ARBORICULTURAL REPORT TO ACCOMPANY PLANNING APPLICATION AT

Christ Church Station Road Teddington Middlesex TW11 9AB



PRESENTED TO:

London Borough of Richmond Upon Thames



July 2015

Report For

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Ecology

Ecological factors not present at the time of our or any third party ecological inspections, but found prior to and/ or during works can necessitate changes in the project methods, proposed works schedules, timescales and budgets in, order to ensure compliancy with UK law.





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1.0 The Site

- 1.1 The application site is comprised of the existing building and associated land known as Christ Church, Station Road, Teddington, Middlesex.
- 1.2 There are a number of trees of varying species, size, age and visual significance both on and adjacent to the site. All trees were surveyed from ground level in accordance with the requirements of BS 5837:2012 by suitably qualified and experienced personnel in June 2015. The details of all trees situated both at and adjacent to the site are contained within the Tree Data Tables and on the tree survey drawing within the appendices of this report.

2.0 Development Proposals

- 2.1 The drawings to be submitted to the Local Planning Authority show the proposal as:
 - Conversion, extension & alteration of the existing church building to provide 6 x2 bedroom flats over 4 levels together with 6 off street car parking spaces
- 2.2 The proposed development of the site requires the removal and replacement of a number of trees and shrubs. However, the trees to be removed and replaced are, when considered within the context of the local area, not significant within the landscape. A number of key trees both at and adjacent to the site, that are in good condition, are to be retained and protected in accordance with BS 5837:2012 to provide landscape screening and maintain landscape character.
- 2.3 It is proposed to plant a number of new trees, shrubs and hedges, with an appropriate aftercare contract to ensure successful establishment. In particular the trees detailed as Pride of India T2 and Cherry T3 within this report are to be removed and replaced with four extra heavy standard / semi mature container grown upright Cypress Oak trees (planted with an appropriate aftercare contract to ensure successful establishment). The exact location, number, size and species of trees, shrubs and hedges to be planted will be confirmed with the Local Planning Authority (Tree & Landscape Officer) during the discharge of any planning conditions attached to any planning permission for the proposed development. Indicative tree planting proposals are shown on the drawings within the appendices of this report.

3.0 Policy Context and Current Stage in the Design Process

- 3.1 This report seeks to cover the requirements of the London Borough of Richmond Upon Thames Planning Policies and accompanies the application for development of the site. We can confirm that this application for development, after a detailed tree survey and consultation with a suitably experienced and qualified Arboricultural Consultant, has been specifically altered and/or designed in order to ensure that significant trees both at and adjacent to the site can be retained and protected both during and post development in accordance with the relevant British Standard (BS 5837:2012) and accepted best practice.
- 3.2 A pre-application site meeting has been held with the Local Planning Authority Tree Officer to discuss, and agree in principle (subject to planning conditions), the proposed tree removals and replacement tree planting.



4.0 Tree Preservation Orders / Conservation Areas / Other Tree Constraints

- 4.1 We understand that the trees present at the site are not subject to a Tree Preservation Order.
- 4.2 We understand that the site is situated within a Conservation Area.

5.0 Arboricultural Supervision and Site Inspections

- 5.1 The applicant has confirmed that they will be appointing a suitably qualified and experienced Project Arboricultural Consultant to further document (i.e. submission of a further detailed Arboricultural Method Statement to discharge any conditions attached to any planning permission for the proposed re-development) and then supervise the installation of the required tree protective measures and/or special precautions required (BS 5837:2012) in order to safeguard the trees shown as being retained within this report.
- 5.2 The Project Arboricultural Consultant will also inspect the site on a regular basis and issue a status report (including photographic records) to the site manager, the client and the Local Planning Authority (Tree Officer) to ensure the site is in compliance with BS 5837:2012 and the specific requirements of any conditions (Tree Protection) attached to any planning permission for the proposed development.
- 5.3 The timetable for the above site supervision will be detailed within the site specific Arboricultural Method Statement that will be prepared and submitted under separate cover to discharge any tree related planning condition(s) attached to any planning permission for development.



