

Pre-Development Arboricultural Impact Assessment, Method Statement & Planting Plan

Site:

5 Knowl Park Gardens, Mirfield, WF14 9FF

Client:

S. Mortimer

Date:

18 June 2021

Summary

Planning consent is being sought for the construction of a detached annex building at 5 Knowl Park Gardens, Mirfield, WF14 9FF. Trees are found within and adjacent to the proposed development which could be influenced by it if not fully considered.

This report is compiled in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

Details for 11 trees were recorded in 2016 and re-appraised in February and June 2021.

A Tree Constraints Plan in Appendix A shows the current site, its tree locations, their quality, canopy spread and root protection areas.

An Arboricultural Impact Plan, also included in Appendix A shows the current site, its tree locations, their quality, canopy spread, root protection area and the area of proposed development.

One Category C Sycamore tree (numbered here as tree 1.10) will require removal in order to enable the development.

This tree was graded as Category C in 2016 prior to Knowl Park Gardens development due to its sub optimal canopy condition at that time – smaller leaf than average, less leaf numbers than average and some twig dieback consistent with a Sycamore in early and irreversible decline. Table 1 in BS5837 suggests a Category C tree is one with an estimated remaining life expectancy of at least 10 years, but not 20 years. The June 2021 inspection indicated no improvement in canopy condition, if anything a slight decline with further twig dieback. Some pictures of the June 2021 inspection are provided below.

As tree 1.10 is in decline, it is considered that it should not be considered as a constraint to development.

A Tree Protection Plan is included in Appendix A showing the location of temporary ground and tree protection fencing which should be installed prior to the construction of the proposed annex. Methodology on these temporary protection measures is included in section 7 below.

A Planting Plan is also included in Appendix A showing the approximate locations of two trees to be planted and maintained as part of the development to ensure continuity of tree cover.

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1. Introduction

1.1 Purpose of the Report

Planning consent is being sought for the construction of a detached annex building at 5 Knowl Park Gardens, Mirfield, WF14 9FF. Trees are found within and adjacent to the proposed development which could be influenced by it if not fully considered.

Astin Homes provided Aire Valley Tree Consultancy Ltd with a plan showing on-site trees and highlighting the areas of the site which were proposed for development.

S. Mortimer instructed Aire Valley Tree Consultancy Ltd to undertake a pre-development tree survey to British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

This report will include the following information:

1. Results from a tree survey, undertaken in accordance with *British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations*
2. An appraisal of the trees located within the influencing distances and their possible constraints to the development
3. An Arboricultural Impact Assessment of the development and recommendations for tree retention, pruning and removal
4. Provide a methodology to ensure the health and longevity of retained trees, informing client, contractor and planners of the requirements to protect retained trees

1.2 Terms of Reference

Instructions were given by S. Mortimer to visit the site and prepare the findings in a report. The report should be read in conjunction with the Tree Constraints, Arboricultural Impact, Tree Protection & Planting Plans located in Appendix A.

The following documents were provided by Astin Homes:

- Current site (topographic based), proposed site plan and Design & Access Statement

1.3 Method of Inspection

The inspection of the trees was undertaken at ground level using visual assessment (VTA) of the trees canopy, stem and basal area, based on methodology devised by Mattheck (1998). No diagnosis tools were used in the survey. The survey is compiled in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* (hereafter BS5837). Root Protection Areas (RPAs) are based upon equations taken from section 4.6 of BS5837.

1.4 Qualifications and Experience

This report is based on the author's site observations and the provided information. Conclusions have been made in light of his experience and qualifications. A list of the authors experience and qualifications in arboriculture are detailed in Appendix B. The client may choose to accept or disregard the recommendations made in this report or seek additional advice.

1.5 Trees Subject to Statutory Controls

Before authorising any works checks with the Local Planning Authority (LPA) should be completed. Statutory permission may be required before any work can take place. It is a criminal offence to cut down, top, lop, uproot, wilfully damage or destroy any tree covered by a Tree Preservation Order, within a Conservation Area or subject to planning conditions unless the LPA has specifically permitted the work. Roots have as much protection as branches.

It is understood that the surveyed trees are the subject of a Tree Preservation Order – TPO No. 23 (1992).

2.0 Caveats and Limitations

2.1 Scope of Survey & Report

This report is concerned only with trees in relation to construction. This report makes no attempt to provide a full health and 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. Potentially/obviously hazardous trees will be highlighted and appropriate recommendations made only where seen and when urgent action is required in the interests of public safety.

