TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS5837:2012** at:

Woodhead Road,
Birstall,
Batley,
WF17 9TD

Prepared for:
FDA Landscape Ltd
Westleigh House
Wakefield Rd
Huddersfield
HD8 8QJ

Date: *March 2021*

Reference: *AWA3591*

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instructions and Brief

1.1.1 We have been instructed by FDA Landscape Ltd 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 February 2021.

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 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted 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, Principle and Director of AWA Tree Consultants Ltd.

1.2.6 The tree survey and data collection was carried out by Mr Tom Readman Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA, 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 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**.

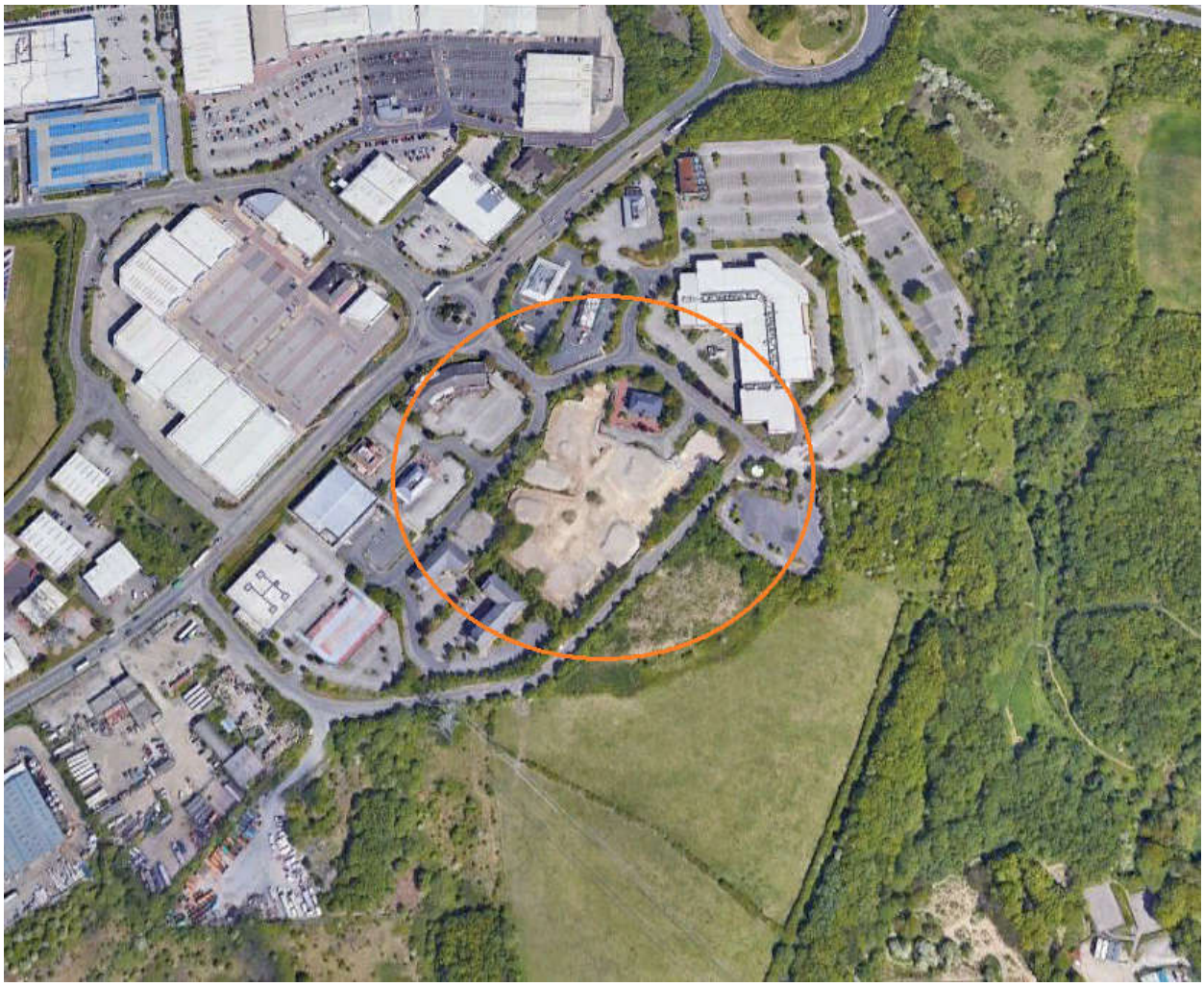
2. The Site

2.1 Location and Description

2.1.1 The site is an empty plot in Birstall Shopping Park, a large complex of shops, restaurants and offices located to the north-east of Birstall, a market town in the Metropolitan Borough of Kirklees.

