Panther House and 156-164 Grays Inn Road

Panther House Developments Limited

Arboricultural Report

August 2019

TIM MOYA ASSOCIATES

Arboricultural Report

Assessment of trees in relation to development for planning purposes

38 Mount Pleasant and 156-164 Gray's Inn Road
London
WC1X 8ED

August 2019

151224-PD-11a

Project	151224 - 38 Mount Pleasant and 156-164 Gray’s Inn Road
Report Type	Arboricultural Report for Planning
Checked by	TM
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CONTENTS PAGE

1 SUMMARY REPORT

1.1 The proposal is for the part replacement and part renovation of the buildings comprising 38 Mount Pleasant and 156-164 Gray's Inn Road. Full details of the proposals are contained within the submitted design and access statement.

1.2 Trees relevant to these proposals have been assessed in accordance with best practice guidance and planning policy at national and local level.

1.3 Relevant impacts and potential issues relating to trees have been considered within this report and factual information is contained in the appendices.

1.4 My conclusions are that the proposed development is acceptable in both arboricultural terms and in relation to planning policy as it relates to trees.

2 INTRODUCTION

Instructions

2.1 My name is Charles McCorkell; I am an arboricultural consultant dealing with trees in relation to all forms of human activity including the built environment. I am an Associate Member of the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association, and I have a BSc Honours Degree in Arboriculture from the University of Central Lancashire.

2.2 This arboricultural report has been commissioned to provide information to assist all parties involved in the planning process to make balanced judgements with regard to arboricultural features in relation to the proposed development.

Scope and limitations

2.3 The survey is not an assessment of health and safety of trees and no recommendations for works have been provided, however trees identified as imminently dangerous will have been highlighted in the tree schedule at Appendix B, where appropriate.

2.4 The contents of this report are copyright of Tim Moya Associates (TMA) and may not be altered or copied without TMA's explicit permission. Tim Moya Associates standard Limitations of Service apply to this report and all associated work relating to this site.

Methodology and guidance

2.5 I have referred to *British Standard 5837: Trees in relation to design, demolition and construction (2012)* which provides a methodology for the assessment of trees and other significant vegetation on development sites.

2.6 BS 5837 (2012) is intended to assist decision making with regard to existing and proposed trees and sets out the principles and procedures to be applied to achieve a harmonious relationship between existing and new trees and structures that can be sustained for the long term.

2.7 The Building Research Establishment (BRE) has also produced several documents between 1998 and 2011 in relation to trees and site layout planning, sunlight, daylight, shading and urban cooling. These documents consider trees and their relationship with buildings and garden usage, including the benefits they bring in terms of welcome shade or urban cooling, advising a balanced approach to these issues in design.

3 OBSERVATIONS AND CONTEXT

Site visit

3.1 The site was visited on 11 January 2016 to survey on and off-site trees and vegetation which may be of significance to the proposed development.

Soil conditions

3.2 The British Geological Survey on-line information suggests that the soils on the site are predominantly mixed with the dominant mineral constituent being sand and gravel. Soils of this type tend to be free-draining.

3.3 Light free-draining soils can support a range of tree species but are liable to dry quickly in drought conditions leading to physiological stress in some tee species. Improving the water-retaining properties of the soil by adding organic matter and mulching the soil surface around trees can help to alleviate stress. Free draining soils can also become acidic and this may limit the range of suitable tree species if measures are not taken to reduce acidity.

3.4 For further specific details of local soil conditions reference should be made to the BGS website http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

Policy context

3.5 Planning policy at national level is set out in the government's National Planning Policy Framework (NPPF) which was updated in February 2019.

3.6 The purpose of the planning system is to contribute to the achievement of sustainable development. The objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. To achieve sustainable development, the planning system has three overarching objectives (economic, social and environmental) which are interdependent and need to be pursued in mutually supportive ways.

3.7 Paragraph 170 of the NPPF states that planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and

other benefits of the best and most versatile agricultural land, and of trees and woodland.

