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Trinity Academy

Arboricultural Survey Schedule

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This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

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1. Introduction

Waterman Infrastructure & Environment Limited (Waterman) was instructed by the Department for Education (hereafter referred to as the 'Applicant') to undertake an arboricultural survey of trees on land at the Trinity Academy site in Barnsley (hereafter referred to as 'the Site') .

The Site is being considered for development and this Arboricultural Survey documents the findings of a baseline survey of trees on and immediately adjacent to the Site. The above and below ground constraints posed by the canopy shape and subterranean rooting area of the surveyed trees are described.

In line with the scope of works outlined in our fee proposal (WIE17125-100-F-1_1_1), upon receipt of a proposed/draft layout for the proposed development in a .DWG format, Waterman will review the development proposals in relation to existing tree stock present within or adjacent to the Site and a summary of any conflicts and potential mitigation measures will be provided.

Once a fixed and final design freeze considered likely to be acceptable to Barnsley Metropolitan Borough Council (BMBC) is achieved, an Arboricultural Impact Assessment (AIA) report will be produced to support the planning application. The AIA will include the following:

- A Tree Protection Plan;
- Preparation of an outline tree protection strategy to indicate any tree protection fencing or ground protection systems, where appropriate, for retained trees;
- Arboricultural Method Statement (Heads of Terms) where works are proposed within the Root Protection Areas (RPAs) of retained trees;

- Production of an Arboricultural Impact Assessment;
- Details of any tree works required to facilitate the proposed development.

The AIA report will include sufficient information to be compliant with BMBC's arboricultural planning validation requirements as well as Table B1 of 'BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations' (which relates to Delivery of Tree-Related Information into the Planning System).

2. Tree Survey Methodology

A tree survey of the Site was carried out on the 16th and 17th July 2020 . The tree survey methodology followed the recommendations set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'[1] (BS5837).

The tree survey was based upon existing topographical information relating to the Site, produced by Survey Operations (drawing ref. 20F040/001 and dated July 2020). For the purposes of this report, it is assumed that the detail of the topographical survey is accurate and correct.

The Tree Survey Schedule should be read in conjunction with the Tree Survey Drawings (drawing refs: WIE17125-ZZ-XX-1-7-DR-77001 and 77002).

The survey involved collecting the following information on all trees (both on and off-site) with a stem diameter over 75mm in diameter which have the potential to influence the development proposals.

Tree Numbers

Individual trees surveyed were given the prefix 'T'. Trees have been grouped where they form cohesive aerodynamic (i.e. companion shelter), visual (i.e. screening) or cultural (i.e. parkland) arboreal features of similar quality, as identified by the prefix 'G'. Hedges and Woodlands are given the prefixes 'H' and 'W' respectively.

Species

Species are listed by both their common name English name.

Height

Tree heights are approximate and estimated in metres.

Trunk Diameter

The stem diameter of single stemmed trees is measured at 1.5m above ground level and given in millimetres. The diameter measurement of multi-stemmed trees is shown as a measurement of each major stem present. Where stems fork or swell, the measurement is taken at the narrowest point below the fork or swelling. Where access to the trunk of a tree is not available, an estimation of the stem diameter is made and identified by '*' on the accompanying tree survey table.

Crown Spread

Radial crown spread is measured in metres to the nearest 0.5m (rounded up). These are recorded for each of the four cardinal points where access allows. Where access is not available the spread is a visual estimate and identified by '*' on the accompanying tree survey table. As such, the canopy shape for

[1] BS5837:2012 Trees in relation to design, demolition and construction – Recommendations, 2012, British Standards Institution.

surveyed trees depicted on the accompanying plans accurately represents the canopy spread as measured on Site.

First Significant Branch and Canopy Height

The height and direction of growth of the first significant branch is recorded along with the average height above ground in metres of the main canopy. These are measured to the nearest half metre (rounded up) for dimensions up to 10m and the nearest whole metre for dimensions over 10m.

Life Stage

The age of each tree is defined as follows:

- Young (Y): Within the first 1/4 of useful life expectancy.
- Semi-mature (SM): Within the second 1/4 of useful life expectancy.
- Early Mature (EM): Within the third 1/4 of useful life expectancy.
- Mature (M): Within the fourth 1/4 of useful life expectancy.
- Over Mature (OM): Tree has exceeded normal life expectancy.
- Veteran (V) Tree displaying veteran characteristics [2].

