

510 Oracle Parkway,
Thames Valley Park,
Reading,
RG6 1RA

BS:5837 Arboricultural Report
Arboricultural Impact Assessment

Ref: BS/403

Client: John O'Conner Grounds Maintenance

May 2021

Report compiled by RH Tree Consultants Ltd.

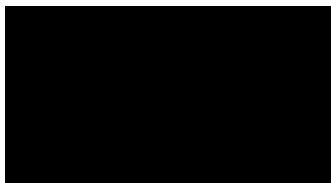


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1. INTRODUCTION

1.1. Qualification and Experience

I have based this report on my site observations and have arrived at the following conclusions in light of my arboricultural experience. I have listed my qualifications and given a brief description of my arboricultural experience in Appendix F.

1.2. Instruction

I have been instructed by John O'Conner Grounds Maintenance (referred to as the 'client' from here on) to provide a BS:5837 Tree Categorisation Report, Arboricultural Impact Assessment and Arboricultural Method Statement for proposed development works to 510 Oracle Parkway, Thames Valley Park, Reading, RG6 1RA.

The scope of the report is as follows;

- Complete an on-site survey assessing all trees potentially impacted by proposed future development at the site
- Produce a tree constraints plan and tree data schedule
- A schedule of any subsequent work that may be required
- A schedule of any subsequent inspections based on location targets
- A site overview
- Provide guidance for the architect to develop a design within the constraints plan
- Provide an Arboricultural Impact Assessment
- Provide tree protection plans outlining the location of all required tree protection
- Construct an Arboricultural Method Statement outlining how the trees will be protected during works and who is responsible for each element.

1.3. Limitations and Methodology

The survey is concerned with the arboricultural aspects of the site only in accordance with BS:5837.

The survey was undertaken using the Visual Tree Assessment (VTA) methodology. The survey was undertaken from ground level with the aid of binoculars and a sounding hammer where necessary. No aerial inspection nor root excavation was completed during this report.

Trees are a natural, dynamic organism whose condition can be subject to rapid change. Therefore, this survey and its findings are only valid for a 12-month period

following the survey on 18th May 2021. In the event of extreme weather events, it would be prudent to re survey.

1.4. Relevant Background Information

No relevant background information has been provided

1.5. Documents and Information Provided

I have been provided with drawings of the proposals which I have included in Appendix C.

1.6. Scope of This Report

This report is designed to accompany a planning application for development proposals at the above site. Its purpose is to assist and inform the planning process. It is produced according to the guidance and recommendations within BS 5837: 2012 - Trees in Relation to Design, Demolition and Construction.

1.7. Mapping

- 1.7.1. All trees and relevant constraints and protection are plotted on the Tree Constraints and Tree Protection Plans in Appendix B. The plan was produced using measurements taken on site and plotted on a geo-referenced OS master map.

1.8. Technical References

This arboricultural report is based on the following primary technical references:

- British Standards Institution (2012) BS:5837 Trees in Relation to Planning
- British Standards Institution (2010) BS:3998 Recommendations for tree work
- Lonsdale, D. 1999 *Principles of Tree Hazard Assessment and Management*.
- Mattheck, C and Breloer, H. *The Body Language of Trees*
- Strouts, R.G. and Winter, T.G 1994. *Diagnosis of Ill-Health in Trees*
- Weber, K and Mattheck, C. *The Manual of Wood Decay in Trees*
- The National Tree Safety Group. 2011. *Common Sense Risk Management of Trees*
- Biddle. P.G. 1998. *Tree Root Damage to Buildings V1 & V2*
- Roberts, J. Jackson, N and Smith, M 2006. *Tree Roots in the Built Environment*.

2. The Site

2.1. Description of Site

501 Oracle Park is a large site located in an industrial estate on the outskirts of Reading. It comprises of a large modern building and associated carpark (the site of development). The site is subject to high levels of footfall and compaction and is open to high wind force.