Any observations made with regards to the condition of built structures are from a layperson's view. No assessment of the potential influence of trees, upon buildings or other structures resulting from the effects of trees upon shrinkable load-bearing soils has been made.

2.2 Change in Weather Conditions

The content of this report may become invalidated if a change of circumstance affecting the trees arises as a result of unusual weather conditions. Particularly, but not limited to extreme storms and high winds.

2.3 Change of Soil Conditions

Structural or chemical soil disruption around the trees may invalidate the findings in this report, especially where there is significant damage to the rooting area of the trees not following recommendations in BS5837 or National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees).

2.4 Investigative Method Limitations and Extent of Investigation

The trees in question were surveyed using non-invasive methods. Recommendations regarding internal cavities and/or internal decay cannot be made from this report without further inspection. Chemical analysis of the soil was not undertaken. Comments made upon the structure of the tree are based upon inspection from ground level.

Trees were only viewed from within the site. This has limited the extent to which a full appraisal can be made. It is however considered adequate for the process of tree categorisation to inform the BS 5837 process.

2.5 Force Majeure

The contents of this survey may become invalidated by any 'Force Majeure' such as significant natural or man-made disasters out of the control of any specific party.

2.6 Report Manipulation

The report is issued for the purposes of the instructing client in the form it is given and therefore no liability is accepted to any other party where reproduction, manipulation or reliance upon any incorrect representation of this report has been undertaken.

2.7 Tree Ownership

Work recommendations given below do not override the need to establish ownership and if necessary obtain permission where required.

3.0 Survey Details & Brief Site Description

3.1 Survey Details:

- A tree survey took place in 2016, the trees were re-inspected in 2021
- On the day of inspection and re-inspection the weather conditions were dry, with no visibility constraints
- Horizontal and vertical measurements were taken using a laser rangefinder. Estimations were made where access could not be gained or vegetation prevented accurate recordings
- Tree locations were plotted on the provided topographical survey and additional annotations included as a desk top operation

3.2 Tree Observations & Categorisation

Trees were visually assessed and all relevant information recorded on site. Trees were graded on their quality and remaining life expectancy. Section 4.5.2 of BS 5837 states *'The purpose of the tree categorisation method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring'*.

There are four retention category's, U, A, B and C, with sub category's 1, 2 & 3 to reflect arboricultural, landscape or cultural values respectively. The category colours as given below are represented on all maps and plans to aid removal/retention and site design.

- **Category U – Trees in such poor** condition that they cannot realistically be retained in the context of the current land use for greater than 10 years.
- **Category A – Trees of high quality** with an estimated life expectancy of at least 40 years.
- **Category B – Trees of moderate** quality with an estimated life expectancy of at least 20 years.
- **Category C – Trees of low** quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter of less than 150mm.

Category U trees are those that should be removed in the short term and should not be considered further in the planning process unless there is ecological/habitat value. All other category trees are material considerations in the planning process.

3.3 Identification and Location of the Trees

The report should be read in conjunction with the Plans located in Appendix A.

3.4 Site Use and Description

The site is a roughly rectangular plot with the long axis running NW/SE. It is wider to its NW end. A detached dwelling is found centrally with gardens to the NW and SE. Trees are found intermittently on the SW boundary.

3.5 Topography

The site is reasonably level.

4.0 Tree Appraisal

4.1 Number of Trees, Age Mix & Species Diversity

- Details were recorded for 11 individual trees
- Most trees were early mature in age
- Species included Lime, Sycamore, Southern Beech, Oak, Hawthorn and Holly

4.2 Tree Categorisation

The breakdown of quantities for each category of tree recorded is shown below in Table 1