6.0 Tree Constraints – Overview

- 6.1 Data on all significant trees at and adjacent to the site has been collected and is detailed on Drawing Number DPA-69741-01 entitled Existing Site Layout (Tree Survey) and within the tree data tables within the appendices of this report.
- 6.2 All trees shown as retained within the tree tables and/or drawings that accompany this report, will be protected in accordance with British Standard BS 5837:2012 prior to the commencement of any development activity at the site. The type and proposed location of the tree protective measures are shown on Drawing Number DPA-69741-02 (for site preparation & construction) within the appendices of this report.
- 6.3 The tree protective fencing that will be utilised to exclude any construction activity within the Root Protection Areas at the site will be in accordance with Figure 3 of 6.2.2 of BS 5837:2012 (as shown below) or similar to be agreed with the Local Planning Authority (Tree Officer).



6.4 The Root Protection Areas detailed within this report will be considered as sacrosanct during the development of the site. The storage or preparation of potentially damaging building materials and/or any changes in the existing soil levels within these Root Protection Areas will be forbidden without prior consultation with the Project Arboricultural Consultant. Any changes to the agreed tree protective measures at the site will require the prior written permission of the Local Planning Authority (Tree Officer).



7.0 Tree Constraints – Site Access & Site Preparation

- 7.1 Access to the site for site preparation (and construction) is to be routed via the existing site entrances (and existing hard surfaces) situated on the Station Road frontage of the site shown on Drawing Number DPA-69741-01 within the appendices of this report.
- 7.2 Temporary ground protection should be installed within the Root Protection Areas for the trees to be retained to facilitate site preparation and construction activity (and to protect the integrity and structure of the existing soil at the site in the location of the proposed replacement tree planting adjacent the frontage of the site). These protective surfaces are to be located on top of the existing open ground/grass areas. The use of these temporary protective surfaces will avoid the compaction and/or degradation of the existing soil structure (and prohibit any changes in existing soil levels). The location of these temporary protective surfaces are shown on Drawing Number DPA-69741-02 (for site preparation & construction) within the appendices of this report.
- 7.3 The temporary ground protection to facilitate access within Root Protection Areas will be in accordance with 6.2.3 of BS 5837:2012 and be constructed under the supervision of the Project Arboriculturalist as follows:

Open Ground/Grass Areas

Following the removal of trees & shrubs (by hand) a permeable nonwoven polypropylene geotextile membrane (Fibretex F4M or Tree TexT300 or similar) will be laid by hand (overlapping dry joints by 300mm) over the existing open ground/grass areas. 100mm depth CellWeb or NeoWeb (or similar cellular confinement system) is to then be expanded over the areas and held in place by 300mm steel pins. 10-40mm (Type 3 - no fines) washed angular stone (Series 1100 Clause 1105 BS4987) used to infill the cellular confinement system. Another layer of geotextile membrane will then be laid by hand over the above and a temporary wearing course comprised of either 250mm (or more) class 6F1 washed/no fines selected granular material or interlocking ground guard panels (or similar) placed on top.

N.B. To date no detailed site investigations/soil tests have been undertaken. However, we understand from the British Geological Survey that deposits in the local area are mainly comprised of sand and gravel (Taplow Gravel Formation). Given soils with a low clay content are less prone to compaction than others we consider the above ground tree protection measures (and the proposed permeable hard surfaces) to be suitable. We understand more detailed site investigations/soil tests will be undertaken prior to the commencement of development at the site and if required the above tree protective measures (and/or proposed permeable hard surfaces) will be modified (during the discharge of any planning conditions and following further liaison with the Council's Tree Officer) to ensure compliance with BS5837:2012 and accepted best practice.



