Tree Survey and Arboricultural Impact Assessment
In Accordance with BS5837:2012

Project No **11412**	**Orbital Industrial Estate, Horton Road, West Drayton, London, UB7 8JL**		
Client:		LMO Overseas Investments Limited	
Date of Report:	08/08/2025	Revision:	A

Hayden's Arboricultural Consultants Ltd, Units 3-5 Moseley's Farm Business Centre
Fornham All Saints, Bury St Edmunds, Suffolk IP28 6JY

Telephone: 01284 765391 Email: info@treesurveys.co.uk
www.treesurveys.co.uk

Summary

In this circumstance it is intended to demolish the existing buildings and structures and redevelop the site to provide modern employment units for flexible use across classes E(g)(iii), B2, B8 with ancillary offices, areas for car parking, landscaping, service yard areas and ancillary structures, as well as associated works. The arboricultural related implications of the proposal are summarised in Tables 1 and 2 below and detailed where necessary within the report.

All trees and landscape features that are to remain as part of the development should suffer no structural damage provided that the findings within this report are complied with in full.

Table 1 - Construction and ongoing constraints from an arboricultural perspective (subject to necessary tree work being completed):

Potential Design/ Build Constraints	Arboricultural Impact?	Comments/Solution
Construction Access	Yes	Existing hard surfacing within RPA of T007 to act as ground protection, as per item 4.1
Demolition	Yes	Removal of existing structures and / or hard surfacing within RPA of T003, T004, T005, T006 and T009 to be undertaken with lightweight machinery, as per item 4.2
New Structures	No	New structures placed outside of RPA of retained trees, as per item 4.3
New Hard Surfaces	Yes	Root pruning to T003 required to construct new hard surfaces, as per item 4.4.
Compound	No	To be located outside of RPA of retained trees, as per item 4.5
Services	Yes	Services to be located outside of RPA of retained trees wherever possible, as per item 4.6
Drainage	Yes	Services to be located outside of RPA of retained trees wherever possible, as per item 4.7
Phasing	Yes	As per item 4.8

Table 2 - Tree work necessary to facilitate the proposal:

Tree No.	Tree work	Reason for work	BS Category
T003	Undertake linear root pruning as shown on drawing no. 11412-D-AIA Rev A	To facilitate construction of proposed hard surfaces.	C

Given the above, there are no reasonable arboricultural objections to the proposed development.

Contents

1.0 Introduction

2.0 The Site

3.0 Tree Survey

4.0 Arboricultural Impact Assessment (Additional or Specific Comments)

5.0 Limitations & Qualifications

6.0 References

7.0 Appendices

1.0 Introduction

1.1 Purpose

1.1.1 As part of the United Kingdom planning process, applicants are required to supply Local Planning Authorities (LPA) with a detailed evaluation of how their proposals will impact trees. The nationally recognised procedure for doing this is laid out in *BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations".* In summary, this must include the following information as a minimum:

- A Tree Survey and Tree Constraints Plan.
- An Arboricultural Impact Assessment of sufficient detail to confirm the feasibility of the design from a tree perspective.
- A scaled Tree Retention and Removal drawing showing retained trees and their root protection area on the proposed layout.

1.1.2 This report has been prepared to ensure that this information is provided to the LPA in a straightforward and clear way so that they can make an informed decision about how (if at all) trees are affected.

1.1.3 When planning permission is granted it is typically the case that the LPA will require specific conditions to be fulfilled. This means that a subsequent detailed Arboricultural Method Statement and Tree Protection Plan may be required. This will be detailed on the LPA's decision notice.

1.2 Scope

1.2.1 In accordance with the above, LMO Overseas Investments Limited have commissioned Hayden's Arboricultural Consultants to prepare a Tree Survey and Constraints Plan, Arboricultural Impact Assessment and scaled Tree Retention and Removal drawing for the existing trees at Orbital Industrial Estate, Horton Road, West Drayton, London, UB7 8JL.

1.2.2 Unless stated within the survey, all trees were inspected from ground level. As such, the findings are of a preliminary nature.

1.2.3 The trees were inspected on the basis of "*Visual Tree Assessment" (Mattheck & Breloer - 1994)* and *"Common Sense Risk Management of Trees" National Tree Safety Group guidance – 2011*.

1.2.4 Whilst this is an arboricultural report, comments relating to non arboricultural matters are given, such as built structures and soil data. Any opinion thus expressed should be viewed as provisional and confirmation from an appropriately qualified professional sought.

1.3 Documentation

1.3.1 The following documentation was provided prior to the commencement of the production of this report:

- Email of instruction from Tom Williams dated 11/12/2024
- Topographical survey - drawing no. 51043_03_P
- Proposed site layout - drawing no. HRWD-MSA-SI-00-DR-A-20002 PL02

2.0 The Site

2.1 Overview

2.1.1 The site is Orbital Industrial Estate, Horton Road, West Drayton, London, UB7 8JL. It is approximately 0.9ha in size and it comprises of thirteen existing employment units with limited areas for service vehicles and car parking. Horton Road, from which the site is accessed, borders the site's northern aspect and industrial units its eastern and western aspects. The towpath of the Grand Union Canal borders the southern aspect. The trees surveyed are primarily located outside of the site's curtilage and they were found to be of mixed age and species and to provide a variety of benefits.

2.2 Soils

2.2.1 The soil type commonly associated with this site are generally freely draining slightly acid loams. They are of low fertility and typically support neutral and acid pastures, and deciduous woodland type habitats. This soil type constitutes approximately 15.5% the total English land mass.

2.2.2 The data given was obtained from a desktop study which provides indications of likely soil types. By definition, this information is not comprehensive and therefore any decisions taken with regards the management, usage or construction on site should be based on a detailed soil analysis.

