



Jack Pine Trees Ltd

ARBORICULTURAL IMPACT ASSESSMENT & ARBORICULTURAL METHOD STATEMENT

Proposed development: Installation of River Biss viewing platform.

Client: Wiltshire Wildlife Trust.

Site:
Stone Mill,
River Biss,
Trowbridge,
Wiltshire,
BA14 8AT.

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Summary

Jack Pine Trees Ltd were engaged by Mr Connor Stapleton-Goddard of Wiltshire Wildlife Trust to provide an Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) for the proposed development at Stone Mill, River Biss, Trowbridge, Wiltshire, BA14 8AT.

The proposed development is to install a viewing platform on the east bank of the River Biss adjacent to The Shires Shopping Centre, Trowbridge as detailed in planning application PL/2024/03221. This AIA provides a report and drawings required to support the AMS specified in Condition 3 of the planning approval and to demonstrate how the platform will be installed successfully within the existing constraints of the retained trees on this site.

The initial survey included the trees on both banks of the River Biss between Town Bridge and Cradle Bridge. However, for the purposes of this AIA and AMS only the trees on and adjacent to the Stone Mill site have been recorded including five additional trees, hedges and groups that were not included in the original survey.

The Tree Constraints Plan (TCP) identifies the tree's location and dimensions of their crown and the extent of the calculated Root Protection Area (RPA). The RPAs have been modified to reflect the site conditions and the constraints of the retaining walls on the rooting environment.

The new viewing platform is detailed in The Landmark Practice drawing number 3601-TLP-XX-XX-DR-L-40004 which shows the location of the platform and the piles that will support it. The platform is then plotted on the AIA drawing which demonstrates that the proposal is situated within the modified RPAs and crown spread of retained trees.

The trees should be protected as shown in the Tree Protection Plan (TPP) using ground protection and Heras® Fencing supported on the existing fence or rubber feet, as described in BS5837:2012 Trees in relation to design, demolition and construction. Recommendations. The TPP also details a potential site layout to facilitate the successful installation of the platform by accommodating construction activity and storage beyond the RPAs where possible.

The use of the car park within the site provides an impermeable mixing zone that prevents any concrete or washout water from draining or leaching into the ground in the RPAs of the retained trees, a lifting zone that prevents contact with T1 and a welfare and storage zone where the storage of materials can take place on a hard surface beyond the RPAs.

The AMS then provides the details of how the construction process will take place by combining the pile assessment and installation details with Pennys Site Specific Method Statement and Risk Assessment on a timeline with details of tree protection and arboricultural supervision. It also includes details of debris management and protection of the riverbank using Sedimats™.

The landscape scheme for this project will be delivered as detailed in PL/2024/03221.

1.0 Introduction.

1.1 Background Information.

I was instructed by Mr Connor Stapleton-Goddard, verbally and in writing, to undertake a pre-development arboricultural impact assessment to BS5837:2012 at Stone Mill, River Biss, Trowbridge, Wiltshire, BA14 8AT.

1.2 Scope of Survey.

- 1.2.1 Examine the principal trees associated with the site as highlighted on the supplied drawing.
- 1.2.2 Undertake a visual assessment of the condition of the trees.
- 1.2.3 Make recommendations for remedial work to enhance tree longevity and address any safety issues.
- 1.2.4 Estimate the potential future contribution that the trees may have to the site.
- 1.2.5 Provide nominal retention categories for trees with regard to possible future development of the site.
- 1.2.6 Provide an assessment of the impact on the trees and an arboricultural method statement for the installation of the viewing platform.

1.3 Limitations.

- 1.3.1 No documented information has been provided at the time of inspection regarding the following:

Historical circumstances and background relating to past planting and management of trees on the site.

Historic details of past land use, including mining.

The location and condition of drains and service runs.

The nature of soils and load bearing strata.

- 1.3.2 On consultation with the Wiltshire Council website, it was confirmed that the site is in Trowbridge Conservation Area.