8.0 Tree Constraints – Proposed Hard Surfaces

- 8.1 The proposed new hard surfaces at the site have been reviewed by a qualified and experienced Arboriculturalist and amended to limit the potential for any damage to the trees which are to be retained both at and adjacent to the site.
- 8.2 Following the completion of all major construction activity at the site (utilising the existing hard surfaces and temporary ground protection areas) the replacement and/or new hard surfaces will be installed in the locations shown on Drawing Number DPA-69741-03 within the appendices of this report.
- 8.3 When the existing hard surfaces are renewed and/or replaced within any of the Root Protection Areas for the retained trees a permeable hard surface (permeable tarmac, small brick paviours or similar situated on a suitable cellular confinement system) will be installed by hand in compliance with Section 8.6 of BS5837:2012. We note that the majority of the proposed improvements to site access road (and the car parking spaces) are situated outside the Root Protection Areas for the retained trees. Given the relatively minor incursions of the proposed new hard surfaces into the root protection areas for the retained trees we consider that the loss of any assimilative function will be minimal and the proposals will therefore not cause any short, medium or long-term damage to trees.
- 8.4 Any areas of replacement or new hard surfaces (including footpaths) which are situated within any of the Root Protection Areas for the retained trees, will be constructed by hand under the supervision of the Project Arboricultural Consultant in accordance with Section 8.6 of BS 5837:2012 as follows:
- Existing hard surface, made ground and/or turf layer removed by hand within Root Protection Areas (back to the existing soil level below but no further)
- Permeable nonwoven polypropylene geotextile membrane (Fibretex F4M or Tree Tex T300 or similar) laid by hand, overlapping dry joints by 300mm. 75-150mm depth CellWeb or NeoWeb (or similar cellular confinement system) expanded over the areas and held in place by 300mm steel pins.
- Base Course 10-40mm (Type 3 no fines) washed angular stone (Series 1100 Clause 1105 BS4987) used to infill the cellular confinement system.
- Wearing Course permeable tarmac, small brick paviours (or equivalent alternative product) laid on the recommended granular material on a second layer of geotextile separation fabric laid over the cellular confinement system sections.
- Edge Treatment Pre-cast concrete kerb stones placed on top of the cellular confinement system (i.e. no wet cement to come into contact with the surrounding soil) and/or treated timber edging with graduated topsoil (BS3882) with turf and/or composted bark mulch to be used to infill from existing ground/lawn level to the top of the edge treatment.
- 8.5 A site specific Arboricultural Method Statement, which further details the proposed hard surfaces, methods and materials and the necessary site supervision at the site is to be prepared to discharge any tree related planning condition(s) attached to any planning permission for development.



9.0 Tree Constraints - Construction

- 9.1 The proposed development does not require any new buildings (or extensions) to be constructed within the required Root Protection Areas for the trees which are to be retained both at and adjacent to the site.
- 9.2 As previously noted tree protective fencing in accordance with Figure 3 at page 21 of BS 5837:2012 (or similar) and temporary ground protection should be installed prior to the commencement of any site preparation or construction activity at the site, to safeguard the trees to be retained. The location and type of the proposed tree protective measures are on Drawing Number DPA-69741-02 (for site preparation & construction) within the appendices of this report.
- 9.3 The Project Arboricultural Consultant will, as previously noted, supervise the installation of all the tree protection measures to ensure they are to the required standards and are located at the positions detailed on the drawings that accompany this report, prior to the commencement of any development activity.
- 9.4 Any site preparation works to facilitate the installation of the tree protective measures will be carried out by hand and be supervised by the Project Arboricultural Consultant.
- 9.5 The Local Planning Authority (Tree Officer) will be advised when the protective measures have been installed to allow for inspection prior to the commencement of development works at the site.



10.0 Juxtaposition of the Proposed Buildings to Trees & Light & Shade Issues

- 10.1 A study was undertaken during the design process to ensure that the retained trees will not require any initial or detrimental on-going management due to their proximity to the proposed habitable rooms within the existing building and/or garden areas.
- 10.2 Whilst there is no existing specific National Planning Policy relating to the prospective impacts of developments on daylight and sunlight on their surrounding environment, the recommendations within the BRE Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (which was developed in conjunction with daylight and sunlight recommendations in BS 8206: Part 2: 'Lighting for Buildings Code of Practice for Daylighting') were considered during the design of the proposed development. This reference document is accepted as the authoritative work in the field on sunlight and overshadowing and is specifically referred to in many Local Authorities' planning policy guidance for daylighting. The guidance states that for a garden to appear adequately lit throughout the year, at least half of the area should receive at least 2 hours of sunlight on March 21st.
- 10.3 Given the above the retained trees will not significantly obstruct sunlight to any of the proposed private amenity spaces and/or habitable rooms within the proposed development. Therefore from a planning perspective the proposed development is likely to enjoy suitable levels of sunlight and daylight, thus limiting the likelihood of future occupants being minded to overly prune or fell the retained trees.
- 10.4 Additionally in this instance the retained trees are either situated on the highway footpath or are situated within a Conservation Area. Therefore the London Borough of Richmond Upon Thames either has direct control over retained trees and/or control over any proposed tree works in the future.



11.0 Proposed Landscape Planting

- 11.1 The applicant and/or client has confirmed that in order to ensure continued tree cover and enhancement of the existing landscape, a number of new trees, shrubs and hedges will be planted, with an appropriate aftercare contract to ensure successful establishment.
- 11.2 In particular the trees detailed as Pride of India T2 and Cherry T3 within this report are to be removed and replaced with four extra heavy standard / semi mature container grown upright Cypress Oak trees (planted with an appropriate aftercare contract to ensure successful establishment).
- 11.3 The exact location, number, size and species of trees, shrubs and hedges to be planted will be confirmed with the Local Planning Authority (Tree & Landscape Officer) during the discharge of any planning conditions attached to any planning permission for the proposed development.