3.8 Paragraph 175 of the NPPF states that to protect and enhance biodiversity and geodiversity, plans should apply the following principles:

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

Spatial Planning Policy

3.9 The London Plan 2016 includes a policy for Trees and Woodland (Policy 7.21), which states that: “Existing trees of value should be retained and any loss as the result of development should be replaced following the principle of ‘right place, right tree’. Wherever appropriate, the planting of additional trees should be included in new developments, particularly large-canopied species.” Additionally, this policy also states that: “Boroughs should follow the advice of paragraph 118 of the NPPF to protect ‘veteran’ trees and ancient woodland where these are not already part of a protected site.” Since the publication of the new NPPF (2018), this reference now must direct to paragraph 175.

3.10 The emerging (in draft) New London Plan contains new policies of relevance to trees. These are: G1 (Green Infrastructure), G5 (Urban Greening), and G7 (Trees and Woodland). These polices emphasise the need for Local Planning Authorities to develop appropriate polices, in order to protect green and open spaces, trees, and woodlands. G5 states that major development projects should contribute to urban greening; G7 states that trees and woodlands should be protected, and that new trees and woodland should be planted in appropriate locations, in order to increase the extent of London's urban forest. G7 also states that "development proposals should ensure that, wherever possible, existing trees of quality are retained" and that "if it is imperative that trees have to be removed, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT". The draft New London Plan makes it clear that “existing trees of good quality” refers to “Category A and B trees as defined by BS 5837:2012”.

Local Plan and Supplementary Documents

3.11 The London Borough of Camden Local Plan (adopted July 2017) contains saved policies relating to trees and landscaping.

Policy Ref	*Wording*
A3 Biodiversity	The Council will protect, and seek to secure additional, trees and vegetation. We will: **j.** resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation; **k.** require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout; **l.** expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development; **m.** expect developments to incorporate additional trees and vegetation wherever possible.
D2 Heritage	Conservation areas are designated heritage assets and this section should be read in conjunction with the section above headed 'designated heritage assets'. In order to maintain the character of Camden's conservation areas, the Council will take account of conservation area statements, appraisals and management strategies when assessing applications within conservation areas. The Council will: **h.** preserve trees and garden spaces which contribute to the character and appearance of a conservation area or which provide a setting for Camden's architectural heritage.

Legal constraints

3.12 According to the Camden Borough Council website, the site is located within the Hatton Garden Conservation Area.

3.13 It is unknown whether there are any trees protected by a Tree Preservation Order (TPO).

3.14 The neighbouring trees are under third party ownership and therefore any proposed works that are necessary to facilitate the development will require written permission from the tree owner.

3.15 It is also recommended that the Local Planning Authority are contacted prior to any tree works being carried out and the necessary approval obtained if required.

4 TECHNICAL INFORMATION

Tree Data

4.1 The location of trees and groups of trees are shown on the tree survey drawing at Appendix A, this plan illustrates the location of trees and the extent of the spread of their crowns. Dimensions, comments and information for each tree are given in the tree schedule at Appendix B.

Life Stage Analysis

4.2 Unlike age in numerical terms (years), this description is used to describe the physical form of a tree in relation to its typical life expectancy and varies between species.

4.3 Of the 15 survey entries, 4 are mature, 6 are early mature, 4 are semi-mature and 1 is young.

BS5837 (2012) category breakdown

4.4 The trees surveyed were assessed as being of varying quality with the majority being low quality or unremarkable trees. Further details of the trees surveyed can be found in the schedule at Appendix B and the tree survey plan at Appendix A.

4.5 Of the 215 survey entries 4 were assessed as being of moderate quality (B category), 10 were assessed as being of low quality (C category) and 1 was assessed as being or poor quality (U category).

