

Arboricultural Impact Assessment

BS5837:2012



Site: The Barley Mow, Manor Road, Hayling
Island PO11 0EZ

Ref: EA-2022-129 (AIA)

Date: 25 October 2022

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Eden Arboriculture Ltd

Report Control Sheet

General Report Information	
Client	Reeves Tree Surgeons Ltd
Report Title	Arboricultural Impact Assessment
Location	The Barley Mow, Manor Road, Hayling Island PO11 0EZ
Date of site visit	15 October 2022
Arboricultural Surveyor name	Christopher Garner. Dip Arb Level 6 (ABC), MArborA, Tech Cert ArborA, Lantra PTI
Date report issued	25 October 2022
Report approved by	Christopher Garner. Dip Arb Level 6 (ABC), MArborA, Tech Cert ArborA, Lantra PTI

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1 INTRODUCTION

1.1 Instruction

- 1.1.1 The report is produced at the instruction of Mr Allen Benbow of Reeves Tree Surgeons Ltd. The instruction was received by e-mail on the 20th of September 2022 after earlier discussions by e-mail.
- 1.1.2 The instruction is to produce a tree survey and arboricultural impact assessment as a formal report in accordance with BS5837:2012 to be submitted as part of an application for full planning consent.

1.2 Tree Survey

- 1.2.1 The tree survey is undertaken by a suitably qualified Arboriculturist and was produced independent of any proposed layout. The completed survey will be used to identify trees on the site and categorise those which are most suitable for retention in order to enhance the development. Detail on tree categorisation can be viewed in appendix 4.
- 1.2.2 The tree survey was carried out on the 15th of October 2022.
- 1.2.3 The tree survey collected relevant information in accordance with BS5837:2012 which are as follows:
 - a) Tree identification number (which is linked to the plan)
 - b) Species using common names. Scientific names will be identified in appendix 3
 - c) Height (Metres) measured with a laser distometer
 - d) Stem diameter (mm) at 1.5M above ground measured with a girthing tape.
 - e) Branch spread to the four cardinal points (Metres) measured with a laser distometer
 - f) Existing height above ground of first branch and direction. (Metres)
 - g) Existing height above ground of canopy. (Metres)
 - h) Life Stage. Young, Early Mature, Mature, Over Mature. See appendix 3 for definitions.
 - i) General observations
 - j) Estimated remaining contribution in years. <10, 10+, 20+, 40+
 - k) Grading category as per appendix 4.
 - l) RPA (expressed as a radius)
 - m) RPA (expressed in square metres)

- 1.2.4 Full detail of the tree survey which informs the quality and value of the trees can be found within appendix 3.

1.3 Scope of the Report

- 1.3.1 The aim of the report is to give guidance and recommendations on the relationship between trees, design, demolition and construction activities with the purpose of creating a harmonious and sustainable situation in which trees and built structures can co-exist.
- 1.3.2 The report will aim to identify the value and quality of woody vegetation on and around the site. The data gathered during the survey will be used to identify the impact that the vegetation will have on the proposed development and vice versa.
- 1.3.3 As a result, the information gained will be used to make recommendations to ensure the protection of all existing vegetation which is to be retained.
- 1.3.4 It will also give an indication of which trees are to be removed and provide a suitable justification and make recommendations for mitigation planting where appropriate.
- 1.3.5 Subsequent to, and depending on the results of the report, there may be a requirement to produce an Arboricultural Method Statement in order to secure the protection of the trees through the construction phase and into the future.

1.4 Limitations and Copyright

- 1.4.1 The content of the tree survey is intended to inform the most appropriate way forward in terms of development. It is not intended to be used as a detailed tree risk management survey. All observations were made from ground level only and are visual in nature. Should trees with significant defects which present an imminent danger be identified during the survey, this will be brought to the attention of the client immediately and as a separate matter. Should trees require a more detailed inspection (e.g. aerial inspection or decay detection) but the condition is not considered to be imminently dangerous, then this will be identified within the survey and addressed through preliminary management recommendations.
- 1.4.2 The report does not make reference to protected species (e.g. Bats) and the investigation of the presence of such species remains the responsibility of the client. The disturbance of such species may carry heavy penalties and the client is advised to seek professional advice before implementing any of the recommendations contained within the report (or Arboricultural Method Statement) if their presence is suspected.
- 1.4.3 No samples were taken from site for lab analysis or for any other purpose.
- 1.4.4 Copyright – all rights to the report are reserved by the author. No parts of the report are to be sold, lent or hired to any third party not directly involved with the site or the planning application without the written consent of the author.
- 1.4.5 Comments made in relation to tree health are reflective of their physical condition at the time of the survey. Changes in condition may occur due to external influences (e.g. construction

