



AllAboutTrees

Arboricultural & Ecological Consultancy
Chartered Arboriculturalists & Environmentalists

Arboricultural Method Statement

For Trees At

The Former School Kitchens, North Road,

Boldon Colliery



For

Blake Hopkinson Architecture



Document Verification

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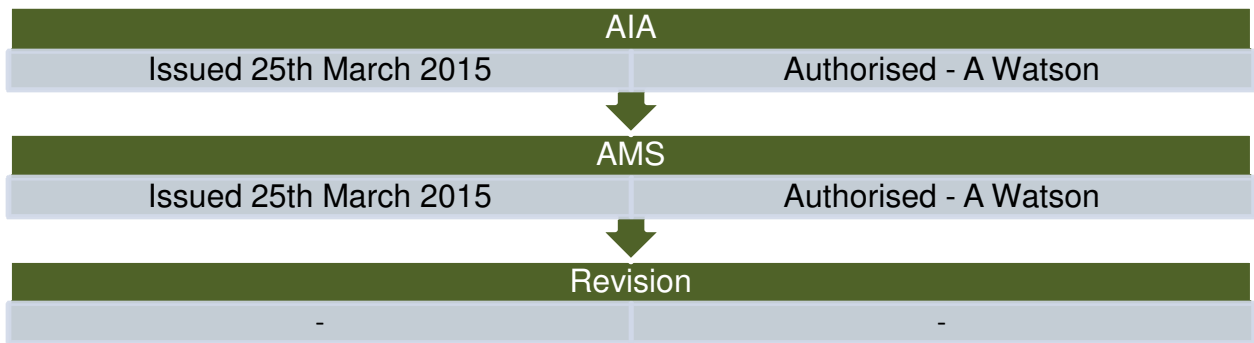


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1. Introduction

1.1 We are instructed by Blake Hopkinson Architecture to provide an Arboricultural Method Statement (AMS) regarding the protection and management of the significant trees located at the former school kitchens, North Road, Boldon Colliery.

1.2 This method statement is a reference document produced to ensure best practice in the management of the trees during the demolition and construction phases of the development and brings together all of the relevant information including the recommendations set out in British standard 5837:2012 – Trees in relation to design, demolition and construction. The method statement must be read in conjunction with our Arboricultural Impact Assessment dated 25th March 2015.

1.3 The method statement forms part of the specification and schedule of works to be issued to the contractor and may form part of the contract documentation.

1.4 This document should be kept on file at the site office and be available for inspection by relevant parties.

2. Protected Status Of Trees

2.1 Trees may be legally protected, this may either be in the form of a Tree Preservation Order (TPO) or that the trees are located within a Conservation area. In addition some tree felling may require a felling licence from the Forestry Commission.

2.2 Potentially large penalties may be enforced for illegally carrying out works on protected trees. It is recommended that checks are made before any works are undertaken and no work should commence until permission has been granted. Please note that there are a number of exemptions from the requirement to obtain a felling licence including land on which full planning permission has been granted by the local authority, however this exemption does not cover land where only outline planning permission has been granted, or on land which has been allocated for residential development within local authority urban and local development plans.

2.3 AllAboutTrees has been able to ascertain with South Tyneside Council (the Local Planning Authority) on Wednesday 25th March 2015 there are no some restrictions protecting the trees on the site. The site is not within a Conservation area and there are no TPOs imposed on any trees within the site.

3. Site Operations Prior To Any Construction Works

3.1 Tree Works

3.1.1 The first arboricultural works on site will be the removal of all the conflicting trees (trees 1-21, hedge 1 & 2, and group 1 and part of group 2) which are identified on the Tree Protection Plan (TPP) by the broken black ring surrounding the tree centre and referred to in appendix 1 of this report.

3.1.2 The stumps may either be ground out using a stump grinding machine or removed as part of the ground excavation works.

See section 5 for Arboricultural supervision schedule.

3.2 Protective Barrier Erection

3.2.1 The protective barriers are to be erected prior to the commencement of site works including demolition, soil stripping or movement, bringing onto site of materials, supplies or machinery. Tree works can be undertaken prior to the erection of the barriers.