Physiological and Structural Condition

The physiological and structural condition of each tree, tree group, hedgerow and woodland is described, highlighting specific features. The survey involved ground level examination of the external features of the trees. The structural condition for each tree is described as being Good, Fair or Poor and the physiological condition is described as Good, Fair, Poor, Moribund or Dead.

Estimated Remaining Contribution (ERC) in Years

The Estimated Remaining Contribution (ERC) for each tree is based on species and the existing physiological and structural condition of the tree. The ERC may affect proposed development layout because the longer the tree is likely to live, the greater the contribution it will make and the greater the need for retention.

Comments

Where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc. Where identified, signs of substantial defects or debility have been recorded. Where access to a tree was not possible, an estimation of physiological and structural condition has been made.

Category Grading

Each arboricultural feature was given a Category Grading in accordance with the principles of BS5837. The Category Gradings are defined according to the following criteria, which are further divided into sub-categories based on arboriculture (sub-category 1), landscape (sub-category 2) and/or historic/cultural value (sub-category 3), as defined within BS5837.

- **Category Grading A:** Trees of high quality and value (with an estimated remaining life expectancy of at least 40 years) (coloured green on the Tree Survey Drawings).

[2] http://www.ancienttreeforum.co.uk/ancient-trees/what-are-ancient-veteran-trees/

- **Category Grading B:** Trees of moderate quality and value (with an estimated remaining life expectancy of at least 20 years) (coloured blue on the Tree Survey Drawings).
- **Category Grading C:** Trees of low quality and value (with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter less than 150mm) (coloured grey on the Tree Survey Drawings).
- **Category Grading U:** Trees which are 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 (coloured red on the Tree Survey Drawings).

BS5837 states that all trees should be a material consideration within the development process, however where Category C trees are a significant constraint on development, their loss is likely to be considered acceptable by BMBC. Conversely, where Category A and B trees are present on site, it would be considered desirable to retain these trees where possible. It is recommended that Category U trees should be removed for reasons of sound arboricultural management irrespective of any development proposals.

Root Protection Areas

The Root Protection Area (RPA) of a tree is defined in BS5837 as 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 stemmed trees it is equivalent to a circle with a radius 12 times the stem diameter when measured at 1.5m above ground level. BS5837 outlines the calculation of RPA as follows:

$$\text{RPA}(\text{m}^2) = \left(\frac{\text{stem diameter (mm) @ 1.5 m} \times 12}{1\ 000}\right)^2 \times \pi\ (3.142)$$

Trees with more than one stem originating below 1.5m above ground level are given an aggregate stem diameter using either of the following two calculations as outlined in BS5837. This diameter is then used in the above calculation to estimate RPA:

- For trees with two to five stems:

$$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \ldots + (\text{stem diameter 5})^2}$$

- For trees with more than five stems:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

The RPA of existing tree stock is an important material consideration when considering site constraints and planning development activities.

The RPAs of all Category A, B and C individual trees is shown on the Tree Survey Drawing as a yellow circle around each tree.

For trees in most groups, the RPAs are not shown as it is considered that the canopies of the groups extend beyond the RPAs of the trees.

Unless there is an overriding justification for them, construction activities, materials storage or changes in level should be avoided within the RPA of a retained tree. This is because these operations have the potential to damage or kill the tree, the safe retention of which may be a condition of planning permission. If operations are proposed within the RPA of a retained tree, it may be necessary to prove to the relevant local planning authority (in this case BMBC) that:

- All other alternative solutions have been explored and proven unviable;
- That the tree can remain viable (this may require special engineering solutions) and that the area lost to encroachment can be compensated for elsewhere, contiguous with its RPA;
- That mitigation measures can be put in place to improve the soil environment that is used by the tree (if necessary).

3. Soil Type

A detailed soil assessment was not undertaken as part of the tree survey exercise, however a brief desk-top study using the Cranfield University 'Soilscapes' mapping portal[3] has indicated that the Site may be on a slowly permeable seasonally wet loamy and clayey soil. It is therefore advised that further investigations are undertaken to confirm the properties of the soil.

The combination of shrinkable soils and trees and shrubs can represent a hazard to structures that require special consideration. Depending on the findings of any soil investigations, it is recommended that guidance such as that contained within *Chapter 4.2 - 'Building Near Trees'* of the *National House Building Council's Standards 2019* is followed. This is particularly pertinent if the soil is found to have a significant clay content as foundation design may need to be adapted to take account of existing trees and proposed tree planting.