12.0 Underground Services

- 12.1 The placement and implementation of services has been considered to ensure that none of the trees identified for retention and protection will be detrimentally affected by the construction of service trenches.
- 12.2 It is proposed to either utilise the existing services where possible or install any new and/or replacement services in accordance with BS 5837:2012 and the NJUG 4 guidelines i.e. wherever possible route the services outside of the Root Protection Areas and/or hand dig service trenches, under the supervision of the Project Arboricultural Consultant within any Root Protection Areas.

13.0 Scope of Brief

- 13.1 Carry out a survey of the trees within and adjacent to the site in accordance with BS 5837:2012 and collect data in order to advise the development team of the key issues relating to trees, with options and risk strategies.
- 13.2 Prepare a report, with associated tabulated data and site plans, in order to facilitate consideration of the tree issues by the Local Planning Authority. Provide advice as to whether tree issues are likely to be a significant consideration in obtaining a planning permission, identify key areas of the proposed development where problems may occur and where special measures or method statements that may be required during the implementation of the proposed development.

14.0 Terms of Reference

14.1 The topographical site survey and the Architects drawings submitted to accompany the application.



15.0 Conclusions

- 15.1 It is concluded that:
 - Trees should not present a planning constraint to the development of this site.
 - The proposed replacement tree planting will satisfactorily mitigate the proposed removal of trees at the site.
 - It is considered possible to retain and protect trees identified as being in good condition and significant within the landscape both at and adjacent to the site, providing the recommendations and methods noted within this report are adhered to.

16.0 Recommendations

16.1 It is recommended that:

- The recommendations for tree retention, tree protection and replacement tree planting within this report are adhered to.
- That the Local Planning Authority (Tree Officer) should consider approval of the application.



Tree Data Tables



Tree.	Species	Ht (m)	Crown	Crown	Stem DBH	RPA / Radius	Condition	Age	Structural Condition & Comments	Preliminary Management	Est.	Cat
			Spreau (m)	Ciearance	(1111)	44.90	0	Viass		necon interidations	(yis)	Giade
						3 78	F	ΜΔ			20	B
						5.70	P	M	Broviewsky & recently beavily tenned. Not	Remove & replace with a 12/14cm girth		C
т1	Holly	5	2.5	15	315		D	FM	significant within local or wider landscape	number DPA-69741-03		U
	liony	Ū	2.0	1.0	010	70.58	G	Y			>20	A
	Pride of India					4.74	F	MA		Bemove & replace with a 18/20cm girth		B
	Koelreuteria						Р	М	Minor deadwood within crown. Previously &	container grown trees as shown on drawing		С
T2	paniculata)	11	6.0	3.0	395		D	FM	recently crown lifted	number DPA-69741-03		U
	, ,					79.80	G	Y			>20	Α
						5.04	F	MA		Remove & replace with a 18/20cm girth		В
							Р	М	Minor deadwood within crown. Previously &	container grown trees as shown on drawing		С
ТЗ	Cherry	12	6.5	2.0	420		D	FM	recently crown lifted	number DPA-69741-03		U
						188.21	G	Y	Situated within adjacent highway footpath.		>40	Α
						7.74	F	MA	Previously & recently heavily topped. Existing			В
							Р	М	walls & hard surfaces will have restricted root	Retain & protect in accordance with the		С
T4	Lime	14	4.0	4.5	645		D	FM	growth into the site	requirements of BS5837:2012		U
						129.49	G	Y	Situated within adjacent highway footpath.		>40	A
						6.42	F	MA	Previously & recently heavily topped. Existing			В
							Р	М	walls & hard surfaces will have restricted root	Retain & protect in accordance with the		С
T5	Lime	14	4.0	4.5	535		D	FM	growth into the site	requirements of BS5837:2012		U
						77.91	G	Y		Retain & protect in accordance with the	>40	A
						4.98	F	MA	-	requirements of BS5837:2012 (Crown lift to		В
							Р	М	Minor deadwood within crown. Previously	2.5m above GL & crown reduce by up to		С
T6	Holm Oak	15	6.0	1.5	415		D	FM	crown lifted	15% to reshape following removal of T7)		U
						27.15	G	Y			>20	A
						2.94	F	MA		Remove & replace with a 12/14cm girth		B
		10		10	0.45		P	M	Being suppressed by T6. Not significant within	container grown tree as shown on drawing		<u> </u>
17	Cypress	13	3.0	1.0	245		D	FM	local or wider landscape	number DPA-69741-03	. 00	U
						Shown To	G	Y NAO			>20	A
						Scale On		M	Small ornamental trees that have been	Remove & replace with 12/14cm girth		B
	Evergreen Magnolia	2 to 4	1 to 2	0.5	Various	Survey			previously crown reduced. Not significant within	container grown trees as snown on drawing		