- 1.3.3 Condition notes and recommendations are restricted to arboricultural considerations associated with tree condition and safety.

1.4 Inspection Notes.

- 1.4.1 The site was inspected by Stephen Clark BSc. (Hons) Env. Sci., MICFor, MArborA on December 4th, 2025. Weather conditions were overcast.
- 1.4.2 The initial survey was carried out by Hillside Trees on the trees situated in the River Biss corridor between Town Bridge and Cradle Bridge. However, this survey is restricted to the trees on and adjacent to the Stone Mill Viewing Platform site and includes some additional trees situated in the adjacent car park, as shown on the TCP. The survey was carried out commencing with the Swamp cypress tree T1 on the east riverbank and proceeds in a clockwise direction around the Stone Mill site concluding with the group of shrubs G5e.
- 1.4.3 When assessing the trees, the following factors have been taken into consideration – species, maturity, structural condition, risk posed to people, roads and buildings in the event of failure, and likely response to remedial works.
- 1.4.4 The trees were inspected from ground level only and all measurements are approximate.
- 1.4.5 Age of trees has been divided into juvenile, semi-mature, early mature, fully mature and over mature.
- 1.4.6 A nominal retention value has also been given to the trees based on landscape contribution, health, maturity and life expectancy:-

A -	High:-	Prominent landscape trees of good form and health with good long-term life expectancy. Rare, historically and/or ecologically important specimens. Contribution of at least 40 years. (Shaded green on plan).
B -	Moderate:-	Mature trees of reasonable health and form but requiring remedial work. Tree groups with high collective value. Contribution of at least 20 years. (Shaded blue on plan).
C -	Low:-	Trees that may be safely retained (with or without remedial work), but of no particular merit. Trees with low life expectancy. Young trees that may be replaced. Contribution of at least 10 years. (Shaded grey on plan).
U -	Remove:-	Dead, decayed, dying or dangerous trees. Contribution less than 10 years. (Shaded red on plan).

2.0 The Site.

- 2.1 The site consists of a stretch of the River Biss riverbank, the adjacent footpath and part of The Shires car park by Stone Mill, Trowbridge, and includes the trees, hedge and shrubs associated with it.
- 2.2 The development is to install a viewing platform on the east bank of the River Biss and upgrade a short section of the footpath.

3.0 The Trees.

- 3.1 The trees associated with the proposed development site are mainly early mature to mature landscape/ornamental trees. There are also self-sown trees, an ornamental hedge and a group of shrubs adjacent to the proposed development.
- 3.2 In general, the trees associated with this proposal are in a reasonable condition. Trees T1 – T5 are situated on the riverbank and will require crown lifting over the footpath and work area to accommodate access and the installation of the viewing platform.
- 3.3 Trees 5a, 5b and 5c may require minor remedial work to accommodate the tree protection fence (TPF) around them. The hedge H5d will need to be removed to accommodate the Hiab lifting the metal work into place, and the groups of shrubs on the riverbank G5e are to be removed to allow the viewing platform to be installed.

4.0 Discussion.

4.1 Context

- 4.1.1 This report is a preliminary arboricultural impact assessment written to British Standard 5837:2012 - Trees in relation to design, demolition and construction - Recommendations. At this stage it is intended to inform the design process and discussion in relation to the proposed development and its impact on the existing trees.
- 4.1.2 This report is intended to provide an AIA in relation to the proposed development and provide details of trees, hedge and shrubs not included in the original survey that will be impacted by the proposed development. The AIA will then provide the basis of the AMS and other arboriculture related details required to discharge condition 3 of planning application PL/2024/03221. As such the report aims to provide the requested information to the standards required and demonstrates that the potential conflicts or adverse impact between the retained trees and the proposed development have been designed out or mitigated through recognised construction methods and are in line with the relevant policies.