2.2.3 Further to item 2.2.2, this report provides no information on soil plasticity. It may be necessary for practitioners in other disciplines (e.g. engineers considering foundation design) to obtain this data as required.

2.3 Statutory Tree Protection

2.3.1 Information on any LPA controlled statutory tree protection (Tree Preservation Orders and Conservation Areas etc) is recorded on the attached drawing no. 11412-D-AIA Rev A.

2.3.2 Further details regarding any existing Statutory Tree Protection is recorded at Appendix B.

3.0 Tree Survey

3.1 The tree survey was carried out on 09/01/2025 in accordance with *BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations".* The relevant qualitative and quantitative tree data was recorded to assess the condition of the existing trees and their constraints upon the proposed development.

3.2 A topographical survey was provided which showed the position of the trees on and adjacent to site. However, it should be noted that topographical surveys are not always comprehensive and sometimes it is considered appropriate to record details of trees and landscape features omitted from or beyond the scope of the plan. If this circumstance occurs, the location of the individual tree or landscape feature is estimated. The position of each tree is shown on the attached drawing no. 11412-D-AIA Rev A.

3.3 In order to provide a systematic, consistent and transparent evaluation of the trees included within this survey, they have been assessed and categorised in accordance with the method detailed in item 4.3 of *BS5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations"*. For further information, please see the attached Explanatory Notes.

3.4 The detailed assessment of each tree and its work requirements with priorities are listed in the attached Schedule of Trees.

3.5 Over and above the general and prudent recommendation that all trees are inspected on an annual basis, the following trees have been identified as requiring enhanced monitoring to assess any changes in faults and weaknesses etc as detailed in the Schedule of Trees:

T001	Monitor annually (Ash Dieback).
T002	Monitor annually (Ash Dieback).

3.6 In accordance with item 4.2.4 (c) of BS5837:2012, the trees inspected and detailed within this report have been selected for inclusion due to the likely influence of any proposed development on the trees, rather than strictly adhering to the curtilage of the site. However, it must be understood that there may be trees beyond the site and not included in this survey which may exert an influence on the development. Where works for cultural, health and safety, quality of life or development purposes have been recommended on trees outside the ownership of the site, these can only progress with the agreement of the owner except where it involves portions of the trees overhanging the boundary.

4.0 Arboricultural Impact Assessment (Additional or Specific Comments)

4.1 Construction Access

4.1.1 Site access is encumbered by the theoretical Root Protection Area (RPA) of T007. In this case the RPA is safeguarded by existing hard surfaces, as shown on the attached drawing no. 11412-D-AIA Rev A. From a purely arboricultural perspective, it will therefore not be necessary to install a temporary load bearing surface to protect tree roots.

4.2 Demolition

4.2.1 Demolition of existing structures affects the theoretical RPA of T003, T004, T005 and T006. However, in this situation the presence of the existing structure is considered likely to have precluded significant root encroachment, as shown on the attached drawing no. 11412-D-AIA Rev A. Nevertheless, to ensure there is no damage to the canopy and roots of these trees, works must only be completed with appropriate machinery or by hand within the calculated RPA and crown spread (whichever is the greater). In the proximity of the retained trees, all walls and material must be demolished inwards into the footprint of the buildings and away from the stems (often referred to as "top down, pull back"). Furthermore, all demolition and hard surface removal within the RPA must be completed under arboricultural supervision.

4.2.2 An area of existing hard surfacing within the RPA of T009 is to be returned to soft landscaping, as shown on the attached drawing no. 11412-D-AIA Rev A. Prior to the topsoil being imported, the existing hard surface will be removed by hand or with lightweight machinery. Sharp sand will then be laid over any roots that are exposed, onto which good quality debris free topsoil will be laid.

4.3 New Structures

4.3.1 Construction of the new units foundations or structural supports do not encroach within the RPA of any trees to be retained. From an arboricultural perspective, no specialised construction or foundation techniques will therefore be required to protect tree roots. However, dependent on the soil type, species and topography, trees may have an influence on the soil beyond their calculated RPA. It is recommended that a Structural Engineer is consulted to assess the implications of the tree retention on the required foundation design.

4.3.2 Installation of paladin fencing is proposed within the RPA of T003, T004, T005 and T006, as shown on the attached drawing no. 11412-D-AIA Rev A. In this situation the presence of the existing structure is considered likely to have precluded significant root encroachment where fencing is to be installed within the RPA of T004, T005 and T006. To ensure any potential impacts are minimised on T002, where foundation pads are located within the RPA they will be excavated by hand. Should roots be exposed they will be cleanly severed with secateurs, or a handsaw, ensuring the final wounds are as small as possible and free from ragged, torn ends. Following this and prior to being backfilled, the foundation hole will be lined with a non-permeable geotextile membrane to prevent phytotoxic concrete adversely affecting the tree's roots. Given it is proposed to install the fencing using posts at 2.4m centres it is considered any potential impact on the rooting environment will be negligible. No adverse arboricultural implications are therefore expected.

4.4 New Hard Surfaces

4.4.1 Installation of new hard surfaces encroach within a small portion of the RPA of T003. Given the minor extent of the intrusion into the periphery of its RPA (12.8%) and consideration to the presence of an existing structure within a section of its RPA, it is considered appropriate to undertake linear root pruning at the location shown on the attached drawing no. 11412-D-AIA Rev A. This will obviate the need for "no dig" construction methods in this situation.

4.4.2 It is proposed to construct hard surfaces in the RPA of T004, T005 and T006. In this location there is an existing structure that is to be demolished. It is considered that this building will have precluded significant root encroachment, as shown on the attached drawing no. 11412-D-AIA Rev A. No adverse arboricultural implications are therefore expected.

4.5 Compound

4.5.1 The site provides adequate internal space to locate a construction compound outside the RPA of any trees and landscape features that are to be retained.