Table 1- Tree retention categories

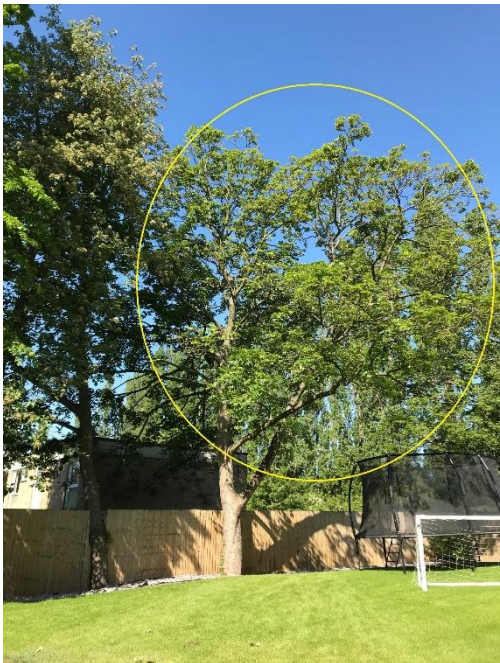
Retention Category	Description	Quantity	%
A	High quality and value	1	9 %
B	Moderate quality and value	6	55 %
C	Low quality and value	4	36 %
U	Unsuitable for retention	0	0

4.3 Categorisation of Tree 1.10 – Sycamore as Category C

This tree was graded as Category C in 2016 prior to Knowl Park Gardens development due to its sub optimal canopy condition at that time – smaller leaf than average, less leaf numbers than average and some twig dieback consistent with a Sycamore in early and irreversible decline.

Table 1 in BS5837 suggests a Category C tree is one with an estimated remaining life expectancy of at least 10 years, but not 20 years.

The June 2021 inspection indicated no improvement in canopy condition, if anything a slight decline with further twig dieback. Some pictures of the June 2021 inspection are provided below. Some areas of canopy had flushed later than others, areas of canopy were of differing canopy/leaf density also indicative of overall general decline.

<p>Tree 1.10 circled viewed from the east exhibiting a 'sparse canopy'</p>	<p>Tip dieback and small leaves to the west</p>
	
	<p>Tip dieback and small leaves/late flushing to the east</p> 

5.0 Tree Constraints

5.1 Above Ground Constraints – Tree Trunk and Canopy

The trees current canopy spread is marked on plans to aid site design. Consideration needs to be made to the following:

- Mature height and spread
- Species characteristics such as evergreen or deciduous, honeydew (sap) drip, fruit fall
- Shade potential
- Potential incompatibilities between layout and trees proposed for retention
- Working/access space needed for construction phase
- Protection of tree canopies from machinery impact or scaffold clearance
- Infrastructure requirements- easements, lighting, solar collectors, CCTV

5.2 Below Ground Constraints – Root Protection Area

BS 5837 states a '*root protection area (RPA) is 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*'.

For single stems the RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter. The RPA is plotted on plans as a circle, but where pre-existing site conditions are considered to have altered the rooting area a polygon will be produced.

The default position is that proposed structures should be located outside the RPA's of retained trees. If operations are proposed within the RPA, the arboriculturist should:

- Demonstrate that the tree can remain viable and that the area lost to encroachment can be compensated for elsewhere, contiguous with its RPA
- Propose a series of mitigation measures to improve the soil environment that is used by the tree for growth

If utility operations within the RPA are proposed consideration should be given to NJUG4 (National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees)).

5.3 Arboricultural Impact Plan

A plan accompanying this report (found in Appendix A) has highlighted the trees retention category, canopy extent and their current below ground constraints (RPA) superimposed upon the proposed site design. This is used to highlight any possible conflicts/impacts between tree constraints and site design.

6.0 Arboricultural Impact Assessment

6.1 Development Proposal

The proposal is the construction of a detached annex in a current garden area.

6.2 Arboricultural Impact of the Development

Table 2- Arboricultural Impact of the Development

Impact / work recommended		Retention Category			
		A	B	C	U
1	Trees to be removed to enable development	-	-	1.10	-
2	Trees to be pruned for site access or post development clearance	-	-	-	-

6.3 Above Ground Tree Constraints – Tree Trunk and Canopy

Table 2, above highlights the arboricultural impact of the proposed development

- The trunk of a tree that is found within the footprint of the proposed - which requires removal in order to enable the development, is listed in Row 1, of Table 2 above
- No trees need to be pruned in order to enable the development, retained trees may require the pruning of lateral branches within future decades. This can be controlled through the TPO application and decision process to ensure the health, longevity and amenity of the retained trees
- Shade – the annex has been designed so only small windows are to the south east and south west sides which would see some tree shade from retained trees 1.8 and 1.9. The natural light would be received from the large windows and doors to the north east. As such tree shade cast will not be a significant issue
- Sycamore and Oak, adjacent retained trees to the annex have robust leaves and seed which means the annex and immediate areas may require cleaning/clearing at more regular intervals than elsewhere. Sycamore also deposit a sticky substance due to the action of aphids, again windows and footpaths may require more additional cleaning than elsewhere. The current occupiers of 5 Knowl Park Gardens already deal with this issue and accept both the constraints and benefits their trees provide