4. Legal Constraints

Tree Preservation Orders and Conservation Areas

Under Part VII of the *Town and Country Planning Act 1990* and as amended in the *Town and Country Planning (Tree Preservation) (England) Regulations 2012*, local planning authorities are given the powers to protect trees, groups of trees and woodlands through the provisions of a Tree Preservation Order (TPO). TPOs prohibit:

- cutting down;
- topping;
- lopping;
- uprooting;
- wilful damage; and
- wilful destruction;

[3] http://www.landis.org.uk/soilscapes/

without the local planning authority's written consent.

All trees with a stem diameter above 75mm when measured at 1.5m above ground level are also afforded protection if they are located within a Conservation Area.

A check carried out on the 7th August 2020 of the BMBC on-line mapping portal[4] has indicated that none of the trees present on the Site are afforded protection through the provisions of a TPO and no part of the Site is located within a Conservation Area.

5. Limitations

This report is concerned with the arboricultural features of the Site only. Ground condition/history information has not been consulted as part of this assessment (such as history of ground disturbance, root damage, changes in soil levels, previous utility installations or changes in site conditions) unless otherwise stated.

All trees were visually inspected from ground level with no climbing, boring or core sampling undertaken. All measurements are metric and approximate. The comments made are based on observable factors present at the time of inspection.

Trees that were not directly accessible at the time of survey have been denoted with a '*' and detailed within the survey schedule.

This report is not intended to confirm the safety (or otherwise) of surveyed trees or tree groups. References to defects or potential safety issues are not exhaustive and are intended as a guide only to inform the provision of further resources / more detailed investigations. The person(s) responsible for the management of trees surveyed as part of this report are recommended to commission a separate Tree Condition Survey by a suitably qualified and experienced person in order to manage the health and safety aspects of trees under their control and to discharge their reasonable 'Duty of Care' owed under the Occupiers' Liability Act 1984[5].

Owing to the changing nature of trees and other Site circumstances, this report and any recommendations made remain valid for a period of 18 months from first issue. Any alteration to the application Site could change the current circumstances and may invalidate this report and any recommendations made.

Unless otherwise stated, trees should be re-inspected regularly to satisfy the 'Duty of Care' owed under the Occupiers' Liability Act 1984[6], or directly after heavy storms (i.e. force 6-7 and above on the Beaufort scale).

6. Initial Arboricultural Impact Assessment

At the time of writing this report, a proposed Site layout has not been provided in a .DWG format, however, a PDF of a layout was available (Indicative Site Layout Option 1 – drawing ref. 0632-EA-A-S001). As a Site layout has not been provided in a .DWG format, it has not been possible to carry out a full assessment of the impacts of the proposed development on the existing tree stock, as detailed in section 1 of this report. The following is therefore a high-level commentary on the likely impacts only.

- Due to the scale and positioning of the proposed buildings and areas of hard landscaping, it is likely that the majority of the trees within the centre of the site will be lost as a result of direct conflicts with the new built form, constraints to demolition of existing structures and the need for

[4] https://www.barnsley.gov.uk/services/parks-and-open-spaces/tree-preservation-orders/
[5] Occupiers' Liability Act 1957 and 1984. HMSO
[6] Occupiers' Liability Acts 1957 and 1984. HMSO

regrading of the existing ground levels. Although many of these trees were awarded a moderate B grade, it is not felt that the loss of these trees will be seen as significant constraint to the development due to their relatively small size. However, it essential that that any landscape proposals for the site include a number of replacement trees of appropriate sizes and species mix to mitigate for the loss of these trees. Opportunities should also be taken where the proposed layout allows, to incorporate some of these trees within the proposals. This will have the benefit of ensuring structural diversity within the tree stock across the Site.

- The proposed 'Residential' area to the north of the Site will result in the loss of significant sections of G32 and G85. Both of these groups were surveyed as being low C category features and therefore their loss is likely to be acceptable to BMBC providing significant mitigation planting is included in the landscape proposals for the site. It is recommended that a strip of the existing vegetation along the northern boundary of the Site should be maintained to provide an established screen between the Site and neighbouring land.
- G54, G86 and G87 are groups of higher value trees within or adjacent to G32 and G85. As these groups were awarded a moderate B grade, their loss is likely to be considered as more significant and as such, it may be preferable to retain some or all of these features if possible.
- The proposed layout appears to leave sufficient scope to retain the majority of existing trees towards the perimeter of the Site (including those which would be in the 'soft social' area in the north-eastern corner of the Site. This is considered desirable as it retains the landscape and habitat benefits that these trees provide.