4.6 Services

4.6.1 Final information about service routes is not available at this stage. However, it is important to establish the principle that wherever possible all underground service runs will be placed outside the RPA of retained trees on or adjacent to the site. Where it is not possible to do this, any infringement must be agreed with the LPA and addressed by hand digging or trenchless technology.

4.7 Drainage

4.6.1 Final information about the drainage scheme is not available at this stage. However, it is important to establish the principle that wherever possible all foul and surface water pipes, attenuation tanks, chambers etc. will be placed outside the RPA of retained trees on or adjacent to the site. Where it is not possible to do this, any infringement must be agreed with the LPA and addressed by hand digging or trenchless technology.

4.8 Phasing

4.8.1 The proposal involves the integration of aspects that affect tree protection (e.g. – but not exclusively – demolition, root pruning and the installation of services). For this reason, the project must be carefully phased to ensure the highest level of protection is maintained for retained trees. As part of the detailed Arboricultural Method Statement & Tree Protection Plan, Hayden's Arboricultural Consultants will produce an in-depth phasing recommendation to cover the major operations on site as they affect retained trees.

5.0 Limitations & Qualifications

Tree inspection reports are subject to the following limitations and qualifications.

General exclusions

Unless specifically mentioned, the report will only be concerned with above ground inspections. No below ground inspections will be carried out without the prior confirmation from the client that such works should be undertaken.

The validity, accuracy and findings of this report will be directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. Hayden's Arboricultural Consultants Limited will not be responsible for the recommendations within this report where essential data are not made available or are inaccurate.

This report will remain valid for one year from the date of inspection subject to the recommendations specified within being adhered to. It must also be appreciated that recommendations proposed within this report may be superseded by extreme weather, or any other unreasonably foreseeable events.

Tree surgery should be completed as detailed in the Schedule of Trees. Where this has been identified for reasons other than to permit development, this work should be completed within the advised timescales irrespective of any development proposals.

Tree surgery works may also be proposed as part of this Survey to mitigate any identified problems that may be caused by trees in close proximity to the proposed development. To this end, should these recommendations be overruled, this Survey stands as the opinion of Hayden's Arboricultural Consultants Limited, and therefore any damage or injury caused by trees recommended by this practice for felling or tree surgery works, to which the proposed schedule of works has been altered or the tree has been requested to be retained by the Local Planning Authority, cannot be the responsibility of this practice.

Moreover, if any additional alterations to the property or soil levels are carried out and/or further tree works undertaken other than specified within the report, it will become invalid and a new tree inspection required.

It will be appreciated, and deemed to be accepted by the client and their insurers, that the formulation of the recommendations for the management of trees will be guided by the following: -

1. The need to avoid reasonably foreseeable damage.
2. The arboricultural considerations - tree safety, good arboricultural practice (tree work) and aesthetics.

The client and their insurers are deemed to have accepted the limitation placed on the recommendations by the sources quoted in the attached report. Where sources are limited by time constraints or the client, this may lead to an incomplete quantification of the risk.

Signed:

May 2025
For and on Behalf of Hayden's Arboricultural Consultants Limited

6.0 References

British Standards Institute. (2010). *Recommendations for Tree Work BS3998:2010* BSI, London.

British Standards Institute. (2012). *Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012* BSI, London.

Ministry of Housing, Communities & Local Government. (2014). *Tree Preservation Orders and trees in conservation areas.* London: Ministry of Housing, Communities & Local Government.

Mattheck & Breloer, H. (1994). *Research for Amenity Trees No.4: The Body Language of Trees*, HMSO, London.

NHBC Standards (2007) *Chapter 4.2 'Building Near Trees'.* National House-Building Council.

NJUG 4 Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Issued 16 November 2007.

Forestry Commission (2007). *Tree Felling – Getting Permission.* Country Services Division, Forestry Commission, Edinburgh.

Patch, D. Holding, B. (2006) *Arboricultural Practice Note 12 (APN12)*, *Through the Trees to Development.* Arboricultural Advisory and Information Service (AAIS).

Lonsdale, D. (1999). *Research for Amenity Trees No 7: Principles of Tree Hazard Assessment and Management*, HMSO, London.

National Tree Safety Group (2011). *Common Sense Risk Management of Trees.* Forestry Commission.

7.0 Appendices

Appendix	**A**	Species List & Tree Problems
Appendix	**B**	Statutory Tree Protection Advice & Tree Preservation Order Enquiry/Response
Appendix	**C**	Schedule of Trees
Appendix	**D**	Schedule of Works - Irrespective of Development
Appendix	**E**	Preliminary Schedule of Works to Allow Development
Appendix	**F**	Explanatory Notes
Appendix	**G**	Advisory Information & Sample Specifications
	1.	BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care
	2.	European Protected Species and Woodland Operations Checklist (v.4)
Appendix	**H**	Drawing no. 11412-D-AIA Rev A.

Appendix A - Species List & Tree Problems

Species List:

Ash	*Fraxinus sp*
Cherry Plum	*Prunus sp*
Elder	*Sambucus sp*
Eucalyptus	*Eucalyptus sp*
Lime	*Tilia sp*
Pyracantha	*Pyracantha sp*
Sycamore	*Acer sp*

Tree Problems:

This gives a brief description of the problems identified in the attached Tree Survey.