6.4 Below Ground Tree Constraints – Root Protection Areas (RPA's)

- The trunk of a tree that is found within the footprint of the proposed - which requires removal in order to enable the development, is listed in Row 1, of Table 2 above
- Retained trees 1.8 and 1.9 have alternative rooting areas to the east
- The only utility required would be electricity, routed from the main dwelling to the north west, outside the RPA of retained trees
- The rooting areas of retained trees are not directly impacted by the build footprint, however there is potential for RPA's to be degraded by use of machinery so temporary ground protection and tree protective fencing should be installed prior to the build (and retained through the build until completion) in order to protect it from compaction and contamination – see section 7 below

6.5 Construction Access & Storage of Materials

Construction plant and machinery will access the site from the current road to the north east, off Knowl Park Gardens. This access will not be over the RPA of retained trees.

Storage is available to the north east of the proposed annex, outside retained trees RPA's.

As such no planned plant and machinery movements will enter the RPA's of retained trees. However, tree protective fencing should be installed to prevent any unplanned incursion into the RPA's of retained trees.

6.6 Impact on Amenity

The tree proposed for removal can only be seen from directly to its east, on Knowl Park Gardens, it does not have a high visual presence in the immediate landscape which would alter the amenity of the area. Adjacent trees to the north west and south east are taller, screening the tree proposed for removal from wider views.

Therefore the tree to be removed will not have a significant detrimental effect on the amenity of the area. The site has suitable space on its south eastern frontage for a tree planting scheme to ensure suitable long-lived specimens have the opportunity to establish.

6.7 Proposed Planting to Mitigate for Tree Loss

A planting plan has been included in Appendix A. The TPO that covers the recorded trees can be amended and updated to include these new plantings by the local planning authority to ensure their long term retention over and above a reduced planning condition time frame.

6.8 Indirect Damage Potential

Section 4.3 of BS 5837 states that a soil assessment should be undertaken by a competent person to determine 'shrinkability' or volume change. I am not a soil scientist and therefore recommend a specialist in this field is consulted before any foundation design stage.

6.9 Tree Protection – Fence

Retained trees will have to be protected from direct damage by machinery impact or storage of materials and compaction of rooting areas. Robust fences will have to be installed prior to any other onsite works. The timing and method can be found in section 7 below.

6.10 Tree Protection – Ground Protection

Techniques and products are available which allow surfacing or movement within the RPA's of retained trees without detriment to their longevity. See section 7 below.

6.11 Conclusions

- Details were recorded for 11 individual trees
- One tree will require removal to implement the development
- It is considered the tree for removal is a Category C tree due to its sub-optimal canopy condition
- The remaining trees will require protection by the installation of temporary ground protection and tree protective fencing
- It is considered the development can go ahead following recommendations in British Standard 5837 without significant detriment to retained trees
- Tree related operations should be appropriately timed, monitored and recorded to ensure the health and longevity of retained trees – see section 7 below
- A Planting Plan is included in Appendix A to ensure the perpetuity of tree cover

7.0 Arboricultural Method Statement

7.1 Project Arboriculturist

BS5837 recommends the appointment of a Project Arboriculturist to ensure that on and off-site trees are fully considered during the development process. Aire Valley Tree Consultancy Ltd, whose contact details are at the rear of this report can be instructed if required. Any tree related enquiry, no matter how minor should be directed to them. Consultation is often time well spent

7.2 Tree / Ground Protection – Generic Precautions

These general precautions **must** be followed within the RPAs of **retained** trees during the construction phase:

- No soil disturbance, including compaction
- No change in the soil level, by stripping or filling unless stated below
- No excavation, without prior discussion with the Project Arboriculturist and/or the Local Planning Authority
- No redirection of surface water runoff into or out of the RPA
- No temporary buildings, sheds, or offices, without prior discussion with the Project Arboriculturist and/or the Local Planning Authority
- No storage of materials or fuel
- No dumping of materials, whether into a skip or onto the ground
- No fires within 10m of the RPA or tree canopy, whichever is greater
- No refuelling of mechanical equipment
- No storage or mixing of cement
- No washing of cement mixers within or uphill of the RPA
- Follow the guidance contained within the National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2, 2007); www.njug.org.uk) when installing underground services inside or other excavation in the RPA of a tree.