3.2.2 The barriers must be erected in the position indicated on the Tree Protection Plan (TPP) by the dark blue line and be constructed as per the following specification.

3.2.3 The barriers should be considered essential and should not be removed or altered without prior recommendation by an Arboriculturalist and approval of the local planning authority.

3.2.4 The barrier should consist of a vertical and horizontal framework of scaffold tubing which is adequately braced to resist impacts. The vertical scaffold tubes need to be placed at a distance not exceeding 3m apart and driven securely into the ground for a minimum depth of 0.6m. Care should be taken when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid any structural roots. The weldmesh or Heras panels need to be a minimum 2.0m tall and are securely attached to the scaffold framework with wire or scaffold clamps. The wire or scaffold clamps should be secured on the inside of the barrier to avoid easy dismantling. Panels on rubber or concrete feet are not resistant to impact and should not be used.

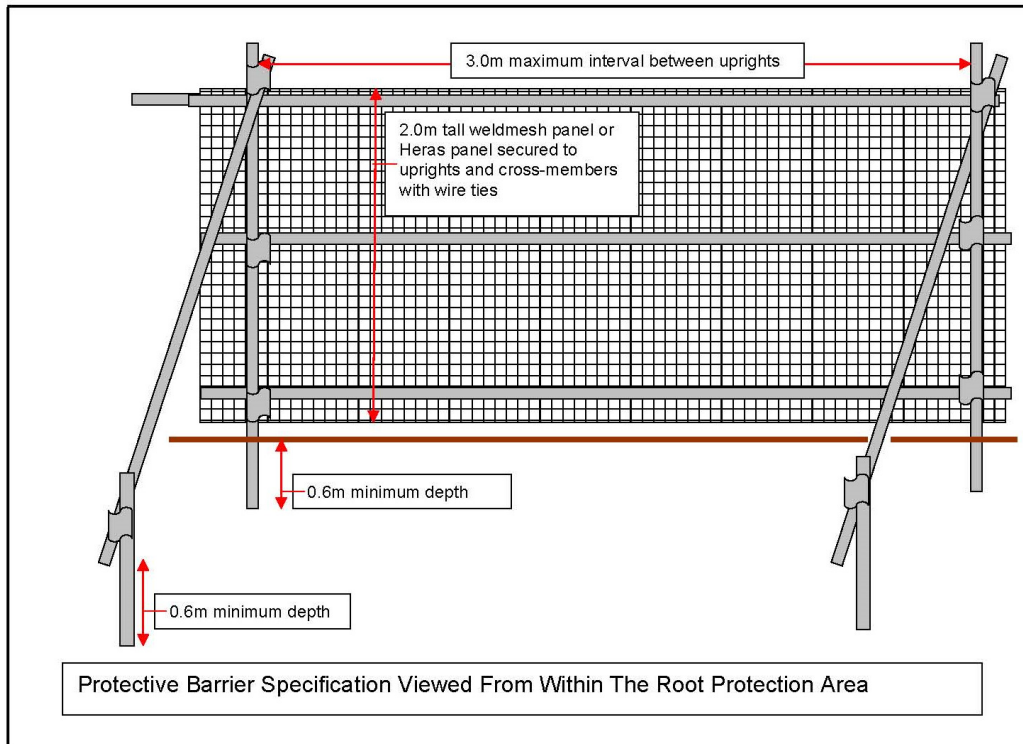


Figure 1- Protective barrier diagram



Figure 2- Example of a barrier erected on a site

3.2.5 No fixing shall be made to any tree and all possible care must be taken to prevent damage to tree roots when locating the posts.

3.2.6 All types of barriers must be firmly attached to prevent movement by site personnel or vehicles and all weather signs with the wording "Construction exclusion zone- keep out" should be attached.

3.3 Location Of Site Compound & Storage Areas

3.3.1 The contractor's site compound, storage & parking areas must be located outside of the root protection areas (RPAs) of the retained trees.

3.3.2 All site storage areas, especially cement mixing and washing points for plant and vehicles must also be situated outside of the root protection areas (RPA). Where there is a possible risk of polluted water runoff heavy duty plastic sheeting and sand bags must be used to contain spillages and contamination.

