Tree Care Consultancy
ARBORICULTURAL CONSULTANTS

Arboricultural Implication Assessment
Former Old Pack Horse PH
Highmoor Lane
Cleckheaton

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Prepared By:
Tree Care Consultancy
Mike Shackleton
Clifton Villa
37 Hall Cliffe Road
Horbury
Wakefield
West Yorkshire
WF4 6BY
Phone: 01924 270619 or 0113 2175175
Email: info@treecareconsultancy.co.uk

Prepared For:
Adamco Construction Ltd
Yew Tree House
195 Huddersfield Road
Liversedge
WF15 7PL

1. Introduction

1.1. Instruction and Brief

1.1.1. Tree Care Consultancy was commissioned by Adamco Construction Limited to prepare an Arboricultural Implication Assessment to accompany a planning application for the demolition of the former Public House and erection of 5No. detached dwellings at the above address. The report produced includes the following information:

- A tree survey, undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' – Recommendations;

- Tree Constraints Plan overlaying proposed site layout which highlights the potential development limitations the trees pose on site;

1.1.2. This report is based on site observations and information provided by Park Designed Architects. Conclusions have been made in light of the surveyors experience and qualifications.

1.1.3. This report is only concerned with trees in relation to construction and makes no attempt to provide a full safety inspection of the trees surveyed. It should not be seen as an alternative for a Tree Hazard Assessment which is specific to minimising the risk and liability associated with trees.

1.1.4. Climatic conditions including storms, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees do pose a risk and whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety. Although the risk should be managed to an acceptable level, no tree can be guaranteed as safe at all times.

1.1.5. This report is based on Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1991). V.T.A is a ground level visual assessment of a tree, which is carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site. The survey is compiled in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations with Root Protection Areas (RPA's) based upon section 4.6 of the document.

1.2. Site Visit

1.2.1. The survey was undertaken by Steve Waterson on 29 December 2018. On the day of the survey the weather conditions were sunny and dry with no visibility constraints.

1.2.2. Measurements were calculated using necessary instruments or estimated where appropriate. No climbing inspections or decay detection analysis was undertaken.

1.2.3. Tree survey data was recorded and the trees were graded using table 1 of BS5837. This information has been included within the tree schedule at Appendix 1. An explanation of the tree schedule format is also included within the Appendix.

1.2.4. This survey should be read in conjunction with the Tree Constraint Plan (TCP) which has been prepared by overlaying tree survey data onto the Proposed Site Plan. The author has relied on the accuracy of the drawings in the production of this report.

1.3. Site & Tree Description

1.3.1. The former Public House stands at the junction of Highmoor Lane with Halifax Road. The land surrounding the former Public House chiefly consists of a tarmacadum car park and hard landscape features.

1.3.2. The site is situated within a semi rural location towards the edge of the settlement.

1.3.3. T1 to T7 are located a few metres beyond the rear site boundary and consist of early mature Lime and Sycamore together with a mature Birch. A Sycamore T8 is also just off site adjacent to the southernmost corner of the site.

1.3.4. Tree cover within the neighbourhood is moderate in terms of numbers and species mix, being defined by the prevailing land use, local infrastructure and landscape treatment.

1.4. Tree Status

1.4.1. It is understood the trees covered by this report are subject of a Tree Preservation Order (TPO). In the case of trees that are subject of TPO, Conservation Area controls or planning application procedures it is essential the Local Authority's advice is sought and where necessary consent obtained before undertaking any tree removal or pruning operations.

1.5. Soil Assessment

1.5.1. No soil testing was undertaken and no soil information was provided for the author.

2. Tree Quality Assessment

2.1.1. As highlighted in table 1 below, the tree survey includes 8No. individual trees all of which are identified as retention category 'B' material.

Table 1:

Category	Category Description	Tree Numbers
'A'	Trees of high quality, with life expectancy in excess of 40 years	None
'B'	Trees of moderate quality, with life expectancy in excess of 20 years	8No. individual trees
'C'	Trees of low quality with life expectancy in excess of 10 years or young trees	None
'U'	Seriously defective trees that cannot be retained in present context for longer than 10 years	None
Total number of trees:		8No. individual trees

2.1.2. Generally, the Local Planning Authority is likely to accept the removal of trees in a poor condition or those with a minimal, safe, useful life expectancy. This usually includes category 'U' and 'C' trees. This presumption is also viewed reasonable where it accords with competent arboricultural management. However in this instance there is no requirement to undertake any tree removal.

3. Arboricultural Implication Assessment

3.1.1. The following section evaluates the proposed layout in relation to trees on site. Any tree and design conflicts are highlighted and possible remedial action recommended. The assessment is based on the surveyor's findings and drawings provided by the client's architect.