Once the proposed layout is available in a DWG format, a more detailed assessment of the impacts of the development on the existing tree stock can be undertaken.

The above assessment was based on the arboricultural merits of the trees alone. Consideration should also be given to the finding of any other assessments (such as ecology, landscape and heritage), and any Site operations should ensure compliance with all relevant legislation.

7. Tree Survey Schedule

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T1	*Swedish Whitebeam (Sorbus intermedia)*	6.5	350	3.5	3.5	3.2	3	1.5	S	1.5	M	Fair	Fair	Congested central crown, but healthy foliage throughout	No action required at time of survey	20+	B1
T2	*Swedish Whitebeam (Sorbus intermedia)*	6	360	3.8	3.5	3.1	3.4	1.5	W	1.5	M	Fair	Fair	Congested central crown, but healthy foliage throughout	No action required at time of survey	20+	B1
T3	*European Beech (Fagus sylvatica)*	7.5	320, 160	3.2	3.5	3.2	3.5	1.5	W	1	EM	Fair	Poor	Large included unions where twin stems meet and in central crown. Healthy foliage throughout	No action required at time of survey	20+	C1
T4	*Swedish Whitebeam (Sorbus intermedia)*	6.5	300	3	3	3	3	2	S	1.5	M	Fair	Fair	Tight fork at first major branch junction. No observed dieback or disease	No action required at time of survey	20+	B1
T5	*Swedish Whitebeam (Sorbus intermedia)*	6	270	3	3	3	3	2	N	1.5	M	Fair	Fair	Slightly inclined stem towards NE, but no apparent rootplate movement. No observed dieback or disease	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T6	*Swedish Whitebeam (Sorbus intermedia)*	4.5	90 ave. 12 stems	2	2.2	2.5	2	1.5	S	1.5	EM	Fair	Poor	Multiple stems from 0.5m with several included unions. No observed dieback or disease	No action required at time of survey	20+	C1
G7	*Tree cotoneaster*	3.5	75	2.5	2.5	2.5	2.5	0	N	0	EM	Fair	Fair	Dense cluster of overgrown shrubs. No observed dieback or disease	No action required at time of survey	20+	C2
H8	*Guelder Rose (Viburnum opulus)*	2.5	40	2	2	2	2	0	E	0	M	Fair	Poor	Healthy vegetation throughout, but little in the way of management has left scrappy looking feature	No action required at time of survey	20+	C2
T9	*Swedish Whitebeam (Sorbus intermedia)*	6.5	390	4	4	3.5	4	2	E	1.5	M	Fair	Fair	Upright stem with full healthy crown No apparent significant defect	No action required at time of survey	20+	B1
T10	*Swedish Whitebeam (Sorbus intermedia)*	7	*520*	4	3.5	3.5	3	2	N	1.5	M	Fair	Fair	Ivy covered lower stem and crown inhibits full inspection. No observed dieback or disease and no significant observed decay	Sever ivy at base of trunk	20+	B1