activities, pathogens, climatic events, etc.) and the author cannot take responsibility for changes in condition once the site visit has been completed.

1.4.6 The report is valid for a period of 1 year.

1.4.7 I have not checked with the local planning authority for the existence of any TPO's or the presence of a designated conservation area. Written consent may therefore be required from the LPA before implementing any of the works contained within the report, if either of these planning restrictions are in place. This remains the responsibility of the client.

1.4.8 Disclaimer. Should any part of the report be altered or tampered with in any way, then this will invalidate the entire document.

1.5 Documents Provided

1.5.1 I was provided with the following documents by the client Mr Benbow via e-mail:

Drawing Number	Drawing Title	Date
001	Site location plan	Feb 22
002	Existing plan	Jan 22
003	Proposed plan	Jan 22
004	Existing building	Feb 22
005	Proposed external garden structure	Feb 22

1.6 Plans Supplied Supporting this Report

1.6.1 The following plans were produced and supplied to accompany this report:

Drawing Number	Drawing Title	Date
EA-2022-129 (TCP)	Tree Constraints Plan	25/10/2022
EA-2022-129 (TPP)	Tree Protection Plan	25/10/2022

2 SITE DESCRIPTION

2.1 Location and Surroundings

The site is situated within the West Town area of Hayling Island within an area that is a mix of residential and retail. The site is bordered to the north and west by residential properties while to the south and east are the public highways.

2.2 Current Use

The site is currently occupied by a large public house / restaurant. The building is positioned at the south west corner of the site with parking to the north and east. There is a large patio area to the south of the main building.

2.3 Access

Access to the site is from the east off the A3023.

2.4 Levels

I have not been provided with any information on levels but in general the site appears to be relatively flat with no abrupt level changes.

2.5 Geology

I have not been provided with any information on soil type or modified plasticity index at this time.

2.6 The Proposal

The proposal is to install a small glazed structure within the existing patio area. There will be some minor alterations to the patio itself but this will be in the main part unchanged.

3 ARBORICULTURAL IMPACT ASSESSMENT

4.1 The Impact of the Development on the Trees

4.1.1 Tree removals

The implementation of the development would not require the removal of any of the trees that are on or adjacent to the site. As such there will be no impact.

4.1.2 Foundations and footprint

The proposed glazed structure sits well clear of the RPAs of all of the trees that are the subject of this report. As such there will be no impact from the installation of foundations or any other ground fixings.

There will also be some minor changes to the position of doorways in various places but these will be well clear of the RPAs of all trees. As such there will be no impact.

Proposed timber booths will also sit clear of the RPAs of all trees.

4.1.3 Drives, parking areas and pathways

The existing carpark area is to remain unchanged and so there will be no impact. Paved areas that are made good around the proposed glazed structure are 16+m from the closest trees with those same trees having RPAs of no more than 3.3m. As such there will be no impact.

There will be some minor changes to the south east corner of the patio area but these will not directly impact on the RPAs of any of the trees that are on or adjacent to the site. The closest trees to this area are T1 and T6 and so these trees will be protected by tree protection barriers during construction.

4.1.4 Services

I am advised by the architect that all gutters, downpipes and the proposed aco-drain along the front edge of the glazed structure will connect to the existing storm water system. As such there will be no impact.

4.1.5 Tree pruning

No pruning works are required to implement the development.

4.1.6 Damage to root systems

The trees will be protected by the installation of tree protection barriers in positions as detailed on the Tree Protection Plan. These will only be required near T1 and T6 as all other trees are situated well clear of the build and installing barriers around all RPAs will significantly reduce the amount of parking available.