Name: Deadwood	
Symptoms/damage type and cause:	This relates to dead branches in the crown of the tree. In most cases, this is caused by the natural ageing process of the tree or shading due to its close proximity to neighbouring trees. However, in some situations, it may be related to fungal, bacterial or viral infection.
Consequence:	Depending upon the location and mass of dead wood removal of the affected tissue may be necessary to prevent harm to persons or property as the wood will become unstable as it decays and in some circumstances is likely to fall from the tree with little or no warning.
Control:	Detailed monitoring should be undertaken on those trees showing signs of excessive deadwood production to identify the underlying cause.
Species affected:	Most tree species.
Images:	 

Name: *Hedera helix* **(Ivy)**	
Symptoms/damage type and cause:	Ivy may grow to varying degrees on all areas of a tree from the base to the upper crown. It is possible that in doing so it will out-compete the host tree for available light thereby suppressing the host.
Consequence:	This is generally only harmful to the tree on already unhealthy specimens which may be constricted by large ivy stems around the trunk or may have their top growth suppressed by a mass of flowering shoots in the crown. Ivy can also mask potentially dangerous faults on a tree.
Control:	Ivy should only be removed if absolutely necessary because it provides abundant cover to wildlife and then by severing twice close to the ground and removing a length of stem thereby causing the gradual dying away of the aerial parts of the plant providing extended benefit to wildlife whist relieving the pressure on the tree.
Species affected:	Most trees can be affected.
Images:	 

Name: *Hymenoscyphus fraxineus* **(Ash Dieback)**	
Symptoms/damage type and cause:	Symptoms of the disease can be visible on leaves, shoots, stems and branches of affected trees. The primary symptom is leaves and young shoot growth wilting and turning black in the late summer months. The leaves will often drop ahead of the usual period of senescence. As the fungus spreads towards the stem, branches start to show a black diamond that marks the area of infection. The diamond will continue to grow as the fungus progresses until it girdles the branch and kills the vascular tissue. In severe cases, the entire crown shows leaf loss and dieback, which is often associated with the formation of epicormic shoots on branches and the trunk.
Consequence:	The genetic variation within the *Fraxinus* genus means that individual trees have differing levels of resistance to *Hymenoscyphus fraxineus* resulting in some trees dying in the year of infection and others displaying minimal symptoms and surviving alongside the presence of the pathogen. Infected trees will fall somewhere on this spectrum.
Control:	You can slow the spread of the Ash dieback disease by locally burning, burying or composting fallen Ash leaves.
Species affected:	*Fraxinus excelsior*

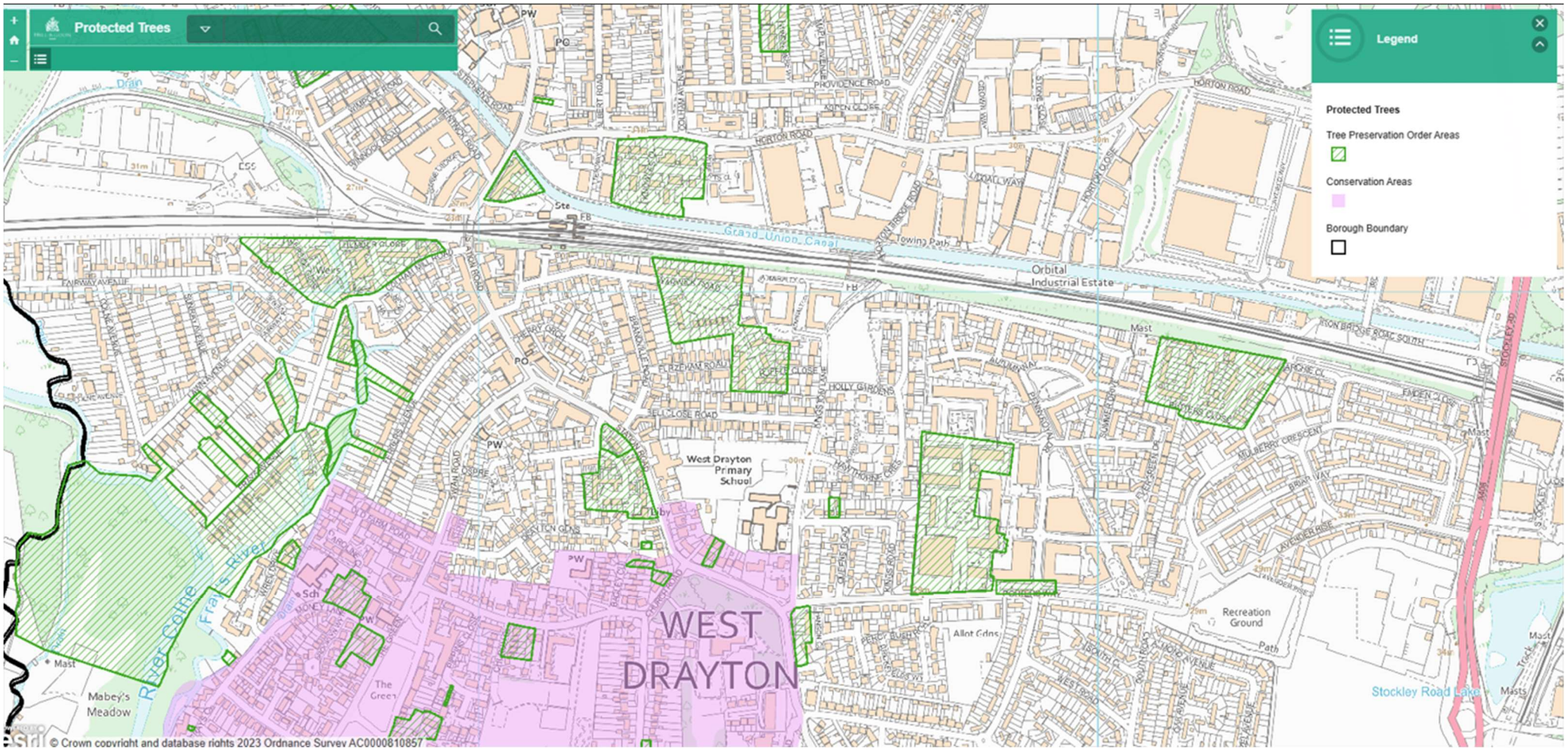
Appendix B - Statutory Tree Protection Advice & Tree Preservation Order Enquiry/Response

Statutory Tree Protection Advice

Hayden's Arboricultural Consultants Limited have been informed that at the *date of the tree inspection* the trees concerned were not located within a Conservation Area or the subject of a Tree Preservation Order. As such, no written permission would be required from the LPA prior to undertaking tree work. However, it should be noted that the LPA have the power to serve Tree Preservation Orders very rapidly. It is therefore incumbent upon anyone wishing to undertake work to trees to first contact the LPA to ensure that the situation has not changed.

