



ARBORICULTURAL REPORT

& Impact Assessment

to BS 5837:2012 at:

Land off
Main Avenue,
Cowersley,
Kirklees,
Huddersfield,
HD4 5US

Prepared for:
Strata and Thirteen Group

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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We have been instructed by Strata Homes Limited to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

- 1.2.1 The survey took place during May 2024.
- 1.2.2 The trees were surveyed visually from the ground using “Visual Tree Assessment” techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 The tree positions were plotted on an Ordnance Survey map base-layer using enhanced GPS technology (1-2m accuracy) and laser distance measurer.
- 1.2.5 This report has been prepared by Mr Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principal and Director of AWA Tree Consultants Ltd.
- 1.2.6 The tree survey data collection was carried out by Lucy Garbutt, MSc, BSc (Hons) Biology, Arboriculturist at AWA Tree Consultants Ltd.
- 1.2.7 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

2. The Site

2.1 Location and Description

- 2.1.1 The site is located off Main Avenue in Cowersley, Kirklees.
- 2.1.2 The site is a parcel of disused land. To the north lies a school property with associated playground and parking, to the east and west lie residential properties and to the south lies a woodland.
- 2.1.3 The approximate area of the survey is highlighted in the (2021 Google Earth) image below:



3. The Trees

3.1 Legal

- 3.1.1 The following advice is for guidance purposes only. Some trees are protected by legislation, and it is essential that the legal status of trees is established prior to carrying out works to them. Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record. Tree Preservation Orders, Conservation Areas, Planning Conditions, Felling Licences or Restrictive Covenants legally protect many trees in the UK.
- 3.1.2 An online search was undertaken with Kirklees Council on 28/11/24 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. As of this date no trees at the site are protected by a Tree Preservation Order or are within a Conservation Area.
- 3.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such work is approved as part of full planning permission).
- 3.1.4 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to search for areas of ancient woodlands listed on the Ancient Woodland (DEFRA 2021), and a check for catalogued Ancient and Veteran trees using the woodland trust ancient tree inventory (ATI) (Woodland Trust 2021).
- 3.1.5 It was confirmed that there are no designated ancient woodlands or veteran or ancient trees within the survey area.
- 3.1.6 Trees provide a wide range of habitats for many species, some of which are legally protected such as bats, nesting birds, badgers and dormice. It is essential that appropriate care is taken to ensure that this legislation is not contravened.
- 3.1.7 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.8 All tree work should be carried out according to British Standard 3998:2010 Tree Work - Recommendations.

3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 63 items of woody vegetation, comprised of 49 individual trees and 14 tree groups.
- 3.2.2 Of the surveyed trees: 26 trees and 2 tree groups are retention category 'B' and 23 trees and 12 tree groups are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).
- 3.2.3 Full details of the surveyed trees, tree groups and hedges are provided in the attached tree data schedule at Appendix 4. General comments are provided below:
- 3.2.4 The significant tree cover within the site consists mainly of small groups of semi-mature to early-mature Oaks and Rowans spread across the site's southern boundary. There are also several early-mature individual Oak trees close to these groups which have been picked up as individual trees. The majority of these trees are likely self-set and unmanaged. Informal footpaths run throughout these groups.
- 3.2.5 Most of the trees at the site are semi-mature with the occasional early-mature individual and groups.
- 3.2.6 Species diversity at the site is relatively good. The dominant species is Oak, but there are also several Rowan, Cherry, Hawthorn and Alder with the occasional Apple, Sycamore, Willow, Hazel, Whitebeam.
- 3.2.7 The sites most significant trees are the retention category 'B' trees and tree groups. These are: Oaks G23 – 27, T29, T30, T33 – T39, T42, T44, T46, T49, T51, T52, T54, T55, T57, T59 and T60, Whitebeams T56 and T63 and Cherry T62.
- 3.2.8 Oaks G23 – 27, T29, T30, T33 – T39, T42, T44, T46, T49, T51, T52, T54, T55, T57, T59 and T60 are generally early-mature individuals or groups of individuals situated to the south of the site. These trees are all in good condition, with good long-term prospects. Some have the occasional crossing branches and tight unions with partially included bark. These trees have moderate amenity value within the site and surrounding area due to their prominence in the site alongside the informal but well-used footpaths that run through the site.
- 3.2.9 Whitebeams T56 and T63 are early-mature individuals in good condition, with good long-term prospects. T56 is situated within the cluster of retention category 'B' Oak trees to the north of the site, and T63 is situated to the west of the site in an adjacent residential property. T63 has a slight lean northward but otherwise this tree is in good condition. Both trees have moderate amenity value.
- 3.2.10 Cherry T62 is situated adjacent to Whitebeam T63, also beyond the

boundary wall within the adjacent residential property. T62 is a prominent, mature Cherry which is in good condition and has little to no visual defects.