4. Construction Methodology

4.1 Service Runs

4.1.1 It is assumed that the existing service runs will be exploited where possible, but if new works are required it is important that they comply with the National Joint Utilities Group (NJUG) 'Guidelines for the planning, installation, and maintenance of utility services in proximity to trees' and BS 5837:2012. The excavation of open trenches by machine will be unacceptable within the protective zone of any of the retained trees.

4.1.2 Wherever possible, services should be routed outside of any retained trees RPA. When this is not possible apparatus should be routed together in a common duct and any inspection chambers sited outside the RPA.

4.1.3 Acceptable techniques for the laying of services in order of preference are:

- **Trenchless-** by use of thrust boring or similar techniques. The pit excavations for starting and receiving the machinery should be located outside of the root protection area. To avoid root damage, the mole should run at a depth of at least 600mm. Use of external lubricants on the mole other than water (eg oil or bentonite) should be avoided.

Trenchless Solutions For Installation Of Underground Services					
Method	Accuracy (MM)	Bore ^(A) diameter (MM)	Maximum subterranean length (M)	Applications	Not suitable for
Microtunnelling	<20	100 to 300	40	Gravity-fall pipes, deep apparatus, watercourse/ roadway under crossings	Low-cost projects due to relative expense
Surface-launched directional drilling	≈100	25 to 1200	150	Pressure popes, cables including fibre optic	Gravity fall pipes, e.g. drains and sewers ^(B)
Pipe ramming	≈150	150 to 2000	70	Any large-bore pipes and ducts	Rocky and other heavily obstructed soils
Impact moling ^(C)	≈50 ^(D)	30 to 180 ^(E)	40	Gas, water and cable connections, e.g. from street to property	Any application that requires accuracy over distances in excess of 5m.

(A) Dependant upon strata encountered

(B) Pit-launched directional drilling can be used for gravity fall pipes up to 20m in subterranean length

- (C) Impact moling (also known as thrust-bore) generally requires soft, cohesive soils.
- (D) Substantial inverse relationship between accuracy and distance
- (E) Figures given relate to single pass: up to 300mm bore achievable with multiple passes

If trenchless insertion is not feasible the alternatives are detailed below in order of preference.

- **Broken trench-** by using hand dug trench sections together with trenchless techniques. It should be limited to practical access and installation around or below the roots. The trench must be dug by hand (see following comments re continuous trenching) and only be long enough to allow access for linking to the next section. The open sections should be kept as short as possible.
- **Continuous trench-** the trench is excavated by hand and retains as many roots as possible. The surface layer is removed carefully and hand digging of the trench takes place. No roots over 2.5cm diameter or clumps of smaller roots (including fibrous) should be severed. The bark surrounding the roots must be maintained. Cutting of roots over 2.5cm diameter should not be attempted without the advice of a qualified Arboriculturalist.

If roots have to be cut, a sharp tool (defined as spade, narrow spade, fork, breaker bar, secateurs, handsaw, post hole shoveller, hand trowel) should be used.

Backfilling

4.1.4 Reinstatement of street works must comply with the code of practice New Roads and Streetworks Act 1991 (Specification for the reinstatement of openings in highways), but where tree roots are involved backfilling should be carefully carried out to avoid direct damage to retained roots and excessive compaction of the soil around them.

4.1.5 The backfill should incorporate an inert granular material mixed with top soil or sharp sand (not builders sand) around the retained roots. This will allow a measure of compaction for resurfacing whilst creating an aerated zone around the roots.

4.1.6 Roots and in particular fine roots, are vulnerable to desiccation on exposure to air. The roots are at greatest risk when there are rapid fluctuations in the air temperature around them (especially winter diurnal temperatures). It is vitally important that the roots are covered with sacking whilst the trench is open. The sacking should be removed once the trench is backfilled.

5. Proposed Arboricultural Supervision

5.1 The following programme of supervision is proposed to assist in the preservation and protection of the retained trees during all aspects of the proposed development.