This information was sourced using the LPA's Online Mapping System (as instructed by them) and to our best knowledge was current and accurate at the time the information was accessed. We would advise it prudent that before any tree work commences, this is checked directly with the LPA to confirm that their online mapping system is definitive.

Tree Preservation Order / Conservation Area Online Mapping Extract



Appendix C

Schedule of Trees

SCHEDULE OF TREES (AIA)

Orbital Industrial Estate, Horton Road, West Drayton, London

Surveyed By: Nick Hayden Date: 09/01/2025
Managed By: Nick Hayden

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
On site		RPA (m²)	Aspect	Aspect	SULE	Ground Cover						
A001	Ash, Buddleia, Elder, Sycamore	100	5.5		Low	N1.5, E1.5, S1.5, W1.5	Belt of sporadic, young selfset trees located in narrow strip of fenced off land between parking bays and adjacent industrial unit. Several trees topped. Unsuitable for long term retention given potential future dimensions and proximity to industrial unit.	U	Fell and treat stumps.	3		
		1.2	0-2m		Y	Moderate						
Yes		4.5			<10 years	Building, Bare earth, Block paving						
H001	Pyracantha	50	3		Moderate	N0.5, E0.5, S0.5, W0.5	Maintained hedge between industrial unit and canal footpath.	C2	No work required.	4		
		0.6	0-2m		SM	Moderate						
No		1.1			10+ years	Light undergrowth, Tarmac						
T001	Ash	300	9.5		Moderate	N4, E3, S4, W3	Located offsite. Restricted access impeded a detailed inspection and dimensions therefore estimated. Ivy clad. Companion tree with asymmetric crown to south east. No evidence of Ash dieback throughout crown. Crown does not extent to adjacent industrial unit. Not plotted on TOPO.	B2	Remove Ivy and reinspect. Monitor annually (Ash Dieback).	3		
		3.6	2.1-4m		SM	Moderate						
No		40.7			20+ years	Light undergrowth, Ivy						
T002	Ash	300	10		Moderate	N3.5, E4, S4.5, W3.5	Located offsite. Restricted access impeded a detailed inspection of and dimensions therefore estimated. Ivy clad. Companion tree with asymmetric crown to north west. No evidence of Ash dieback throughout crown. Crown does not extent to edge of adjacent industrial unit, circa. 0.5m from edge. Not plotted on TOPO.	B2	Remove Ivy and reinspect. Monitor annually (Ash Dieback).	3		
		3.6	2.1-4m		SM	Moderate						
No		40.7			20+ years	Light undergrowth, Ivy						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover						
T003	Sycamore	500	12		Moderate	N3.5, E4, S4, W4	Located offsite directly adjacent to the site boundary. Canal footpath to south, industrial unit to north. Growing tight up against the boundary. Multi-stemmed from circa. 0.5m agl. Dense Ivy partially impeded a detailed inspection of base, lower stems and unions. From sections of unions that could be observed, bark inclusions were evident. Minor stem and branch wounds. No evidence of notable dieback throughout crown. Reasonable vigour. It is assumed this tree is maintained / managed by the LPA. Not plotted on TOPO.	C2	No work required.	4	Undertake linear root pruning at the location shown on drawing no. 11412-D-AIA Rev A	0
		6	2.1-4m		EM	Moderate						
No		113.1			10+ years	Light undergrowth, Ivy, Tarmac						
T004	Sycamore	410	15		Moderate	N5.5, E1.5, S5, W6	Located offsite adjacent to the site boundary. Canal footpath to south, industrial unit to north. Growing within 1m of building. Dense Ivy impeded a detailed inspection of base and lower stem. Tapping the exposed sections with a sounding hammer did not reveal the presence of notable decay. Companion tree with heavily asymmetric crown. No evidence of notable dieback throughout crown. Reasonable vigour. As an individual it is not a notable specimen but collectively it is integral to a small group providing a nice landscape feature along the canal side. It is assumed this tree is maintained / managed by the LPA. Not plotted on TOPO.	B2	No work required.	4		
		4.92	2.1-4m		EM	Moderate						
No		76			20+ years	Light undergrowth						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover						
T005	Ash	430	15		Moderate	N5.5, E3, S6, W2.5	Located offsite adjacent to the site boundary. Canal footpath to south, industrial unit to north. Growing within 0.5m of building. Detritus impeded a detailed inspection of base. Tapping the lower stem with a sounding hammer did not reveal the presence of notable decay. Companion tree with asymmetric crown. Bifurcates at circa. 2m agl, union appears stable. Minor deadwood. No evidence of notable dieback throughout crown. Reasonable vigour. As an individual it is not a notable specimen but collectively it is integral to a small group providing a nice landscape feature along the canal side. It is assumed this tree is maintained / managed by the LPA. Not plotted on TOPO.	B2	No work required.	4		
		5.16	2.1-4m		EM	Moderate						
No		83.6			20+ years	Light undergrowth, Detritus						
T006	Sycamore	450	14.5		Moderate	N2, E5.5, S5.5, W1.5	Located offsite adjacent to the site boundary. Canal footpath to south, industrial unit to north. Growing within 0.5m of building. Detritus and dead Ivy impeded a detailed inspection of base. Multi-stemmed from ground level. Possible included union. Tapping the lower stems with a sounding hammer did not reveal the presence of notable decay. Companion tree with heavily asymmetric crown bias to east and south. Minor deadwood. No evidence of notable dieback throughout crown. Reasonable vigour. As an individual it is not a notable specimen but collectively it is integral to a small group providing a nice landscape feature along the canal side. It is assumed this tree is maintained / managed by the LPA. Not plotted on TOPO.	B2	No work required.	4		
		5.4	2.1-4m		EM	Moderate						
No		91.6			20+ years	Light undergrowth, Detritus						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover						
T007	Lime	430	11		High	N4.5, E4.5, S4.5, W4.5	Located offsite. Dense hedging and Ivy impeded a detailed inspection of base and lower stem. Multi-stemmed from circa. 2m agl, bark inclusions between unions. Typical characteristic of species. Nest in south aspect of crown. Dense crown. Reasonable vigour. Overhangs industrial unit to east. Managed / maintained by adjacent site.	B1	No work required.	4		
		5.16	2.1-4m		EM	Moderate						
No		83.6			20+ years	Ivy, Shrub bed						
T008	Cherry Plum	250	8		High	N2.5, E3.5, S3.5, W2.5	Multi-stemmed specimen growing on boundary. Ownership unclear. Sitting on a 0.3m high retaining wall with notable distortion to adjacent tarmac. Stems also growing through and encased in metal security fencing. Dense Ivy impeded a detailed inspection of base. Overhangs gas meter store. Lamp column in eastern aspect of crown. Reasonable vigour. Not suitable for long term retention.	U	Fell.	3		
		3	2.1-4m		SM	Moderate						
No		28.3			<10 years	Tarmac, Building						
T009	Cider Gum	600	15		Moderate	N6.5, E6, S7, W7.5	Located offsite. DBH, northern and eastern crown spread therefore estimated. Restricted access to adjacent site impeded a detailed inspection. Lower branches previously removed over site on southern aspect. Crown circa. 4m agl over site. No notable distortion to hard surfacing given proximity of tree. Crown displays reasonable vigour. Maintained / managed by adjacent site.	B2	No work required.	4		
		7.2	2.1-4m		M	High						
No		162.9			20+ years	Unknown (offsite/no access), Tarmac						