- 3.2.11 There are also several retention category 'C' semi-mature groups within the site. Typically, these are made up of Oak and Rowan with the occasional Hawthorn. These tree groups are likely self-set and have been left unmanaged. Where possible, the stems of trees within these groups have been plotted to give a general RPA on these groups.
- 3.2.12 The remaining trees within the site are of particularly low value and should not pose any significant constraint on the development potential of the site.
- 3.2.13 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.
- 3.2.14 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.
- 3.2.15 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

3.3 Photographs



Photo 1: T1 – T10 from south east.



Photo 2: G14 from south east.



Photo 3: T15 from south.

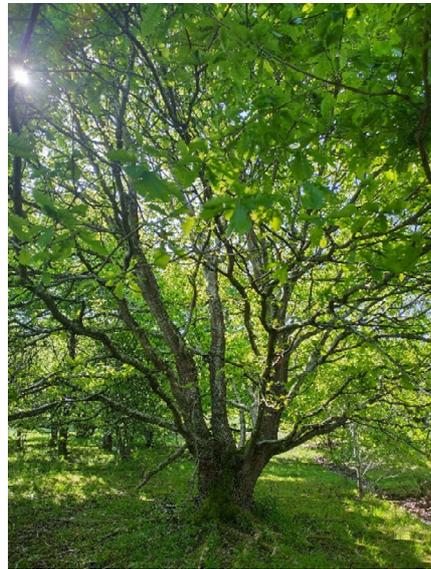


Photo 4: T37 from north east.

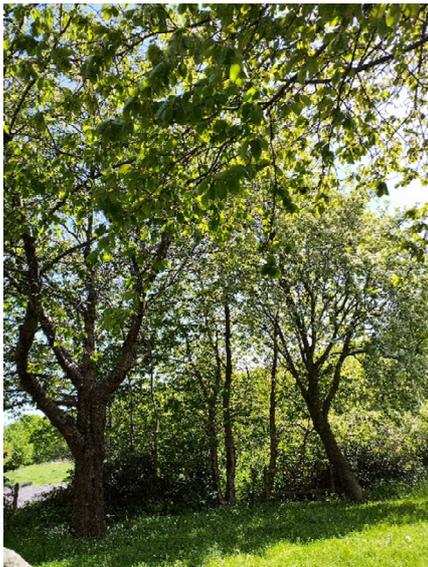


Photo 5: G61 from north.



Photo 6: T62 from north east.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new residential development with associated access, parking, landscaping and facilities. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

4.2 Direct Impacts

4.2.1 From assessing the new development proposals, 34 trees and 12 tree groups will require removal to facilitate the development as they are situated in the footprint of the development or their retention and protection throughout the development is not suitable. 1 tree group requires partial removal to facilitate the development.

4.2.2 The trees that require removal to facilitate the development are T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T12, T13, T15, T24, T25, T32, T33, T34, T35, T36, T37, T39, T41, T42, T43, T44, T46, T47, T48, T49, T56, T57, T59 and T60.

4.2.3 The tree groups that require removal to facilitate the development are G14, G16, G22, G23, G28, G31, G38, G40, G45, G50, G58 and G61.

4.2.4 T4, G14, T15, G16, G22, G23, T24, T36, T37, G38, T39, G40, T41, T42, T43, T44, G45, T46, T59, T60 and G61 require removal as they are situated within the footprint of the development.

4.2.5 T1, T7, T25, G28, G31, T32, T33, T34, T35, T47, T48, T49, T56, T57 and G58 require removal as the proposed hardstanding or proposed structures and retaining walls encroach into a significant portion of their RPA, and as such their retention throughout the development is not feasible.

4.2.6 T2, T3, T5, T6, T8, T9, T10, T12, T13 and G50 require removal as they are situated within proposed garden areas for the new properties, and as such are not realistically suitable for retention as they will take up a large proportion of the gardens, rendering them unusable.