5.2 The supervision arrangements must be sufficiently flexible to allow for the supervision of all sensitive works as they occur. The Arboricultural Consultant's initial role is to liaise with the developer and the council to ensure that the appropriate protective measures are in place before any works commence on site and once the site is active monitor compliance with the Arboricultural conditions and advise on any tree problems that may arise.

Action	Programming	Extent of supervision	Nature of supervision
Pre-commencement meeting with site manager & Council tree officer	Before any site activity commences	Meeting on site Review any updates to the proposal Confirm extent of tree works and protective barrier position.	Site meeting & letter or email confirming results of meeting distributed to relevant parties.
Tree works meeting with tree works contractor	Prior to commencement of tree works	Meeting on site to confirm tree works specification and method of working	Site meeting & letter or email confirming results of meeting distributed to relevant parties.
Tree works undertaken Finalising tree protection barrier installation and other tree protection measures	Before any plant enters site or demolition/construction work commences.	Confirm position of the protective barriers and any other tree protection measures have been installed and comply with the Tree Protection Plan (TPP) Provide photographs indicating completed tree protection	Site meeting & letter or email confirming results of meeting distributed to relevant parties.
Removal of protective barriers and other tree protection measures	Once construction activities have finished	Meeting with contractor for briefing before removal commences	Site meeting & letter or email confirming results of meeting distributed to relevant parties.

5.3 Site Management

5.3.1 It is the developer's responsibility to ensure that the details of the Arboricultural method statement and any agreed amendments are known and understood by all relevant site personnel. Copies of the agreed documents must be kept on site at all times and the site manager or other appropriate person must brief all personnel who could impact the trees on the specific tree protection requirements.

5.3.2 This should form part of the site induction procedure and be written into the appropriate site management documents.

For and on behalf of
AllAboutTrees Ltd

Andrew Watson FLS MICFor CBiol MSB FArborA CEnv LCGI
-Chartered Arboriculturalist & Registered Consultant

Appendix 1

Tree No.	Species Common Name Latin Name	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
1	Ash <i>Fraxinus excelsior</i>	7	1.5	2	1.5	1.5	140	1	1	1 S	Young	Fair	Fair	1.7	40+	C - Low	No major visible defects. Stem divides above 1.5m.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	13	A
2	Ash <i>Fraxinus excelsior</i>	6.5	2	2	2	2	140	1	1	1 NW	Young	Fair	Fair	1.7	40+	C - Low	No major visible defects.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	12	A
3	Ash <i>Fraxinus excelsior</i>	7	3	2	2	2.5	170	1	1	1 N	Young	Fair	Fair	2	40+	B - Moderate	No major visible defects. Stem divides above 1.5m.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	11	A
4	Ash <i>Fraxinus excelsior</i>	6.5	2.5	1.5	3	1.5	140	1	1	1 N	Young	Fair	Fair	1.7	40+	C - Low	No major visible defects. Stem divides above 1.5m.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	10	A
5	Highclere Holly <i>Ilex x altaclarensis</i>	4.5	3	3	4.5	2.5	300	1	0.5	0.5 SW	Mature	Fair	Fair	3.6	20-40	B - Moderate	Multiple stems below 1.5m. Crossing/ rubbing branches. Asymmetric crown spread. Some dimensions estimated due to access constraints.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	8	9	A
6	Wild Cherry	5.5	2.5	3	3	2.5	150	1	1.5	1.5	Middle	Fair	Fair	1.8	40+	C - Low	No major visible defects.	This tree conflicts	None	16	10	A

