Arboricultural Implications Assessment and Arboricultural Method Statement

for

Kidderpore Avenue South Campus

On behalf of

Barratt Homes

November 2012

Amended January 2013 Amended January 2015

Planning

the **landscape** partnership

Woodbridge

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Contents

- 1 Introduction
- 2 Site Description
- 3 Arboricultural Implications Assessment
- 4 Implications of Proposed Development on Retained Trees
- 5 Arboricultural Method Statement Methodology
- 6 Construction/Demolition within the RPA of Retained Trees
- 7 Services
- 8 Tree Protection Barrier
- 9 Conclusion
- 10 Recommendations
- 12 Project Contact Details

Appendices

1 Tree Survey Schedule (for comparison purposes only)

Accompanying Drawings

1 AIA AMS Drawing W11239-602 Rev G

1 Introduction

- 1.1 The Landscape Partnership have been commissioned by Barratt Homes limited to provide arboricultural advice in respect of the development of a site to the south of Kidderpore Avenue, site forms part of the southern campus of King's College London, an educational establishment set within a largely residential area of Hampstead. The protection and management of retained trees within the development is the subject to conditions of the planning approval should planning permission be granted.
- 1.2 The work utilises tree survey data collected in 2011 which resulted in the tree survey report and drawing which is appended to this report.
- 1.3 The AIA and AMS were prepared by Michael Roseveare in November 2012. Amendments to the AIA and AMS were made in January 2013. Further amendments in January 2015 reflect discussions between the design team, the site Arboriculturist with Camden Borough Councils Tree Officer.

2 Site Description

- 2.1 The site is part of Kings College, London an educational establishment set within a largely residential area of Hampstead.
- 2.2 The tree numbers below are shown on the accompanying tree protection drawing, which should be used in conjunction with the report. The site is within a conservation area. Works to the trees, other than those which are exempt, will require 6 weeks prior notice to Camden Borough Council. Exempt works include the removal of dead wood, and the removal of dead, dying and dangerous trees. There are no tree preservation orders affecting the site.

3 Arboricultural Implications Assessment (AIA)

- 3.1 The AIA uses information provided in the tree survey to identify areas where the proposed development construction may be at odds with accepted standards in terms of a tree's requirements for space in which to maintain existing roots and shoots and space for future growth.
- 3.2 Details of the trees surveyed are given in the accompanying Tree Survey Schedule. Tree locations are shown on the accompanying Tree Survey Plan W11239-601 Rev B
- 3.3 The quality and relative importance of each is shown as coloured polygons. The colour used relates to the British Standard categories as follows: A, green; B, blue; C, grey and U, red (see drawing 11239-601 Rev B. Red trees are discounted as they are recommended for removal. In general the design process has tried to retain A and B category trees where feasible. Proposed construction will therefore normally be excluded from the root protection area of A and B category trees.
- 3.4 The root protection area (RPA) is shown as a circle on the Tree Survey Plan W11239-601 Rev B.
- 3.5 The AIA considers existing site conditions and the effect that they may have on the development of the surveyed trees root systems. Hard structures such as buildings and paved roads and paths can influence the root activity of trees by reducing the availability of both moisture and nutrients.

4 Implications of Proposed Development on Retained Trees

- 4.1 Refer to the accompanying AIA AMS Drawing W11239-602 Rev G for the relationship between the proposed development and the trees on the site.
- 4.2 The Approved development includes the retention of a number of the better quality of the surveyed trees. Some minor pruning and crown lifting will be necessary to enable access to the site and the construction of the proposed development.
- 4.3 Since the original tree survey was carried out several trees have been removed. In order to prevent tree numbering confusion between earlier submitted information and the current application information the tree number sequence has been maintained. Removed trees do not

appear on the current drawings but are noted as removed in the accompanying schedule. All removed trees were either storm felled or removed with the consent of the local planning authority.

