

**ARBORICULTURAL SAFETY  
SURVEY**

at:

**University of Huddersfield  
Queensgate  
Huddersfield  
West Yorkshire  
HD1 3HD**

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## Contents

<b>Contents</b>	<b>2</b>
<b>1. Introduction</b>	<b>3</b>
1.1 Purpose of the Report	3
1.2 Terms of Reference	3
1.3 Scope of the Report	3
1.4 Survey Details	3
<b>2. Explanation of Tree Descriptions</b>	<b>4</b>
2.1 Measurements	4
2.2 Evaluations	4
2.3 Safety Categories	5
<b>3. Status of the Trees</b>	<b>6</b>
<b>4. Tree Descriptions</b>	<b>6</b>
<b>5. Discussion &amp; Recommendations</b>	<b>7</b>
<b>Appendix 1: Tree Descriptions and Recommendations</b>	<b>9</b>
<b>Appendix 2: Explanation of Terms &amp; Recommended Clearances</b>	<b>10</b>
<b>Appendix 3: Author Qualifications</b>	<b>11</b>
<b>Appendix 4: General Guidelines</b>	<b>13</b>
<b>Appendix 5: Site Plan</b>	<b>14</b>

## 1. Introduction

### 1.1 Purpose of the Report

- 1.1.1 This report details the findings of an expert arboricultural safety survey and risk assessment of the trees at **University of Huddersfield, Queensgate Campus, Huddersfield, West Yorkshire, HD1 3DH.**
- 1.1.2 This report details the relevant arboricultural information which is required to inform the owners of the condition of their trees and provides specific management actions that, once undertaken, demonstrate that a duty of care has been taken with regards to tree management.

### 1.2 Terms of Reference

- 1.2.1 JCA Ltd are instructed by **The University of Huddersfield**, to visit the site and prepare our findings in a report.
- 1.2.2 For this purpose, we have been supplied with a plan of the site. The tree locations are indicative however and this plan should not be scaled from.

### 1.3 Scope of the Report

- 1.3.1 This report, and any recommendations made is compiled in accordance with current industry standards and best arboricultural practice.
- 1.3.2 The trees have been inspected in order to assess and, if necessary, reduce their potential risk of harm.
- 1.3.3 Where applicable smaller trees and significant shrub masses are included.

### 1.4 Survey Details

- 1.4.1 The survey was conducted during May by Andrew Bussey *LANTRA Accredited PTI*.
- 1.4.2 Inspection was made visually from ground level, in order to assess the trees condition and potential to cause harm. Where necessary, management recommendations have been made. This may include tree removal, pruning, future monitoring or the need for a further detailed inspection, such as climbed inspections or decay detection surveys.
- 1.4.3 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible measurements were estimated.

## 2. Explanation of Tree Descriptions

### 2.1 Measurements

- 2.1.1 *HEIGHT* of the tree is measured from the stem base to the top of the canopy.
- 2.1.2 *CROWN HEIGHT* is an indication of the height at which the main crown begins above ground level.
- 2.1.3 *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, just above the root buttress.
- 2.1.4 *CROWN SPREAD* is a measurement of the overall width of the crown, at its widest point.

### 2.2 Evaluations

- 2.2.1 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, or over-mature.
- 2.2.2 *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.
- 2.2.3 *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.
- 2.2.4 *LIFE EXPECTANCY* is classed as; less than 10 years (<10), 10-20 years, 20-40 years, or more than 40 years (40+). This is an indication of the number of years before removal of the tree is likely to be required.
- 2.2.5 *TARGET VALUE* is classed as high, moderate or low. This is an indication of the likelihood of persons or objects, the latter having variable significance, being within falling distance of a tree or its branches.
- 2.2.6 *PRIORITY*. A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

2.2.7 *RE-INSPECTION TIMING* is classed as; 6 months (0.5), 1 year (1), 2 years (2), or within 5 years (5). This is an indication of the timescale in which a tree should be re-inspected; a specific time of year for the inspection may also be detailed in the recommendations.

## 2.3 Safety Categories

2.3.1 *SAFETY CATEGORY* values for the trees are as follows:

2.3.2 ***A (marked in green on the plan) = posing no immediate risk: no action required.***

These trees are considered to be in an acceptable condition at present and require no action at this time. However, these trees may require future management in order to ensure that they remain safe.

2.3.3 ***B (marked in light blue on the plan) = posing a potential risk: action required.***

These trees pose a potential risk and therefore require active management. This may include remedial pruning (crown cleaning) or target management.

Such trees may also require a further, more detailed, investigation (such as a climbing inspection or a decay detection analysis) or may require future monitoring (re-surveying and re-assessing) at a timescale specified within this report.

2.3.4 ***R (marked in red on the plan) = trees to be removed.***

These trees require removal usually because they are dead, dying or dangerous and are therefore potentially hazardous. Such trees shall usually require removal as a matter of high priority.