4.6 Further details can be found in the tree schedule at Appendix B.

5 ANALYSIS OF THE PROPOSAL IN RESPECT OF TREES

Arboricultural Impacts

5.1 The following arboricultural impacts have been considered in relation to the proposed development:

Impact	***Analysis***
Loss of trees	It will not be necessary to remove any trees in order to facilitate the proposed development.
Pruning to facilitate development	The existing highway trees T1 and T2 will require pruning works to provide clearance for the erection of scaffolding and for demolition and construction operations. Prior to any works being undertaken, approval from the Camden Borough Council tree officer will be required. Details of the proposed tree works are listed at Appendix B. Both of these trees are managed on a periodic basis. Reducing the young regrowth located immediately adjacent to the existing building back to the previous pruning points will provide sufficient clearance for construction operations. The recommended works are considered to be minor and will not be detrimental to the health or structure of the trees considering their tolerance to pruning and ongoing management programme. The lateral reduction will not negatively impact the visual appearance of the trees within the local area.
Tree works to facilitate access	It is proposed that the existing access to the site will be retained. The use of this access will not require the removal or pruning of any existing trees.
Future growth of retained trees	Trees T1 and T2 are regularly pruned to avoid conflicts with nearby buildings. It is expected that this management will continue and that there will be no issues related to the future growth of these trees. Other off-site trees to the rear of the proposed development are not significant in relation to the proposals as the lower floors of these building are to be retained.
Daylight and sunlight	Shading by trees is not considered a significant issue in relation to these proposals. The juxtaposition of trees and the existing and proposed

	buildings is characteristic of the relationship found throughout the local area. The environmental benefits of growing trees close to buildings should not be underestimated. The Royal Commission on Environmental Pollution has stated that "*The cooling, shading, humidifying and filtering effects of green space are likely to become more important as climate change leads to summers becoming increasingly warm and dry with more periods of higher temperatures.[The Urban Environment – Royal Commission on Environmental Pollution. March 2007 – paragraph 4.60]*
Demolition and Construction operations	The demolition of the existing buildings and hard surfaces / light structures on the site will have the potential to impact upon retained trees. These impacts relate only to demolition operations rather than the location of the works since the proposals do not extend beyond the footprint of the existing buildings. It is proposed that the existing buildings along Gray's Inn Road will be demolished. These works will be carried out adjacent to the canopies and within the RPAs of retained trees T1 and T2. The proposed crown reduction works that have been recommended will ensure that there is sufficient working space for demolition works to be carried out without impacting the canopies of the trees. Due to the proximity of the trees to the building, demolition must be carried out in a carefully controlled manner using the *'top down, pull back'* method of works, ensuring all rubble is pulled into the site and away from the trees. A banksman will be required to guide the machine operator to ensure they do not come into contact with the lateral growth of the trees. The proposed building will be located along the same footprint as the existing building. As part of the demolition and construction operations, the existing foundations are likely to be replaced. These works can be successfully undertaken without impacting the health or structure of T1 and T2 by ensuring that the width of the existing foundations in not increase towards the main stem of the trees. These excavation works should be carried out under the supervision of the arboricultural consultant. Over the course of the development, it will be necessary to ensure that site operations do not cause damage to trees or the soil environment upon which they rely. Details of the measures to be taken to protect trees are included at Appendix A.

Installation of drainage	We do not currently have details of the condition of existing drainage runs or any information which suggests that there will be a requirement to install new drains. However, if new drainage runs are required, they should be located outside the RPAs of retained trees. If it is found to be necessary to locate new drainage runs within the RPAs of retained trees it is recommended that these works are carried out under arboricultural supervision. Methods of work should follow the recommendations in the NJUG guidance. BS5837 (2012) recommends the NJUG guidance as a normative reference to be used in these circumstances. See http://www.njug.org.uk/
Installation of services	New service runs will, where possible, be located outside the RPAs of retained trees. However, if it is necessary to locate services runs within the RPAs, BS5837 (2012) recommends the NJUG guidance as a normative reference to be used in these circumstances. See http://www.njug.org.uk/

6 DISCUSSION AND CONCLUSIONS

General Change

6.1 The proposed development has minimal impacts upon trees. No trees are proposed for removal and all trees can be adequately protected where necessary to ensure that they are not damaged by demolition and construction operations.

How do the changes relate to planning policy?