Key to Tree Data Tables



- 1.0 Tree Number (T No.)
 - T = Individual tree detailed on the drawings which accompany the tree report
 - G = Group of trees detailed on the drawings which accompany the tree report
 - W = Woodland areas detailed on the drawings which accompany the tree report
 - S = Individual shrub detailed on the drawings which accompany the tree report
- 2.0 Species
 - Tree or vegetation detailed within the tree data table using common name (UK)
- 3.0 Tree Height (Ht)
 - Tree or other vegetation height measured from ground level and detailed within the data table in metres
- 4.0 Crown Spread (Cs)
 - Tree crown spread radius from the main stem, either detailed within the tree data tables or on the drawings in metres. Where tree crown spreads are not shown to scale on the drawings which accompany the tree report, measurements will be recorded and detailed within the tree data tables for North, East, South and West directions
- 5.0 Stem Diameter (Stem DBH)
 - Stem diameter measured at 1.5m above ground level for single stemmed trees (and average diameter utilised for multi-stemmed trees) and other vegetation and detailed within the tree data table in millimetres
- 6.0 Root Protection Area (RPA)
 - The root protection areas are calculated in accordance with the equations contained within BS5837:2012
 - The highest/top figure within the tree data table represents the overall recommended root protection area in metres squared
 - The second highest/middle figure within the tree data table represents the radius of a circle centred on the main stem of the tree in question in linear metres (which contains the required root protection area in metres squared and is shown on the accompanying drawings). Specific / amended root protection areas may be shown for trees that are not open grown
- 7.0 Physiological Condition
 - G = Good, F = Fair, P = Poor, D = Dead

(Note: if applicable observations are also recorded within the tree data table)

Key to Tree Data Tables



- 8.0 Age Class
 - Y = Young
 - MA = Middle Aged
 - M = Mature
 - OM = Over Mature
 - V = Veteran
- 9.0 Structural Condition & Comments
 - Notes regarding structural condition (e.g. physical defects) and, if applicable, overall condition
- 10.0 Preliminary Management Recommendations
 - Preliminary management recommendations including tree works, tree protection requirements, obvious ecological factors, further investigations of suspected defects etc.
- 11.0 Estimated Years
 - Estimated remaining contribution to the local/wider landscape in years
- 12.0 BS5837:2012 Tree Quality Assessment (Cat Grade)
 - Category A = trees of high quality and value and in such a condition as to be able to make a substantial contribution to the local and/or wider landscape for the next 40 years or more
 - Category B = trees of moderate quality and value and in such a condition to make a significant contribution to the local and/or wider landscape for the next 20 years or more
 - Category C = trees of relatively low quality and value and in such a condition to provide an adequate contribution to the local and/or wider landscape for the next 10 years or more or young / self-seeded trees with a stem diameter below 150mm
 - Category U = trees in such a poor condition that any existing landscape value would be lost within 10 years and/or trees that need to be removed for reasons of sound arboricultural management and/or health & safety



Drawing Number DPA-69741-01







Existing Trees To Be Retained & Protected (In Accordance With BS 5837:2012)

Existing Trees That Are To Be Removed & Replaced (As discussed at site meeting with Tree Officer)

Root Protection Areas - BS 5837:2012

PLANNING SITE ADDRESS CHRIST CHURCH STATION ROAD TEDDINGTON MIDDX Park House 73 Park Road Staines Upon CLIENT Thames Surrey TW19 7NT MR C HAMILTON SCALE SHEET SIZE DRAWN DATE I:200 A3 DP JUNE 2015 DRAWING TITLE EXISTING SITE LAYOUT (TREE SURVEY) www.dpa-uk.com mail@dpa-uk.com Company Reg. No. 7239976 DRAWING NUMBER REVISION DPA-69741-01 А



Drawing Number DPA-69741-02







25m







Drawing Number DPA-69741-03

