

Tree Survey Report



mitie

LANDSCAPES



Gristwood
&Toms

Managing Great Britains Trees

LFB

LONDON FIRE BRIGADE

Euston Fire Station
172 Euston Road
London
NW1 2DH

Site Surveyed by
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Date
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Contents

1. Introduction	3
2. Documents and Information Provided	3
3. Scope of This Report	3
4. Limitations of Use	3
5. Site Visit Observations	3
6. Identification and Location of Trees	4
7. Observations	4
8. Works Priority	4
9. Recommendations	5
10. Future Considerations	6
11. Other Considerations	6
Appendices	7
Appendix 1: Glossary of Terminology	7
Appendix 2: Tree Schedule – Priority Works	15
Appendix 3: Tree Location Plans	16

1. Introduction

Assignment

Gristwood & Toms has been instructed by Mitie Landscapes to carry out a survey of the trees within the grounds of Euston Fire Station, 172 Euston Road, London, NW1 2DH. Where appropriate, I am to make recommendations on the immediate and future management in the interest of safety.

2. Documents and Information Provided

- Purchase Order No. – **B00200249861**

3. Scope of This Report

This report solely relates to the trees that David Wise surveyed on 20th June 2023.

4. Limitations of Use

The content and format of this report are for the exclusive use of the addressee in dealing with this site. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without the written consent of Gristwood & Toms.

5. Site Visit Observations

An unaccompanied site visit of Euston Fire Station, 172 Euston Road, London, NW1 2DH was carried out by David Wise on 20th June 2023. The trees were inspected using the visual tree assessment method described by Mattheck and Breloer (*The Body Language of Trees*, DOE booklet Research for Amenity Trees No. 4. 1994) and endorsed by the Arboricultural Association (LANTRA Professional Tree Inspection, course 2007).

All observations were from ground level without detailed investigations. All dimensions were estimated unless otherwise indicated. The weather at the time of the survey was warm and sunny with good visibility.

6. Identification and Location of Trees

The survey schedule lists the species, based on visual observation, giving the scientific and common names of the tree. The tree survey schedule is included in the appendices of this report.

7. Observations

There were **2 trees** in total inspected on the site. **2 trees** were identified to be in a fair condition.

8. Works Priority

Urgent – Public Safety

Works are urgently required to make safe a tree that has been identified as dead/structurally unsound and is putting public safety at risk.

These works are recommended to be completed within **3 months**.

High Priority

Works may be required for the following reasons:

To keep the highways infrastructure (e.g., streetlights and road signs) clear of obstructions and maintain sight lines for vehicles or pedestrians.

To abate an actionable nuisance (e.g., branches damaging windows and gutters).

When an inspection has identified visible decay, fungal brackets, or other structural defects.

To reduce a significant overhang of tree branches into an adjacent property.

When previous maintenance regimes have determined that future works are of the same specification for that specimen (e.g., pollarding and crown reduction).

These works are recommended to be completed within **6 months**.

Low Priority

Works may be carried out on a cyclic pruning regime to provide long term health and safety benefits to the tree.

These works are recommended to be completed within **12 months**.

No Action Required

Where a tree's health and condition indicate no works are required at the time of inspection.

The presence of any defect will increase the chances of failure. Each species has its own profile of defects. Some factors that must be considered include the species growth habit, tree condition, branch attachments, resistance to decay, condition of anchoring roots, cultural or maintenance history and previous damage.

Failure Potential	Urgent – Public Safety	High Priority	Low Priority	No Action Required
Works Within 3 Months	0			
Works Within 6 Months		1		
Works Within 12 Months			1	
No Action Required				0

9. Recommendations

Recommendations have been made for tree works in line with sound arboricultural management and it is recommended that the works are undertaken within the suggested timescales.

There are **0 trees** identified that require **Urgent – Public Safety** tree work. It is recommended that the works should be completed within the next **3 months**.

There is **1 tree** identified that requires **High Priority** tree work. It is recommended that the works should be completed within the next **6 months**.

There is **1 tree** identified that requires **Low Priority** tree work. It is recommended that the works should be completed within the next **12 months**.

There are **0 trees** identified as **No Action Required**.

All recommended tree works are to be carried out in accordance with BS 3998: 2010 – Tree Work Recommendations.