Policy Ref	***Compliance***
NPPF	The proposals do not impact upon ancient woodland or veteran trees. The proposals are sustainable in landscape terms and therefore meet the criteria for sustainability in this respect. The proposals have been designed to provide a good standard of amenity for occupants and measures are proposed to enhance and protect natural features.
Spatial policy (The London Plan)	The London Plan emphasises the importance of trees, green infrastructure and climate change resilience. By retaining existing trees of good quality, the proposals have responded to the London Plan.
Local policy	The retention and protection of existing trees ensures the development proposal complies with sections j and k of the A3 Biodiversity planning policy and section h of the D2 Heritage planning policy.

Conclusions

6.2 The design of the proposal has properly considered the tree constraints.

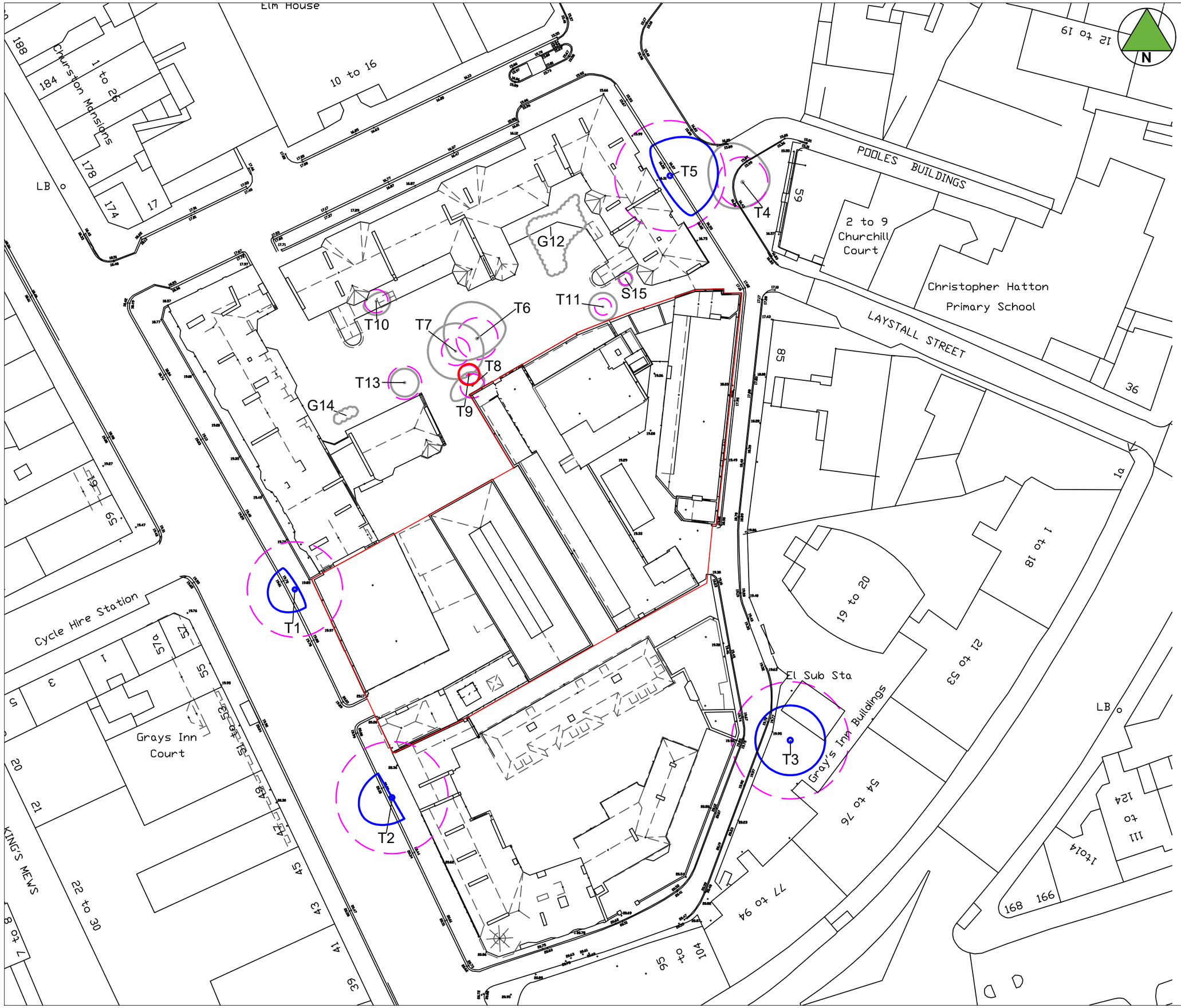
6.3 The proposal complies with planning policies referenced within the report.