4.1.7 Damage to above ground parts of the tree

The trees will be protected by the installation of tree protection barriers in positions as detailed on the Tree Protection Plan. These will only be required near T1 and T6 as all other trees are situated well clear of the build and installing barriers around all RPAs will significantly reduce the amount of parking available.

4.1.8 Pressure for future tree removal

Trees are well clear of the proposed structure and so there will be no increase in pressure for tree removal.

4.1.9 Storage and mixing of heavy and toxic materials

There is sufficient space for the storage and mixing of materials as identified on the Tree Protection Plan.

4.1.10 Space for future tree development

All trees are well clear of the proposed structure and so there will be no limitation on future growth from the development.

4.1.11 Demolition

No demolition works are required.

4.2 The Impact of the Trees on the Development

4.2.1 Potential for direct damage

All buildings should be sufficiently distant from retained trees to make direct damage unlikely as long as they are engineered appropriately.

Any new tree planting will need to be positioned so as to avoid direct damage to any of the new structures.

4.2.2 Potential for indirect damage

I have not been provided with any detail on soil type or modified plasticity index.

4.2.3 Shading

Trees will not cast shade onto any part of the proposed glass structure and the casting of shade onto the patio area will not change. As such there will be no increase in the current impact.

4.2.4 Seasonal nuisance

There will be some leaf fall onto site during the autumn which will need to be considered as part of the properties garden maintenance. Gutters and downpipes could be fitted with leaf guards to mitigate further the impact but the risk of leaves falling into gutters is low due to the distance between the trees and structure.

4.2.5 Privacy and screening

All vegetative screening around the boundary will be retained and there may be some scope for additional tree planting if the council desires it. It is respectfully suggested that if additional tree planting is required then this should be secured through an appropriately worded planning condition.

4.3 Issues to be addressed by the Arboricultural Method Statement

4.3.1 An arboricultural method statement has been requested by the Local Planning Authority as part of the tree survey documentation. The following issues shall be addressed:

- i. Site construction access
- ii. Contractor's car parking.
- iii. Phasing of on-site operations.
- iv. Welfare facilities (requirement and siting)
- v. Storage and mixing areas.
- vi. Tree Protection (barriers and ground protection specification)
- vii. Tree Protection Plan (final version – if amendment is required)
- viii. Removal of materials, facilities, and protective measures for the final phase
- ix. Post construction tree works and landscaping.
- x. Monitoring

Appendices

1 TERMS AND DEFINITIONS

Access facilitation pruning

A one-off tree pruning operation, the nature and effects of which are without significant adverse impact on the tree(s) physiology or amenity value, which is directly necessary to provide access for operations on site.

Arboricultural Method Statement

A methodology for the implementation of any aspect of development that is in the RPA, or has the potential to result in loss or damage to a tree to be retained.

Arboriculturist

A person who has through relevant education, training and experience, gained expertise in the field of trees in relation to construction.

Competent Person

A person who has had training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.

Construction

A site-based operation with the potential to affect existing trees.

Construction Exclusion Zone

An area based on the RPA from which access is prohibited for the duration of the project.

Root Protection Area (RPA)

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.

Service

Any above- or below- ground structure or apparatus required for utility provision.

Stem

The principal above-ground structural component(s) of a tree that supports its branches.

Structure

Manufactured objects, such as a building, carriageway, path, wall, service run and built or excavated earthworks.

Tree Protection Plan

A scale drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.

2 AUTHORS QUALIFICATIONS AND EXPERIENCE

Qualifications:

Level 6 Diploma in Arboriculture (ABC)	2014
Technicians Certificate in Arboriculture (Merit)	2009
Lantra Accredited – Professional Tree Inspector	2006
NCH Arboriculture (Merit)	1998
City and Guilds (Phase 2) Amenity and Landscape Horticulture	1992
City and Guilds (Phase 1) Amenity Horticulture	1991

Experience:

Arboricultural Consultant. (Eden Arboriculture Ltd)	2013 – present
Local Authority Tree Officer. (Planning / Tree Preservation)	2010 – present
Local Authority Tree Officer. (Risk Management / Asset Management)	2005 – 2010
Chargehand Arborist	2002 – 2005
Arborist (Tree Surgeon)	1998 – 2002
Horticulturalist	1992 – 1997
Trainee Horticulturalist	1990 – 1992