Appendix D

Schedule of Works – Irrespective of Development

SCHEDULE OF WORK IRRESPECTIVE OF DEVELOPMENT

Orbital Industrial Estate, Horton Road, West Drayton, London

Surveyed By: Nick Hayden
Surveyed: 09/01/2025
Managed By: Nick Hayden

Tree No.	Species	Work required	Priority
A001	Ash, Buddleia, Elder, Sycamore	Fell and treat stumps.	**3**
T001	Ash	Remove Ivy and reinspect.	**3**
T002	Ash	Remove Ivy and reinspect.	**3**
T008	Cherry Plum	Fell.	**3**

Schedule of Enhanced Monitoring

Orbital Industrial Estate, Horton Road, West Drayton, London

Surveyed By: Nick Hayden
Surveyed: 09/01/2025
Managed By: Nick Hayden

Tree No.	Species	Work required	Priority
T001	Ash	Monitor annually (Ash Dieback).	**3**
T002	Ash	Monitor annually (Ash Dieback).	**3**

Appendix E

Preliminary Schedule of Works to Allow Development

SCHEDULE OF WORKS (AIA)

Orbital Industrial Estate, Horton Road, West Drayton, London

Surveyed By: Nick Hayden
Surveyed: 09/01/2025
Managed By: Nick Hayden

Tree No.	Species	Work required	Priority
T003	Sycamore	Undertake linear root pruning at the location shown on drawing no. 11412-D-AIA Rev A	**0**

Appendix F

Explanatory Notes

Explanatory Notes

Categories

No	Identifies the tree on the drawing.
Species	Common names are given to aid understanding for the wider audience.
BS 5837 Main Category	Using this assessment (BWS 5837:2012, table 1), trees can be divided into one of the following simplified categories, and are differentiated by cross-hatching and by colour on the attached drawing. **Category A** - Those of high quality with an estimated remaining life expectancy of at least 40 years; **Category B** - Those of moderate quality with an estimated life expectancy of at least 40 years; **Category C** - Those of low quality with an estimated remaining of at least 10 years, or young trees with a stem diameter below 150 mm; **Category U** - Those trees in such condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
BS 5837 Sub Category	Table 1 of BS 5837:2012 also requires a sub category to be applied to the A, B, C, and U assessments. This allows for a further understanding of the determining classification as follows: **Sub Category 1** - Mainly arboricultural qualities; **Sub Category 2** - Mainly landscape qualities; **Sub Category 3** - Mainly cultural values, including conservation. Please note that a specimen or landscape feature may fulfil the requirements of more than one Sub Category.
DBH (mm)	Diameter of main stem in millimetres at 1.5 metres from ground level. Where the tree is a multi-stem, the diameter is calculated in accordance with item 4.6.1 of BS 5837:2012.
Height	Recorded in metres, measured from the base of the tree.
Crown Base	Recorded in metres, the distance from ground and aspect of the lowest branch material.
Lowest Branch	Recorded in metres, the distance from ground and aspect of the emergence point of the lowest significant branch.