- 4.1.3 The main potential impact of the proposed development on the trees on this site is the removal of the shrubs G5e and the potential to damage tree roots in the RPAs of the retained trees T1 & T2 during the installation of the viewing platform.
- 4.1.4 There is also the requirement for some minor remedial pruning for trees T1 – T5c to raise their crowns to approximately 3m over the footpath and development site to allow access and the installation of the TPF. The hedge H5d will need to be reduced in height to allow the metal work to be lifted onto the development site.
- 4.1.5 The tree protection for trees T1 to G3 and trees T5a – T5c will be provided by runs of Heras® fencing as shown on the TPP. This will create a construction exclusion zone (CEZ) to prevent damage to the RPAs and tree stems during the construction phase.
- 4.1.6 The existing fence along the edge of the footpath and car park will provide protection to G3 – T5 and H5d while allowing access to the site and lifting from the car park.
- 4.1.7 The landscape scheme will be implemented in accordance with drawings 3601-TLP-XX-XX-D-L-30000 series and document 3601-TLP-XX-XX-SH-L-90006.

4.2 Above ground considerations

Affects of the development on or near the site

- 4.2.1 The group of shrubs G5e will be removed to facilitate the installation of the viewing platform.
- 4.2.2 The trees T1- T5c have low branches over the footpath and car park and is anticipated that minor crown lifting work will be required to allow the TPF to be installed and access to the site.

Pruning works to accommodate the development

- 4.2.3 To accommodate the proposed development the following remedial works will be required:
- T1 Swamp cypress - Crown lift to a height of approx. 3m over development site and adjacent footpath with 40-60mm pruning wounds.
 - T2 White willow – Reduce low laterals by approx. 1-2m with pruning wounds of 20-30mm, to provide 1m clearance from the fence and footpath and 3m clearance above the footpath.
 - T3a – Weeping willow – Crown lift to approx. 3m over adjacent footpath with pruning wounds of approx. 40-60mm.
 - G4 – Sycamores – Crown lift to 3m above footpath with pruning wounds of approx. 10-30mm.

- T5a – *Sorbus sp.* – Crown lift to approx. 3m by reducing low lateral limbs by approx. 0.5m with 10-20mm pruning wounds.
- H5d – Hedge – fell to ground level and remove.
- G5e – Shrub group – fell to ground level and remove.

4.3 Below ground considerations

- 4.3.1 The primary concern for the proposed development is the potential impact on the roots of T1, T2 and G3 during the installation of the viewing platform and the resurfacing of the footpath wearing layer.
- 4.3.2 The installation of the viewing platform should be prepared for removing the shrubs G5e and clearing the debris on the riverbank. The installation of Sedimats™ will take place to prevent debris entering the river, and the demolition of the fence and retaining wall will take place. All waste materials will be segregated and disposed of following the site waste management protocols (see Penny's construction method statement). It will be determined whether ground protection will be required to support the mini excavator during the exploration of the concrete retaining wall and the excavation for the concrete piles.
- 4.3.3 The installation of the piles will require access for the pile driver and a determination of whether pre-made piles are used or whether they are cast on site.
- 4.3.4 An impermeable mixing area should be created to protect the RPAs from concrete or washout water draining or leaching into the soil or drains. The storage of material should take place on hard surfaces in the car park to prevent compaction occurring in the RPAs.

4.4 Access

- 4.4.1 Access to the development site is via the access road to The Shires car park.

4.5 Development phase considerations

- 4.5.1 The project management and site management will be carried out by the main contractor, Pennys, who will ensure successful delivery of the development while preventing any damage to the trees on this site. This will be done by following the Pennys Site Specific Method Statement and Risk Assessment: River Biss – Rev 4 17.01.2026 in conjunction with the AMS.
- 4.5.2 The preliminary AMS is provided within Appendix 5 of the AIA and also as a stand-alone document.
- 4.5.3 The AMS is compiled to ensure the safe and healthy retention of all trees that are to be retained on the development site at Stone Mill on the river Biss, Trowbridge. Implementation of the method statement, protection measures and

construction methods outlined within this report are integral to achieving this goal.