Nesting Birds: *Any recommended tree works should be undertaken outside the bird nesting season (1st March to 31st July); however, it should be assumed that birds will nest before and after this period. A wildlife assessment should be carried out immediately prior to the commencement of works. This will inform on whether there are nesting birds and if works on a specific tree can proceed without harming any birds.*

Bats: *Prior to commencing aerial works or felling, the arborists should carry out a visual assessment for the potential for bat habitation. If there is a possibility of bats using a tree for roosting, the Commissioning Officer (Agent) should be contacted and works to the tree suspended until an ecologist has visited the site to provide advice on whether works can proceed without any risk of harm to bats.*

10. Future Considerations

When the recommended tree work has been carried out, it is suggested that an inspection regime is introduced so that the subject trees are managed on an **annual cycle**.

11. Other Considerations

Trees subject to statutory controls

If any trees are covered by a Tree Preservation Order or located in a conservation area it will be necessary to consult the local authority before any tree work can be carried out. The works specified above are necessary for reasonable management and should be acceptable to the local authority.

Appendix 1

Glossary of Terminology

Arboriculture	The culture of management of trees as groups and individual primarily for amenity and other non-forestry purposes.
Arborist	A person possessing the technical competence through experience and related training to provide management of trees or woody plants in a landscape setting.
Bark exudate	A flow of viscous liquid (bleeding from bark) exuded onto the surface of the bark from the underlying tissues consisting of largely of <i>gum, resin kino or latex</i> depending on the species of tree. Bark exudate indicates the inner bark is dead, dying, or injured owing to disease, physical injury, root damage etc.
Bracket	A type of fruiting body by produced various fungal species, plate like to hoof like in shape and often a one-sided attachment to the wood or bark.
Branch bark ridge	A ridged area located at the union of a branch to a trunk of stem.
Branch collar	Trunk tissue that forms around the base of a branch between the main stem and the branch, or between a main branch and a lateral branch. As a branch decreases in vigour or begins to die, the collar usually becomes more pronounced and completely encircles the branch.
Brown rot	Form of decay where cellulose is degraded, while lignin is only modified.
Buttress root	Roots that emerge from the base of the tree stem, normally large and well developed that rapidly forming the connection between the stem and the transport roots.
Cable bracing	Installing cables within the crown of a tree to prevent collapse.
Cambium	A thin layer of actively growing and dividing cells, located between the xylem (sapwood) and the bark of a plant, the part responsible for radial growth of a tree stem or branch.
Canopy	The topmost layer of twigs and foliage in a woodland, tree, or group of trees.
Canker	A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by wound wood development on the periphery. This may be annual or perennial.

Cavity	An open and exposed area of wood, where the bark is missing, and internal wood has been decayed or dissolved.
Co-dominant stem/trunk	Forked branches or trunks of nearly the same size in diameter and lacking a normal branch union.
Compacted soils	Soils in which the airspace (oxygen space) has been reduced or eliminated, reducing water infiltration and percolation, reducing root presence, and inhibiting the new root development.
Compartmentalisation	The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.
Compression failure	Localised buckling of fibres and other longitudinal elements produced by compression of wood along the grain, compression failures sometimes develop in standing trees.
Compression wood	Abnormal wood formed on the lower side of branches and curved stems, with physical properties different from normal wood.
Conservation area	Designated areas of architectural or historical interest, in which there are special procedures for planning applications. Additionally, tree works cannot generally be undertaken without prior notification to the relevant local planning authority.
Crotch	The union of two or more branches, the auxiliary zone between branches.
Crown	The upper canopy of a tree, including upper trunk, scaffold branches, secondary branches, stems and leaves.
Crown lifting	Crown lift the removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
Crown reduction	The reduction of a tree's height or spread while preserving the tree's natural shape.
Crown thinning	The removal of some of the density of a tree's crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.
Deadwood	Deadwood is often present within the crown or on the stems of trees. It may be an indication of ill health; however, it may also indicate growth processes. If a target beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc), also, the removal of dead branches from a tree's canopy, usually of a specified size (in diameter).