Trees may also require removal in order to prevent damage occurring to existing structures or buildings (where trees are growing within close proximity or are in actual contact) or in order to benefit adjacent trees (where trees are growing in direct competition, the poorer of the two trees may be removed). Such work is usually of a lower priority.

### 3. Status of the Trees

- 3.1 A check was made on 25th May 2021 with **Kirklees Metropolitan Council**.
- 3.2 We are informed that part of the campus is within Huddersfield Conservation Area.
- 3.3 Before any work is organised to trees in a Conservation Area with a stem diameter of above 75mm, a 'notice of intent' must be submitted to the Local Authority, outlining all the proposed works along with a suitable justification. A waiting period of six weeks is then required, during which time the Local Authority may or may not decide to afford the trees with further protective status. If, after the required timescale has lapsed and/or the authority does not wish to allocate a Tree Preservation Order (TPO), the works may commence as planned.
- 3.4 *No work must be done to any trees with a stem diameter of above 75mm until the above process has been completed and the trees have not been allocated with a TPO.*

### 4. Tree Descriptions

- 4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. Please refer also to the site plan at **Appendix 5** for tree locations and **Section 2** for a full explanation of the tables.

## 5. Discussion & Recommendations

- 5.1 In total **97** items of vegetation were surveyed (**83** individual trees and **14** groups of trees). The surveyed vegetation was generally found to be in a good condition.
- 5.2 Following is an overview of our observations and recommendations; please refer to **Appendix 1** for specific details on the condition of individual trees:
- 5.3 **T62, T63** and **T89** have been recommended for removal as a matter of **low** or **moderate priority** for arboricultural reasons, as detailed at **Appendix 1**.
- 5.4 **T1, T14, T15, T25, T27, T31, T32, T39, G40, G41, T57, G81** and **T95** require pruning or remedial action as a matter of **low** or **moderate** priority in order to reduce their risk in terms of public health and safety, or for tree management purposes.
- 5.5 Where trees are situated close to services, road signs, street lights, or where they overhang roads, paths or boundaries, they will require monitoring and occasional maintenance (as detailed at **Appendix 1**). This should maintain visibility and safe public access. Such work is ongoing and should be conducted on a regular basis.
- 5.6 **T12, T21, T31, T44, T52, T53, T59, T60, T68, T82** and **G88** were noted to have structural or physiological defects, as detailed at **Appendix 1**. Although these trees were considered to be in an acceptable condition at the time of the inspection, the defects observed may lead to their early demise or render them unsafe in the future. As such, it is recommended that these trees be monitored (re-inspected) on an annual or biennial basis in order to assess if their condition is still acceptable.
- 5.7 If the above recommendations are undertaken, the trees surveyed can be considered to be in adequate condition in terms of public health and safety. We recommend that the trees are re-surveyed as per the recommended schedule, in order to ensure the long term health and safety of the trees.
- 5.8 We would be happy to assist should you have any queries regarding the points raised in above.

# Appendices



Tree Ref.	Age	Species	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
		Latin Name													
T 1	Semi-mature	London Plane	8	2.3	34	8	Crown overhangs the access, car park and light. Single-stemmed and leaning with a balanced crown. Occasional pruning wounds. Minor torn branch stubs. No major visible defects.	GOOD	GOOD	40+	MOD	Crown clean to remove the branch stubs.	LOW	B	2
		<i>Platanus x hispanica</i>													
T 2	Semi-mature	London Plane	7	2.5	19	7	Crown overhangs the footpath and car park. Single-stemmed and vertical with a balanced crown. Occasional pruning wounds, some leaving stubs. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2
		<i>Platanus x hispanica</i>													
T 3	Semi-mature	London Plane	8	2.3	21	7	Crown overhangs the footpath, car park and light. Single stemmed and leaning with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2
		<i>Platanus x hispanica</i>													
T 4	Young	Rowan	4.5	1	13	3.5	Single stemmed and leaning with a balanced crown. Occasional pruning wounds due to crown lifting, some leaving stubs. Ring bark mark from tree tie which has now been removed.	GOOD	FAIR	10-20	LOW	No action required.	N/A	A	2
		<i>Sorbus aucuparia</i>													
T 5	Young	Field Maple	4	0	9	2.8	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
		<i>Acer campestre</i>													
T 6	Young	Rowan	3.5	1	9	2.5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
		<i>Sorbus aucuparia</i>													
T 7	Young	Rowan	6	1	To 11	4	Crown overhangs the footpath. Multi-stemmed at ground level with an unbalanced crown. No evidence of significant pruning. No major visible defects. Growing in fence line. Acceptable condition at present.	GOOD	GOOD	10-20	LOW	No action required.	N/A	A	5
		<i>Sorbus aucuparia</i>													
T 8	Young	Rowan	5	2	11	2	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
		<i>Sorbus aucuparia</i>													
T 9	Young	Rowan	4	2	12	2.5	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
		<i>Sorbus aucuparia</i>													
T 10	Young	Rowan	3.5	1.8	7	2	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
		<i>Sorbus aucuparia</i>													