6.4 All retained trees can be adequately protected by following the recommendations in the method statement at Appendix A and controlled by suitably worded planning conditions.

APPENDIX A - PLANS

Tree Survey 151224-P-10

Tree protection and arboricultural method statement 151224-P-12a



INVESTORS IN PEOPLE | Gold

The original of this drawing was produced in colour -a monochrome copy should not be relied upon.

BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category C
Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

Site boundary

REV	DATE	DESCRIPTION	DRAWN
-	xx.xx.xx	-	xx

Base Drawing
- 12.01.16 15-040-01D

0 5m 10m 20m

Title
Tree Survey

Client
Panther House Developments Ltd.

Project
156-164 Gray's Inn Road, London, WC1X 8ED

Date	Drawn by	Checked by
January 2016	DA	-

Drawing No	Rev	Scale
151224-P-10	-	1:500@A3

DO NOT SCALE Use only figured dimensions

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ARBORICULTURAL METHOD STATEMENT

BRITISH STANDARD 5837(2012)

This method statement is in accordance with British Standard 5837: Trees in relation to design, demolition and construction - Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.

TREE SURGERY WORKS

Only tree works specified within this document may be carried out. Any uncertainty regarding trees to be pruned will be immediately confirmed with the arboricultural consultant and local authority tree officer.

All tree works will be carried out in accordance with the recommendations given in the current BS 3998 (2010).

All tree works should be carried out in accordance with the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010.

SITE SUPERVISION

All key / critical activities that will affect trees during construction will be inspected and monitored by the approved arboricultural consultant and reports issued to the client and local authority.

Supervision visits will occur as follows;

- Inspection of tree works, tree protection prior to demolition and construction works
- Monthly visits to inspect tree protection measures
- During works that may affect retained trees

PROTECTIVE FENCING

No materials or equipment other than those required to erect protective fencing, will be delivered to the site before the fencing is installed. The position of protective fencing for demolition is shown on this drawing.

Protective fencing will be constructed of robust barriers fit for the purpose of excluding demolition and construction traffic. Signs will be fixed to every third panel stating '**Tree Protection Area Keep Out - Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant**'.

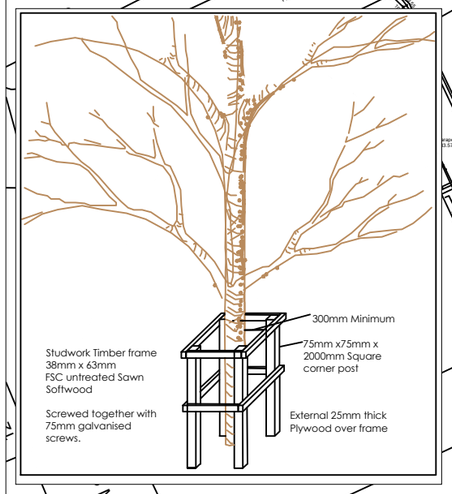
The main contractor will inform the local authority officer and the arboricultural consultant that tree protection is in place before demolition or site clearance works commence.
No alteration, removal or repositioning of the tree protection for demolition will take place during the demolition phase without the prior consent of the arboricultural consultant.