4.2.7 Of the trees and tree groups to be removed, 18 are moderate value, retention category 'B'. These are: G23, T24, T25, T33, T34, T35, T36, T37, G38, T39, T42, T44, T46, T49, T56, T57, T59 and T60, and as such, the associated arboricultural impacts of these removals will be moderate.

4.2.8 Of the trees and tree groups to be removed, 28 are lower value, retention category 'C'. These are: T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T12, T13, G14, T15, G16, G22, G28, G31, T32, G40, T41, T43, G45, T47, T48, G50, G58 and G61 and as such, the associated arboricultural impacts will be lower, and these

removals can easily be mitigated for with replacement planting.

- 4.2.9 G11 requires partial removal to facilitate the development. Remove the southern portion of G11 as required to facilitate the development. Do not prune beyond the boundary.

4.3 Indirect Impacts

- 4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendices 5 and 6, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 4.3.2 The new development requires excavations within the RPA of retained trees T26 and T27. The encroachment is relatively minor. Any exposed roots should be wrapped with hessian sacking and kept damp to avoid drying out during the works until the excavation is back-filled. It is advised to include the placement of an inert granular material mixed with top soil or sharp sand (not builders' sand) around the retained root prior to back-filling for the final level.
- 4.3.3 All the retained trees have been assessed as suitable for retention in terms of BS5837 (2012) section 5 "Proximity of structures to trees." The retained trees will not cause unreasonable inconvenience or nuisance issues, leading to associated pressures for felling or excessive pruning. The layout allows sufficient space to enable the retained trees to grow to maturity without significantly adversely affecting the amenity of the new development.
- 4.3.4 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

4.4 Suitable Mitigation

- 4.4.1 The development of the site provides an excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme. As such, suitable new tree planting has the potential to mitigate for some of the required tree removals.

4.5 Protection of the Retained Trees

- 4.5.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.5.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees has been provided.

5. Signature

I trust this report provides all the required information.

Signed



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Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, ACIEEM

3rd December 2024

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Appendices

Appendix 1: Authors Qualifications and Experience

Appendix 2: Survey Methodology and Limitations

Appendix 3: Explanation of Tree Descriptions

Appendix 4: Tree Data

Appendix 5: Tree Constraints Plan

Appendix 6: Tree Impacts Plan

Appendix 1: Authors Qualifications & Experience

Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered

Adam is the company Director and Principal Consultant. He has a mix of the highest-level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and he has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the crown court. Adam also regularly undertakes locum Tree Officer work for several Local Planning Authorities.

James Brown, BSc (Hons) Arboriculture, MArborA, PTI (Lantra), QTRA Registered

James is a highly experienced and qualified Arboricultural Consultant. He has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Foresters student award. He is a Professional Member of the Arboricultural Association, an Associate of the Institute of Chartered Foresters, and he is working towards becoming a Chartered Arboriculturist. James joined AWA in 2016, he has many years' experience as an Arboricultural Consultant, he previously worked in Europe's largest container tree nursery and he has experience of local authority Tree Officer work.

James Godfrey, BA (Hons), FdSc Arboriculture and Tree Management, TechArborA, PTI (Lantra), QTRA Registered

James has had extensive arboricultural experience working as an arborist within the public and private sector. While working at AWA, James completed his FdSc in Arboriculture and Tree Management, graduating with a distinction and was also awarded for achieving the highest overall mark in his year. James has used his arboricultural knowledge to inform and carry out accurate tree surveys and produce detailed reports that aim to balance appropriate tree retention with the requirements of landowners.

Joe Thomas, MSci Biology, Award L4 Arboriculture, TechArborA, PTI (Lantra), QTRA Registered

Joe achieved a first class degree in Biology with an integrated Masters (MSci) from the University of Sheffield. Additionally, he has a Level 4 Award in Arboriculture. Joe joined AWA after an Urban Forestry role with the Sheffield and Rotherham Wildlife Trust and Sheffield City Council, where he gained a variety of experience in different aspects of the arboriculture sector.

Lucy Garbutt, MSc Animal Behaviour, BSc (Hons) Biology, PTI (Lantra), TechArborA, QTRA Registered

Lucy graduated with a masters degree in Animal Behaviour from the UK's highest rated university, St Andrews of Scotland, immediately following the completion of her BSc degree in Biology from Lancaster University. Lucy has experience in botany and plant science and moved into arboriculture after previous experience of protected species and botanical surveys with a large environmental consulting company.