Tree Ref.	Age	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
	Species <i>Latin Name</i>													
T 11	Young Rowan <i>Sorbus aucuparia</i>	3	1.8	8	2	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 12	Early-mature Common Ash <i>Fraxinus excelsior</i>	12	1.8	40	12	Crown overhangs the footpath and road and is encroaching upon the building and traffic lights. Single stemmed and leaning with an unbalanced crown. Occasional pruning wounds. Branch tear on side branch at 5.5m appears to be occluding well.	GOOD	FAIR	20-40	HIGH	Monitor.	MOD	B	1
T 13	Early-mature Norway Maple <i>Acer platanoides</i>	10	2.5	44	11	Crown overhangs the footpath. Twin-stemmed at 3.5m with a balanced crown. Occasional pruning wounds. No major visible defects. Sound union at stem junction.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2
T 14	Early-mature Red Oak <i>Quercus rubra</i>	17	1.8	29	10	Single stemmed and leaning with a balanced crown. Occasional pruning wounds. The lowest branch to the east is dead. Surface rooting noted. No major visible defects.	GOOD	GOOD	40+	MOD	Remove the lowest branch to the east.	LOW	B	2
T 15	Early-mature Red Oak <i>Quercus rubra</i>	12	1	34	11	Twin-stemmed at 4m with a balanced crown. Occasional pruning wounds, some leaving stubs to the east and west. No major visible defects.	GOOD	GOOD	40+	MOD	Remove the two stubs to the east and west.	LOW	B	2
T 16	Semi-mature Columnar Cherry <i>Prunus sp</i> <i>'Columnaris'</i>	8	1	To 13	5	Multi-stemmed at ground level with a balanced crown. No evidence of significant pruning. No major visible defects. Surface rooting noted.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 17	Early-mature Leopold Sycamore <i>Acer leopoldii</i>	11	1.5	27	10	Crown overhangs the footpath. Multi-stemmed at 3m with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2
T 18	Young Hornbeam <i>Carpinus betulus</i>	6	0.5	10	2.5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 19	Early-mature Dawycck Beech <i>Fagus Sylvatica</i> <i>'Dawycck'</i>	17	1.8	38	8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Electric junction box attached to stem. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
T 20	Early-mature Red Oak <i>Quercus rubra</i>	9	1.3	48 at base	11	Crown overhangs the footpath and road. Multi-stemmed at ground level with a balanced crown. Occasional pruning wounds. Minor deadwood, as is typical of this species. No major visible defects.	GOOD	GOOD	40+	HIGH	No action required.	N/A	A	2

Tree Ref.	Age	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
	Species <i>Latin Name</i>													
T 21	Early-mature Red Oak <i>Quercus rubra</i>	8	3	30	8	Crown overhangs the footpath. Twin-stemmed at 1m with a balanced crown. Occasional pruning wounds due to crown lifting. Minor deadwood, as is typical of this species. Possible weak union at stem junction.	GOOD	FAIR	20-40	MOD	Monitor.	MOD	B	1
T 22	Semi-mature Field Maple <i>Acer campestre</i>	9	3	15	5	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds due to crown lifting. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 23	Early-mature Red Oak <i>Quercus rubra</i>	12	3	45	10	The crown overhangs the footpath and road. Single-stemmed and vertical with a balanced crown. Minor deadwood, as is typical of this species. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	HIGH	No action required.	N/A	A	2
T 24	Semi-mature Field Maple <i>Acer campestre</i>	7	2	13	6	Single-stemmed and vertical with an unbalanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 25	Early-mature Red Oak <i>Quercus rubra</i>	12	3	40	10	The crown overhangs the footpath and road. Twin-stemmed at 3.5m with a balanced crown. Minor deadwood, as is typical of this species. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	HIGH	Crown clean to remove the deadwood.	LOW	B	2
T 26	Semi-mature Field Maple <i>Acer campestre</i>	7	1	14	5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 27	Early-mature Red Oak <i>Quercus rubra</i>	11	3	30	9	The crown overhangs the footpath, road and street light. Twin-stemmed at 2.5m with a balanced crown. Minor deadwood and stubs noted, as is typical of this species. Occasional pruning wounds. No major visible defects.	GOOD	FAIR	40+	HIGH	Crown clean to remove the deadwood and stubs.	LOW	B	2
T 28	Semi-mature Field Maple <i>Acer campestre</i>	7	2	16	5	The crown overhangs the footpath. Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	5
T 29	Semi-mature Field Maple <i>Acer campestre</i>	9	1.5	16	6	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 30	Young Columnar Cherry <i>Prunus sp</i> <i>'Columnaris'</i>	4	1.5	4	1.2	Single-stemmed and vertical with an unbalanced crown. No evidence of significant pruning. No major visible defects.	GOOD	FAIR	40+	LOW	No action required.	N/A	A	5
T 31	Early-mature Sycamore <i>Acer pseudoplatanus</i>	13	2.5	49	11	Crown overhangs the footpath and road. Single stemmed and vertical with a balanced crown. Occasional pruning wounds. Minor deadwood noted, possibly crown die-back.	FAIR	GOOD	10-20	MOD	Crown clean to remove the deadwood. Monitor.	LOW	B	2