- 4.5.4 The AMS must be made available to all operatives on site during the construction process, for them to understand the scope and importance of the tree protection measures identified in this report.
- 4.5.5 For details of the trees to be retained, reference should be made to the supplementary 'Tree Protection Plan' (DWG No. 260209-RB-TPP-Rev A-NB,AM&SD)
- 4.5.6 The information contained in the AMS is in line with BS5837:2012 'Trees in Relation to Design, Demolition & Construction -Recommendations'
- 4.5.7 The controlling planning authority is Wiltshire Council, Planning Department, County Hall, Bythesea Road, Trowbridge, Wiltshire, BA14 8JN. The authority should be consulted on any matters related to the retained trees. The Tree Officer can be contacted on 0300 456 0114 or Planningtrees@wiltshire.gov.uk.

Phasing and monitoring of the development

- 4.5.8 The phasing of the works will be determined by the applicant. However, it is anticipated that it will be an eight-week project commencing in mid-July 2026.
- 4.5.9 The appointed arboriculturist will be responsible for monitoring all operations relating to arboricultural issues on site. These will include:
 - Location and erection of protective fencing
 - Authorised works within the root protection area (RPA)
 - Installation of ground protection
- 4.5.10 Arboricultural monitoring involves a site visit and completion of a standard form which must be completed by the project arborist and signed by the client, site manager or his representative. A copy is kept by the client, the appointed arboriculturist and one is forwarded to the Local Planning Authority (LPA).
- 4.5.11 Arboricultural supervision is to be carried out at all crucial stages throughout the development process to ensure that all detailed tasks are carried out as per the approved methodology.
- 4.5.12 For this project the site will inspected by the project arboriculturist prior to commencement to check the tree protection measures are in place, during the exploration of the pile locations and at the completion of installation of the viewing platform to ensure that the tree protection measures have been adhered to.

Pre-commencement tree work

- 4.5.13 The remedial tree work should be carried out before the commencement of the project.
- 4.5.14 The reason for the work is to remove existing shrubs and undergrowth and provide clearance above the development site and adjacent footpaths to allow for the installation of the platform and access to the site.

Tree Protection

- 4.5.15 The TPF will be installed as a run of Heras™ fencing attached to the existing fence between the footpath and the riverbank by T1-G3. The trees T5a, 5b and 5c will also be protected by Heras™ fencing supported on rubber feet to protect the stems of the trees in the site compound.
- 4.5.16 If required ground protection will be provided in RPAs of T1 & T2 during the exploration for and the installation of the piles, in the form of plywood sheeting to protect the riverbank from compaction.
- 4.5.17 The impermeable mixing area will be installed in the site compound along with the storage area beyond the RPAs of the retained trees. It is essential that all activities are carried out in such a manner as to prevent damage or spillage within the RPA.

Installation of viewing platform

- 4.5.18 The steel frame for the viewing platform will be delivered and constructed on site, before being lifted from the site compound over the footpath and being located on to the newly installed piles. The finished surface, seating retaining wall and new fencing will be installed as shown in the Stone Mill Viewing Platform Structural Arrangement Plan-drawing number 12808-CDY-ZZZZ-D-S-1600 Rev PO2 and drawing 3601-TLP-XX-XX-DR-L-40004. Once this is complete the new wearing layer will be installed on the sub-base of the footpath.
- 4.5.19 Once the development works are completed, the site will be inspected by the project arboriculturist before the TPF can be removed.
- 4.5.20 A Certificate of Compliance will be issued to the LPA.

4.6 Landscape design and biodiversity gain.

- 4.6.1 Biodiversity Net Gain will be achieved through the agreed landscaping scheme and materials specification.