2.2. Soils

The soil on site is understood to be Seaford Chalk Formation and Newhaven Chalk Formation (undifferentiated). This information has been provided by the British Geographical Society mapping system. This soil type has a low Shrink Swell potential and it is unlikely that seasonal movement in relation to trees would be experienced in this low plasticity soil.

2.3. Survey Extent



2.4. The Proposed Development

The proposal is to develop a temporary railway installation without the requirement for any alteration to existing hard surfaces or installation of permanent buildings.

2.5. Tree Preservation Orders (TPO) or Conservation Areas

A Tree Preservation Order, referred to as a 'TPO', is an order made by a Local Planning Authority ('LPA') in respect of trees or woodlands. The principal effect of a TPO is to prohibit the: Cutting down, uprooting, topping, lopping, willful damage, or willful destruction of trees without the LPAs consent. The cutting of roots is potentially damaging and so, in the Secretary of State's view, requires the LPAs consent. Anyone who, in contravention of a TPO, willfully damages a tree in a way that is likely to destroy it is guilty of an offence. Anyone found guilty of this offence is liable, if convicted in a Magistrates Court, to a fine of up to £20,000. In serious cases a person may be committed for trial in the Crown Court and, if convicted, is liable to an unlimited fine.

Conservation Areas are areas of special architectural or historical interest with a character or appearance that is desirable to preserve or enhance. Trees may often contribute to the special character of the area. All trees in a Conservation Area are subject to controls which enable the LPA to protect the special character of the area created by the trees.

If trees have a specific Tree Preservation Order (TPO) on them, then the normal Tree Preservation Order controls apply. You must give the LPA 6 weeks' notice, in writing, of your intention to do any work to trees in a Conservation Area. You must not carry out any work during the six-week period, which starts from the date of receipt of your notification by the council, unless you receive written permission to do so. Work which is not exempt and is carried out without formal notification or within the six-week period without the written consent of the council is illegal. The LPA may prosecute offenders and fines of up to £20,000 for each tree may be imposed by the Magistrates Court in the event of offenders being convicted of an offence. If proceedings are instituted in the Crown Court fines are unlimited. There is a duty to replace any tree removed without permission.

It has been confirmed from the local authority (Wokingham Borough Council) website **the area falls outside of any nearby conservation areas and there isn't any tree preservation orders currently registered on site.**

2.6. Existing Trees on Site

Only trees with a trunk diameter of <75mm, when measured at 1.5m above ground level, are to feature on this report.

No significant trees on site fall under the ownership of the developer.

At the time of the site visit, all trees were noted to be in an acceptable condition, with no works recommendations outside of the scope for development requirements.

The trees on site were noted to be of a limited variety of species and age range was limited to all Semi Mature or Early Mature trees. The trees, given their location age and condition, were largely categorized as C1.

2.7. Existing Tree Stock

The existing tree stock is summarized as follows:

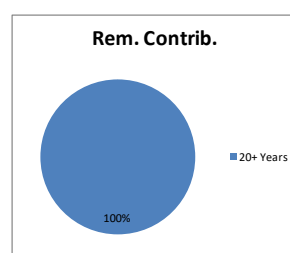
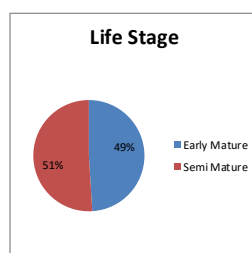
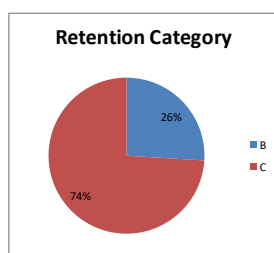
Estate Oracle
 Site name 510 Oracle Parkway
 Survey reference BS/403