Tree Ref.	Age	Species	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
		<i>Latin Name</i>													
T 32	Semi-mature	London Plane <i>Platanus x hispanica</i>	10	2	23	9	Crown overhangs the footpath and location sign. Single stemmed and leaning with an unbalanced crown. Occasional pruning wounds due to crown lifting. Decay cavity at 4.5m. Long snapped out branch wound in mid-crown leaving the tree structurally unsound	FAIR	POOR	<10	MOD	Reduce leaving a 5 metre high pollard.	MOD	B	2
T 33	Early-mature	Apple sp. <i>Malus sp.</i>	5	1.8	22 at base	6	Multi-stemmed at 5m with a balanced crown. Occasional pruning wounds due to crown lifting. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 34	Semi-mature	Field Maple <i>Acer campestre</i>	9	2.8	13	6	Crown overhangs the footpath. Single stemmed and vertical with an unbalanced crown. Occasional pruning wounds due to crown lifting. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	5
T 35	Early-mature	Red Oak <i>Quercus rubra</i>	13	1.8	42	11	Crown overhangs the footpath. Single stemmed and leaning with an unbalanced crown. Occasional pruning wounds. Minor deadwood, as is typical of this species. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2
T 36	Semi-mature	Field Maple <i>Acer campestre</i>	8	3	14	5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 37	Young	Columnar Cherry <i>Prunus sp 'Columnaris'</i>	5	0.5	5	1	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	FAIR	20-40	LOW	No action required.	N/A	A	5
G 38	Young	Field Maple <i>Acer campestre</i>	To 3.5	1.5+	To 3	See plan	Four planted trees of good form. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 39	Young	Wild Cherry <i>Prunus avium</i>	4.5	1.5	5	3	Newly planted tree. Single-stemmed and vertical with a balanced crown. Tree stake and tie in place.	GOOD	GOOD	40+	LOW	Remove the tree stake and tie.	LOW	B	5

Tree Ref.	Age Species <i>Latin Name</i>	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
G 40	Young Himalayan Birch & Wild Cherry <i>Betula utilis &amp; Prunus avium</i>	To 4	0+	To 5	See plan	An area of newly planted trees. Tree stakes and ties in place.	GOOD	GOOD	40+	LOW	Adjust the tree ties.	LOW	B	5
G 41	Young Himalayan Birch <i>Betula utilis</i>	To 5	0+	To 5	See plan	Four multiple-stemmed newly planted trees. One tree has been snapped (as indicated on the attached plan) and should be replaced.	GOOD	GOOD	40+	LOW	Remove and replace the damaged tree.	LOW	B	5
G 42	Semi-mature Wild Cherry & Box Elder <i>Prunus avium &amp; Acer negundo</i>	To 6.5	0+	To 12	See plan	A group of seven planted trees of good form.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 43	Semi-mature Field Maple <i>Acer campestre</i>	5	1	8	3	Overhanging the light. Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 44	Young Columnar Cherry <i>Prunus sp 'Columnaris'</i>	7	2	10	2.5	Single stemmed and vertical with a balanced crown. Occasional pruning wounds due to crown lifting. The bark damage with decay to lower stem is occluding well..	GOOD	FAIR	10-20	MOD	Monitor.	LOW	B	2
T 43	Young Lime <i>Tilia sp.</i>	7	1	14	5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 46	Young Red Maple <i>Acer rubrum</i>	8	1.5	13	5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 47	Young Lime <i>Tilia sp.</i>	7	1	14	5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 48	Young Lime <i>Tilia sp.</i>	7	1	10	3.5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects. Tree stake and tie in place.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
G 49	Early-mature Bird Cherry <i>Prunus padus</i>	To 9	1+	To 38	See plan	4 trees of good form. Crowns overhang the car park and towpath. No major visible defects. Pruning stubs due to past crown lifting.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2

