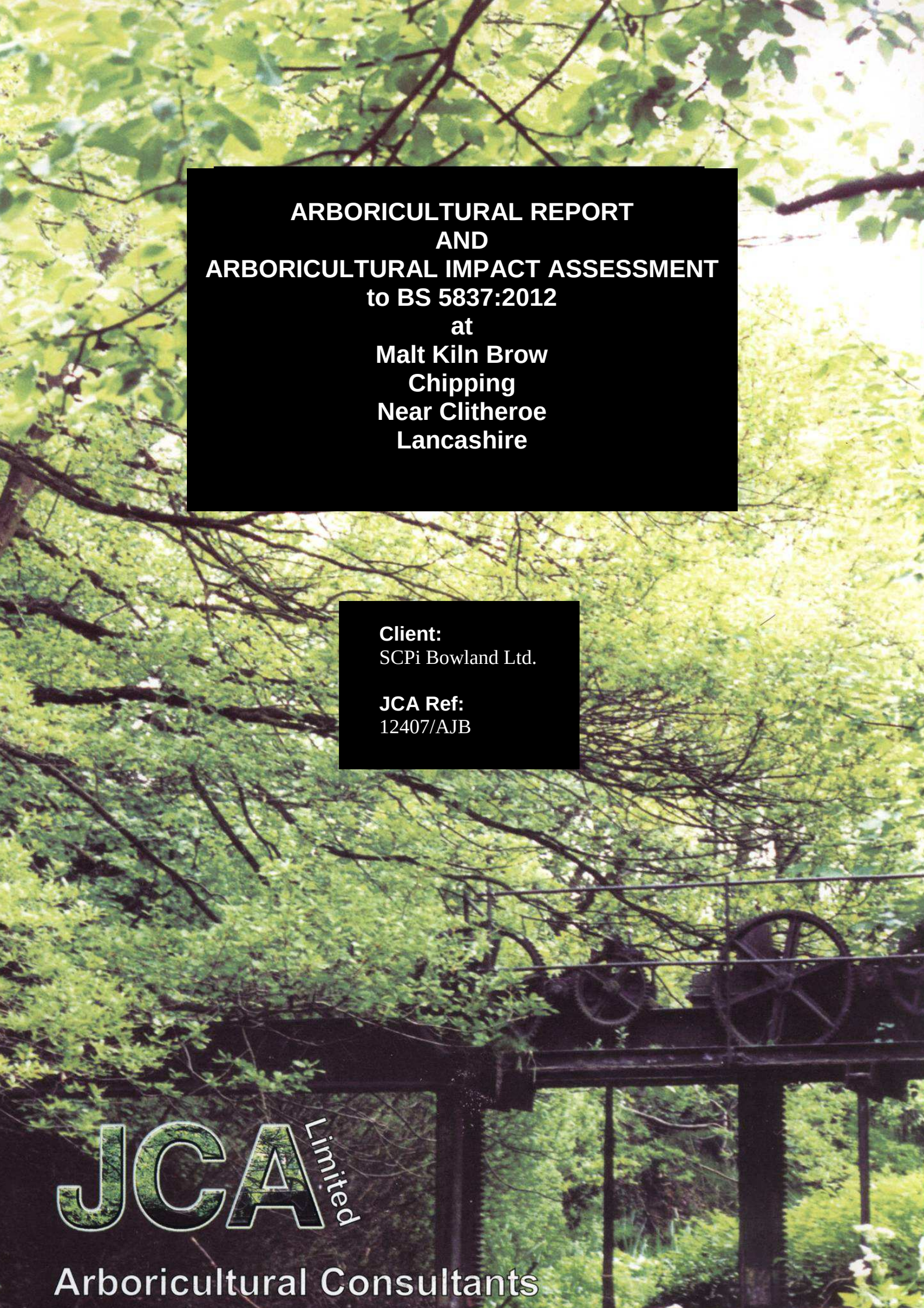

ARBORICULTURAL REPORT
AND
ARBORICULTURAL IMPACT ASSESSMENT
to BS 5837:2012
at
Malt Kiln Brow
Chipping
Near Clitheroe
Lancashire

Client:
SCPi Bowland Ltd.