Retention Category	No. trees
B	53
C	151

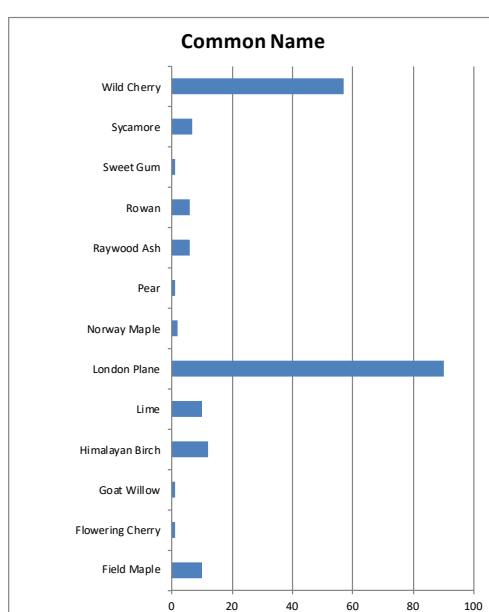
Life Stage	No. trees
Early Mature	100
Semi Mature	104

Rem. Contrib.	No. trees
20+ Years	204

Total	204
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Common Name	No. trees
Field Maple	10
Flowering Cherry	1
Goat Willow	1
Himalayan Birch	12
Lime	10
London Plane	90
Norway Maple	2
Pear	1
Raywood Ash	6
Rowan	6
Sweet Gum	1
Sycamore	7
Wild Cherry	57



3. Arboricultural Impact Assessment

3.1. The Proposal

It is proposed that a new temporary railway installation be set up in the existing carpark area. This will require the removal of some trees, but will not require the alteration of existing hard surfaces on site.

3.2. Trees to be Removed

Retention Category	No. recommendations
A	0
B	0
C	13
U	0
Total	13

Ref	Species	Measurements	Recommendation	Timescale	Retention Category	RPA
T094	London Plane (Platanus x hispanica)	Height (m): 8 Stem Diam (mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 3.6m. Area: 41 sq m.
T095	London Plane (Platanus x hispanica)	Height (m): 8 Stem Diam (mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 3.6m. Area: 41 sq m.
T096	London Plane (Platanus x hispanica)	Height (m): 8 Stem Diam (mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 3.6m. Area: 41 sq m.
T097	London Plane (Platanus x hispanica)	Height (m): 8 Stem Diam (mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 3.6m. Area: 41 sq m.
T098	London Plane (Platanus x hispanica)	Height (m): 8 Stem Diam (mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 3.6m. Area: 41 sq m.
T128	London Plane (Platanus x hispanica)	Height (m): 6 Stem Diam (mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 1.8m. Area: 10 sq m.
T130	London Plane (Platanus x hispanica)	Height (m): 6 Stem Diam (mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 1.8m. Area: 10 sq m.
T129	London Plane (Platanus x hispanica)	Height (m): 6 Stem Diam (mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 1.8m. Area: 10 sq m.
T131	London Plane (Platanus x hispanica)	Height (m): 6 Stem Diam (mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 1.8m. Area: 10 sq m.
T132	London Plane (Platanus x hispanica)	Height (m): 6 Stem Diam (mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 1.8m. Area: 10 sq m.

Ref	Species	Measurements	Recommendation	Timescale	Retention Category	RPA
T135	London Plane (Platanus x hispanica)	Height (m): 7 Stem Diam (mm): 200 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 2.4m. Area: 18 sq m.
T136	London Plane (Platanus x hispanica)	Height (m): 7 Stem Diam (mm): 200 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 2.4m. Area: 18 sq m.
T140	London Plane (Platanus x hispanica)	Height (m): 7 Stem Diam (mm): 200 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Remove tree.	NA	C2	Radius: 2.4m. Area: 18 sq m.