Tree Ref.	Age	Species	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
		Latin Name													
T 50	Young	Norway Maple <i>Acer platanoides</i>	8	2	14	6	Multi-stemmed at 2m with a balanced crown. Occasional pruning wounds due to crown lifting. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 51	Young	Winter Flowering Cherry <i>Prunus subhirtilla 'autumnalis'</i>	5	0	7	3	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 52	Semi-mature	Norway Maple <i>Acer platanoides</i>	10	2.5	26	9	Overhanging towpath. Multi-stemmed at 2.5m with a balanced crown. Occasional pruning wounds due to crown lifting. Included bark at stem junction.	GOOD	FAIR	10-20	LOW	Monitor.	LOW	B	1
T 53	Semi-mature	Norway Maple <i>Acer platanoides</i>	10	2.5	26	8	Multi-stemmed at 3m with a balanced crown. Occasional pruning wounds due to crown lifting. Included bark present at the stem junction.	GOOD	FAIR	10-20	LOW	Monitor.	LOW	B	2
G 54	Young	Lime, Rowan and Silver Birch <i>Tilia sp, Sorbus aucuparia and Betula pendula</i>	10	2.5	18	6	13 planted trees of good form. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 55	Semi-mature	Norway Maple <i>Acer platanoides</i>	11	1	28	7	Crown overhangs the footpath. Multi-stemmed at 3m with a balanced crown. Occasional pruning wounds due to crown lifting. A vertical wound at 1.5m is occluding well.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 56	Semi-mature	Norway Maple <i>Acer platanoides</i>	8	3	15	5	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. Occasional pruning wounds due to crown lifting. Bark wounds present on the stem are occluding well.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 57	Mature	Weeping Willow <i>Salix babylonica</i>	16	1	82	14	Crown overhangs the footpath and road. Multi-stemmed at 6m with a balanced crown. Occasional pruning wounds. A hazard beam present in the high canopy is occluding well. A hazard beam is present on the lowest branch to the southwest. Minor cavity on the main stem occluding well. Well maintained regularly over the footpath.	GOOD	FAIR	40+	HIGH	Crown clean to remove the deadwood. Remove the lowest branch to the southwest.	MOD	B	2
T 58	Young	Cherry <i>Prunus sp</i>	2.5	0.6	4	1	Planted tree within tree guard.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 59	Young	Cherry sp. <i>Prunus sp</i>	3.5	1	7	3	Twin-stemmed at 5m with a balanced crown containing die-back. No evidence of significant pruning. Bacterial canker present at the base.	FAIR	FAIR	10-20	LOW	Monitor.	LOW	B	2

Tree Ref.	Age Species Latin Name	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 60	Young Silver Maple <i>Acer saccharinum</i>	7	2.5	12	5	Crown overhangs the footpath. Single stemmed and leaning with an unbalanced crown. Occasional pruning wounds. Poor form. Limited long term future.	FAIR	FAIR	10-20	LOW	Monitor.	LOW	B	1
T 61	Semi-mature Elm sp. <i>Ulmus sp.</i>	11	1.5	15 x 3	11	Crown overhangs the footpath. Multi-stemmed at ground level with an unbalanced crown which has die-back due to Dutch Elm Disease. Growing against the adjacent building and severely blocking light to windows, this tree is considered to have outgrown its location.	GOOD	GOOD	20-40	MOD	Remove and poison the stump to prevent re-growth.	MOD	R	N/A
T 62	Semi-mature Stag's Horn Sumach <i>Rhus typhina</i>	3.5	1	#20	5	Crown overhangs the footpath. Multi-stemmed at 5m with a balanced crown. Occasional pruning wounds. Severe dieback noted.	POOR	POOR	<10	LOW	Remove and poison the stump to prevent re-growth.	LOW	R	N/A
T 63	Semi-mature Sycamore <i>Acer pseudoplatanus</i>	7	2	To 10	5	Twin-stemmed at ground level with an unbalanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	20-40	LOW	No action required.	N/A	A	5
T 64	Young Common Ash <i>Fraxinus excelsior</i>	6	3	7	3	Single stemmed and leaning with an unbalanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	20-40	LOW	No action required.	N/A	A	5
G 65	Young Himalayan Birch <i>Betula utilis 'Jacquemontii'</i>	To 5	0+	To 6	See plan	4 planted trees. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
G 66	Young to early-mature Common Ash and Sycamore <i>Fraxinus excelsior and Acer pseudoplatanus</i>	To 8	0+	# to 38	See plan	Trees located between car park and river. Trees of reasonable form. Limited inspection due to vegetation. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 67	Semi-mature Bird Cherry <i>Prunus padus</i>	8	1.5	#20	6.5	Crown overhangs the car park. Multi-stemmed at 1m with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 68	Young Common Ash <i>Fraxinus excelsior</i>	5	0.5	7	3	Twin-stemmed at ground level with an unbalanced crown containing die-back. No evidence of significant pruning.	FAIR	GOOD	10-20	LOW	Monitor.	LOW	B	2
T 69	Young Cherry <i>Prunus sp</i>	4	1.5	5	2.5	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. No evidence of significant pruning. Bark scars to stem.	GOOD	FAIR	10-20	LOW	No action required.	N/A	A	2