Tree Ref	Species	Height (m)	Stem diameter (mm)	Canopy Spread (m)				Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
				N	E	S	W										
T11	*Alder (Alnus glutinosa)*	5	170, 150, 130	2.5	2.5	2.5	2.5	2	S	1.5	EM	Fair	Fair	Multiple stem tree from low level. Growing from shrubby thicket. No observed dieback or disease	No action required at time of survey	20+	C1
T12	*European Rowan (Sorbus aucuparia)*	4.5	80	3	2.5	2.5	2.5	0.5	S	1	EM	Fair	Fair	Multiple stem tree from low level. Growing from shrubby thicket. No observed dieback or disease	No action required at time of survey	20+	C1
T13	*Swedish Whitebeam (Sorbus intermedia)*	8.5	460	5	5.5	5	5	1.5	N	1.5	M	Fair	Fair	Congested central crown, but healthy foliage throughout	No action required at time of survey	20+	B1
T14	*European Beech (Fagus sylvatica)*	8.5	*480*	5	5	4.5	4.5	1.5	W	1.5	M	Fair	Fair	Ivy covered lower stem and crown inhibits full inspection. No observed dieback or disease and no significant observed decay	Sever ivy at base of trunk	20+	B1
T15	*Swedish Whitebeam (Sorbus intermedia)*	7	*400*	3.5	3.5	4	3	2	N	2	M	Fair	Fair	Ivy covered lower stem and crown inhibits full inspection. No observed dieback or disease and no significant observed decay	Sever ivy at base of trunk	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T16	*European Rowan (Sorbus aucuparia)*	4	110, 90, 80, 80, 75	2.5	2	2	2	0.5	S	0.5	EM	Fair	Poor	Multiple stems from ground level with included unions where stems meet. No observed dieback or disease	No action required at time of survey	20+	C1
T17	*European Rowan (Sorbus aucuparia)*	4.5	130, 100, 80	2.5	3	2.5	2.2	1.5	W	1.5	EM	Fair	Poor	Multiple stems from ground level with included unions where stems meet. No observed dieback or disease	No action required at time of survey	20+	C1
T18	*European Rowan (Sorbus aucuparia)*	4.5	160	3	3	2.5	2.5	2	E	1.5	M	Fair	Fair	Bark wound at 1.5-2m. Slightly inclined stem to NE. No observed dieback or disease	No action required at time of survey	20+	C1
H19	*Hawthorn, blackthorn, wild cherry, guelder rose*	3	65	2	2	2	2	0	E	0	EM	Fair	Fair	Scrubby, unmanaged hedge along inside of boundary fence. No observed dieback or disease	No action required at time of survey	10+	C2
H20	*Hawthorn, rowan, guelder rose*	1.5	50	1	1	1	1	0	E	0	EM	Fair	Fair	Short section of unmanaged ornamental hedge. No observed dieback or disease	No action required at time of survey	10+	C2

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
G21	*Sallow, Goat Willow (Salix caprea); Hazel*	5.5	110	3	3	3	3	0.5	S	0	SM	Fair	Fair	Small cluster of overgrown self set trees. No observed dieback or disease	No action required at time of survey	20+	C2
T22	*Tibetan Cherry (Prunus serrula)*	6.5	250, 160, 150	2.5	2.5	2.5	2.5	2	E	1.5	M	Fair	Poor	Multiple stems from ground level with included unions where stems meet. Dense congested central crown. No observed dieback or disease	No action required at time of survey	20+	C1
T23	*Common Ash (Fraxinus excelsior)*	12	450	5.5	3.5	6	5.5	2.5	E	1	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T24	*Common Ash (Fraxinus excelsior)*	13	430	6.5	6	5.5	6	2.5	W	0.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T25	*Swedish Whitebeam (Sorbus intermedia)*	5.5	330	3.5	3	3	3	2	N	3	M	Fair	Fair	Constrained crown due to dense adjacent foliage. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T26	*Elder (Sambucus nigra)*	3.5	220	2.5	1.5	2	2.5	0.5	S	1	M	Fair	Poor	Heavily constrained crown due to adjacent trees. No observed dieback or disease	No action required at time of survey	10+	C1
T27	*Swedish Whitebeam (Sorbus intermedia)*	7	340	3	3.5	2.5	4	1.5	S	1.5	M	Fair	Fair	Constrained crown due to dense adjacent foliage. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T28	*Wild Cherry (Prunus avium)*	10.5	520	5	5	4	5.5	1.5	W	2	M	Fair	Fair	Single low stem becomes multiple leader from 1.7m with tight forks where stems meet. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
G29	*Wild Cherry (Prunus avium), hawthorn*	7.5	150	3	3	3	3	0.5	E	0.5	EM	Fair	Fair	Dense strip of relatively young self set and planted trees parallel to boundary fenceline. No observed dieback or disease	No action required at time of survey	20+	C2