4.4 The following trees will be removed for arboricultural reasons:

T7 Purple Plum	Short life expectancy, poor form
T8 Purple Plum	Short life expectancy, poor form
T13 Leylands Cypress	Poor quality tree
T16 Holly	Poor quality tree
T17 Cherry	Decay in main stem, declining condition
T21 Horse Chestnut	Tree blown Down
T29 False Acacia	Poor quality tree
T31 Silver Birch (U)	Poor quality tree
T33 False Acacia	Stump
T36 Sorbus spp. (U)	Poor quality tree
T38 Cherry (U)	Poor quality tree
T47 Purple Plum	Poor quality tree
T53 Apple	Poor quality tree
T57 Cottoneaster (U)	Overgrown Shrub
T65 Norway Maple	Tree damaging building
T68 Portuguese Laurel (C1)	To prevent Damage to the building

4.5 The following trees will be removed to enable the proposed development

T3 Common Ash (C1)	To enable the construction of the proposed building
T4 Cottoneaster (C1)	To enable the construction of the proposed basement car park
T5 Common Ash (B2)	To enable the construction of the proposed basement car park
T6 Sycamore (C1)	To enable the construction of the approved basement car park
T12 False Acacia Stump	Remove to enable landscape proposals
T15 Prunus Lusitanica C1	To enable the approved building
T24 Hawthorn (C1)	To enable the refurbishment of the building
T25 Hawthorn (C1)	To enable the refurbishment of the building
T28 False Acacia (B2)	To enable the construction of the approved building
T30 False Acacia (B2)	To enable the construction of the approved building
T37 False Acacia (C1)	To enable the construction of the approved building
T43 Holly (C1)	To enable the construction of the approved building
T48 Hornbeam (C1)	To enable the construction of the approved building
T49 Hornbeam (C1)	To enable the construction of the approved building

T50 Hornbeam (C1)	To enable the construction of the approved building
T51 Swamp Cypress (C1)	To enable the construction of the approved building
T54 Common Ash (C1)	To enable the construction of the approved building
T55 Apple (C1)	To enable the construction of the approved building
T58 Cherry (C1)	To enable the construction of the approved building
T60 Common Ash (C1)	To enable the construction of the approved building
T61 Sycamore (C1)	To enable the construction of the approved building
T62-T63 Hawthorn (C1)	To enable the construction of the approved basement car park
T64 False Acacia (C1)	To enable proposed landscape scheme

4.6 The following trees will be affected by the approved development:

T1 Beech (B2)	Construction of an area of decking
T2 Turkey Oak (B1)	Construction of an area of decking
T10 Common Ash (B1)	Landscape work construction work
T11 False Acacia (B2)	Landscape work construction work
T34 False Acacia (B2)	Construction of the approved building
T35 False Acacia (C1)	Construction of a retaining wall

4.7 The majority of the trees which are proposed for removal to enable the proposed development are in poor condition. However several B category trees will also be removed. The proposed landscape scheme mitigates the loss of these trees and enables a poor quality neglected landscape to be improved by a carefully designed landscape which compliments the proposed development by introducing built elements and trees which are better suited to the design of the proposed development.

5 Arboricultural Method Statement Methodology

- 5.1 The arboricultural method statement provides the means by which areas of construction, identified in the AIA as being within the RPA of retained trees, can be achieved whilst minimising the impact of that construction activity on the affected trees.
- 5.2 The excavation of foundations for hard surfaces on sites where trees are present may result in root damage and removal. Where root loss is likely to occur it is important that a method of construction that minimises the impact on tree roots is used.

6 Construction within the RPA of Retained Trees

6.1 Much of the proposed development is outside the root protection areas of the retained trees. However two elements of the proposed development require construction within the root protection areas of retained trees as identified above, namely decking and a retaining wall.