Tree Ref.	Age	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
	Species <i>Latin Name</i>													
T 70	Young Cherry <i>Prunus sp</i>	3	1.5	5	2.5	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. No evidence of significant pruning. Bark scars to stem.	GOOD	FAIR	10-20	LOW	No action required.	N/A	A	2
T 71	Young Lime <i>Tilia sp.</i>	7	1.5	13	5	Crown overhangs the footpath. Single stemmed and vertical with a balanced crown. No evidence of significant pruning. Bark scars to stem.	GOOD	FAIR	10-20	LOW	No action required.	N/A	A	2
T 72	Young Silver Birch <i>Betula pendula,</i>	10	1	20	5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
T 73	Semi-mature Apple <i>Malus sp.</i>	3.5	1.5	12	4	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
T 74	Semi-mature Lime <i>Tilia sp</i>	5	1	14	4.2	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects. Limited access prevented a detailed inspection.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
G 75	Young-early-mature Mixed	To 15	0+	To 40 #	See plan	Group of trees located on banking between Queen Street Studios and the canal. Unable to survey due to restricted access and poor terrain, however, no major visible defects were observed. Sycamore, Common Ash, Hawthorn, Elder, Crack Willow and Goat Willow noted within group.	GOOD	GOOD	20-40	LOW	No action required.	N/A	A	5
T 76	Young Silver Birch <i>Betula pendula</i>	6	0	5	4	Single stemmed and leaning with an unbalanced crown. Previously topped at 3m.	GOOD	GOOD	20-40	LOW	No action required.	N/A	A	5
T 77	Semi-mature Silver Birch <i>Betula pendula</i>	7	0	8	5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 78	Semi-mature Rowan <i>Sorbus aucuparia</i>	8	0	To 13	7	Multi-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 79	Semi-mature Silver Birch <i>Betula pendula</i>	13	1	12	6	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	5
T 80	Mature Common Oak <i>Quercus robur</i>	14	0	To 68	14	Twin-stemmed at ground level with a balanced crown which overhangs the road and the road sign. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2



Tree Ref.	Age Species Latin Name	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
G 81	Early-mature Sycamore <i>Acer pseudoplatanus</i>	To 15	2 +	To 46	See plan	Three trees of good form with crowns which overhang the footpath and the canal. Minor deadwood noted, possibly die-back.	FAIR	FAIR	10-20	LOW	Crown clean to remove the deadwood. Monitor.	LOW	B	2
T 82	Mature Sycamore <i>Acer pseudoplatanus</i>	17	8	56	11	Single stemmed and leaning with a balanced yet sparse crown which overhangs the footpath. Occasional pruning wounds	FAIR	FAIR	10-20	LOW	Monitor.	MOD	B	1
G 83	Young-mature Sycamore, Goat Willow and Hawthorn <i>Acer pseudoplatanus, Salix caprea, and Crataegus monogyna</i>	To 17	0 +	To 15	See plan	Woodland group located on banking and adjacent to canal-side footpath. All appear to be in reasonably good health with no major visible defects noted. Limited inspection due to terrain and vegetation. Minor deadwood was noted above the footpath in places.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
G 84	Young to early-mature Goat Willow, Hazel, Sycamore and Whitebeam <i>Salix caprea, Corylus avellana, Acer pseudoplatanus and Sorbus aria</i>	To 14	0 +	To 30	See plan	Group located between the footpath and the canal with crowns overhanging the footpath in places. No major visible defects observed; however, minor deadwood and bark wounds were noted.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
T 85	Semi-mature Sycamore <i>Acer pseudoplatanus</i>	12	4	18	6	Overhanging the footpath. Single stemmed and leaning with an unbalanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects.	GOOD	FAIR	10-20	LOW	No action required.	N/A	A	2
T 86	Young Rowan <i>Sorbus aucuparia</i>	5	0	10	4	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 87	Young Rowan <i>Sorbus aucuparia</i>	4	0	8	4	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
G 88	Semi-mature-early-mature Crack Willow <i>Salix fragilis</i>	To 8	4	To 55	See plan	Eight leaning stems overhanging the footpath. Each have been previously topped to reduce their crown weight and have semi-mature re-growth on the topping points, this re-growth will become structurally unsound as it grows in size.	FAIR	FAIR	20-40	MOD	Monitor.	MOD	B	1

Tree Ref.	Age Species <i>Latin Name</i>	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 89	Early-mature Crack Willow <i>Salix fragilis</i>	14	1	50	6	Within falling distance of the footbridge. Single-stemmed and leaning with an unbalanced crown. Previously topped. Significant decay to the stem due to Honey Fungus at the base.	GOOD	GOOD	40+	MOD	Remove to ground level.	MOD	R	N/A
T 90	Young Common Alder <i>Alnus glutinosa</i>	5	0	10	4	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	FAIR	POOR	<10	MOD	No action required.	N/A	A	5
T 91	Semi-mature Common Alder <i>Alnus glutinosa</i>	11	2	13	6	Single stemmed and leaning with an unbalanced crown. No evidence of significant pruning and no major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
G 92	Young-early-mature Mixed	To 13	0+	To 35	See plan	Mixed plantation located on banking with crowns which overhang the footpath in places. Species include Silver Birch, Goat Willow, Hazel, Sycamore, Elm sp., Field Maple and Common Ash. Limited inspection due to dense vegetation and restricted access. No major visible defects observed.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	5
T 93	Early-mature Goat Willow <i>Salix caprea</i>	9	3	34	7	Multi-stemmed at ground level with an unbalanced crown which overhangs the footpath. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
T 94	Early-mature Goat Willow <i>Salix caprea</i>	10	2	36	10	Multi-stemmed at ground level with an unbalanced crown which overhangs the footpath. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	LOW	No action required.	N/A	A	2
T 95	Early-mature Weeping Willow <i>Salix babylonica</i>	13	0+	55#	13	A riverside tree located overhanging low over the car park. Single-stemmed and vertical with a balanced crown and a weeping form. Occasional pruning wounds. Minor deadwood throughout.	GOOD	GOOD	40+	MOD	Crown lift to 3m over the car park.	LOW	B	2
T 96	Early-mature Sycamore <i>Acer pseudoplatanus</i>	14	0	45#	10	A riverside tree located overhanging the car park. Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	GOOD	GOOD	40+	MOD	No action required.	N/A	A	2
G 97	Early-mature Goat Willow <i>Salix caprea</i>	To 9	0+	To 35#	See plan	Groups of multiple-stemmed riverside trees overhanging the car park.	GOOD	GOOD	20-40	LOW	No action required.	N/A	A	2