Tree No.	Species Common Name Latin Name	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
	<i>Prunus avium</i>								SW	aged						Broken/ hanging branches in crown.	with the proposed design layout and will need to be removed to facilitate the development.					
7	Ash <i>Fraxinus excelsior</i>	6.5	1.5	2	2	1.5	110	1	1.5	1.5 W	Young	Fair	Fair	1.3	40+	C - Low	No major visible defects.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	10	A
8	Ash <i>Fraxinus excelsior</i>	6	2	2	2	1.5	120	1	1.5	1.5 S	Young	Fair	Fair	1.4	40+	C - Low	No major visible defects. Stem divides above 1.5m.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	10	A
9	Ash <i>Fraxinus excelsior</i>	5.5	2	2	2	2.5	140	1	0.5	1 S	Young	Fair	Fair	1.7	40+	C - Low	No major visible defects. Stem divides above 1.5m.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	10	A
10	Ash <i>Fraxinus excelsior</i>	5.5	1	2	2	2	100	1	1.5	1.5 W	Young	Fair	Fair	1.2	40+	C - Low	No major visible defects. Stem divides above 1.5m.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	10	A
11	Elder <i>Sambucus nigra</i>	3	1	2	2.5	1.5	200	1	0	0 E	Mature	Fair	Poor	2.4	10-20	C - Low	Multiple stems at ground level. Broken/ hanging branches in crown. Deadwood retained in canopy. Asymmetric crown spread; canopy distorted due to	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	6	6	A

Tree No.	Species Common Name Latin Name	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
																group pressure.						
12	Elder <i>Sambucus nigra</i>	4.5	1.5	1	2.5	1	219	2	1.5	1.5 NE	Mature	Fair	Poor	2.6	10-20	C - Low	Stem divides below 1.5m. Minor/ small diameter deadwood retained in canopy. Areas of stem decay.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	6	5	A
13	Hawthorn <i>Crataegus monogyna</i>	4.5	2.5	3	0.5	3	180	1	0	0.5 SW	Mature	Fair	Fair	2.2	20-40	B - Moderate	Stem divides below 1.5m. Crossing/ rubbing branches. Asymmetric crown spread; canopy distorted due to group pressure. Slight lean west.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	8	7	A
14	Elder <i>Sambucus nigra</i>	4.5	2.5	2.5	2.5	2.5	170	2	0	0 S	Middle aged	Fair	Fair	2	10-20	C - Low	No major visible defects. Stem divides at ground level.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	7	7	A
15	Hawthorn <i>Crataegus monogyna</i>	6	3	2	2.5	2	220	1	0.5	0.5 S	Middle aged	Fair	Fair	2.6	20-40	B - Moderate	Some dimensions estimated due to access constraints. No major visible defects. Multiple stems below 1.5m. Crossing/ rubbing branches. Crown distorted due to group pressure.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	10	7	A
16	Hawthorn <i>Crataegus</i>	4.5	2	2	2.5	1	150	1	0	0 E	Middle aged	Fair	Fair	1.8	20-40	C - Low	Some dimensions estimated due to access constraints.	This tree conflicts with the proposed design layout and will	None	8	8	A

Tree No.	Species Common Name Latin Name	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
	<i>monogyna</i>															No major visible defects. Multiple stems below 1.5m. Crown distorted due to group pressure.	need to be removed to facilitate the development.					
17	Hawthorn <i>Crataegus monogyna</i>	6	2.5	3	2.5	3	220	1	0	0.5 SE	Middle aged	Fair	Fair	2.6	40+	B - Moderate	Stem diameter estimated as single value. No major visible defects. Multiple stems below 1.5m. Crossing/ rubbing branches. Old nest in canopy.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	10	8	A
18	Hawthorn <i>Crataegus monogyna</i>	5	2.5	0.5	1.5	2	150	1	0.5	0.5 E	Middle aged	Fair	Fair	1.8	40+	C - Low	Some dimensions estimated due to access constraints. No major visible defects. Multiple stems at ground level. Asymmetric crown spread; canopy distorted due to group pressure.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	10	7	A
19	Hawthorn <i>Crataegus monogyna</i>	4	2	1.5	1.5	1.5	160	1	0	0 E	Middle aged	Fair	Fair	1.9	20-40	C - Low	No major visible defects. Multiple stems at ground level.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	8	7	A
20	Hawthorn	5	3	3	3.5	2.5	350	1	1.5	1 E	Mature	Fair	Fair	4.2	20-40	B - Moderate	Some dimensions estimated due to access	This tree conflicts with the proposed	None	8	8	A