3.1.2. The scheme proposes the demolition of an existing Public House and erection of 5No. detached dwellings. Having had regard to previous guidance from the Local Authority the proposed dwellings have been sited to ensure there will be no significant conflict caused to the offsite tree cover.

3.2. Tree Work Necessary to Facilitate the Proposed Development

3.2.1. As demonstrated in Table 2 no tree removal will be required to complete the development.

Table 2:

Tree categories A, B, C & U	Trees to be retained and protected	Trees to be removed for development	Trees to be removed for arboricultural management reasons
'A'	Nil	Nil	Nil
'B'	T1, T2, T3, T4, T5, T6, T7, T8	Nil	Nil
'C'	Nil	Nil	Nil
'U'	Nil	Nil	Nil

3.3. Below Ground Constraints

3.3.1. The area of roots that need to be protected around a tree to try to ensure it does not suffer damage during the construction process is called the Root Protection Area (RPA).

3.3.2. As recommended in BS5837 the RPAs have been plotted onto the Tree Constraints Plan (TCP) and Proposed Site Plan taking full account of the surrounding topographical factors, tree condition and the probable root disposition.

3.3.3. It will be seen the proposed siting of dwellings does not in itself encroach within the RPAs of any retained trees.

3.3.4. The proposed drive to serve plot 1 will need to be constructed across a small section of verge fronting Highmoor Lane. This will encroach to a minor extent within the RPA of T8. As such it is recommended that the incorporation of a "minimal dig methodology geogrid system" will provide scope to retain this tree, without causing any demonstrable harm to tree health.

3.3.5. Elsewhere within the site there will be a requirement to demolish existing structures and remove existing hard surfacing before replenishing the proposed gardens with topsoil. More particularly this will involve demolishing a garage within the prescribed RPA of T7 and stripping away hard surfacing from within the RPA's of trees T1 to T7. It is suggested this is a matter that can be addressed by the imposition of a pre commencement Planning Condition requiring the prior submission and approval of an Arboricultural Method Statement.

3.4. Above Ground Constraints

3.4.1. Retained trees can be expected to achieve their overall dimensions. The expected future growth of the retained trees is not considered to cause any major conflicts with the proposed future use of the site.

3.4.2. Any necessary pruning works should be carried out in accordance with BS3998:2010 – 'Recommendations for Tree Work'.

3.5. Tree Protection

3.5.1. A scheme of tree protection will be established prior to the commencement of any site works e.g. before any demolition takes place and materials are brought on site. An agreed scheme will safeguard retained trees for the duration of demolition and construction work.

3.5.2. It is presumed the positioning and implementation of tree protection is a matter the Local Planning Authority would be agreeable to conditioning as part of a detailed planning permission.

3.6. Material Storage

3.6.1. No material storage or plant movement will be required other than within the dedicated site compound and Construction Exclusion Zone.

3.7. Services

3.7.1. No new services or soak-a-ways shall be sited or constructed within the RPA of any retained tree. However should it become necessary these must be installed using techniques and methods described at section 4.1 of the current edition of the National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (www.njug.org.uk) or if this is not practicable, trenches are to be opened by compressed air excavation tools and not mechanically dug.

3.8. Soft Landscaping

3.8.1. With regard to additional planting scope exists within the development context to provide planting to the site frontage that will combine with retained trees to compliment the proposed development and wider landscape. The desired planting would help vary the age and species of tree present, providing for continuity of tree cover, to the benefit of visual amenity. I would presume this is a matter the Local Planning Authority would be agreeable to conditioning as part of a planning permission.

4. Conclusions

4.1.1. From the tree survey findings, comments and observations, it will be seen the proposal does not require any tree removal in order to undertake development, ensuring the mature treescape is retained. Equally important the proposal provides an opportunity to carry out additional landscaping to the site frontage that will serve to enhance visual amenity and biodiversity for the enjoyment of future generations.

4.1.2. The protection of trees and their subsequent health and future potential is totally dependent upon all persons operating within the site. Communications are vitally important to ensure that all parties understand the reason for tree protection and its continued existence. Providing all necessary tree protection works are undertaken, retained trees and development alike will satisfactorily coexist.

4.1.3. It is hoped that this report and recommendations provides all necessary information, however should there be any queries or should clarification of any points be required, please contact the report author.

5. Appendices (Non Paginated)

Appendix 1 – Explanation of Survey Details

Tree Id- Each tree/group has been given a unique number, which coincides with the drawings located in appendix 3.

Species & botanical name- where identifiable the full botanical name has been given. Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m) - measured approximately to the nearest 1m. If height issues are critical, measurements can be collected accurately using optical instruments.