Decay	Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.
Decay Detection	The assessment of decay within a tree has been traditionally difficult, but recent advances have made it possible to achieve accurate representations of the internal section of a tree in both 2D and 3D, removing doubt over the condition of the tree and allowing accurate management decisions.
Defect	In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.
Dieback	Progressive death of buds, twigs, and branch tissues, on individual limbs resulting in Deadwood, or throughout the canopy, extreme cases can result in Stag Heading.
Dripline	A projected line on the ground that corresponds to the spread of branches in the canopy, the farthest spread of branches.
Epicormic growth	Fast growing, weakly attached shoots/branches that often grow as a response to stress factors upon a tree or branch removal.
Failure	In connection with tree hazards, a partial or total fracture within the wood tissue or loss of cohesion between roots and soil. (In total failure, affected parts will snap or tear away completely, partial failure there is a crack or deformation, which results in an altered distribution of mechanical stress.
Feeder roots	Fine fibrous water and nutrient absorbing roots located in the outer root system.
Flush-Cut	In trees and shrub, a pruning cut close to the parent stem, which removes the branch bark ridge.
Foliage	The live leaves or needles of the tree; the plant part primarily responsible for Photosynthesis.
Formative pruning	The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.
Gall	An abnormal, disorganised growth of plant tissue, caused by parasitic or infectious organisms such as insects, fungi, bacteria, or viruses.
Girdling	In woody plants, any form of damage that destroys the bark and / or the cambium all the way around the stem, branch, or root, normally resulting in death of the damaged section.

Girdling Root	In woody plants, a root that grows across the buttress, or across other roots, eventually causing constriction of the radial growth.
Growth Increment	The incremental growth added as new annual ring develops each season over existing wood. This is seen as (growth) rings in cross-sections of wood.
Hazard Beam	An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).
Heartwood	Inner non-functioning tissues that provide structural support to a trunk / main stem.
Heave	In relation to shrinkable clay soils, expansion due to rewetting of a volume of soil previously subjected to the removal of water by plant / trees following felling or root severance. Also, in relation to root growth, the lifting of pavements and other structures by radial expansion. Also, in relation to tree stability, the lifting of one side of a wind rocked root plate.
Included Bark	Bark that becomes embedded in a crotch between branch and trunk or between co-dominant stems, found in narrow or tight crotches, and causes a weak structure.
Leader	The primary terminal shoot or trunk of a tree.
Limb	A large lateral branch growing from the main trunk or from another larger branch.
Lion Tailing	Often the result of poor pruning practices; the main leader or branches are largely devoid of side branches; growth is restricted to the end of branches and is likely to suffer damage through end loading.
Monitoring	Due to the relative life span of trees in relation to our own, long-term monitoring provides a valuable insight to the health of trees, identifying decline and or stabilisation and or improvement.
Mycelium	A mass of growing filaments (hyphae) formed by fungi.
Mycorrhizae	The symbiotic relationship between roots and certain beneficial fungi. Mycorrhizae are the combined root / fungal growth.
Occluding tissue	The general term of wood, cambium and bark that develop around the site of a wound on a woody plant.
Pathogen	A micro-organism that causes diseases within another organism.

Phloem	The principle conductive tissue that the products of Photosynthesis are transported around the plant.
Photosynthesis	The process where light energy is used to create energy (Carbohydrate) for use within the plant.
Pollard	A term for a pollarded tree.
Pollard head/s	The swollen section of branch / stem that forms behind the pollarding cut.
Pollarding	The complete or partial removal of the crown of a young tree so as to encourage the development of numerous branches either for amenity or historically as fodder, repeated management is required cyclically to maintain the feature.
Prune or Pruning	Selective removal of woody plant parts of any size, using power / hand saws, secateurs, or other pruning tools.
Reaction Wood	Wood with distinctive anatomical characteristics, formed in parts of leaning or crooked stems and in branches to provide additional strength / support. In hardwoods, tension usually forms. In conifers, compression wood is usually found.
Remedial pruning	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown.
Resistograph	Invasive decay detection technique whereby the resistance offered by the timber to a spinning probe is measured and plotted as a graph.
Rib	In tree body language, a long narrow, axial protuberance which often overlays a crack.
Ring Barking	Artificial girdling of a stem, to result in the death of a tree.
Root barriers	Both buildings and services can benefit from the installation of root barriers to protect a soil volume from the fine absorbing roots, all underground parts of the tree.
Root collar	The basal area of the tree; transition zone from trunk to root. Also sometimes called trunk flare.
Sail area	The area of the tree subjected to wind load.
Sapwood	Xylem wood tissue, usually light in colour, representing the outer growth rings of wood. Usually living, reactive wood tissue, in a healthy tree (Also see 'Heartwood').