Age	Recorded as one of seven categories: **Y** Young. Recently planted or establishing tree that could be transplanted without specialist equipment, i.e. less than 150 mm DBH. **S/M** Semi-mature. An established tree, but one which has not reached its prospective ultimate height. **E/M** Early-mature. A tree that is reaching its ultimate potential height, whose growth rate is slowing down but if healthy, will still increase in stem diameter and crown spread. **M** Mature. A mature specimen with limited potential for any significant increase in size, even if healthy. **O/M** Over-mature. A senescent or moribund specimen with a limited safe useful life expectancy. Possibly also containing sufficient structural defects with attendant safety and/or duty of care implications. **V** Veteran. A tree considered a 'survivor' having endured injury, disease and/or decay, developing important habitat features such as decay, trunk hollowing, deadwood, fungal fruiting bodies (plus others) not solely as a consequence of time. Veteran trees are afforded additional protection within the planning system where they may be influenced by change. **A** Ancient. A tree that has the features of a Veteran tree but has also surpassed the typical lifespan for its species. These trees may differ in appearance from a Veteran tree, such as having a thick/wide trunk and a small crown. Ancient trees are usually considered to have exceptional cultural significance. Ancient trees are afforded additional protection within the planning system where they may be influenced by change.
Safe Useful Life Expectancy (SULE)	Relates to the prospective life expectancy of the tree and is given as 4 categories: 1 = 40 years+; 2 = 20 years+; 3 = 10 years+; 4 = less than 10 years.
Crown Spread	Indicates the radius of the crown from the base of the tree in each of the northern, eastern, southern and western aspects.
Minimum Distance	This is a distance equal to 12 times the diameter of the tree measured at 1.5 metres above ground level for single stemmed trees and 12 times the average diameter of the tree measured at 1.5 metres above ground level tree for multi stemmed specimens. (BS 5837:2012, section 4.6).
RPA	This is the Root Protection Area, measured in square metres and defined in BS5837:2012 as "a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority". The RPA is shown on the drawing.. Ideally this is an area around the tree that must be kept clear of construction, level changes of construction operations. Some methods of construction can be carried out within the RPA of a retained tree but only if approved by the Local Planning Authority's tree officer.
Water Demand	This gives the water demand of the species of tree when mature, as given in the NHBC Standards Chapter 4.2 "Building Near Trees".

Visual Amenity

Concerns the planning and landscape contribution to the development site made by the tree, hedge or tree group, in terms of its amenity value and prominence on the skyline along with functional criteria such as the screening value, shelter provision and wildlife significance. The usual definitions are as follows:

Low	An inconsequential landscape feature.
Moderate	Of some note within the immediate vicinity, but not significant in the wider context.
High	Item of high visual importance.

Problems/ Comments

May include general comments about growth characteristic, how it is affected by other trees and any previous surgery work; also, specific problems such as deadwood, pests, diseases, broken limbs, etc.

Works Required (TS)

Identifies the necessary tree work to mitigate anticipated problems and deal with existing problems identified in the “Problems/comments” category.

Work Required (AIA)

Identifies the tree work specifically necessary to allow a proposed development to proceed.

Priority

This gives a priority rating to each tree allowing the client to prioritise necessary tree works identified within the Tree Survey.

1 Urgent – works required immediately;

2 Works required within 6 months;

3 Works required within 1 year;

4 Re-inspect in 12 months,

0 Remedial works as part of implementation of planning consent.

BS 5837:2012 Terms and Definitions

Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site.
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculturist	Person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.
Competent Person	Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached. NOTE - a competent person is expected to be able to advise on the best means by which the recommendations of this British Standard may be implemented.
Construction	Site-based operations with the potential to affect existing trees.
Construction Exclusion Zone	Area based on the root protection area from which access is prohibited for the duration of a project.
Root Protection Area (RPA)	Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
Service	Any above or below ground structure or apparatus required for utility provision. **NOTE** - examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.
Stem	Principal above ground structural component(s) of a tree that supports its branches.
Structure	Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.
Tree Protection Plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.

Veteran/Ancient Tree Buffer

A diagrammatic representation of the additional protection measures afforded to Veteran and Ancient Trees by the imposing of a geographical 'buffer' space between the Veteran/Ancient Trees and any potential activity such as construction, that may affect the trees. The buffer zones are calculated as follows:

For ancient woodlands, the proposal should have a buffer zone of at least 15 metres from the boundary of the woodland to avoid root damage (known as the root protection area). Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic.

For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter. This will create a minimum root protection area.