No of stems- the number of separate stems each individual tree has.

Stem Dia @1.5m (mm) - the diameter of the given tree at 1.5m above soil level, (on sloping ground taken on the up-slope side of the tree base). Where the tree is multi-stemmed measurements will be record for each stem.

Spread- indicates the crown radius from the base of tree in four compass directions, recorded to the nearest metre.

Crown height + direction (m) - recorded as the first significant branch and direction of growth.

Life stage- described as young, semi-mature, early-mature, mature or over-mature.

Physiological condition (P) - an assessment of the trees health. Considers vitality, die back and the presence of disease. Described as Good = no significant health problems Fair = symptoms of ill health that can be remediated Poor = significant ill health.

Structural condition (S) - an assessment of the trees structural condition. Described as Good = no significant defects Fair = significant defects that can be remediated Poor = significant defects no remedy.

Observations – negative and positive- narrative comments on general condition, significant defects and overall appearance (e.g. the presence of any decay).

Preliminary management recommendations- e.g. requires pruning or further investigation of suspected defects is needed.

Life expectancy- preliminary management recommendations, e.g. requires pruning or further investigation of suspected defects is needed.

Retention Category- Each tree/group is identified with a retention category in accordance with BS5837 (an in depth explanation is provided on the following page)

RPA radius (m) - minimum area in metres which should be left undisturbed around each retained tree.

Appendix 2 – Cascade Chart for Tree Quality Assessment (Extract BS5837)

Category and definition	Criteria (including subcategories where appropriate)	Identification on Plan
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve	DARK RED
TREES TO BE CONSIDERED FOR RETENTION		

Category and definition	Criteria – Subcategories			Identification on Plan
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Trees of a 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 essential components of groups, or of 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)	LIGHT GREEN
Category B **Those of moderate quality** with and 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 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	MID BLUE

Appendix 3- Tree Schedule

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem Dia @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T1	Lime, *Tilia platyphyllos*	13	1	450	6	5	5	2	2-e	Early-mature	S= Good, P= Good. Ivy restricted inspection. A tree of good form. Contains no major defects though minor snags, dead wood and basal epicormic growth present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	5.4
T2	Lime, *Tilia platyphyllos*	13	1	360	6	3	6	6	3-w	Early-mature	S= Good, P= Good. A tree of good form. Contains no major defects though minor snags, dead wood and basal epicormic growth present.	No work required.	20 to 40 yrs	B2	4.3
T3	Sycamore, *Acer pseudoplatanus*	13	1	360	3	5	3	5	4 all round	Early-mature	S= Good, P= Good. A tree of good form. Contains no major defects though minor snags, dead wood and basal epicormic growth present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	4.3
T4	Sycamore, *Acer pseudoplatanus*	12	1	440	4	5	3	5	4 all round	Early-mature	S= Good, P= Good. A tree of good form. Contains no major defects though minor snags and dead wood present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	5.3

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem Dia @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T5	Sycamore, *Acer pseudoplatanus*	13	1	550	5	4	5	5	4 all round	Early-mature	S= Good, P= Good. A tree of good form. Contains no major defects though minor snags, dead wood and basal epicormic growth present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	6.6
T6	Lime, *Tilia platyphyllos*	12	1	380	4	4	5	5	2 all round	Early-mature	S= Good, P= Good. A tree of good form. Contains no major defects though minor snags, dead wood and basal epicormic growth present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	4.6
T7	Silver Birch, *Betula pendula*	12	1	500	4	5	5	5	3 all round	Mature	S= Good, P= Good. A tree of reasonable form. Secondary leader present at 1.7m height. Contains no major defects though minor snags and dead wood are present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	6
T8	Sycamore, *Acer pseudoplatanus*	13	1	550	5	6	6	4	5 all round	Early-mature	S= Good, P= Good. A tree of good form. Contains no major defects though minor snags and dead wood are present.	Retain and crown lift to achieve 4 metres ground clearance.	20 to 40 yrs	B2	6.6

T1 B
T2 B
T3 B
T4 B
T5 B
T6 B
T7 B
T8 B

KEY

Crown Spread

Root Protection Area

Category 'A'

Category 'B'

Category 'C'

Category 'U'

0 40m

Tree Care Consultancy
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Tree Constraints Plan

Former Pack Horse Public House, Cleckheaton

SCALE : 1 : 500 @ A3

DATE : 05/12/2018

N

MAP FILENAME : TCC1160-1

Tree Care Consultancy Ltd, Clifton Villa, 37 Hall Cliffe Drive
Horbury, Wakefield, West Yorkshire, WF4 6BY
Phone: 01924 270619, Email: info@treecareconsultancy.co.uk