Scaffold limbs / scaffold branches	The branches that form the main network framework of the crown of a tree.
Slime Flux	Relating to a toxic condition from the spreading of bacteria or their products from a source of infection: characterised by malodorous gases, or salt deposits upon the bark. Should these enter the sap stream, localised vessel necrosis can result.
Soft rot	A kind of wood decay, where a fungi degrades cellulose within the cell wall, without causing overall degradation.
Soil compaction	The compression of soil, causing a reduction of pore space and an increase in the density of the soil. Air is squeezed out and nutrients become locked. Tree roots cannot grow in compacted soil.
Stag Heading	In a tree, a state of dieback where dead branches protrude beyond the current living crown.
Stress	In plant physiology, conditions where one or more physiological functions are not working within normal parameters.
Stump Grinding	The removal of a tree stump using a specialist grinding machine.
Subsidence	In relation to vegetation, the removal of water by plant growth resulting in localised shrinkage in the soil volume.
Suppressed	Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.
Systemic	Affecting the whole plant or organism. A systemic compound is carried throughout the entire plant to all parts through the vascular system.
Target	Any person or object within reach of a falling tree or part of a tree that may be injured or damaged.
Target Pruning	The pruning of a branch where the wound affects only branch material, often result in a target shaped wound.
Tension Wood	Reaction wood typically formed on the upper side of limbs or curved stems; characterized by lack of cell wall lignifications (higher ratios of cellulose to lignin).
Tight Union / Tight Crotch	A crotch with a narrow angle between branches, often having included bark.

Tomography	The comparison of sound or stress waves through the tree allows the creation of a 2D or 3D representation of the internal structure of a stem or branch section and highlights areas of damage. Virtually non-injurious.
Topography	The configuration of surface features, including the vertical and horizontal relationships of the ground and other features.
Tree	A woody plant that typically has a single stem, at maturity has a height of a least 4 metres and a stem diameter at breast height of at least 75mm.
Tree Preservation Order	An order made by the local planning authority, where consent must be gained before undertaking all but exempt works to a tree.
Trunk Flare	The basal area of the trunk that flares or widens and merges with the main roots. (See root collar).
Veteran Tree	Veteran trees are often found in large parks or estates and commonly affected by extensive decay or have been subject to extensive works. These trees are retained for historical importance and often pose greater risk than normal, which is generally justified. They need careful management and often propping or bracing to support them, some require fencing to limit access.
Vigour	Active, healthy growth of plants: ability to respond to stress factors.
Visual Tree Assessment	An assessment of the mechanical condition of trees based upon their 'body language'. Trees are dynamic and respond to faults / decay / environmental factors in various ways, these responses can be indicative of structural integrity.
Wetwood	An infection caused by bacteria living inside the plant tissues. The bacteria ferment the plant fluids, resulting in death of nearby cells, and often causing exudations of fluid from the bark, often referred to as a Slime Flux.
White Rot	A kind if wood decay were a fungi attacks the lignin within the wood matrix.
Wind loading	Forces placed upon tree canopy, branches, trunk, and roots of a tree under windy conditions.
Wind Throw	The failure of a tree due to wind loading.
Witches Broom	A deformed or unusual growth of twigs from adventitious buds, caused by insects, disease, or dieback of twigs and buds.
Wood	Secondary Xylem; the main structural support and water conducting tissue of trees and shrubs.