5.0 Conclusion.

- 5.1 The trees associated with this property mainly achieve the retention values of 'B1' and 'C1', as shown on drawing 260209-RB-TCP-Rev B-NB,AM&SD.
- 5.2 The proposed development at Stone Mill, River Biss, Trowbridge, BA14 8AT is to install a new viewing platform on the east bank of the River Biss, as shown on drawing 260209-RB-AIA-Rev B-NB,AM&SD.
- 5.3 The pre-commencement tree works to crown lift T1, T2, G3, T3a, G4 and T5a to provide approx. 3m clearance above the footpath and allow the TPF to be installed and the removal of the hedge H5d and shrubs G5e will take place before work commences on site.
- 5.4 The TPF for T1 – G3 and T20 will be installed Heras™ fencing attached to the existing fence by the footpath. The TPF for T5a, 5b and 5c will be installed using Heras™ fencing supported on rubber feet, or similar, as shown in drawing 260209-RB-TPP-Rev A-NB,AM&SD.
- 5.5 Sedimats™ will be installed on the riverbank to prevent debris entering the river and if required ground protection will be provided using plywood sheets cut to size during the pile exploration and installation phase.
- 5.6 The construction of the viewing platform will take place in accordance with planning application reference number PL/2024/03221 and is guided by Pennys Site Specific Method Statement and Risk assessment: River Biss – Rev 4 – 17.01.2026. This should be read in conjunction with the detailed AMS.
- 5.7 Biodiversity Net Gain will be achieved through the agreed landscaping scheme and materials The planting of suitable trees, that has taken place, will provide continuity in tree cover and could contribute to biodiversity net gain on this site.
- 5.8 The principle causes of damage to trees during development works are from root severance, compaction and changes in soil levels. It is therefore essential that all works on this site seek to keep the impact on the retained trees to a minimum, and that soil remediation takes place to improve the post development soil environment.
- 5.9 The majority of a tree's roots occur in the top 600mm of soil and can extend considerably further than the edge of the canopy. Guidance should be taken from BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

- 5.10 All tree work should be undertaken prior to the development, conform to BS3998:2010 'Recommendations for Tree Work', and be carried out by a recognised contractor.

References:

- Lonsdale, D. (1999). *Principles of tree hazard assessment and management*. HMSO, London.
- Mattheck, C.Bethge, K. and Weber, K., (2015) *The Body Language of Trees: Encyclopaedia of Visual Tree Assessment*. Karlsruhe GmbH
- British Standards Institution (2012). *BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations*. London.
- British Standards Institution (2010). *BS 3998: 2010 Tree Work - Recommendations*. London.
- Lonsdale, D. (1999). *Principles of tree hazard assessment and management*. HMSO, London.
- Mattheck, C.Bethge, K. and Weber, K., (2015) *The Body Language of Trees: Encyclopaedia of Visual Tree Assessment*. Karlsruhe GmbH
- National Joint Utilities Group (2017) *NJUG 10 Volume 4: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*. London.



Appendix 1

Tree Survey Results

Stone Mill,

River Biss,

Trowbridge,

BA14 8AT.

No.	Species	Height (m)	Stem Ø (mm)	RPA Radius (m)	RPA (m ²)	N S E W	CC	MA	Vitality	Structure	Structural Condition/Site Notes	Recommendations	Estimated Useful Contribution (Years)	Retention Category
T1	Swamp cypress <i>Taxodium distichum</i>	14	500	6.00	113.04	3 3 3 3	N/A	MA	F	F	Fair.	Sever ivy. Crown lift to 3m over footpath and work site. Pruning wounds approx. 40-60mm	>40	B2
T2	White willow <i>Salix alba</i>	13	450	5.40	91.56	3 3 3 3	N/A	MA	F	F	Fair.	Reduce low lateral limbs by approx. 1m to provide 1m clearance from fence and crown lift to 3m above footpath. Pruning wounds approx. 20-30mm	>40	B2
T3	Sycamore <i>Acer pseudoplatanus</i>	10	280	3.36	35.45	2 2 2 2	N/A	SM	F	F	Fair.	No action.	>20	C1