2.1.2 The site has previously been developed, but prior to survey had been levelled. There are several large piles of rubble, and occasional loose debris.

2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2020):



3. The Trees

3.1 Legal

3.1.1 An online search has been carried out with Kirklees Council on 11/02/21 to ascertain whether any trees at the site are located within a Conservation area or are protected by a Tree Preservation Order (TPO). As of this date no trees within the site are legally protected.

3.1.2 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. Statutory permission is not required for the removal of deadwood.

3.1.3 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

3.1.4 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 27 items of woody vegetation, comprised of 24 individual trees and 3 groups of trees.

3.2.2 Of the surveyed trees: 2 trees and 1 tree group are retention category 'B' and the remaining 24 trees and groups are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 Species diversity at the site is relatively good, including Alder, Ash, Birch, Cherry, Maple, Poplar, Rowan and Willow. Most of the trees are semi-mature, with occasional early-mature trees.

3.2.4 Within the central area of the site, there is little of arboricultural significance, with the only vegetation consisting of self-set whips toward the western boundary of the site, which fall outside the scope of a BS5837 survey.

3.2.5 At the northern boundary of the site, close to the road, are trees T1 to T9, T26 and T27. These trees are situated in banking, and in dense understory

that prevented detailed inspection. Individually the trees have limited value, but have collective value as a screen between the road and the site.

3.2.6 In the north-east corner of the site are Birch T14 and Cherry T15 and T16. These trees are currently in reasonable condition and have moderate amenity value, however T15 had some minor dieback and dead wood in the crown which may indicate slightly more limited long-term prospects.

3.2.7 At the east, south and west boundaries of the site are large, shelterbelt groups of trees G17, G23 and G25, which contain occasional larger trees T18 to T22, and T26. G23 is a large, dense group of predominantly semi-mature Birch, Alder and Pine that has moderate value as a screen between the site and buildings to the south-west. G17 and G25 have more limited collective screening value. There are occasional failed stems and branches within these groups, including a prominent, low hazard beam failure at the eastern aspect of G17. Trees in groups, including individually numbered trees, have limited individual value, but do contribute to the more moderate collective screening value of the groups.

3.2.8 Poplar T19, situated within G17, has a prominent hanging branch at its eastern aspect that should be removed regardless of any new development (as detailed in Appendix 4)

3.2.9 The remaining trees and shrubs within the site are of particularly low value and should not pose any significant constraint on the development potential of the site.

3.2.10 Many of the Ash trees in the area show symptoms consistent with Chalara or Ash dieback disease. Once a tree is infected, the disease is usually fatal, either directly or indirectly. While the identified Ash trees may continue to provide landscape and wildlife benefits for some time, their long-term prospects are likely to be limited as a result of Ash dieback.

3.2.11 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.

3.2.12 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.

3.3 Photographs



Photo 1: The central area of the site, viewed from the north



Photo 2: Trees at the northern boundary of the site, situated in dense shrub beds



Photo 3: T15 and T16, two of the mature trees on site



Photo 4: G17, at the eastern boundary of the site



Photo 5: G23 at the southern boundary, screening the site from adjacent office buildings



Photo 6: G25 and T26, at the western boundary of the site

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new build a new Lidl food store, and a separate retail unit, with associated access 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, the removal of 19 trees and 1 tree group will be required as they are situated in the footprint of the development, or their retention and protection throughout the development is not suitable.

4.2.2 The trees and groups that are required to be removed are T1, T2, T3, T4, T5, T6, T7, T8, T9, T13, T14, T15, T16, T18, T19, T20, T21, T22, T24 and T26, and G25.

4.2.3 T14 and T16 are retention category 'B' trees, with limited defects and moderate amenity value.

4.2.4 The remaining trees and groups are lower value, retention category 'C'.

4.2.5 T13 has moderate dieback and minor deadwood, and it is not suitable to retain and protect throughout the development.

4.2.6 T18, T19, T20, T21 and T22 are situated at the southern boundary, within group G17. As G17 is being partly retained, and so will retain screening value, this will reduce the impact resulting from the removal of T18 to T22.

