- **2.3** Retaining existing trees and introducing new trees ensures a resource of trees in places where residents and visitors alike will enjoy multiple benefits provided by the tree stock. In so doing the tree stock will be able to withstand climate change, protecting and enhancing the resources of soil, air, water, landscape, amenity value, culture and biodiversity, and increasing the contribution that trees make to the quality of life. In that respect the proposals are in line with the very latest guidance, in terms of integrating trees with built form, contained in *Trees in the townscape: A guide for decision makers* produced by the Trees and Design Action Group.
- 2.4 The relationship between proposals and trees is discussed further below.

#### 3.0 Relationship of proposals to the trees

- **3.1** The scheme of development has been informed by the arboriculturist to ensure existing trees can be retained.
- **3.2** Tree number 4, a sycamore, stands within the adjoining garden to the south. It is separated from the site by a substantial brick-built retaining wall. As a consequence root spread is limited to the garden in which it stands and rooting within the site is highly unlikely. Some minor pruning of the northern extent of the crown is required to maintain a separation from the proposed building but the extent of pruning is fairly typical of an urban environment where trees are retained in close proximity to buildings.
- **3.3** Ancillary storage units are to be provided along the eastern boundary, proximate to tree 1. These units are of lightweight construction and coincide with the existing extent of hard surface. As a result their construction is unlikely to give rise to material harm to the adjoining trees.
- **3.4** The remainder of the proposed development is sufficiently remote from the retained trees that they can be protected during construction, that there is no need for special construction measures, and that retained trees do not pose a detriment to living conditions once the development is occupied.

#### 4.0 **Opportunities for new tree planting**

- **4.1** Even though the construction of these proposals does not require the removal of trees it does provides opportunity for new tree planting.
- **4.2** In this instance opportunity presents itself to plant trees within the courtyard between buildings and along the eastern boundary. Planting, such as that indicated on the drawing, offers a formal style of planting, providing tree features in the open space and screening between properties.
- **4.3** In offering a new age cohort of diverse trees, including many more forms of tree, both in terms of species and of provenance, the contribution to the overall quality of tree stock in the area is substantial, results in a gain of biodiversity within the tree population and of the biodiversity supported by the trees. Diversity within the tree population provides resilience in the face of current, and future, pressures and ensures continuity of attributable ecosystem services. In essence, it is sustainability in tree cover.
- **4.4** The scheme of planting, that could include both native and non-native species that are large at maturity, would represent a significant contribution to the amenity of the area, that has seen little new tree planting in recent years, whilst fully observing the Government's planning policies contained in the *National Planning Policy Framework*, as well as current guidance to provide multiple benefits from trees in *Trees in the townscape: A guide for decision makers* produced by the Trees and Design Action Group.
- **4.5** Those multiple benefits of this new tree planting, as part of the site's green infrastructure, include contribution to open space, enhancement of sustainable drainage systems, and enhancement of biodiversity. In addition, as those new trees develop, so they will further contribute to local climatic regulation and, where they stand within the sun path of proposed buildings or surfaces within the re-development, they will minimise solar gain during summer months, and provide an accessible choice of shade and shelter.

#### 5.0 Effect upon the amenity of the trees and their surrounds

- 5.1 As there is no tree removal resultant from this scheme there is no change to the public views of trees that are gleaned today. The loss of those few small trees is mitigated by the planting of new trees.
- **5.2** The planting of new trees is brought forward in the landscape scheme to improve visual amenity through careful selection of tree species to maximise the provision of ecosystem services, including the support of biodiversity, that are known to provide human-wellbeing.



## 6.0 Relationship of proposed drainage, mechanical and electrical installations upon the trees

- 6.1 The location and route of underground service corridors or drainage runs are not shown on the proposed layout, however these should be routed outside the optimum root protection area of retained trees.
- **6.2** Where such services and drainage, that might ordinarily require trenching, cannot be located outside optimum root protection areas specialist techniques such as moling, thrust-boring, broken trench or excavation by AirSpade can be considered in consultation with an arboriculturalist.
- **6.3** No other installations, including mechanical and electrical equipment, are proposed in an area that would be of detriment to trees.

#### 7.0 Requirements of the construction process and its relationship to the trees

- **7.1** Guidance within *BS5837:2012: Trees in relation to design, demolition and construction* requires us to consider the effect of the construction process upon the retained trees and the spaces in which new trees will be incorporated.
- **7.2** Application of *BS5837:2012: Trees in relation to design, demolition and construction,* through careful construction management, can ensure the construction process has the minimum effect upon the trees.
- **7.3** As an integral, and vital, part of that construction management it will be necessary to protect the retained trees within, and adjoining, the application site. Such schemes of temporary protective measures, devised with reference to *BS5837:2012: Trees in relation to design, demolition and construction*, are achieved through adoption of the protective measures shown on the Ian Keen Limited drawing number 9198/02/Rev A.

#### 8.0 Conclusions

- **8.1** The proposal to construct the dwellings and associated infrastructure does not require the removal any trees but does introduce the planting of new trees.
- **8.2** The planting of new trees, enhances the sustainability of the site, adding to the extant species diversity, contributing to the green infrastructure and enhancing the biodiversity within, and supported by, the tree stock.
- 8.3 Amenity provided by the retained trees is preserved for the enjoyment of many.



**8.4** Construction management will include schemes of protection for the retained trees, the detail of which has been developed to achieve the site layout.

Signed:

Kon

5<sup>th</sup> December 2016

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