No.	Species	Height (m)	Stem Ø (mm)	RPA Radius (m)	RPA (m ²)	N S E W	CC	MA	Vitality	Structure	Structural Condition/Site Notes	Recommendations	Estimated Useful Contribution (Years)	Retention Category
T3a	Weeping willow <i>Salix babylonica</i>	5	110	1.32	5.47	5 3.5 1 8 6	N/A	SM	F	F	Ivy clad multi-stem specimen.	Crown lift to 3m above footpath. Pruning wounds approx. 40-60mm.	>20	C1
G4	Sycamore <i>Acer pseudoplatanus</i>	12	350	4.20	55.39	3 3 3 3	N/A	SM	F	F	Fair.	Crown lift to 3m above footpath. Pruning wounds approx. 10-30mm.	>20	C1
T5	Sycamore <i>Acer pseudoplatanus</i>	11	509	6.11	117.22	2 2 2 2	N/A	SM	F	F	Fair.	Crown lift to 3m above footpath. Pruning wounds approx. 10-30mm.	>20	C1
T5a	<i>Sorbus sp. cv</i>	11.3	241	2.89	26.23	4 4 2.5 3	N/A	EM	F	F	Low crown. Suspended limb.	Crown lift to 3m to accommodate TPF. Pruning wounds approx. 10-30mm.	>20	C1
T5b	Tulip tree <i>Liriodendron tulipifera</i>	13	323	3.88	47.27	4 5 3 4	N/A	EM	F	F	Previously topped.	No action	>20	B1

No.	Species	Height (m)	Stem Ø (mm)	RPA Radius (m)	RPA (m ²)	N S E W	CC	MA	Vitality	Structure	Structural Condition/Site Notes	Recommendations	Estimated Useful Contribution (Years)	Retention Category
T5c	Tulip tree <i>Liriodendron tulipifera</i>	13.6	436	5.23	85.89	4 4 3 4	N/A	EM	F	F	Previously topped	No action.	>20	B1
H5d	Hedge	1.5	N/A	N/A	N/A	N/A	N/A	EM	F	F	Managed hedge as shown.	Fell.	>20	C1
G5e	Various	4.5	N/A	N/A	N/A	N/A	N/A	EM	F	F	Group of shrubs as shown.	Fell.	>20	C1

Tree Survey Key:

Survey data:

Height (H):	Height in metres.
Stem Diameter (O):	Diameter of stem in millimetres measured at 1.5m above adjacent ground level. (If required).
Crown spread (CS):	Radius of crown in metres measured in metres from stem centre to north, south, east and west.
Maturity (MA):	JU = Juvenile - a young tree that can be easily re-planted. (1/5 th life expectancy). SM = Semi-mature - An established tree with considerable growth potential. (2/5 th of life expectancy). EM = Early mature - A tree reaching its ultimate height and whose growth is slowing however it will still increase considerably in stem diameter and crown spread. (3/5 th life expectancy). MA = Mature - A tree with limited potential for further significant increase in size although likely to have a significant safe useful life expectancy. (4/5 th life expectancy). FM = Fully mature - A tree with limited potential for further significant increase in size although likely to have a significant safe useful life expectancy. (4/5 th life expectancy). V = Veteran - A tree which shows ancient characteristics and/or of ecological, cultural or aesthetic value.
Structural (S):	G = Good - no significant structural issues. F = Fair - Structural issues that can be remedied. P = Poor - Structural issues that cannot be remedied.
Physiological (P):	G = Good - No significant health problems. F = Fair - Symptoms of ill health that can be remedied. P = Poor - Symptoms of ill health that cannot be remedied.
Conditions:	A written assessment of significant features to describe the condition of tree.
Recommendations:	A written description of the remedial works and re-inspection date recommended for the management of the tree.
Risk:	1 – High - Not acceptable 2 – Medium - Tolerable 3 – Low - Acceptable.
Work priority:	U – urgent – immediate action required. 1 – High (within 3 months) 2 – Moderate (3 months – 1 year) 3 – Low (1 – 3 years)

Inspection frequency: Very high – 6 months. High - 12 months. Moderate - 18 months. Low – 3 years. Very low – 5 years.