Sophie Beckerman, BA (Hons), Dip Arboriculture Level 4, PTI (Lantra), TechArborA, QTRA Registered

Sophie has more than 10 years' experience as an arborist, working for a variety of private companies as well as undertaking tree management with Sheffield City Council Ranger Service and The Wildlife Trust. Her expertise in arboriculture is demonstrated in the practical NPTC qualifications gained, and her excellent knowledge is reflected in the L4 diploma in Arboriculture, which she completed while working. Her roles as a climbing arborist and team leader included estimating for jobs and project management, supervising tree contracting teams - ensuring that work is carried out safely and efficiently and that health and safety standards are adhered to, and risk assessments are carried out.

Ross Lane, FdSc Environmental Conservation, Diploma Arboriculture, TechArborA, PTI (Lantra), QTRA Registered

Ross has a diverse background spanning horticulture, arboriculture, and ecology. Ross has extensive experience conducting surveys throughout the UK and has worked on projects of all sizes, including major infrastructure projects such as HS2. In his previous role as a Tree Inspector at Derbyshire County Council, projects involved managing the county wide tree stock in relation to the ash dieback response and contributing to ambitious County Council targets of planting a million trees. Possessing technician-level membership with the Arboricultural Association, coupled with a comprehensive range of qualifications from tree risk assessment to habitat management, underscores Ross' dedication in professional arboriculture.

Appendix 2: Survey Methodology and Limitations

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - '*Tree Work: Recommendations*'.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked in green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees unsuitable for retention. These trees are in such a condition that any existing value would be lost within 10 years.