4.2.7 T1, T2, T3, T4, T5, T6, T7, T8, T9, T24 and T26, and G25, are individually lower value trees, but collectively provide of canopy cover and screening at the northern boundary. Collectively, this will result in a moderate arboricultural impact.

4.2.8 The partial removal of G17 and G23 is required to facilitate development.

4.2.9 The north-western aspect of G17 will be removed, to the boundary line. The collective screening value of G17 will not be significantly impacted by this work.

4.2.10 The north-western extent of G23 will be removed entirely, while the eastern aspect will be removed to the boundary line. While this will impact the screening value from the road and car park to the north-west, G23 will still effectively screen the building to the west.

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 Potentially damaging activities are proposed in the vicinity of retained trees. The new development encroaches into the edge of the RPA of G17 and G23. However, part of G17 and G23 will be removed to facilitate development, and it is unlikely that the development will affect the RPA of retained trees in these groups Additionally, as the site has been developed previously, it is unlikely the significant roots will have developed within the site boundary. As such, retained trees should remain largely unaffected by the works, provided care is taken during construction.

4.3.3 New soft landscaping is proposed that encroaches into the edge of the RPA of T10, T11, T12, T27 and T28. While this has the potential to negatively impact tree roots, this can be minimised through careful ground works. New soft landscaping has the potential, in the long term, to increase available rooting area compared to current site conditions.

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 the required tree removals and, in the longer term, has the potential to improve the sites tree cover.

4.5 Protection of the Retained Trees

4.5.1 The retained trees may 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 can be provided.

5. Signature

I trust this report provides all the required information.

Signed



.....

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

25th March 2021

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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

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

Adam is the company Director and Principle 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 has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and 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.

Mr James Brown *BSc (Hons) Arboriculture, MArborA, PTI (Lantra).*

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

Dr Felicity Stout *Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA, PTI (Lantra).*

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

Mr Tom Readman *Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA*

Tom joined AWA from his previous role as a tree risk surveyor with Harrogate Borough Council, where he undertook tree risk surveys at a range of sites and prescribed suitable works. Tom also has extensive previous experience as a climbing arborist. Tom achieved at Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture and is now completing a Foundation Degree in Arboriculture, while working at AWA. Tom's work focuses on tree risk surveys and accurate tree data collection for development projects to BS 5837:2012.

Appendix 2: Survey Methodology and Limitations of Report

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 BS5837 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 and includes information of the first significant branch and direction of growth.

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 black 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 for removal. These trees are in such a condition that any existing value would be lost within 10 years.

TREE DATA

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Ash	*Fraxinus excelsior*	Early-mature	8.5	1	400	Yes	2	4.5	4.5	4.5	4.5	Limited access around base	Single stemmed at base, Vertical, Ivy covered, Stubs	Minor deadwood, Minor dieback, Overhanging into the site	Ivy prevented detailed inspection. Situated on banking. Some Ash Dieback symptoms	Fair	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T2	Rowan	*Sorbus aucuparia*	Early-mature	7	1	250	Yes	2.5	3.5	3.5	3.5	3.5	Limited access around base, Soil erosion, Exposed roots	Single stemmed at base, Multiple stemmed at 2m, Vertical, Ivy covered	Minor deadwood	Ivy prevented detailed inspection. Situated on banking, in shrub bed.	Fair	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T3	Maple	*Acer saccharinum*	Semi-mature	11	1	250	Yes	4	2.5	2.5	2.5	2.5	Limited access around base	Single stemmed, Vertical, Bark damage at north-east aspect, Ivy covered	Minor deadwood	Ivy and access prevented detailed inspection	Fair	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T4	Birch	*Betula pendula*	Early-mature	11	1	400	Yes	1	3	3.5	3.5	3	Limited access around base, Soil erosion, Exposed roots	Single stemmed, Slight lean east, Stubs, Ivy covered	Overhanging into the site, Minor deadwood, Old pruning wounds		Good	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T5	Birch	*Betula pendula*	Early-mature	10	1	300	Yes	1	3	3	3	3	Limited access around base, Soil erosion, Exposed roots	Single stemmed, Vertical, Ivy covered		Ivy and access prevented detailed inspection	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T6	Birch	*Betula pendula*	Early-mature	11	1	300	Yes	2	3	3	3	3	Limited access around base, Exposed roots, Soil erosion	Vertical, Ivy covered		Ivy and access prevented detailed inspection	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development