## Appendix 2: Explanation of Terms & Recommended Clearances

<b>Canker</b>	Disease damaged area of a tree, usually caused by fungus or bacteria.
<b>Co-dominant Stem</b>	A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.
<b>Crown lift</b>	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
<b>Crown reduce</b>	The reduction of a tree's height or spread while preserving its natural shape.
<b>Crown thin</b>	The removal of some of the density of a tree's crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.
<b>Deadwood</b>	The removal of all dead, dying and diseased branches from a tree.
<b>Dieback</b>	Where branches are beginning to show signs of death usually at the tips in the crown.
<b>Epicormic shoots</b>	Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.
<b>Included bark</b>	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
<b>Pollarding</b>	A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.
<b>Remedial pruning</b>	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.

### Recommended Clearances

JCA recommend the following distances are maintained:

Height for pedestrian access:	No less than 2.5m
Height for vehicular access:	No less than 4m for a minor road No less than 6m for major roads or where buses will pass.
Distance from overhead cables:	No less than 2m
Distance from building or other structure:	No less than 2m
Distance from lamppost or sign	Sufficient to not impede visibility for 2 years.

## Appendix 3: Author Qualifications

### Principal Consultant and Managing Director

**Jonathan Cocking** *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years' experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

### Technical Director

**Toby Thwaites** *BSc (Hons), HND (Arboriculture), MArborA.* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

### Consulting Staff: Arboriculture

**Andrew Bussey.** Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

**Phil Humeniuk** *FdSc (Arboriculture).* Phil joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. He also has several years' experience working as a consultant both for JCA and for another consultancy. Phil obtained his foundation degree in Arboriculture at the University of Central Lancashire and has various NPTC's and is LANTRA certified in Professional Tree Inspection.

**Emily Wilde** *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

**Mick Eltringham** *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

**Charles Cocking** *FdSc (Arboriculture), MArborA.* Charles joined JCA in January 2014 as an Apprentice having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York.

**Dan Kemp** *FdSc (Arboriculture).* Dan joined JCA with nearly 30 years' experience in arboriculture. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

**Ryan Bateman** *BSc (Hons), FdSc (Arboriculture), TechArborA.* Ryan joined JCA in 2020 after working as a Lecturer on the Foundation Degree in Arboriculture at Askham Bryan College in York. Ryan has both practical skills, NPTC qualifications and theoretical knowledge and owned his own contracting business prior to, and whilst working as a lecturer.

## Consulting Staff: Ecology

**Joe Earnshaw, Graduate Ecologist** *BSc (Hons), MSc Biodiversity and Conservation, Qualifying CIEEM Member*. Joe joined the ecology department of JCA in 2018 after taking part in JCA's student training programme. He initially obtained a bachelor degree in Animal Management from Askham Bryan College, York. He has since furthered his education and brings to the company an MSc in Biodiversity and Conservation from the University of Leeds. Joe has expertise in aquatic invasive species identification and control.