Tree No.	Species Common Name Latin Name	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
	<i>Crataegus monogyna</i>															constraints. No major visible defects. Multiple stems below 1.5m. Crossing/ rubbing branches.	design layout and will need to be removed to facilitate the development.					
21	Hawthorn <i>Crataegus monogyna</i>	5	3	2.5	3	2.5	400	1	0	1 E	Mature	Fair	Fair	4.8	10-20	C - Low	Some dimensions estimated due to access constraints. No major visible defects. Multiple stems below 1.5m. Crossing/ rubbing branches.	This tree conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	8	8	A
Tree Groups																						
1	Elder Hawthorn Blackthorn Hazel English Oak Wild Cherry <i>Sambucus nigra</i> , <i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Corylus avellana</i> , <i>Quercus robur</i> , <i>Prunus avium</i>	6	-	-	-	-	150	1	-	-	Young	Fair	Fair	1.8	20-40	C - Low	Messy, overgrown and unmanaged group resulting from lack of management following demolition of old buildings. Group forms dense, impenetrable thicket. Number of planted trees in group from old land scraping. Lots of rubbish in group, especially on eastern extremity adjacent to path. Some illicit tree pruning on trees to northern boundary	This group conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	18	20	A

Tree No.	Species Common Name Latin Name	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
																by adjacent residents. Metal railing fence encapsulates group. Good ecological value for small birds and mammals.						
2	Elder <i>Sambucus nigra</i>	5.5	-	-	-	-	300	1	-	-	Mature	Fair	Poor	3.6	10-20	C - Low	Messy group of unmanaged elder on site boundary, extends into adjacent field. Lots of tipped rubbish in group from adjacent allotments. Extends into site by up to 8.5m. Approximately x10 trees. Number have already collapsed.	Sections of this group, inside the study area, conflict with the proposed design and will need to be removed to facilitate the development. The remainder of the group, outside of the study area, is retainable and will be adequately protected by the position of the protective barrier as indicated by the blue line on the TPP.	None	10	10	A
Hedgerows																						
1	Privet <i>Ligustrum ovalifolium</i>	3	-	-	-	-	200	1	-	-	Middle aged	Fair	Fair	2.4	20-40	C - Low	Stem diameter estimated as single value. Multiple stems at ground level. Privet hedgerow on site boundary. Tall but still maintained.	This hedgerow conflicts with the proposed design layout and will need to be removed to facilitate the development.	None	7	7	A
2	Privet <i>Ligustrum ovalifolium</i>	4	-	-	-	-	200	1	-	-	Middle aged	Fair	Fair	2.4	20-40	C - Low	Stem diameter estimated as single value. Multiple stems at ground	This hedgerow conflicts with the proposed design layout and will need	None	7	7	A

Tree No.	Species Common Name <i>Latin Name</i>	Height (M)	Crown Spread (M)				Trunk Dia (MM)	No. Of Stems	Height Of Lower Canopy (M)	First Sign Branch (M) (Position)	Age	Physiological Condition	Structural Condition	Root Prot Area Radii (M)	Estimated Remaining Contribution (Years)	Tree Quality Assessment	Comments	Maintenance	Bat Roost Potential	Ultimate Size For Species (M)		Priority
			N	S	E	W														Height	Spread	
																level. Privet hedgerow internal to site. Tall, overgrown and unmanaged.	to be removed to facilitate the development.					

Appendix 2(1)