- 6.2 The proposed decking close to trees T1 and T2 will be constructed by hand utilising a design which enables the support structure, where excavation is required, to be modified such that tree root damage and removal is avoided or minimised. Where appropriate the deck support will utilise the proposed building. However where support post holes are required within the root protection area of the retained trees they will be hand dug for the first 600mm of excavation or until tree root activity ceases. In the event that tree roots greater than 25mm are encountered the location of the support post hole will be moved to an alternate location and the excavation process repeated. If root activity prevents an acceptable location being identified in terms of root loss or damage the arboriculturist should be contacted and the impact of the least damaging support post hole in terms of root loss assessed in terms of the impact likely on the affected tree.
- 6.3 The proposed basement piled retaining wall near T34 will require careful construction to avoid excessive root damage and loss. The closest extent of the piled wall should be excavated by hand for the first 600mm under the supervision of the site Arboriculturist. Where roots are exposed pruning should be carried out in accordance with BS 3998 1998. The exposed soil profile should be protected from collapse, frost and desiccation during the construction of the wall. The exposed area between the wall and the trees should be reinstated with good quality topsoil, compliant with BS3882 as soon as is practically possible following excavation and construction of the retaining wall. Exposure of the face of the excavation for prolonged periods should be avoided by careful management of the programme of works. Excavation, root pruning and reinstatement should be supervised by the site Arboriculturist so that damage which occurs during the work can be rectified or appropriate action taken in respect of ensuring the health and safety of the retained trees.
- 6.4 All tree root pruning should be carried out in accordance with BS 3998: 1989 (Paragraph 14.3) the latest iteration of the BS does not include root pruning so the previous iteration is referred to here. All routes for overhead services will aim to avoid the trees. Where this is unavoidable any tree work will be agreed prior to commencement with the Council's Arboricultural Officer.
- 6.5 The development includes new landscape work including planting and the provision of bin stores within the front gardens of the retained-refurbished houses fronting Kidderpore Avenue. This work will be carried out by hand. Existing paved access paths will be retained and where necessary resurfaced. Bin store bases will consist of paving slab bases and timber surrounds. Where additional paving is required to access bin stores a "no dig" form of construction will be used within the root protection areas of retained trees T10 and T11.

7 Services

7.1 All service runs are to be placed outside the RPA of trees on and adjacent to the site. Where it is not possible to achieve this, the section of service run which passes within the RPA of a tree will be hand dug in accordance with 'broken trenches' (NJUG 4 section 4, appendix 13.4). This will ensure that tree roots are not damaged during the installation of the service. All root pruning will be agreed beforehand with the named arboriculturist in consultation with the local authority arboricultural officer.

8 Tree Protection Barrier

- 8.1 The trees that are to be retained on or in close proximity to the construction area of the site will be protected by the use of a tree protection barrier erected in the location shown on the accompanying AIA AMS Plan Number W11239-602 Rev G. The fence will consist of plywood hoarding supported by a post and rail arrangement as per the site hoarding. The posts will be supported on concrete blocks resting on the ground. The tree protection barrier will be erected prior to the demolition phase of the development and remain in situ for the duration of the development and will only be removed once the construction phase is complete.
- 8.2 A number of the trees on the site have not been protected by a tree protection barrier because the construction activity is localised limiting the area available for use by the building contractors. All construction activity will be limited to the area immediately around the proposed construction. Where access is required for construction staff ground protection should be employed to prevent

pedestrian compaction. No construction or demolition materials should be stored within the root protection areas of retained trees.

9 Conclusion

9.1 The proposed redevelopment of the site removes and replaces existing buildings along both the Kidderpore Avenue and Finchley Road site frontages. The placement and increase of the parking provision beneath the new Kidderpore Avenue buildings enables the retention of a number of trees within the central landscaped area, providing mature landscaping and the opportunity to plant new trees and create an important communal garden out of a derelict piece of rough ground. The loss of a number of B but largely C category trees is outweighed by the improvements in the tree cover and landscaping which is proposed as part of the scheme.

10 Recommendations

- 10.1 This report should be read in conjunction with the accompanying tree survey schedule and Arboricultural Implications Assessment drawing W11239-602 Rev G.
- 10.2 A post development tree survey should be carried out and, where appropriate, remedial tree surgery works completed. Works to trees that are subject to a condition of the planning approval will require the approval of the Local Planning Authority.

11 Project Contact Details

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Local Planning Authority:	London Borough of Camden