General remedial tree work recommendations:

Formative prune -	Remove major dead wood, damaged, crossing and rubbing limbs.
Crown thin -	Selective removal of a percentage of lateral growth evenly throughout canopy whilst maintaining overall size and shape of crown.
Crown reduction -	Overall reduction of height and lateral growth, in metres, whilst retaining natural form of tree, to suitable growth points and given pruning wound dimension.
Crown lift -	Remove and/or prune low branches to raise crown to specified height in metres above ground level.

Glossary of Tree Survey Terms:

Tree Identification:

Species – Identification of tree using common and scientific names.

Height – Measurement of the tree's height in metres.

Stem diameter – Measurement of the tree's stem diameter at 1.5m above ground level in metres, centimetres or millimetres (specified).

Crown spread – Measured by its radius to the cardinal compass directions (N, S, E, W).

Age class assessment:

Maturity/Life stage –

- JU – Juvenile – a young tree that can be easily re-planted. (1/5th life expectancy).
- SM – Semi-mature – An established tree still to reach its ultimate height and spread and with considerable growth potential. (2/5th of life expectancy).
- EM – Early mature – A tree reaching its ultimate height and whose growth is slowing however it will still increase considerably in stem diameter and crown spread. (3/5th life expectancy).
- MA – Mature – A tree with limited potential for further significant increase in size although likely to have a significant safe useful life expectancy. (4/5th life expectancy).
- FM – Fully mature – A mature tree that is approaching senescence. (5/5th life expectancy).
- V – Veteran - A tree which shows ancient characteristics and/or of ecological, cultural or aesthetic value.

Classifications for distinctive trees:

- Notable – Mature trees that stand out in the local environment because they are large in comparison with other trees.
- Heritage – A tree that is part of our history and culture and can relate to specific historic events or people.
- Veteran – A tree which shows ancient characteristics and/or of ecological, cultural or aesthetic value.
- Ancient – Of great age for its species with veteran features.

Structural assessment:

(P) - Assessment of physical condition – by determining the overall structural condition of the various components of a trees physical structure.

- Roots – Assessing for root decay, root heave and any signs of root damage or stress.
- Stem – Inspecting for cracks, cavities, decay and other defects in the trunk.
- Branches – Examining branch unions, dead wood and signs of breakage or potential failure.

Good = no significant structural issues. Fair = Structural issues that can be remedied. Poor = Structural issues that cannot be remedied.

Health Evaluation:

(V) - Assessment of physiological condition and vitality – determining the overall vitality of the tree through its growth patterns in relation to vigour, foliar health and canopy condition.

- Foliage – Identifying signs of disease, pests, or nutrient deficiencies through leaf characteristics.
- Canopy – Assessing the density and distribution of foliage, as well as signs of dieback or unusual growth patterns.
- Vigor – A tree's inherent (genetic) capacity for growth and resilience and its ability to recover from damage.
- Vitality – Assessment of the tree's current state of health based on how it is influenced by environmental factors in relation to expected vigour, foliar health and canopy condition.

Good = No significant health problems. Fair = Symptoms of ill health that can be remedied. Poor = Symptoms of ill health that cannot be remedied.

Condition assessment: A written description recording the significant features observed during the assessment of the physiological and structural condition during the tree inspection.

Recommendations/Management considerations: A written description of the remedial tree work recommended to mitigate any significant features that need addressing. A recommendation for a continued inspection regime and/or any other management considerations that should be considered.

Risk – The risk from trees exists only if there is a potential for tree failure and potential for harm to result from that failure. The likelihood of failure, the potential target and the likely occupancy of the target are taken into account.

1. High likelihood of failure.
2. Moderate likelihood of failure.
3. Low likelihood of failure.

Urgency – The time frame within which the tree work recommendations should take place.

1. High priority – Work to be undertaken within 3 months.
2. Moderate – work to undertaken within 12 months.
3. Low priority – Work to be undertaken within 3 years.

Use of data: The data in this survey is for the use of the named client only.