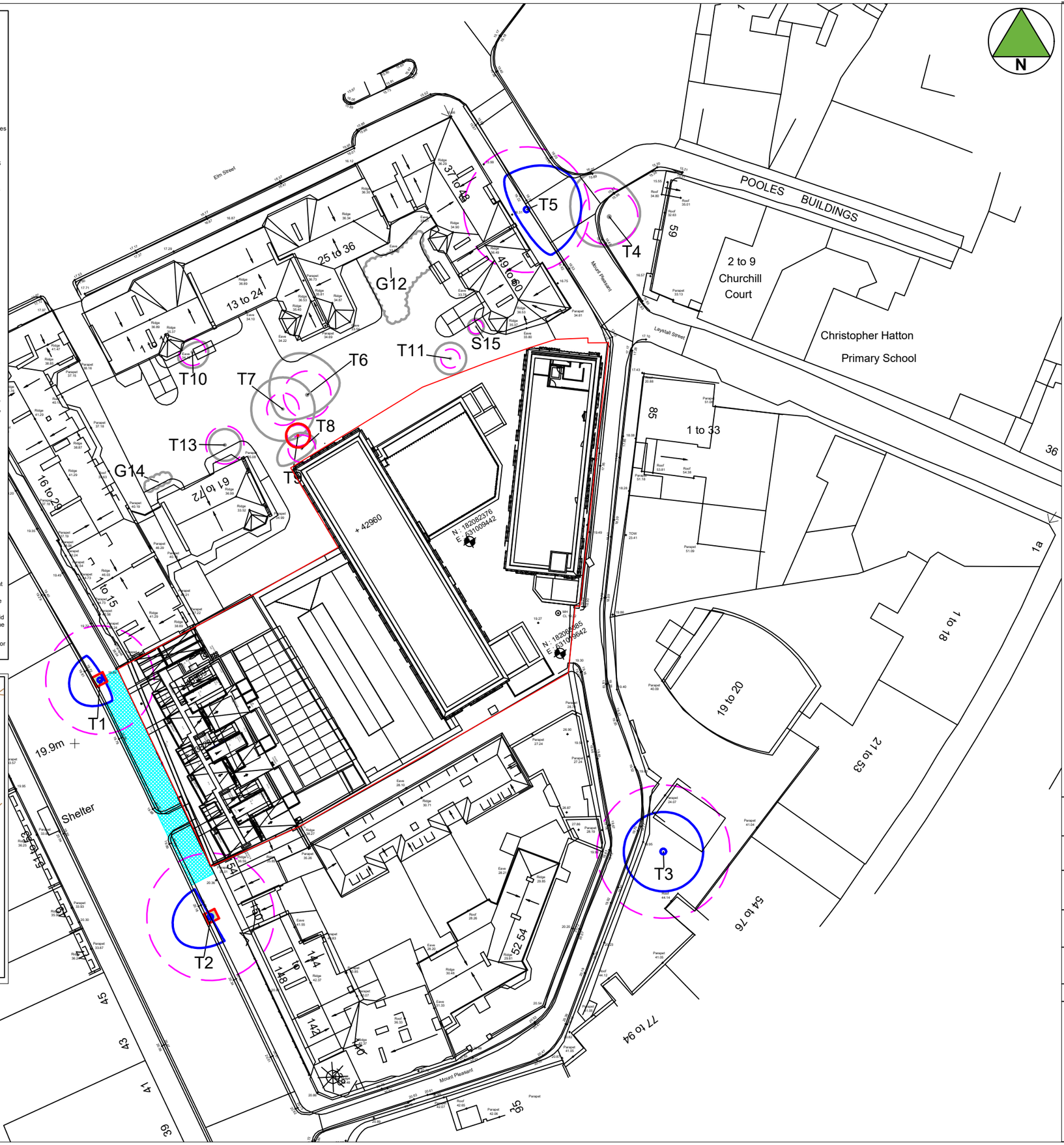
SERVICES AND DRAINAGE

Methods of working for installation of the drainage runs or services will follow the guidance within Table 3 of BS 5837 (2012), or National Joint Utilities Group (NJUG) *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.* Volume 4, issue 2, London NJUG 2007.
No works will occur within the tree protection zone without prior agreement from the arboricultural consultant. No machinery will be permitted within the TPZ at any time.

GENERAL PROTECTION METHODS

No fires will be permitted within 20m of the crown of any tree.
No changes in soil levels will take place within the tree protection zones without prior written consent of the local authority.
No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboricultural consultant.
Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately.
The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.