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	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T7	Maple	*Acer saccharinum*	Early-mature	6	1	250	Yes	2.5	4.5	4	4.5	2	Limited access around base, Exposed roots, Soil erosion	Single stemmed, Vertical, Ivy covered	Unbalanced	Ivy and access prevented detailed inspection. Suppressed by T6	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T8	Sorbus	*Sorbus sp.*	Semi-mature	5	1	150	Yes	3	1.5	1.5	1.5	1.5	Limited access around base, Soil erosion, Exposed roots	Single stemmed, Vertical, Minor bark damage	Minor deadwood, Occasional tear	Access prevented detailed inspection	Fair	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T9	Plane	*Platanus x hispanica*	Semi-mature	6.5	1	150	Yes	3.5	2	2	2	1	Limited access around base, Soil erosion, Exposed roots	Single stemmed, Vertical	Slightly unbalanced	Aprevented detailed inspection	Good	Fair	>40 yrs	Low	C	Removal required to facilitate development
T10	Birch	*Betula pendula*	Semi-mature	7	1	190	No	3	3.5	2.5	1	3	No visual defects	Single stemmed, Slight lean east, Stubs	Minor deadwood		Fair	Good	20 to 40 yrs	Low	C	No works required
T11	Birch	*Betula pendula*	Semi-mature	12	1	200	Yes	2	3	3.5	4	3.5	Limited access around base	Single stemmed, Vertical	Overhanging into the site	Aprevented detailed inspection shrubs	Good	Good	20 to 40 yrs	Low	C	No works required
T12	Rowan	*Sorbus aucuparia*	Semi-mature	5	1	100	No	2	1.5	1.5	1.5	1.5	Limited access around base	Single stemmed, Vertical, Epicormic growths			Fair	Good	10 to 20 yrs	Low	C	No works required

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T13	Cherry	*Prunus avium*	Semi-mature		1	150	Yes	2.5	3	3.5	4	3.5	Limited access around base	Single stemmed, Vertical, Bark damage, Minor decay	Moderate dieback, Minor deadwood	Bark damage with decay at north-west aspect. Shrubs prevented detailed inspection of base	Poor	Fair	10 to 20 yrs	Low	**C**	Removal required to facilitate development
T14	Birch	*Betula pendula*	Early-mature	12	1	450	Yes	2.5	4	4	4	4	Limited access around base	Single stemmed, Slight lean, Ivy covered	Overhanging into the site	Ivy prevented detailed inspection. High understory	Good	Fair	20 to 40 yrs	Moderate	**B**	Removal required to facilitate development
T15	Cherry	*Prunus avium*	Mature	12	1	500	Yes	3	7	7.5	4	5.5	Limited access around base	Single stemmed, Vertical	Minor dieback, Minor deadwood, Overhanging into the site	Ivy prevented detailed inspection. High understory	Fair	Good	20 to 40 yrs	Moderate	**C**	Removal required to facilitate development
T16	Cherry	*Prunus avium*	Mature	12	1	550	Yes	2.5	4.5	7	7	7.5	Limited access around base	Single stemmed, Vertical, Tight union, Cup-like union collecting dirt/water	Minor deadwood	Ivy prevented detailed inspection. High understory	Good	Good	20 to 40 yrs	Moderate	**B**	Removal required to facilitate development
G17	Alder, Cherry, Willow	*Alnus sp., Prunus sp., Salix sp.*	Semi-mature	11	10+	250 avg	Yes	1.5	See Plan				Shelterbelt group at roudside. Bramble and Laurel understory, occasionally dense preventing detailedi inspection. Prominent hazard beam at southern aspect. Trees have low individual value but moderate collective screening value				Fair	Fair	20 to 40 yrs	Moderate	**C**	Partial removal required to facilitate development
T18	Birch	*Betula pendula*	Early-mature	15	1	350	No	3	6	6.5	3	5	No visual defects	Single stemmed, Vertical, then slight lean at 2m, Tight union	Slightly unbalanced, Overhanging into the site	Suppressed	Good	Fair	20 to 40 yrs	Moderate	**C**	Removal required to facilitate development