Glossary of Terms

- 1 Reference number:** An individual identifying number
- 2 Species:** Species identification is based on visual field observations and lists the common name. In some cases the botanical name will be used where there is no common alternative. On in-depth surveys the botanical name only may be used
- 3 Height:** Height is estimated to the nearest metre. On computerised surveys this may be within a range of heights. When measured height is required, a clinometer is used to measure to the nearest metre
- 4 Diameter:** Trunk diameter measured at 1.5 metres from ground level to the nearest centimetre. In some surveys this is indicated as a range
- 5 Spread:** Measurement of canopy from the trunk to the nearest metre in four directions, North, South, East, and West in metres
- 6 Lower crown Clearance:** Height in metres of crown clearance above adjacent ground level
- 7 Age:** Either an estimate (or statement if accurately known) of the age of the tree, classified as:
 - Y** = Young tree, established tree usually up to one third of expected ultimate height & spread
 - MA** = middle aged, usually between one third and two thirds of ultimate height & spread
 - M** = Mature, more or less at full height but still increasing in girth & spread
 - OM** = Over mature, grown to full size and becoming senescent,
 - V** = Veteran tree, individuals surviving beyond the typical age range for the species
- 8 Physiological Condition:** Good = Healthy tree with good vitality,
Fair = Moderate health and vitality normal or slightly less for species and age
Poor = Poor shape or form - signs of decline in crown, may have structural weakness.
Dead = dead or dying tree
- 9 Structural Condition:** Good = No visible structural defects
Fair = Only minor structural defects
Poor = Defects which may need to be rectified or regularly monitored
Remove = Severe defects which may result in imminent failure or collapse
- 10 Management Recommendations:** General comments on the condition of the tree or group and any action required. potential for wildlife habitats
- 11 Estimated Remaining Contribution:** Safe Useful Life Expectancy (SULE): in some cases the age ranges are modified
Short: 0 – 10years Medium: 10– 20 Years
Intermediate: 20-40 Long: 40 + years
- 12 Tree Quality:** Assessment of tree quality see following cascade chart for details
- 13 Priority:** A - Works to achieve an acceptable level of safety or required to facilitate the development
B - Works to achieve higher levels of arboricultural management.
C - To improve the aesthetic appearance.
- 12 Ultimate Size:** Taken from Arboriculture Research Note 8490ARB or NHBC Standards Chapter 4.2 as appropriate The Normal Ultimate Height in an Urban Situation in metres. Ultimate spread of the Crown in metres.
- 13 Root Protection Area:** The distance at which the protective barrier should be erected measured in radii from the centre of the trunk in metres.

- 14 Pruning:** Pruning shall be defined as the removal of living or dead parts of a plant by the Contractor. Such parts may be soft growth, twigs, branches, limbs or sections of the tree trunk. The cut material may vary from small to large in size.
- 15 Crown Cleaning:** Cleaning out is defined as the removal of dead, dying or diseased branchwood, broken branches or stubs left from previous tree surgery operations (see also 16 Deadwooding) together with all unwanted objects, which may include ivy (if specified) and/or other climbing plants, nails, redundant cable bracing, rope swings, tree houses and windblown rubbish from the tree, and any such debris from any cavities within the tree.
- 16 Deadwood Removal:** Dead-wooding shall be defined as the removal of all dead and dying branches and limbs from the tree.
- 17 Crown Lifting:** Crown lifting shall be defined as the removal of all soft growth and branches or parts thereof which are below or which extend below the height specified in the tender documents. It is recognised that the resultant canopy base might not be one single level but might be stepped to allow for different clearances, for example where a tree overhangs both the footway and the road where different height clearances are required.
- 18 Crown Reduction:** Crown reduction shall be defined as the reduction of the complete outline dimension of the canopy, from the tips of limbs and branches to the main trunk, by pruning growth to an acceptable branch, twig or but to leave a flowing silhouette.

Appendix 2(11) Cascade Chart For Assessing Tree Quality

Category and definition Trees to be considered for retention	Criteria – Subcategories			Identification on plan
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
<p><u>Category High = A</u></p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	Trees that are particularly good examples of their species, especially, if rare or unusual, or those that are essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation historical, commemorative or other value (e.g. veteran trees or wood – pasture)	Green
<p><u>Category Moderate = B</u></p> <p>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	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	Blue
<p><u>Category Low = C</u></p> <p>Trees of low quality with an estimated remaining life expectancy of at least 10 years; or young trees with a stem diameter below 150mm</p>	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 benefits	Yellow
<p><u>Category = U Trees unsuitable for retention</u></p> <p>Those of 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</p>	<p>NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation</p> <ul style="list-style-type: none"> • 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 U category trees (i.e. 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 (e.g. Dutch elm disease) or very low quality trees suppressing adjacent trees of better quality • Habitat reinstatement may be appropriate (e.g. U category trees used as a bat roost- installation of bat box in nearby tree) 			Red



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