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BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

Stem Protection

Existing hard standing to be retained to act as ground protection and location for proposed scaffolding.

Site boundary

REV	DATE	DESCRIPTION	DRAWN
-	xx.xx.xx	-	XX

Base Drawing: - | 190806 | 21835-000-003

0 5m 10m 20m

Title
Tree Protection Plan

Client
Panther House Developments Ltd.

Project
156-164 Gray's Inn Road, London, WC1X 8ED

Date	Drawn by	Checked by
August 2019	-	-
Drawing No	**Rev**	**Scale**
151224-P-12	a	1:500@A3

DO NOT SCALE Use only figured dimensions

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APPENDIX B - SCHEDULES

Tree Schedule 151224-PD-10

Tree Work Schedule 151224-PD-12

151224-PD-10-Tree schedule (BS5837)

TIM MOYA ASSOCIATES

151224 - 156-164 Gray's Inn Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	Platanus x hispanica (London Plane)	9.0	57	1		0.5		3.0		4.0		3.5	5.0		Mature	Structural condition Good. Physiological condition Fair. Access to inspect base - Restricted / obscured. Pollard - Recently cut. Root environment - Restricted. Location approximate as no topographical survey provided. 2.7m from edge of stem to building. Rubbish dumped at base, inspection restricted.	11/01/2016	147.0	6.8	20-40	B2
Tree T2	1	Platanus x hispanica (London Plane)	12.0	67	1		0.0		3.5		5.0		4.0	5.0		Mature	Structural condition Fair. Physiological condition Fair. Bark wound - Major. Pollard - Recently cut. Root environment - Restricted. 2.7m from edge of stem to building Large bark damage on road side of stem between 2 and 3m. Hypholoma fasciculare (Sulphur Turf) saprophytic fungal fruiting bodies located at the highest point of wound (Approximately 3m) on road side of stem. Location approximate as no topographical survey provided.	11/01/2016	203.1	8.0	20-40	B2
Tree T3	1	Platanus x hispanica (London Plane)	13.0	70	1	5.0		5.0		5.0		5.0		3.0		Mature	Structural condition Good. Physiological condition Good. Access to inspect base - Not possible. Crown reduction - Recent. Root environment - Restricted. Stem diameter estimated at 1.5m. Access to property not possible. Location approximate as no topographical survey provided.	11/01/2016	221.7	8.4	20-40	B1/B2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

151224 - 156-164 Gray's Inn Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T4	1	Prunus sp. (Cherry sp.)	7.5	30	1		4.0		3.5		4.5		6.0	2.5		Early Mature	Structural condition Fair. Physiological condition Fair. Decay / structural defect in crown limb / limbs - Localised. Girdling roots - Major. Physiological / cambial damage - Unconfirmed. Root environment - Restricted. Exposed roots. Structural impact - Footpath / highway / drive disturbance. Location approximate as no topographical survey provided.	11/01/2016	40.7	3.6	10-20	C2
Tree T5	1	Platanus x hispanica (London Plane)	18.0	66	1		7.0		6.5		1.5		5.0	3.5		Mature	Structural condition Good. Physiological condition Good. Pollard - Recently cut. Pruning wounds - Decayed. 1m separation between tree crown and building. Location approximate as no topographical survey provided.	11/01/2016	197.1	7.9	20-40	B2
Tree T6	1	Robinia pseudoacacia 'Frisia' (Golden False Acacia)	15.0	25	1		4.5		2.5		4.5		5.5	5.0		Early Mature	Structural condition Fair. Physiological condition Good. Decay / structural defect - Principal stems. Longitudinal lesion on southern side of main stem at approximately 4m. Location approximate as no topographical survey provided.	11/01/2016	28.3	3.0	10-20	C1
Tree T7	1	Prunus sp. (Cherry sp.)	6.0	17	1		4.0		4.0		4.0		4.0	2.5		Semi Mature	Structural condition Fair. Physiological condition Fair. Decay / structural defect - Base. Poor past pruning. Location approximate as no topographical survey provided.	11/01/2016	13.1	2.0	10-20	C1
Tree T8	1	Laurus nobilis (Bay/Bay Laurel/Poets Laurel)	7.0	14 COM	2		2.0		1.0		3.5		2.0	0.0		Early Mature	Structural condition Fair. Physiological condition Good. Location approximate as no topographical survey provided.	11/01/2016	9.4	1.7	10-20	C1
Tree T9	1	unrecognized (Unrecognised)	5.0	11 COM	2	1.5		1.5		1.5		1.5		2.0		Young	Structural condition Poor. Physiological condition Dead. Location approximate as no topographical survey provided.	11/01/2016	5.8	1.4	0-10	U