## Administrative Staff

**Simeon Haigh** *BSc (Hons)*. IT Director.

**Catherine Cocking** Accounts Manager.

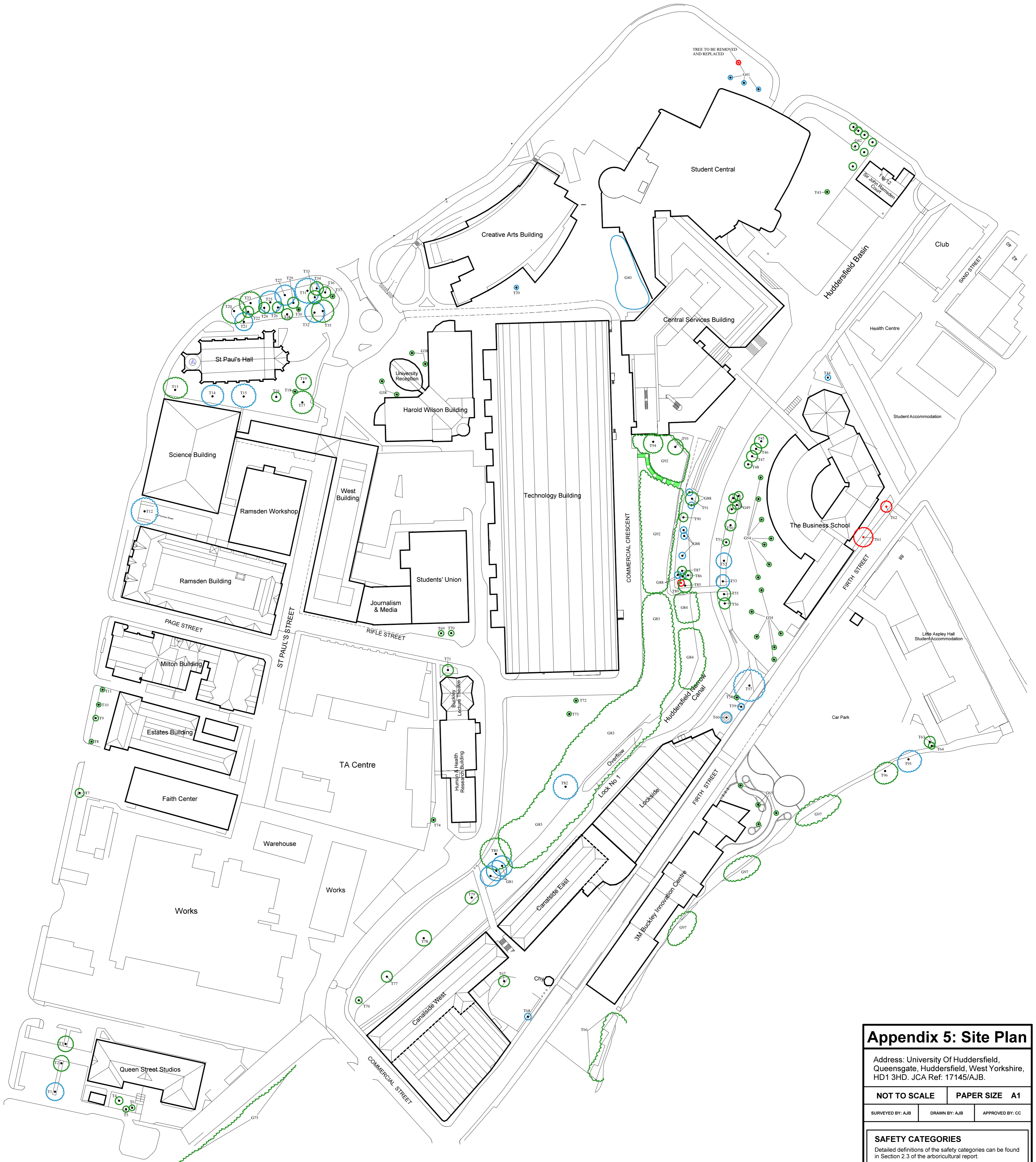
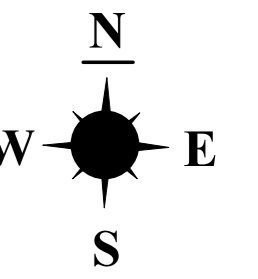
**Kelly Saunders** Accounts Assistant.

**Lorraine Spink** Administrative Assistant.

**Lisa Beedham** Marketing Manager.

## Appendix 4: General Guidelines

- A4.1 All work must be to BS 3998: 2010 - '*Recommendations for tree work*'.
- A4.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and should be covered by adequate public liability insurance.
- A4.3 This report is based upon a visual inspection. The consultant 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 the guidelines and the terms listed in this report.
- A4.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.
- A4.5 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this report are carried out under his supervision and within his timescale.
- A4.6 It is advisable to have trees inspected by an arboricultural consultant regularly. In this instance it is recommended that these inspections are made as per the recommended re-inspection timings at **Appendix 1**.



**Appendix 5: Site Plan**

Address: University Of Huddersfield, Queensgate, Huddersfield, West Yorkshire, HD1 3HD. JCA Ref: 17145/AJB.

NOT TO SCALE PAPER SIZE A1

SURVEYED BY: AJB DRAWN BY: AJB APPROVED BY: CC


**SAFETY CATEGORIES**  
Detailed definitions of the safety categories can be found in Section 2.3 of the arboricultural report.

	SAFETY CATEGORY A: NO WORKS REQUIRED
	SAFETY CATEGORY B: WORKS OR MONITORING REQUIRED
	SAFETY CATEGORY R: TREE TO BE REMOVED
	CENTRE OF TREE/SHRUB
	CENTRE OF TREE/SHRUB TO BE REMOVED



I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....

Andrew Bussey *LANTRA Accredited PTI.*

27<sup>th</sup> May 2021

For and on behalf of *JCA Ltd*

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# JCA Ltd. Arboricultural and Ecological Consultants

## Professional Tree and Ecology Advice nationwide

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### ARBORICULTURAL SERVICES

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#### Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

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#### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

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#### Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

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#### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

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#### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

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#### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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### ECOLOGICAL SERVICES

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#### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

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#### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

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