Continuing Professional Development:

Tree risk and climate change seminar (MTOA)	2020
RootBridge™ CPD Event	2020
Excellence in Report Writing (Day 1 of CUBS Cert) Bond Solon	2019
Witness Box Training (Day 2 of CUBS Cert) Bond Solon	2019
Picus – Advanced Assessment Day – Sorbus	2019
A New Universal Understanding of Design in Nature and VTA Update (Claus Mattheck - Loughborough University)	2018
Day for Aspiring Registered Consultants (Arb Association)	2018
Risk Management Training (Arb Association)	2017
Assessment of Tree Forks (Arb Association)	2017
Investigative Procedures (Daniel Training Services)	2017
Trees People and the Built Environment (ICF)	2017
Quantified Tree Risk Assessment (QTRA)	2016
Visual Tree Assessment (QTRA)	2016
Tree Bracing (MTOA)	2015
Trees in Crisis (MTOA)	2014
Consulting Arborist Society – TPO Expert	2014
Mortgage report writing – Tree Life Training	2014
Consulting Arborist Society – Mortgage and Insurance Expert (AMIUG)	2013

Getting to Grips with Subsidence – Arboricultural Association	2013
Engaging Arboricultural Contractors	2006
Bats and Arboriculture – A Guide for Practitioners	2004
Location and Avoidance of Underground Apparatus	2003

Memberships:

In order to stay up to date with current issues, Chris is a member of the following organisations:

1. The Arboricultural Association – Professional Member.
2. The Consulting Arborists Society – Professional Member.
 - Accredited Tree Inspection Expert.
 - Accredited Mortgage and Insurance Expert. (AMIUG)
 - Accredited TPO Expert
3. The Institute of Chartered Foresters.
4. The Subsidence Forum

3 TREE SURVEY

Key to scientific names:

Common Names	Scientific Names
Birch	<i>Betula pendula</i>
Field Maple	<i>Acer campestre</i>
Holly	<i>Ilex aquifolium</i>
Hornbeam	<i>Carpinus betulus</i>
Lawsons Cypress	<i>Chamaecyparis lawsoniana</i>
Rowan	<i>Sorbus aucuparia</i>
Sycamore	<i>Acer pseudoplatanus</i>

Key to Life Stage description:

Young	Newly planted
Semi Mature	Large nursery stock which can be newly planted or still in the stages of establishment
Early Mature	Tree in the first third of its life cycle, growing quickly
Mature	Tree in the second third of its life cycle, maintaining its ultimate size with minimal annual growth
Over Mature	Tree in the final third of its life cycle, starting to show signs of decline

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T1	Birch	5	120	2.5	1	0	1	2-N	1.8	EM	Ivy on stem, reduced previously, very low quality tree	10+	C1	1.5	7
T2	Hornbeam	6	70; 70; 70	2	1	0	1	N/A	2	SM	This tree is suppressed, multi-stemmed, a very low quality tree	20+	C1	1.5	7
T3	Field Maple	6	80; 110; 110; 130; 170	3	2.5	2.5	1	1.6-N	2	EM	This low quality tree is multi-stemmed and has compression forks at the base with no separation	20+	C1	3.3	34
T4	Sycamore x 2	6.5	110; 140	2	2	3	1.5	2 - S	2	SM	Two low quality closely grown trees, topped previously, ivy is on the stem	20+	C1	2.1	14
T5	Sycamore	6.5	160	0.5	1	2	1.5	2 - S	2	SM	A low quality tree previously topped with ivy on the stem	20+	C1	1.8	10
T6	Sycamore	6.5	140; 160	3	2	3	2.5	2 -W	2	SM	A low quality tree previously topped with ivy on the stem, compression fork at the base with no separation	20+	C1	2.7	23
T7	Rowan	6	120; 150#	2.5	2.5	2#	2.5#	1.8 - N	2	EM	This is a low quality tree, the inspection was restricted by dense shrubs, compression fork at 1 metre not visible due to shrubs on south side, some dieback present	20+	C1	2.47	18
T8	Field Maple	6.5	120; 160; 80 x 3	3	3	3	2.5	0.5 - NW	1.8	EM	No significant defects	40+	B1	3	28
T9	Field Maple	7	110; 320; 200; 130; 150	4.5	4	4.5	4	0.5 - S	1.8	EM	No significant defects	40+	B1	5.4	92
T10	Field Maple	7	110; 130; 130; 160	2	4.5	3.5	3.5	0.5 - S	2	EM	No significant defects, compression forks at the base with no separation	40+	B1	2.4	18