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T30	*Wild Cherry (Prunus avium)*	12.5	*470*	4.5	3.5	4	4.5	2	W	1.5	M	Fair	Fair	Lower crown constrained by adjacent lower vegetation. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T31	*Wild Cherry (Prunus avium)*	13	*450*	5.5	4.5	4	3.5	2	N	2	M	Fair	Fair	Lower crown constrained by adjacent lower vegetation. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
G32	*Wild Cherry (Prunus avium), hazel, rowan, elder, hawthorn, bird cherry*	8	160	3	3	3	3	0.5	S	0	EM	Fair	Fair	Overgrown hedgerow trees along inside of boundary fence. No observed dieback or disease	No action required at time of survey	20+	C2
T33	*Corsican Pine (Pinus nigra)*	16	720	6.5	7.5	4	6	1.5	E	1.5	M	Fair	Fair	Congested upper central crown. Broken branch in lower crown. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T34	*Corsican Pine (Pinus nigra)*	14	620	2.5	8	3	3.5	1.5	W	2	M	Fair	Fair	Slightly angled stem towards E. Crown constrained by adjacent trees. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C1
T35	*Corsican Pine (Pinus nigra)*	16.5	640	3	7.5	5.5	5	2	W	2	M	Fair	Fair	Upright stem leads to crown which is constrained to N. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
G36	*Corsican Pine (Pinus nigra)*	5	140	2	2	2	2	2.5	W	1	SM	Fair	Fair	Row of heavily supressed trees.	No action required at time of survey	10+	C2
T37	*Wild Cherry (Prunus avium)*	9.5	170, 90	2.5	3.5	3	1.5	2	N	1	SM	Fair	Poor	Twin stems from low level. Constrained crown due to adjacent trees.	No action required at time of survey	10+	C1
T38	*Scots Pine (Pinus sylvestris)*	13	380	3	3	2.5	3	1.5	W	2	M	Fair	Poor	Single stem bifurcates at 4.5m with included unions where stems meet. Ivy covered lower stem. No observed dieback or disease and no significant observed decay	No action required at time of survey	10+	C1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T39	*Corsican Pine (Pinus nigra)*	13	440	4.5	4	3	4	2.5	E	2	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T40	*Wild Cherry (Prunus avium)*	8.5	160, 140, 120, 100	0.5	2.5	3	2	2.5	E	1	EM	Fair	Poor	Multiple stems from ground level with included unions where stems meet. Heavily constrained crown due adjacent trees	No action required at time of survey	10+	C1
T41	*Wild Cherry (Prunus avium)*	11	490	6.5	5.5	5	2.5	2	N	0.5	M	Fair	Fair	Large included union at first major branching point. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T42	*European Hornbeam (Carpinus betulus)*	8.5	380	3	2.5	3	3	2	E	0.5	M	Fair	Fair	Slightly inclined stem, but no rootplate movement evident. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T43	*Bird Cherry (Prunus padus)*	7.5	200	3	2.5	1.5	1.5	2	N	3	EM	Poor	Fair	Sparse foliage throughout crown.	No action required at time of survey	10+	C1
T44	*Bird Cherry (Prunus padus)*	7	190	3.5	2.5	1.5	2	1.5	N	3	EM	Poor	Fair	Sparse foliage throughout crown.	No action required at time of survey	10+	C1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T45	*Swedish Whitebeam (Sorbus intermedia)*	9	460	4	3.5	4.5	4	2	S	2	M	Fair	Fair	Upright stem with full healthy crown No apparent significant defect	No action required at time of survey	20+	B1
T46	*Swedish Whitebeam (Sorbus intermedia)*	10.5	420	4	4.5	4.5	4.5	2	E	1.5	M	Fair	Fair	Upright stem with full healthy crown No apparent significant defect	No action required at time of survey	20+	B1
T47	*Swedish Whitebeam (Sorbus intermedia)*	9.5	440	3.5	4	4	3	2	N	1.5	M	Fair	Fair	Upright stem with full healthy crown No apparent significant defect	No action required at time of survey	20+	B1
T48	*Wild Cherry (Prunus avium)*	8.5	420	3.5	4	4.5	3.5	2.5	S	2.5	M	Poor	Fair	Significant dieback and poor quality foliage throughout.	No action required at time of survey	10+	C1
T49	*Wild Cherry (Prunus avium)*	11	380	4	4.5	2.5	2.5	2	N	1	M	Fair	Fair	Constrained crown to S due to adjacent trees. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T50	*Wild Cherry (Prunus avium)*	10	430	5.5	4	5.5	5.5	2	N	1	M	Fair	Fair	Congested central crown. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T51	*European Rowan (Sorbus aucuparia)*	6.5	220, 130, 120, 110, 90	3	3.5	3	3	0.5	N	0.5	EM	Fair	Poor	Multiple stems from ground level with included unions where stems meet. No observed dieback or disease	No action required at time of survey	20+	C1
T52	*Elder (Sambucus nigra)*	4.5	180, 140	1.5	2.5	2	1.5	1	E	0.5	M	Fair	Fair	Constrained crown. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C1
T53	*European Rowan (Sorbus aucuparia)*	6.5	160, 160, 150, 140, 130	3	2.5	3	2.5	0.5	E	1	EM	Fair	Fair	Multiple stems from ground level with included unions where stems meet. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C1
G54	*Corsican Pine (Pinus nigra)*	14	600	4.5	4.5	4.5	4.5	1	S	0.5	M	Fair	Fair	Strip of trees following ridge top. 15 larger trees with approx 20 smaller trees growing in understorey	No action required at time of survey	20+	B2