Tree ID	Tree Species		Measurements				Crown (m)				Tree Condition				Value		Management					
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Cherry	<i>Prunus sp.</i>	Semi-mature	4	1	90	Yes	1	1	1	1	1	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T2	Alder	<i>Alnus glutinosa</i>	Semi-mature	9	1	150	Yes	1	1	2	2	2	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T3	Alder	<i>Alnus glutinosa</i>	Semi-mature	8	1	170	Yes	1	1	2	2	2	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T4	Apple	<i>Malus sp.</i>	Semi-mature	4	6	70 avg.	Yes	1	3	2	3	2	No visual defects	Multiple stemmed at base. Vertical. Epicormic growths. Tight union. Partially included bark. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T5	Alder	<i>Alnus glutinosa</i>	Semi-mature	9	1	120	Yes	1	1	2	2	2	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T6	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	11	6	100 avg.	Yes	1	1	2	3	3	Limited access around base	Multiple stemmed at base. Vertical. Epicormic growths. Tight union. Partially included bark. Old pruning wounds	Old pruning wounds. Minor deadwood	Some stems in contact with and embedded in fence	Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T7	Alder	<i>Alnus glutinosa</i>	Semi-mature	10	1	200	Yes	1	2	2	2	2	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T8	Rowan	<i>Sorbus aucuparia</i>	Semi-mature	6	2	100, 70	Yes	1	1	1	1	1	Limited access around base	Twin stemmed at base. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T9	Rowan	<i>Sorbus aucuparia</i>	Semi-mature	4	1	90	Yes	1	1	1	1	1	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T10	Rowan	<i>Sorbus aucuparia</i>	Semi-mature	4	1	100	Yes	1	1	1	1	1	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
G11	Cherry, Sycamore, Hazel and Oak	<i>Prunus sp., Acer sp., Corylus sp., Quercus sp.</i>	Semi-mature	13	10+	200 avg.	Yes	0	See plan.				Mixed species self set semi-mature group of mostly Cherry and Sycamore, with occasional Hazel and Oak. Overgrown with a low crown and limited access at base preventing detailed inspection. Good screening from school. Unclear whether all stems are within site or if some stems are beyond the site boundary.				Good	Good	>40 yrs	Low	C	Partial removal required to facilitate the development.
T12	Apple	<i>Malus sp.</i>	Semi-mature	5	2	130, 200	Yes	1	3	3	3	2	No visual defects	Twin stemmed at base. Vertical. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T13	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5	6	70 avg.	No	1	2	2	2	2	Limited access around base	Multiple stemmed at base. Vertical. Epicormic growths. Old pruning wounds. Partially included bark. Tight union	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G14	Cherry	<i>Prunus sp.</i>	Semi-mature	6	10+	100 avg.	Yes	0	See plan.				Self set semi-mature Cherry sapling group. Limited access at base prevented detailed inspection.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T15	Sycamore	<i>Acer pseudoplatanus</i>	Early-mature	15	6	150 avg.	Yes	1	6	6	5	5	Limited access around base	Multiple stemmed at base. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor dieback. Minor deadwood	Limited access at base	Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
G16	Cherry	<i>Prunus sp.</i>	Semi-mature	10	10+	100 avg.	Yes	1	See plan.				Self set semi-mature Cherry sapling group. Limited access at base prevented detailed inspection.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T17	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	10+	70 avg.	Yes	1	2	2	2	2	Limited access around base	Multiple stemmed at base. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor dieback. Minor deadwood	In an adjacent livestock field with limited access.	Good	Good	>40 yrs	Low	C	No works required to facilitate the development.
T18	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	10+	100 avg.	Yes	1	3	3	3	3	Limited access around base	Multiple stemmed at base. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor dieback. Minor deadwood	In an adjacent livestock field with limited access.	Good	Good	>40 yrs	Low	C	No works required to facilitate the development.
T19	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	10+	100 avg.	Yes	1	3	3	3	3	Limited access around base	Multiple stemmed at base. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor dieback. Minor deadwood	In an adjacent livestock field with limited access.	Good	Good	>40 yrs	Low	C	No works required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T20	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	10+	100 avg.	Yes	1	2.5	2.5	2.5	2.5	Limited access around base	Multiple stemmed at base. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor dieback. Minor deadwood	In an adjacent livestock field with limited access.	Good	Good	>40 yrs	Low	C	No works required to facilitate the development.
T21	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	8	10+	50 avg.	Yes	1	1.5	1.5	1.5	1.5	Limited access around base	Multiple stemmed at base. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor dieback. Minor deadwood	In an adjacent livestock field with limited access.	Good	Good	>40 yrs	Low	C	No works required to facilitate the development.
G22	Goat Willow	<i>Salix caprea</i>	Semi-mature	7	3	100, 150, 250	Yes	1	See plan.				3 individual trees forming one crown. Self set semi-mature Willow trees which have some deadwood in the crown and limited long term prospects.				Good	Good	20 to 40 yrs	Low	C	Removal required to facilitate the development.