7.3 Tree Work Recommendations

A tree work schedule is included in Appendix C in the 'Management' column.
Contractor vehicles and plant to only park outside retained trees RPA's.

7.4 Tree Work Standard - BS 3998:2010

All tree work should be carried out in accordance with BS 3998 2010 "Recommendations for tree work" by a competent, qualified arborist. They must also hold sufficient public/employees liability insurance.

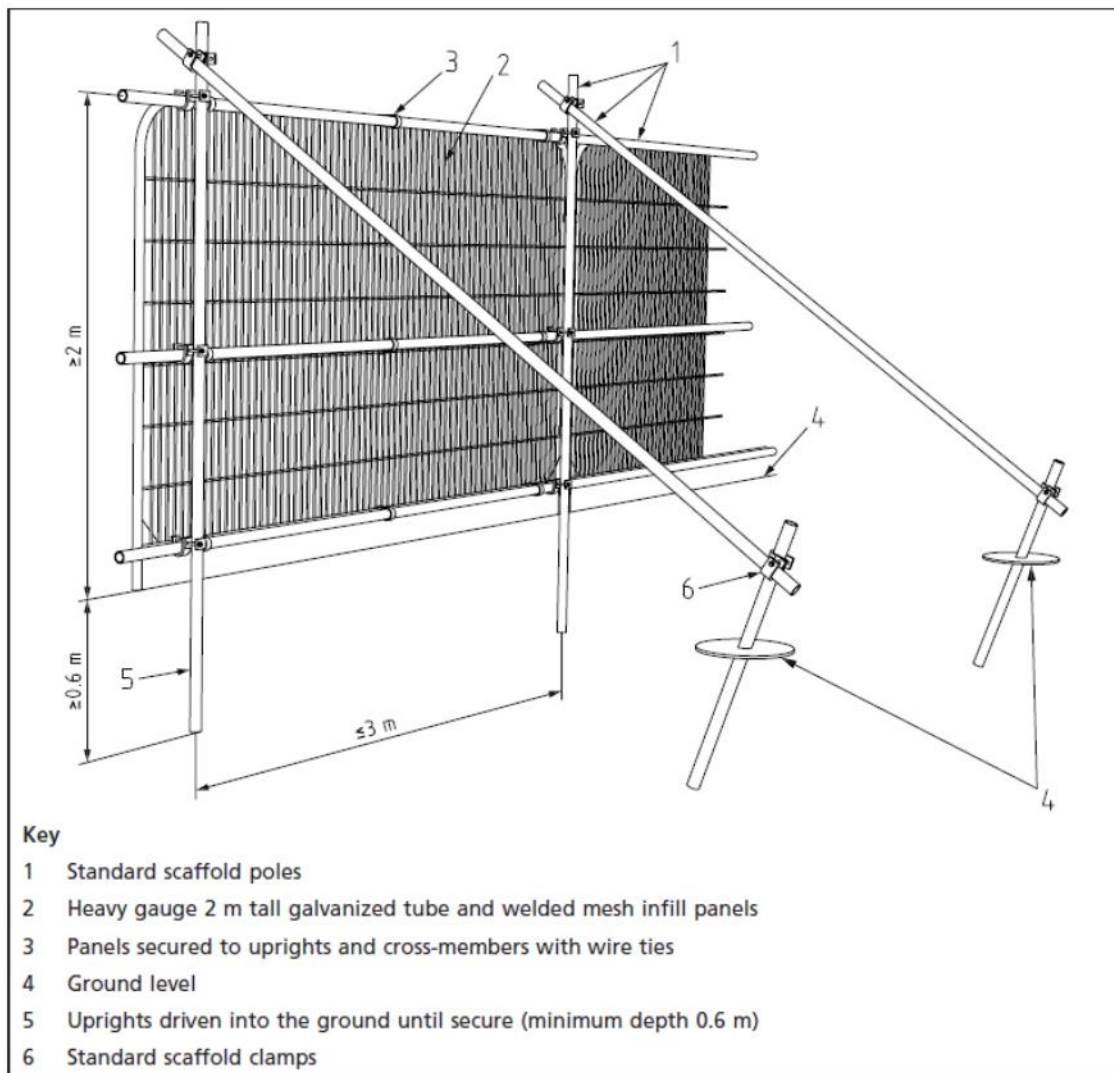
7.5 Bird & Bat Activity

Consideration should be made with regards to bird and bat activity. All bird's nests are protected when in use, bat roosts are protected whether in use or not. Bats are fully protected under schedule 5 of the Wildlife & Countryside Act 1981 and the Countryside and Rights of Way Act 2000.