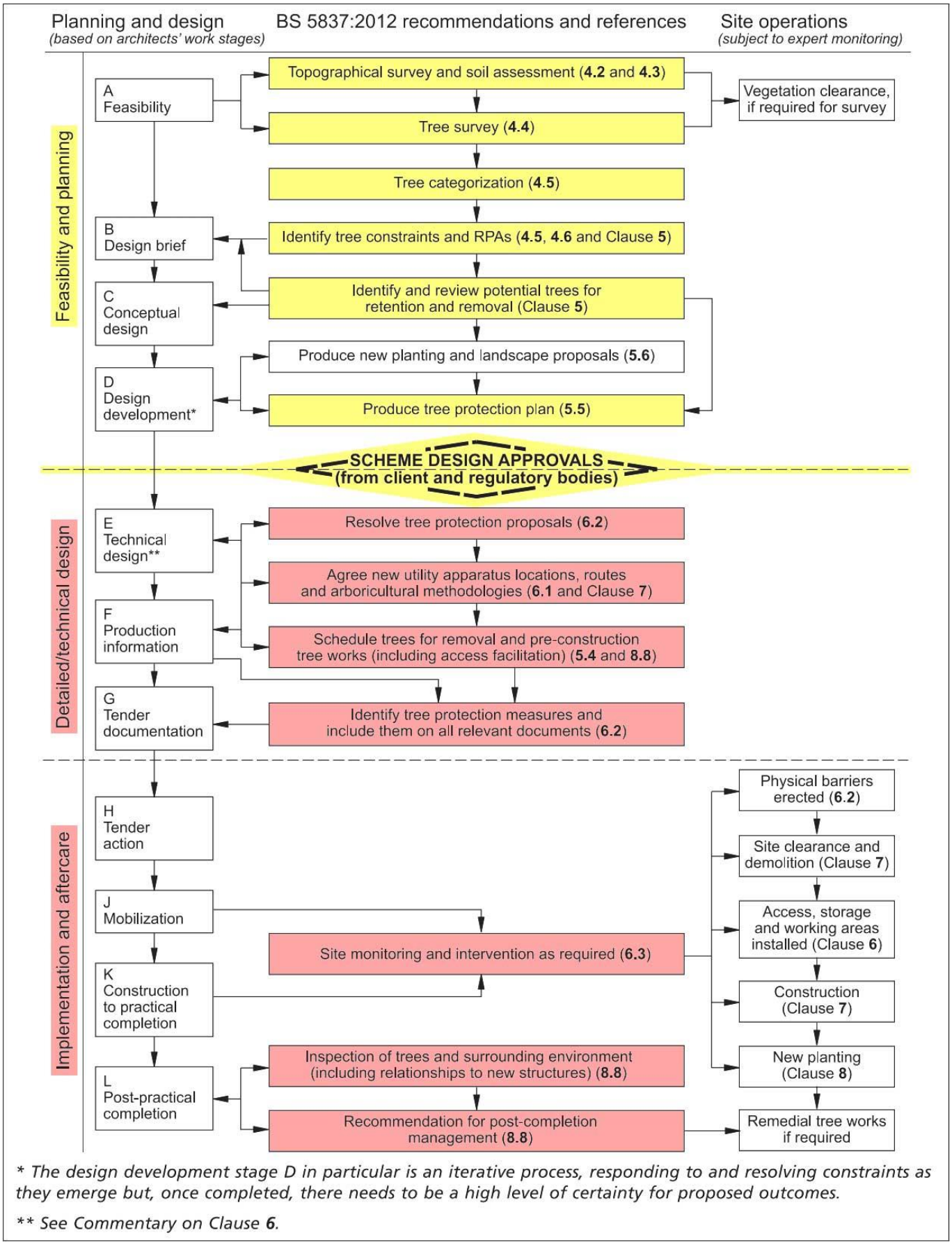
Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone.

Source: Natural England; The Forestry Commission; The UK Government Dept. for The Environment.

Appendix G

Advisory Information & Sample Specifications

1. BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care



** The design development stage D in particular is an iterative process, responding to and resolving constraints as they emerge but, once completed, there needs to be a high level of certainty for proposed outcomes.*

*** See Commentary on Clause **6**.*

2.

European Protected Species and woodland operations. (V4)

Complete all sections of the Checklist

✔

Checklist

1 **Are you within, or close to, the known mapped range of any of the protected species OTHER THAN BATS which are potentially everywhere? Tick any that apply.**
See distribution maps in the Good Practice Guidance for each species -

- ☐ Dormice
- ☐ Otters
- ☐ Great crested newts
- ☐ Sand lizards
- ☐ Smooth snakes

YES / NO

2 **Does your wood contain any of the following habitats? Tick any that apply.**

- ☐ Old trees with holes and crevices which might be used bats
- ☐ Species rich scrub/coppice, early growth stage plantations and forest interfaces
- ☐ Rivers on which otters might be found
- ☐ Ponds which might be occupied by great crested newts
- ☐ Open areas on heathy soils

YES / NO

3 **Have any of the protected species been recorded in this wood or on adjoining sites? Tick any that apply.**
Indicate which sources of information you have checked:

- ☐ National Biodiversity Network (www.nbn.org.uk)
- ☐ Local Biological Records Centre
- ☐ Local Wildlife Trust
- ☐ Other

Specify Other:

YES / NO

4 **Have your inspections or any expert surveys found any of the following signs or evidence? Tick any that apply.**

- ☐ Signs (e.g. otter spraint, nuts gnawed by dormice, leaves folded by newts)
- ☐ Sightings (or echo-location)
- ☐ Potential breeding or roosting sites (e.g. veteran trees, old trees with crevices, riverside hollow trees, ponds, timber stacks, large fallen deadwood)
- ☐ Confirmed breeding or roosting sites (i.e. evidence of sites actually being used)

Details:

YES / NO

CHECK POINT

If you have answered NO to ALL of the above then only bats need to be considered in your operations.

If you have answered YES to any of the above then the species concerned must be considered as well as bats.

5 **Do the operations comply with Good Practice for bats and any other species found (or likely to be found in your wood) or can the operations be modified to do so?**
Details: Use reverse of form to expand as required:

YES / NO

6 **Whether or not a licence is required...**
Has the information been communicated to operators (including the location of breeding sites and sensitive areas)? Tick any that apply.

- ☐ Included in documentation (e.g. contract, letter of instruction, site assessment or other management plan)
- ☐ Shown to operators and/or their supervisor
- ☐ Marked with paint or hazard tape
- ☐ Shown on the site plan

Other means:

YES / NO

7 **Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations?**
Details:

YES / NO

Details

Name of Wood:

Grid Reference:

Area: (ha)

Date of Assessment:

Name of Assessor:

Notes

YES	A licence is not required but continue to sections 6 and 7 below
NO	You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)
YES	
NO	You may commit an offence if you do not tell your operators about the protected species in your wood.
YES	
NO	You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.

Appendix H

Hayden’s Drawing

- Arboricultural Impact Assessments
- Arboricultural Method Statements
- Tree Constraints Plans
- Arboricultural Feasibility Studies
- Shade Analysis
- Picus Tomography
- Arboricultural Consultancy for Local Planning Authority
- Quantified Tree Risk Assessment
- Health & Safety Audits for Tree Stocks
- Tree Stock Survey and Management
- Mortgage and Insurance Reports
- Subsidence Reports
- Woodland Management Plans
- Project Management
- Ecological Surveys

5 Moseley's Farm
Business Centre
Fornham All Saints
Bury St Edmunds
Suffolk
IP28 6JY

Telephone
01284 765391

Email
info@treesurveys.co.uk

Website
www.treesurveys.co.uk