G23	Oak	<i>Quercus robur</i>	Semi-mature	13	10+	250 avg.	Yes	1	See plan.				Self set woodland type group of Oak. Similar groups continue off site south towards Crosland Hill. Larger stems have been picked up and plotted. An informal footpath runs directly adjacent to the group.				Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
T24	Oak	<i>Quercus robur</i>	Early-mature	14	2	300, 400	No	1	6	3	6	4	No visual defects	Twin stemmed at base. Vertical. Epicormic growths. Old pruning wounds. Partially included bark. Tight union	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Physiological	Structural	Life Expectancy	Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown				Comments	Amenity		Category
T25	Oak	<i>Quercus robur</i>	Early-mature	15	1	400	Yes	1	5	4	4	5	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
T26	Oak	<i>Quercus robur</i>	Early-mature	15	1	400	Yes	1	5	4	4	5	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.
T27	Oak	<i>Quercus robur</i>	Early-mature	15	1	600	Yes	1	5	6	6	5	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood	Multiple stems fused together	Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.
G28	Oak	<i>Quercus robur</i>	Semi-mature	10	3	180 avg.	No	1	See plan.				Self set group of 3 individual semi-mature Oak. Similar groups continue off site south towards Crosland Hill. Largest stems have been picked up and plotted. An informal footpath runs directly adjacent to the group.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T29	Oak	<i>Quercus robur</i>	Early-mature	15	6	200 avg.	Yes	1	5	6	6	5	No visual defects	Multiple stemmed at base. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements			Crown height	Crown (m)				Tree Condition				Physiological	Structural	Life Expectancy	Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)		Estimated	N	E	S	W	Roots	Stem	Crown				Comments	Amenity		Category
T30	Oak	<i>Quercus robur</i>	Early-mature	15	2	200, 320	Yes	1	5	5	5	5	No visual defects	Twin stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.
G31	Rowan and Oak	<i>Sorbus sp., Quercus sp.</i>	Semi-mature	8	10+	200 avg.	No	1	See plan.				Mixed species semi-mature group of Rowan and Oak. Likely self set. Similar groups appear throughout the site and continue off site south towards Crosland Hill. An informal footpath runs directly adjacent to the group. Typical woodland features.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T32	Whitebeam	<i>Sorbus aria</i>	Semi-mature	10	2	100, 100	Yes	1	3	3	3	3	No visual defects	Twin stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T33	Oak	<i>Quercus robur</i>	Semi-mature	12	1	350	No	1	6	6	6	5	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	B	Removal required to facilitate the development.
T34	Oak	<i>Quercus robur</i>	Semi-mature	12	1	350	No	1	6	6	6	5	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	B	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value			Management			
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T35	Oak	<i>Quercus robur</i>	Early-mature	14	3	100, 150, 400	No	1	5	5	5	5	No visual defects	Multiple stemmed at 1m. Vertical. Old pruning wounds. Epicormic growths. Tight union. Partially included bark	Old pruning wounds. Minor deadwood	Occasional crossing branches	Good	Good	>40 yrs	Low	B	Removal required to facilitate the development.
T36	Oak	<i>Quercus robur</i>	Early-mature	14	2	300, 300	No	1	6	6	6	5	No visual defects	Twin stemmed at 1m. Vertical. Old pruning wounds. Epicormic growths. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	B	Removal required to facilitate the development.
T37	Oak	<i>Quercus robur</i>	Early-mature	16	3	300, 400, 400	Yes	1	8	7	8	6	Exposed roots. Girdled roots	Multiple stemmed at 1m. Vertical. Old pruning wounds. Epicormic growths. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
G38	Oak	<i>Quercus robur</i>	Semi-mature	13	3	250 avg.	No	1	See plan.				Self set group of 3 individual semi-mature Oak. Similar groups continue off site south towards Crosland Hill. Largest stems have been picked up and plotted. An informal footpath runs directly adjacent to the group.				Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
T39	Oak	<i>Quercus robur</i>	Early-mature	13	2	100, 300	No	1	6	6	6	5	No visual defects	Twin stemmed at 1m. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value		Management				
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G40	Rowan and Oak	<i>Sorbus sp.</i> , <i>Quercus sp.</i>	Semi-mature	8	10+	200 avg.	No	1	See plan.				Mixed species semi-mature group of Rowan and Oak. Likely self set. Similar groups appear throughout the site and continue off site south towards Crosland Hill. An informal footpath runs directly adjacent to the group. Typical woodland features.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T41	Apple	<i>Malus sp.</i>	Semi-mature	5	1	150	No	1	2	2	2	2	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T42	Oak	<i>Quercus robur</i>	Early-mature	14	1	450	Yes	1	7	6	5	6	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
T43	Apple	<i>Malus sp.</i>	Semi-mature	5	1	100	No	1	2	2	2	2	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T44	Oak	<i>Quercus robur</i>	Early-mature	14	2	150, 250	Yes	1	5	5	5	5	Exposed roots. Girdled roots	Twin stemmed. at 0.5m. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
G45	Oak	<i>Quercus robur</i>	Semi-mature	8	3	150 avg.	No	1	See plan.				Self set group of 3 individual semi-mature Oak. Similar groups continue off site south towards Crosland Hill. Largest stems have been picked up and plotted. An informal footpath runs directly adjacent to the group.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Value			Management			