7.6 Tree Protective Fencing

Protective fencing should be erected as shown on a Tree Protection Plan forming a 'Construction Exclusion Zone'.

Fencing will prevent construction activity that could cause damage to retained trees or their rooting areas. No plant, equipment or vehicles should operate within the protective fencing without suitable ground protection and agreement from the Project Arboriculturist or Local Planning Authority. The fencing must be robust enough to withstand impacts from machinery and plant equipment operating in the area. Paragraph 6.2.2 and Fig. 2 & 3 of BS5837 details the appropriate fencing specification. The appropriate fencing is shown below.



The protective fencing should be erected prior to any other development activity taking place and remain in place for the duration of the construction phase.

The picture below shows the required fencing specification used elsewhere as an example



This sign (below) must be laminated and securely fixed to the outside/site side of the Tree Protective Fence line every 6m. Replace when weathered or lost. Available as a pdf on request



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**

7.7 Temporary Ground Protection

Temporary Ground Protection should be installed as shown on the Tree Protection Plan at the same time as the Tree Protective Fencing.

BS 5837 recommends '*temporary ground protection should be capable of supporting any traffic entering the site without being distorted or causing compaction of underlying soil*'

BS 5837 suggests one of the following –

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2t, a proprietary, interlinked ground protection boards placed on top of a compression resistant layer (e.g. 150mm depth of woodchip) laid on a geotextile membrane;

c) for wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (engineer approved) designed with arboricultural input to accommodate the likely loading to which it will be subjected'

7.8 Proposed Planting

See Tree Planting Plan in Appendix A

2 x *Tilia cordata* / small leaved lime to be planted and maintained as per supplying nurseries recommendations

7.9 Order of Works

1. Seek planning consent and discharge any relevant conditions/alter/update as required
2. If planning consent given instruct Project Arboriculturist to oversee development
3. If planning consent given remove tree 1.10, grind stump
4. Install temporary Tree Protective Fencing & Ground Protection, Project Arboriculturist to inspect and inform local planning authority 7 days before work commences
5. Confirm local planning authority acceptance
6. Undertake groundworks and build
7. Remove Tree Protective Fencing & Ground Protection at end of development when all plant and materials off site
8. Plant replacement trees

Appendix A: Tree Constraints, Arboricultural Impact, Tree Protection & Tree Planting Plan

Tree Constraints Plan showing current site, tree locations, canopy spread, root protection areas and retention category

Arboricultural Impact Plan showing proposed development, tree locations, canopy spread, root protection, retention category and trees to be retained or removed

Tree Protection Plan showing proposed development, protection measures and location

Tree Planting Plan showing approximate locations of new tree planting locations and tree type/size

Appendix B: Authors Qualifications & Experience – Ross Cannon

1. Qualifications

In 2001 I was awarded a National Diploma in Urban Forestry.

In 2006 I was awarded the Arboricultural Associations Technicians Certificate.

In 2011 I became a Technical Member of the Arboricultural Association.

2. Experience

I have been working and studying within the field of arboriculture since 1999, first as a tree surgeon and latterly in an advisory capacity. Between 2001 and November 2007 I was a tree surgeon for a large local authority. Between November 2007, and December 2008 I worked as a Tree Surveyor and then Arboricultural Officer for Leeds City Council. This involved various large-scale tree condition and management surveys and carrying out detailed tree inspections. Between December 2008 and December 2011 I was a Trees & Woodlands Officer for the Yorkshire Dales National Park Authority administering tree preservation orders, trees in conservation areas and providing advice to the development control section on matters relating to trees in relation to proposed development. From December 2011 to present I have been undertaking independent tree consultancy services

3. Continuing professional development

I attend courses, conferences, seminars and workshops run by land management, forestry and arboricultural organisations, colleges and universities.

All information given in this report is based upon the experience of the author and backed up with relevant arboricultural knowledge available at the date of inspection

Appendix C: Tree Details

Tree Number: Each tree/group has been given a unique number, which coincides with the site plan located in Appendix A. Where instructed small mounted numbered metal ID tags will be applied to each tree surveyed.