Fig 1. Trees to be removed to facilitate development (See Appendix B for full scale drawing)

3.3. Trees Requiring Tree Surgery Works

Irrespective of Works

Retention Category	No. recommendations
A	0
B	1
C	3
U	0
Total	4

Ref	Species	Measurements	Recommendation	Timescale	Retention Category	RPA
G001	Wild Cherry x27 (Prunus avium) Sycamore x7 (Acer pseudoplatanus) Norway Maple x2 (Acer platanoides) Field Maple x10 (Acer campestre)	Height (m): 14 46 stems, avg. (mm): 300 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 3 Lowest Branch (m): 3(N) Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Remove dead stems.	Within 6 Months	B2	Area: 609 sq m.
T028	Raywood Ash (Fraxinus angustifolia oxycarpa)	Height (m): 17 Stem Diam (mm): 360 Spread (m): 8N, 8E, 8S, 8W Crown Clearance (m): 3 Lowest Branch (m): 3(NE) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Dead wood (major greater than 25mm).	Within 6 Months	C1	Radius: 4.3m. Area: 58 sq m.
T045	Wild Cherry (Prunus avium)	Height (m): 13 Stem Diam (mm): 290 Spread (m): 5N, 5E, 5S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3(E) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Dead wood (major greater than 25mm).	Within 6 Months	C2	Radius: 3.5m. Area: 38 sq m.
T084	Wild Cherry (Prunus avium)	Height (m): 12 Stem Diam (mm): 260 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 3 Lowest Branch (m): 3(SW) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Crown lift to 3.5 metres for vehicle access.	Within 6 Months	C2	Radius: 3.1m. Area: 30 sq m.

To Facilitate Works

Retention Category	No. recommendations
A	0
B	1
C	3
U	0
Total	4

Ref	Species	Measurements	Recommendation	Timescale	Retention Category	RPA
G001	Wild Cherry x27 (Prunus avium) Sycamore x7 (Acer pseudoplatanus) Norway Maple x2 (Acer platanoides) Field Maple x10 (Acer campestre)	Height (m): 14 46 stems, avg. (mm): 300 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 3 Lowest Branch (m): 3(N) Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Remove dead stems.	Within 6 Months	B2	Area: 609 sq m.
T028	Raywood Ash (Fraxinus angustifolia oxycarpa)	Height (m): 17 Stem Diam (mm): 360 Spread (m): 8N, 8E, 8S, 8W Crown Clearance (m): 3 Lowest Branch (m): 3(NE) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Dead wood (major greater than 25mm).	Within 6 Months	C1	Radius: 4.3m. Area: 58 sq m.
T045	Wild Cherry (Prunus avium)	Height (m): 13 Stem Diam (mm): 290 Spread (m): 5N, 5E, 5S, 3W Crown Clearance (m): 3 Lowest Branch (m): 3(E) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Dead wood (major greater than 25mm).	Within 6 Months	C2	Radius: 3.5m. Area: 38 sq m.
T084	Wild Cherry (Prunus avium)	Height (m): 12 Stem Diam (mm): 260 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 3 Lowest Branch (m): 3(SW) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Crown lift to 3.5 metres for vehicle access.	Within 6 Months	C2	Radius: 3.1m. Area: 30 sq m.

All tree surgery works are to be undertaken in accordance with BS 3998:2010 *Recommendations for tree works*, or industry best practice. It is advisable that the contractor employed should be an Arboricultural Association Approved Contractor. For more information, please follow this link <https://www.trees.org.uk/ARB-Approved-Contractor-Directory>

3.4. Incursions into RPA

3.4.1. No existing hard surfaces within the RPA's of retained trees will require removal to facilitate development.

3.4.2. Heavy machinery will be used on site. They will only operate on existing hard surfaces.

3.5. Tree Protection Measures

All retained trees will be robustly protected in accordance with BS:5837 guidelines. Specifications for each protection type can be found in Appendix D

3.6. Conclusions

1.1. Having given full consideration to the arboricultural implications associated with this development, I am of the opinion that the proposal is arboriculturally sound subject to full compliance with the AMS (located in section 4), I believe that all retained trees will be protected and safeguarded in a sustainable manner.