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
G55	*Wild Cherry (Prunus avium), Swedish whitebeam*	9	450	4	4	4	4	1.5	S	1.5		Fair	Fair	Strip of trees between building. All are in fair condition without any dieback or significant structural issues	No action required at time of survey	20+	B2
T56	*Tibetan Cherry (Prunus serrula)*	9.5	240	2.5	2.5	2.5	2.5	2	N	4	EM	Fair	Fair	Single stem becomes multiple leader from 2.5m with included unions where stems meet. No observed dieback or disease	No action required at time of survey	20+	C1
T57	*Swedish Whitebeam (Sorbus intermedia)*	6	450	3	3.5	3	3	1.5	E	1.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T58	*Swedish Whitebeam (Sorbus intermedia)*	6.5	460	3.5	3	3.5	3.5	2	N	1.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T59	*Swedish Whitebeam (Sorbus intermedia)*	6.5	260	3.5	3	2.5	3.5	2	E	1.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T60	*Swedish Whitebeam (Sorbus intermedia)*	7.5	400	3	3.5	3	3.5	2	W	1.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T61	*Japanese Cherries (Prunus hybrids)*	5	320	3.5	2.5	2.5	3	2	N	1.5	M	Fair	Fair	Large tear/bark wound on lower trunk with associated decay. Minor dieback in upper crown	No action required at time of survey	10+	C1
T62	*Swedish Whitebeam (Sorbus intermedia)*	4	210	2.5	2.5	2.5	2.5	2	E	1.5	EM	Fair	Fair	No apparent significant defect	No action required at time of survey	20+	B1
T63	*Swedish Whitebeam (Sorbus intermedia)*	6	350	3	3	3	3	2	N	1.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T64	*European Rowan (Sorbus aucuparia)*	4.5	230	2.5	2.5	2	2.5	2	N	1.5	M	Fair	Fair	Minor pocket of decay at base to S. No observed dieback or disease	No action required at time of survey	10+	C1
T65	*Swedish Whitebeam (Sorbus intermedia)*	6	380	3.5	3	3.5	3.5	1.5	W	1.5	M	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
T66	*Japanese Cherries (Prunus hybrids)*	4.5	320	3.5	3	2.2	3	1.5	N	1	M	Poor	Fair	Sparse and poor quality foliage throughout, but no significant observed decay	No action required at time of survey	10+	C1
H67	*Hawthorn, wild cherry, elder*	4	120	2.5	2.5	2.5	2.5	0.5	E	0	M	Fair	Fair	Short hedge-like feature, but lack of management evident. No observed dieback or disease	No action required at time of survey	20+	C2