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
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L.B. Height of lowest branch attachment (m) - where relevant

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151224 - 156-164 Gray's Inn Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T10	1	Betula sp. (Birch)	6.0	14	1		2.0		2.0		2.0		1.0	2.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Crown reduction - Historic. Tree has been historically topped Location approximate as no topographical survey provided.	11/01/2016	8.9	1.7	10-20	C1
Tree T11	1	Chamaecyparis lawsoniana (Lawson Cypress)	7.0	10	1		2.0		2.0		2.0		2.0	0.0		Semi Mature	Structural condition Good. Physiological condition Good. Leaning trunk - Minor. Location approximate as no topographical survey provided.	11/01/2016	4.5	1.2	20-40	C1
Group G12	1	Pyracantha sp. (Pyracantha)	5.0	10 AVE										0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Garden area Other species - Dicksonia antarctica (Tree Fern) Dimension average of group.	11/01/2016			20-40	C1
	1	Olea europaea (Olive)																				
	1	Mahonia aquifolium (Oregon Grape)																				
	1	other (Other)																				
	2	Cordyline sp.																				
	4	Phoenix canariensis (Canary Island Date Palm)																				
Tree T13	1	Phoenix canariensis (Canary Island Date Palm)	4.0	20	1		2.0		2.0		2.0		2.0	0.0		Early Mature	Structural condition Good. Physiological condition Good. Location approximate as no topographical survey provided.	11/01/2016	18.1	2.4	10-20	C1

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

151224 - 156-164 Gray's Inn Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Group G14	3	other (Other)	2.5	10 AVE										0.0		Semi Mature	Structural condition Good. Physiological condition Good. Dimension average of group Species - Dicksonia antarctica (Tree Fern)	11/01/2016			10-20	C1
Shrub S15	1	other (Other)	2.5	7 COM	6	1.0		1.0		1.0		1.0		1.0		Early Mature	Structural condition Good. Physiological condition Good. Species - Fatsia japonica Location approximate as no topographical survey provided.	11/01/2016	2.4	0.9	10-20	C1

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Summary table with retention category

	Group	Shrub	Tree	Total
B1/B2	0	0	1	1
B2	0	0	3	3
C1	2	1	6	9
C2	0	0	1	1
U	0	0	1	1
Total	2	1	12	15

Summary table with life stage

	Group	Shrub	Tree	Total
Early Mature	1	1	4	6
Mature	0	0	4	4
Semi Mature	1	0	3	4
Young	0	0	1	1
Total	2	1	12	15

Table 1 of BS5837 (2012) **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	* Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) * Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline * Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7			**RED**
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricutural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	**GREEN**
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	**BLUE**
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	**GREY**

151224-PD-12 - Planning Tree Works Schedule

156-164 Gray's Inn Road, London, WC1X 8ED

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ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T1	1 *Platanus x hispanica* London Plane	B2	To facilitate development Reduce crown by - Specified extent. Reduce lateral growth adjacent to building back to previous pruning points. Permission must be obtained by Camden Borough Council prior to works being carried out.	Proposed
T2	1 *Platanus x hispanica* London Plane	B2	To facilitate development Reduce crown by - Specified extent. Reduce lateral growth adjacent to building back to previous pruning points. Permission must be obtained by Camden Borough Council prior to works being carried out.	Proposed

Tree work analysis (trees and trees in groups)

	To facilitate development	Total
Reduce crown by - Specified extent	2	2
Total	2	2

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