4. Arboricultural Method Statement

4.1. Introduction

This Arboricultural Method Statement defines the site-specific specifications required to implement the above recommendations for tree protection in a realistic manner. This Arboricultural Method Statement must be read in conjunction with the attached Tree Protection Plan.

Definition of terms used:

- **Root Protection Area (RPA).** This is a theoretical area of ground around a tree where the roots are likely to proliferate. Ground disturbance in this area should be minimized and controlled in these areas to avoid significant impact on tree health. RPA's defined for this site are marked on all plans accompanying this report with a dotted red line.
- **Construction Exclusion Zone (CEZ).** These zones are created to protect roots and canopies from inadvertent damage by construction activity – see Section 6.6. - Construction Exclusion Zones. They are usually fenced off by protective barriers throughout the entire construction phase. No works are permitted in these zones other than minor landscaping works which do not require a change in ground level. Where practicable the entire Root Protection Area and the area beneath the tree canopy shall be treated as a Construction Exclusion Zone. These zones are marked purple on the Tree Protection Plan.

4.2. Method Statement Timeline

In overview, it is necessary to complete tasks in a specific order to facilitate works:

- Proposal including method statement approved by LPA
- Tree protection installed
- Pre-commencement site meeting
- Construction
- Sign off completion
- Protective fencing removed.

The following table informs the key principals for development operations proceeding in relation to arboricultural requirements conditioned as part of this method statement.

The actions and timescales within this table must be adhered to in order to discharge the arboricultural method statement planning condition of this site.

Any changes to precise timings or order of this table must be implemented or confirmed by a suitably qualified arboriculturalist as appointed by the contractor.

Sequence of Operations		
Stages	Action	Arboricultural input
1 Approval	This arboricultural method statement document is submitted and approved by the LPA	If required, liaise with contractor and LPA to discuss methodologies within this method statement
2 Tree Protection	Installing the tree protection measures which must take place before any demolition or storage of materials or machinery. Tree Protection shall be located as shown in the tree protection plan attached.	If required, liaise with contractor installing tree protection until completed to the standards specified in this AMS
3 Site Meeting	Following the full installation of the protective measures, the LPA shall be invited to inspect the site to check the installation of protection measures	Meeting with a representative of the LPA and the site manager. Alternatively, compliance can be confirmed using photographs of all tree protections measures in place.
4 Excavation and Construction	Undertake construction phase of works. No excavations to take place within the RPA outside of those mentioned in the AMS.	Arboricultural Consultant to oversee works within RPA.
5 Site Finishing	Removal of tree protection once all construction phase works are completed and when all site machinery has left the area	Contractor to take photos of the site to forward onto LPA to gain approval for removal if required.

4.3. Tree Protection

- 4.3.1.** Encroachment into the RPA's of T086, T087, T088, T091, T092, T093, T099, T133 and T134 will be required to facilitate this proposal. All encroachment will be on existing hard surfacing that will not require removal.
- 4.3.2.** Protective fencing on this site is not feasible given the nature of the site and the works involved. An Arboricultural Supervisor will be appointed to oversee key elements of works such as delivery of materials and structures.
- 4.3.3.** Prior to and during all site construction works no spoil will be stored within the RPA of and retained trees, on or adjacent to the site, even if proposed works are to take place within the RPA. An area for spoil will be demarked by the arboricultural consultant in the Tree Protection Plan.
- 4.3.4.** Prior to and during all site construction works no materials will be stored within the RPA of and retained trees, on or adjacent to the site, even if proposed works are to take place within the RPA. An area for material storage will be demarked by the arboricultural consultant in the Tree Protection Plan.
- 4.3.5.** Large vehicles on site will be limited to a single access point.
- 4.3.6.** All storage of materials and machinery will be on existing hard surface in close proximity to the development location. No materials will be stored within the RPA's of retained trees.

4.4. Useful Contacts

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