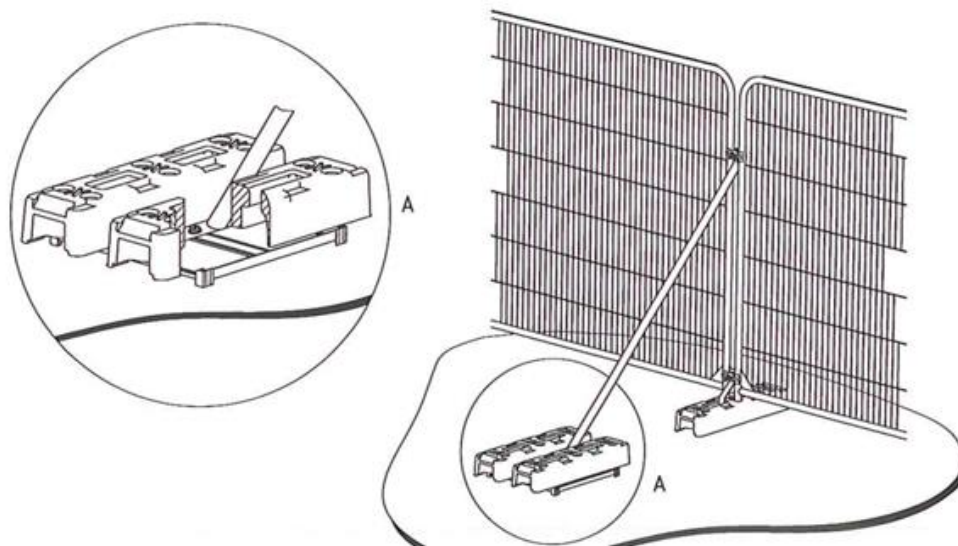
Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T11	Field Maple	8	430 below fork	6#	7	4.5	5	1.5 - W	2	EM	Pruning wounds at the base with no decay, canopy forms at 1.5 metres. no significant defects	40+	B1	5.1	81
T12	Holly	10	180; 210; 230	3.5	3.5#	3.5	3#	N/A	0	EM	This low quality tree is multi-stemmed and has no significant defects	40+	C1	4.2	55
T13	Field Maple	10	140; 250; 250; 250	5.5	6.5	6.5	6.5#	0.5- N& E	2	EM	This multi-stemmed tree has deadwood- low target, the canopy forms low, pruning wounds and bark damage, minor decay	40+	B1	5.4	92
T14	Field Maple	11	370	6	5.5	5.5#	5.5#	1.8 - S	1	EM	Deadwood - low target	40+	B1	4.5	64
T15	Lawsons Cypress	6.5	150; 150; 280	2.5	2.5	2.5	2	2.2 - SW	2	EM	This low quality tree has been previously topped	40+	C1	4.2	55
T16	Lawsons Cypress	7	280	2.5	2.5	2.5	2	2.2-E	1.5	EM	This low quality tree has been previously topped	40+	C1	3.3	34

4 TREE CATEGORISATION TABLE (BS5837:2012)

Table 1 Cascade chart for tree quality assessment

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

5 SPECIFICATION FOR TREE PROTECTION BARRIERS



Specification:

1. Two metre tall weld mesh panels secured on rubber or concrete feet.
2. Panels joined together using a minimum of two anti-tamper couplers secured in a way that they can only be removed from the inside.
3. Distance between the couplers should be at least 1m and uniform throughout fence.
4. Panels to be supported on the inside by stabiliser struts.

6 REFERENCES

1. Anon. **(2012)** *BS5837:2012. Trees in relation to design, demolition, and construction – recommendations*. British Standard Institute. London, UK.