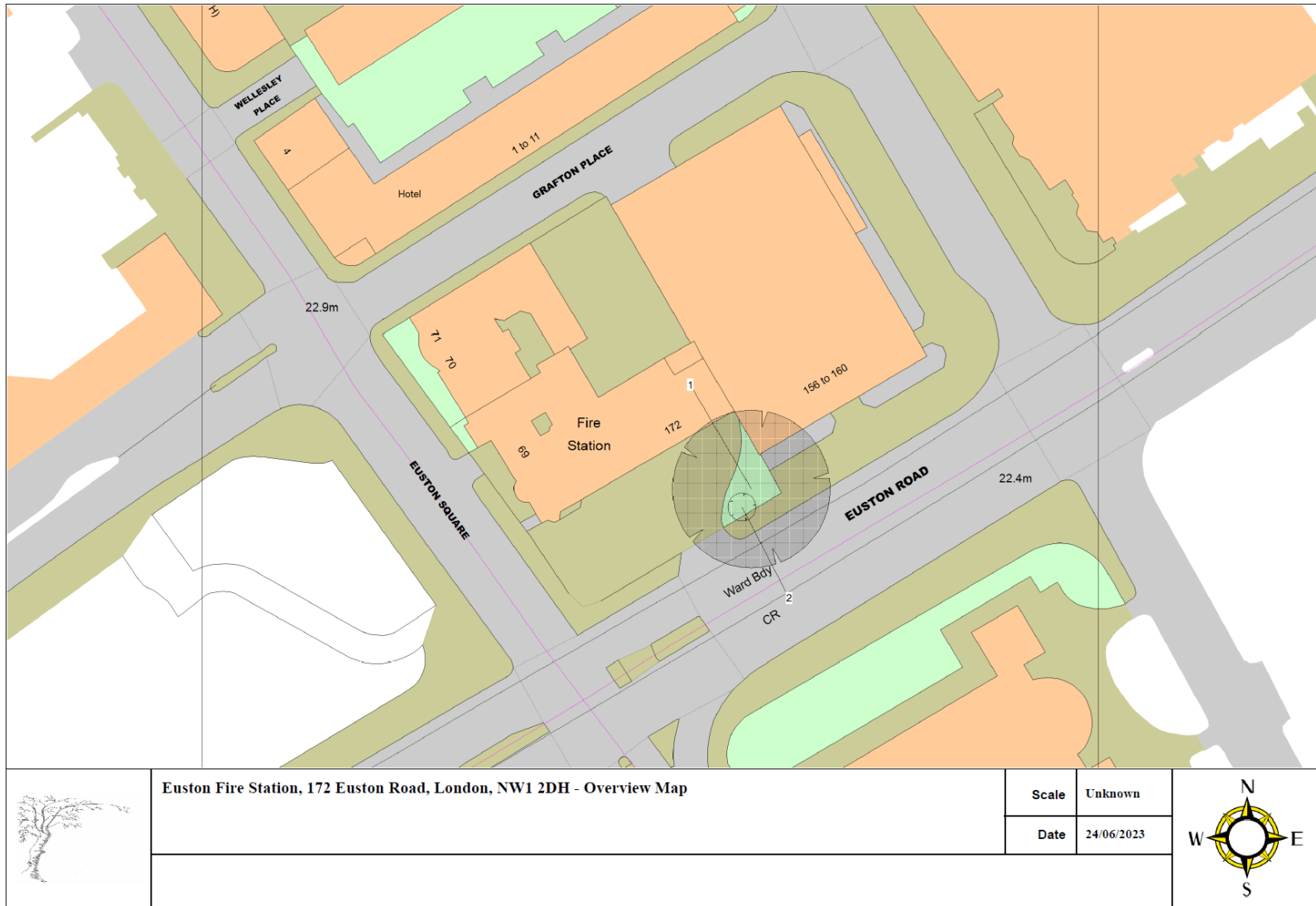
- Wound Response Tissue** Also Occluding Tissue, Wound Wood, or Callus. Differentiated wood tissue that grows around the margins of a wound or injury.
- Wound Wood** Wood with atypical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound.
- Xylem** Plant tissues with special function of translocation of water and dissolved nutrients.

Appendix 2 - Tree Schedule – Priority Works

Tree number	Location	Site features	Tree species	Height (m)	Crown spread (m)	Stem diameter at breast height (cm)	Tree defects	Condition	Recommendations	Priority	Date of inspection	Date of next inspection
1	Euston Road boundary	<ul style="list-style-type: none"> * Public access: high * Shrub bed * Tree overhanging property * Wall or fence within canopy spread 	Platanus orientalis (Oriental Plane)	21.0m	25.0m	118cm	<ul style="list-style-type: none"> * Asymmetrical crown * Leaning tree - Slight lean * Minor dead wood <50mm * Evidence of recent major surgery - Recent significant pruning works evident. * Raised roots/buttrressing 	Fair	* Tree Inspection <i>(Climbing inspection to determine whether or massaria Disease of Plane is present)</i>	High Priority	20/06/2023	June 2024
2	Euston Road boundary	<ul style="list-style-type: none"> * Public access: high * Shrub bed * Tree overhanging property * Wall or fence within canopy spread 	Prunus avium 'Plena' (Double Cherry)	6.0m	4.5m	13cm	<ul style="list-style-type: none"> * Asymmetrical crown * Low branches * Suppressed 	Fair	* Crown lift to 3 metres	Low Priority	20/06/2023	June 2024

Priority Key	
No action required	
Low Priority	
High Priority	
Urgent-Public safety	

Appendix 3 - Tree Location Plan(s)



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