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T68	*Bird Cherry (Prunus padus)*	5.5	110, 80, 75	3.5	3	2.5	2	1.5	N	2	EM	Fair	Fair	Multiple stems from ground level with tight forks where stems meet. Sparse poor quality foliage	No action required at time of survey	10+	C1
T69	*Sycamore (Acer pseudoplatanus)*	14.5	*540*	6.5	6.5	5	6.5	4.5	S	3.5	M	Fair	Fair	Ivy covered lower stem. Mdw in central crown. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T70	*Silver Birch (Betula pendula)*	17	320	2	3	3.5	3	2	E	1	M	Fair	Fair	Ivy covered lower stem with twisted form. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C1
T71	*Silver Birch (Betula pendula)*	14.5	420	3	3	4.5	3.5	3.5	E	2.5	M	Fair	Fair	Twisted lower stem with small decay pocket at Historuc branch wound location. No observed dieback or disease	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
T72	*Sycamore (Acer pseudoplatanus)*	13	410, 250	3.5	3	4.5	3.5	2	E	1.5	M	Fair	Fair	Twin stems from ground level. Ivy covered lower stem and crown. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T73	*Sycamore (Acer pseudoplatanus)*	14	280, 220	3	3.5	3.5	2.5	2	N	1.5	M	Fair	poor	Twin stems from near ground level, with included unions where stems meet. Ivy covered lower stem. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C1
T74	*Crack Willow (Salix fragilis)*	15	*540, 530, 500, 450*	6.5	6	6.5	7	1	N	1.5	M	Fair	Fair	Ivy covered lower stem and crown and means full inspection is impossible. Multiple stems from ground level with included unions where stems meet. Subsiding lower limbs. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
G75	*Hawthorn, wild cherry, elder, hazel*	4	80	3	3	3	3	0	E	0	M	Fair	Fair			20+	C2
T76	*Japanese Cherries (Prunus hybrids)*	4.5	330	3.5	3	4	3	1.5	S	2	M	Fair	Fair	Ivy covered lower stem and crown. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
T77	*European Hornbeam (Carpinus betulus)*	7	300	2	2	1.5	2	2.5	N	2.5	M	Fair	Fair	Stem bifurcates from 2m with included unions where stems meet. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1
G78	*Sycamore (Acer pseudoplatanus)*	14	480	5	5.5	5	6	2	N	1.5	M	Fair	Fair	Row of mature trees along boundary. A few minor defects present, but no systemic dieback, disease or decay	No action required at time of survey	20+	B2
G79	*Silver Birch (Betula pendula)*	12.5	350	3.5	3.5	4	4	2	N	1.5	M	Fair	Fair	Pair of trees at site boundary. No apparent significant defect	No action required at time of survey	20+	B1
G80	*Sycamore (Acer pseudoplatanus)*	13.5	500	6	6	6	6	2.5	E	2	M	Fair	Fair	Row of relatively larger and more mature trees. No apparent significant defect	No action required at time of survey	20+	B2

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
G81	*Sycamore (Acer pseudoplatanus); Swedish whitebeam*	9.5	440	4.5	4.5	4.5	4.5	2	N	2	M	Fair	Fair	Row of trees along site boundary, with some degree of height and spread throughout. no significant dieback or decay observed	No action required at time of survey	20+	B2
T82	*Pedunculate Oak (Quercus robur)*	4.5	200	3.5	3	3	3	0.5	N	1	EM	Fair	Fair	No apparent significant defect	No action required at time of survey	20+	B1
G83	*Japanese Cherries (Prunus hybrids)*	7.5	320	3	3	3	3	2	E	3.5	M	Fair	Poor	Row of trees on verge. Large included unions where single stems become multiple leaders	No action required at time of survey	20+	C2
T84	*Common Ash (Fraxinus excelsior)*	9	260, 250	4	4	4.5	4	2	N	1.5	EM	Fair	poor	Twin stems from ground level with included unions where stems meet. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C1
G85	*Wild cherry, hazel, hawthorn, elder, crack willow*	8	140	3	3	3	3	0.5	W	0.5	EM	Fair	Fair	Dense strip of vegetation parallel to site boundary. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	C2,3

				Canopy Spread (m)													
Tree Ref	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Branch Height	Branch direction	Avg Canopy Height (m)	Age	Physiological Condition	Structural Condition	Observations	Recommendations	Est Remaining Cont	Category
G86	*Swedish Whitebeam (Sorbus intermedia)*	6.5	400	4	4	4	3.5	1.5	E	1	M	Fair	Fair	Small cluster of trees in edge of larger group, but much more mature. No apparent significant defect	No action required at time of survey	20+	B1
G87	*Japanese Cherries (Prunus hybrids)*	6	330	3.5	3.5	3.5	3.5	1.5	W	2.5	M	Fair	Fair	Trio of trees with minor bark/trunk wounds. No observed dieback or disease and no significant observed decay	No action required at time of survey	20+	B1,2
T88	*Swedish Whitebeam (Sorbus intermedia)*	4	250	3	2.5	2.5	2.5	1.5	S	2	EM	Fair	Fair	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	20+	B1
G89	*Wild Cherry (Prunus avium)*	12	420	5.5	4	3.5	4	1.5	N	2	M	Poor	Poor	Sparse foliage through crowns of both trees. Large included unions where single stems become multiple leaders	No action required at time of survey	10+	C1