Tree Type: Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m): This is measured approximately to the nearest 1m.

Stem Diam /DBH (mm): The Diameter at Breast Height 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 taken below the junction where possible.

RPA Radius: The radius and area around each tree in metres which must be prepared in order to give the necessary RPA.

Crown Spread: Describes the crown radius from the base of the tree in four compass directions, recorded to the nearest half meter.

Low Canopy Height & First Significant Branch and Direction: In m to aid management options

Age Class: Is described (or abbreviated) as newly planted, young, semi-mature, early mature, mature, or over mature.

Health: Physiological condition gives an assessment of the tree's health and vitality, die back and the presence of disease. It is described as **Good** – no significant health problems, **Fair** – Tree less than optimal condition, small buds/internodal distance, early decline or **Poor** = significant ill health/in decline.

Comment: Narrative comment on general tree condition, significant defects and overall appearance, for example presence of pathogens and structural condition, it is described as **Good** – no significant defects, **Fair** – significant defects that can be remediated or **Poor** – significant defects which cannot be remediated.

Management: Work recommended or required to implement the development or for good arboricultural practise.

Retention Category: Each tree/group is identified with a retention category in accordance with BS 5837,

Abbreviations: figures suffixed with a '#' indicate that the value is estimated rather than measured due to site constraints. All measurements in this survey/report should be considered estimates.

Tree Number	Tree Type	Height (m)	Stem Diameter (mm)	RPA Radius (m)	North (m)	South (m)	East (m)	West (m)	First Branch (m)	Age Class	Health	Structural & General Condition	Management	BS Category
1.1.	Norway maple	10	230	2.76	3.5	3.5	3.5	3.5	2.5	EM	G	G	None	B
1.2.	Holly	4	150	1.80	2	2	2	2	0	EM	G	G	None	B
1.3.	Hawthorn	7	100	1.20	2	3	2	2	2	EM	F	F	None	C
1.4.	Sycamore	13	300	3.60	1	6	4	5	3	EM	G	F	None	B
1.5.	Lime	17	500	6.00	5	6	5	6	0	EM	G	G	None	A
1.6.	Holly	2	80	0.96	1	1	1	1	0	EM	G	G	None	C
1.7.	S. Beech	13	220	2.64	3	3	3	3	4	EM	G	G	None	B
1.8.	S. Beech	7	100	1.20	5	5	5	5	0	Y	G	F	None	C
1.9.	Oak	13	320	3.84	3	6	4	6	5	EM	G	G	None	B
1.10.	Sycamore	12	500	6.00	7.5	6	6	6	2	M	F	G	If permission given remove to enable development	C
1.11.	Sycamore	13	600	7.20	7	6	6	6	3	M	F	G?	None	B

Appendix D: Trees in Design & Planning Process – Extracts from BS 5837: 2012

A copy of table B.1 from BS 5837 is found below. Trees whether subject to statutory protection or not are material considerations taken into account when dealing with planning applications. Table B.1 provides some advice to both developers and local planning authorities (LPA) on the appropriate amount of information required during the application process. Minimum detail includes information that is expected, additional information identifies further details that might be reasonable be sought by the LPA.

Table B.1 – Delivery of tree-related information into the planning system

Stage of process	Minimum detail	Additional information
Pre-application	Tree survey	Tree retention/removal plan (draft)
Planning application	Tree survey (in the absence of pre-application discussions) Tree retention/removal plan (finalised) Retained trees and RPA's shown on proposed layout Strategic hard and soft landscape design, including species and location of new planting Arboricultural impact assessment	Existing and proposed finished levels Tree protection plan Arboricultural method statement – heads of terms Details for all special engineering within the RPA and other relevant construction details
Reserved Matters/ Planning conditions	Alignment of utility apparatus (including drainage), where outside the RPA or where installed using a trenchless method. Dimensioned tree protection plan Arboricultural method statement – detailed Schedule of works to retained trees, e.g. access facilitation pruning Detailed hard and soft landscape design	Arboricultural site monitoring schedule Tree and landscape management plan Post-construction remedial works Landscape maintenance schedule

Appendix E: Authors Signature & Declaration

It is trusted that this report provides the necessary information for the client and LPA to make an informed decision regarding tree management on the site, but should any further advice be required please do not hesitate to contact the author.

Signed Friday, 18 June 2021

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