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T19	Poplar	*Populus x canadensis*	Early-mature	17	1	530	No	4	7.5	8	4.5	7	No visual defects	Single stemmed, Slight lean north	Snapped /hanging branches, Overhanging into the site	Hanging branch, due to hazard beam failure, at east aspect	Fair	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T20	Birch	*Betula pendula*	Early-mature	15	1	370	No	3	4	4.5	3	4.5	No visual defects	Single stemmed at base, Twin stemmed at 3m, Vertical	Overhanging into the site		Good	Good	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T21	Birch	*Betula pendula*	Early-mature	15	1	350	No	3	3	4	4.5	4	No visual defects	Single stemmed, Vertical	Slightly unbalanced, Overhanging into the site		Good	Good	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T22	Maple	*Acer saccharinum*	Early-mature	13	1	350	No	2	5	4.5	5.5	5.5	Limited access around base	Single stemmed, Vertical	Overhanging into the site	Ivy prevented detailed inspection. High understory	Good	Good	20 to 40 yrs	Moderate	C	Removal required to facilitate development
G23	Alder, Birch, Maple, Poplar, Pine, Willow	*Alnus sp., Betula sp., Acer sp., Populus sp., Pinus sp., Salix sp.*	Semi-mature	11	10+	250 avg	Yes	2	See Plan				Shelterbelt group at roadside, and between site and buildings to west. On banking. Cotoneaster and Laurel understory, with occasional Hazel. Access prevented detailed inspection. Some stems ivy covered. Edge stems measured to give approximate RPA. Trees have low individual value but moderate collective screening value				Good	Fair	20 to 40 yrs	Moderate	B	Partial removal required to facilitate development
T24	Rowan	*Sorbus aucuparia*	Semi-mature	6	1	160	No	2	2	2	2	2	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds	Single stemmed, Vertical, Stubs, Old pruning wounds	In shrub bed	Good	Good	20 to 40 yrs	Low	C	Removal required to facilitate development

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	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G25	Alder, Birch, Plane, Pine, Willow	*Alnus sp., Betula sp., Platanus., Pinus sp., Salix sp.*	Semi-mature	14	10+	250 avg	Yes	2	See Plan				Shelterbelt group at roadside. On banking. Cotoneaster and Laurel understory, with occasional Hazel. Access prevented detailed inspection. Some stems ivy covered. Edge stems measured to give approximate RPA. Trees have low individual value but moderate collective screening value				Good	Far	20 to 40 yrs	Moderate	**C**	Removal required to facilitate development
T26	Poplar	*Populus x canadensis*	Early-mature	17	1	550	No	4	11	10	8.5	9.5	Soil erosion, Exposed roots, Limited access around base	Single stemmed at base, Slight lean north, Twin stemmed at 3m, Ivy covered	Overhanging into the site	Ivy prevented detailed inspection. Situated on banking	Good	Fair	20 to 40 yrs	Moderate	**C**	Removal required to facilitate development
T27	Rowan	*Sorbus aucuparia*	Semi-mature	6.5	1	150	Yes	3	1.5	1.5	1.5	1.5	Limited access around base	Single stemmed, Vertical, Bark damage south-east	Minor deadwood	Access prevented detailed inspection	Good	Good	20 to 40 yrs	Low	**C**	No works required
T28	Ash	*Fraxinus excelsior*	Semi-mature	7.5	1	250	Yes	3	4	4	4	4	Limited access around base	Single stemmed, Vertical		Access prevented detailed inspection	Good	Good	20 to 40 yrs	Low	**C**	No works required

Woodhead Road

Building

Bankwood Way

T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
T13
T14
T15
T17
T18
T19
T20
T21
T23
T25
T26
T27

G16 Hazard Beam

G22

G24

Shrubs

Hazel Regeneration

NORTH

AWA TREE CONSULTANTS

Appendix 5:
Tree Constraints Plan

Woodhead Rd, Birstall, Batley
Ref: AWA3591

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:500 PAPER: A2

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

WOODHEAD ROAD

BANKWOOD WAY

Paradigm House 1

EXTERNAL PLANT

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22 T24 T26 T27 T28

G17 G23 G25

Hazard Beam

Shrubs

Hazel Coppice

FFL=150.75

FFL=150.34

FFL=150.50

FFL=150.23

FFL=149.37

8500

10000

39500

6500

7500

1800

3.30°

1:40

0.6m RETAINING TO SERVICE AREA

NORTH

AWA TREE CONSULTANTS

Appendix 6:
Tree Impacts Plan

Woodhead Rd, Birstall, Batley
Ref: AWA3591

BRITISH STANDARD 5837:2012

SCALE: 1:500 PAPER: A2

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