Limitations: The limitations of the survey are detailed in the accompanying report.

Pre – development Tree Survey Assessment and Terminology

Local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for a proposed development. The potential effect of a development on trees, whether statutorily protected (e.g. by TPO/Con Area) or not, is a material consideration that is taken into account in considering planning applications. Consideration should be given to:

- Legal designations e.g. Tree Preservation Orders, Conservation Areas.
- Planning policy – National - National Planning Policy Framework (NPPF)/Regional/Local.
- Guidance and best practice: BS8545:2014. **BS5837:2012**, BS4428:1989, NHBC Chapter 4.2, BRE CP75/75, BRE 209.

The level of arboricultural information required for planning may depend on the Local Planning Authority (LPA) or type of application being made.

BS5837:2012 Trees in relation to design, demolition and construction – Recommendations provides information, guidance and recommendations for the consideration and retention of trees during the planning and construction process. Information provided in our reports include:

Root Protection Area Calculation

RPA - Root Protection Area – a design tool used to show the minimum area around a retained tree that contains sufficient rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. Size and shape based on calculations and constraints noted in BS5837:2012 section 4.6.

RPA radius – Radius of RPA in metres based on the relevant calculation in BS5837:2012 section 4.6.

RPA area – Area of the RPA calculated using the RPA radius and applied in relation to the retained tree and onsite constraints.

Retention assessment:

ULE – Useful Life Expectancy – Estimated remaining contribution to a site in years (<10, >10, >20, >40)

CAT – BS 5837:2012 Retention category –

- U – Unsuitable for retention. Trees 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.
- A – Tree(s) of high quality with an estimated remaining life expectancy of at least 40 years.
- B – Tree(s) of moderate quality with an estimated remaining life expectancy of at least 20 years.
- C – Tree(s) of low quality with an estimated remaining life expectancy of at least ten years, or young trees with a stem diameter below 150mm.

BS 5837:2012 Retention sub-category –

- 1 = Mainly arboricultural values. 2 = Mainly landscape values. 3 = Mainly cultural values including conservation.



For more detail see BS5837:2012 cascade chart below.

Tree Constraints Plan (TCP) – site plan indicating the location of the trees identified in the tree survey, their canopy dimensions, the root protection areas, amended RPA due to any physical constraints and the shade patterns of the trees.

Arboricultural Impact Assessment Drawing (AIA) – site plan super-imposing the proposed development on the tree constraints plan.

Tree Protection Plan (TPP) – site plan showing retained trees and how they will be protected during the construction phase.

Arboricultural Method Statement (AMS) – a written document providing a description and timeline of the activities required to successfully retain the trees during the proposed development.

Pre-development surveys:

Root Protection Area (RPA): RPA radius (m): Radius of RPA from stem. RPA area (m²): RPA in metres squared.

Crown clearance (CC): Height of first significant branch in metres above ground level and direction of growth.

ULE: Useful life expectancy – estimated useful contribution of tree to site (in years).

Retention Category: Category grading - U = Remove. A = High quality and value. B = Moderate quality and value. C = Low quality and value.
Subcategories - 1 = Mainly arboricultural values. 2 = Mainly landscape values. 3 = Mainly cultural values including conservation.

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



Appendix 2

Tree Constraints Plan

Stone Mill,
River Biss,
Trowbridge,
BA14 8AT.

Drawing number: 260209-RB-TCP-Rev B-NM,AM&SD

Appendix 3

Arboricultural Impact Assessment Drawing

Stone Mill,
River Biss,
Trowbridge,
BA14 8AT.

Drawing number: 260209-RB-AIA-Rev B-NB,AM&SD

Appendix 4

Tree Protection Plan

Stone Mill,
River Biss,
Trowbridge,
BA14 8AT.

Drawing number: 260209-RB-TPP-Rev A-NB,AM&SD

Appendix 5

Detailed Arboricultural Method Statement

Stone Mill,
River Biss,
Trowbridge,
BA14 8AT.