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T46	Oak	<i>Quercus robur</i>	Early-mature	13	2	200, 220	No	1	5	5	5	5	No visual defects	Twin stemmed at 1m. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
T47	Apple	<i>Malus sp.</i>	Semi-mature	5	1	200	No	1	2	2	2	2	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T48	Cherry	<i>Prunus sp.</i>	Semi-mature	7	1	200	No	1	2	2	2	2	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T49	Oak	<i>Quercus robur</i>	Semi-mature	13	1	300	No	1	2	3	3	3	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Normal		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
G50	Rowan and Oak	<i>Sorbus sp., Quercus sp.</i>	Semi-mature	8	10+	200 avg.	No	1	See plan.				Mixed species semi-mature group of Rowan and Oak. Likely self set. Similar groups appear throughout the site and continue off site south towards Crosland Hill. An informal footpath runs directly adjacent to the group. Typical woodland features.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T51	Oak	<i>Quercus robur</i>	Early-mature	15	4	100, 150, 150, 200	No	1	6	6	6	5	No visual defects	Multiple stemmed at 1m. Vertical. Old pruning wounds. Epicormic growths. Tight union. Partially included bark	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Physiological	Structural	Life Expectancy	Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown				Comments	Amenity		Category
T52	Oak	<i>Quercus robur</i>	Semi-mature	12	2	100, 200	No	1	4	3	3	3	No visual defects	Twin stemmed at 1m. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood	Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.	
G53	Rowan and Hawthorn	<i>Sorbus sp., Crataegus sp.</i>	Semi-mature	8	6	100 avg.	No	1	See plan.				Mixed species semi-mature group of Rowan and Hawthorn. Likely self set. Similar groups appear throughout the site and continue off site south towards Crosland Hill. An informal footpath runs directly adjacent to the group. Typical woodland features.				Good	Good	>40 yrs	Low	C	No works required to facilitate the development.
T54	Oak	<i>Quercus robur</i>	Early-mature	15	2	200, 350	No	1	8	8	8	5	No visual defects	Twin stemmed at 1m. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood	Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.	
T55	Oak	<i>Quercus robur</i>	Early-mature	15	1	450	No	1	7	7	4	6	No visual defects	Single stemmed. Vertical	Minor deadwood. Normal	Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.	
T56	Whitebeam	<i>Sorbus aria</i>	Early-mature	12	2	150, 300	No	1	4	4	4	4	No visual defects	Twin stemmed at 1m. Vertical. Epicormic growths. Old pruning wounds	Minor deadwood. Normal	Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.	
T57	Oak	<i>Quercus robur</i>	Early-mature	13	2	100, 300	No	1	6	6	6	5	No visual defects	Twin stemmed at 1m. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood	Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.	
G58	Rowan and Oak	<i>Sorbus sp., Quercus sp.</i>	Semi-mature	8	10+	200 avg.	No	1	See plan.				Mixed species semi-mature group of Rowan and Oak. Likely self set. Similar groups appear throughout the site and continue off site south towards Crosland Hill. An informal footpath runs directly adjacent to the group. Typical woodland features.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition				Physiological	Structural	Life Expectancy	Value		Management	
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown				Comments	Amenity	Category	Works
T59	Oak	<i>Quercus robur</i>	Semi-mature	13	1	300	Yes	1	5	5	5	5	Exposed roots. Girdled roots	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
T60	Oak	<i>Quercus robur</i>	Semi-mature	13	1	350	Yes	1	5	5	5	5	Exposed roots. Girdled roots	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate the development.
G61	Cherry	<i>Prunus sp.</i>	Semi-mature	8	10+	100 avg.	Yes	1	See plan.				Self set Cherry group, mostly semi-mature but occasional larger stem. Situated on the boundary with some stems within the site and occasional stems beyond boundary wall within adjacent residential property. Limited access at base prevented detailed inspection.				Good	Good	>40 yrs	Low	C	Removal required to facilitate the development.
T62	Cherry	<i>Prunus sp.</i>	Mature	15	1	500	Yes	2	7.5	7	5	8	Limited access around base	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Minor deadwood	Situated within adjacent residential property.	Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.
T63	Whitebeam	<i>Sorbus aria</i>	Early-mature	14	1	300	No	3	2	3	3	3	Limited access around base	Single stemmed. Slight lean. Epicormic growths. Old pruning wounds	Normal	Situated within adjacent residential property. Slight lean North.	Good	Good	>40 yrs	Moderate	B	No works required to facilitate the development.







Appendix 5:
Tree Constraints Plan
 Land off Main Avenue, Cowersley, HD4 5US
 Ref: AWA6332

BRITISH STANDARD BS37:2012
 RETENTION CATEGORIES
 Definitions of these categories can be
 found in Appendix 2 of the report.

SCALE: 1:500 PAPER: A1

	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: UNSUITABLE FOR RETENTION
	RPA: ROOT PROTECTION AREA
	TREE STEM




AWA
 TREE CONSULTANTS

Appendix 6:
Tree Impacts Plan
 Land off Main Avenue, Cowersley, HD4 5US
 Ref: AW6332
 BRITISH STANDARD BS37:2012
 SCALE: 1:500 PAPER: A1

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	RPA: ROOT PROTECTION AREA
	TREE STEM