JCA Ref:
12407/AJB

JCA Limited

Arboricultural Consultants

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 A report is required at **Malt Kiln Brow**, **Chipping**, **near Clitheroe** to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Terms of Reference

1.2.1 I am instructed by **SCPi Bowland Ltd.** to visit the site and prepare my findings in a report.

1.2.2 For this purpose I have been supplied with a topographical survey (**Drawing No. 12624-108-2_2DT_RevA**).

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.*

1.3.2 Preliminary recommendations are given with a view to the long-term management of a sustainable tree cover.

1.3.3 All trees within the site boundary with a stem diameter above 75mm are included.

1.3.4 Where applicable, trees outside the site boundary, but close enough to be affected by the proposed development, are included.

1.3.5 The specific design of the proposed development has been considered within the Arboricultural Implication Assessment in **Section 6** and detailed on the plans found at **Appendix 7**.

1.4 Survey Details

1.4.1 The survey took place during the month of July 2015 and was conducted by Andrew Bussey.

1.4.2 Inspection was made at ground level. Further investigation, such as climbed inspections or decay detection surveys, may be recommended where appropriate.

1.4.3 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible measurements were estimated.

2. Site Description

2.1 Land Use

2.1.1 The site comprises many land uses which include a redundant industrial complex, a cricket ground, open pasture land and plantations of semi-mature trees.

2.2 Topography

2.2.1 The portion of the site occupied by the redundant industrial complex is fairly level. However, the remainder of the surveyed area has many undulations in ground level.

2.3 Treescape

2.3.1 The trees on this site have a good impact on the immediate local treescape and contribute well to their surroundings and associated local features which include open pasture land, waterside areas, industrial complexes and private gardens.

2.3.2 The trees on this as a whole site have a significant impact on the local treescape.

2.4 Visual Amenity Value

2.4.1 The trees on site collectively provide a valuable visual amenity to the surrounding area.

2.5 Age Class Mix

2.5.1 The trees surveyed ranged in age from young to over-mature.

2.6 Species Diversity

2.6.1 Species surveyed include Sycamore, Common Ash, Lombardy Poplar, Hawthorn, Cherry, Alder, Field Maple, Beech, Holly, Silver Birch, Elm sp., Hazel, Rowan, Goat Willow, Norway Maple, Norway Spruce, Common Alder, Yew, Horse Chestnut, Common Oak, Scots Pine, Apple sp., Common Lime, Aspen and Elder.

3. Status of the Trees

3.1 We are aware from a check which was carried out in May 2012 with **Ribble Valley Borough Council** that the site is within a Conservation Area and that there is a Tree Preservation Order in force within the Kirk Mill complex.

3.2 Before any work is organised, all the necessary steps to get the permission of the Local Planning Authority must be taken.

3.3 ***No work must be done to any trees until permission has been granted.***

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. A full explanation of the tables can be found at **Appendix 2**. Please refer also to the Tree Constraints Plan at **Appendix 6** for tree locations.

5. Discussion Relating to the Existing Treescape

5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of **89** items of vegetation (**60** individual trees, **28** groups of trees and **1** hedge). Of these, **7** trees and **1** group were identified as retention category 'A', **25** trees and **13** groups were identified as retention category 'B', **24** trees, **12** groups and **1** hedge were identified as retention category 'C' and **4** trees and **2** groups were identified as retention category 'U'. Please refer to **Appendix 2** for retention category and definition criteria.

5.1.2 **T1, T32, T35, G50, G66** and **T88** were identified as retention category 'U'. These trees require removal for arboricultural reasons regardless of any on site development, as detailed below:

- **T32** and **T88** are considered to be unsafe and should be removed prior to the onset of the proposed development, for reasons of public health and safety. Their removal is of **moderate priority**.

- **T1, T35, G50** and **G66** have been recommended for removal to prevent them from becoming dangerous trees or in order to benefit adjacent trees; their removal is of a **lower priority**.

5.1.3 Tree pruning works are recommended for **T16, T17, T18, G22, T23, T41, T48, T78** and **T85** for reasons of public safety or to enhance the long-term health of the trees. The recommended work should be carried out as a matter of **low** or **moderate priority**, as detailed in **Appendix 1**.

5.1.4 **G2, T3, T8, T16, T17, G22, T23, T59, T77, T78, T79, T81, T82** and **T87** 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 basis to assess if their condition is still acceptable.

5.1.5 Where a full detailed inspection of trees was inhibited by restricted access or by the presence of Ivy or dense understorey vegetation, as detailed at **Appendix 1**, it is advised that these trees be re-inspected for any possible defects when the Ivy or dense understorey vegetation has been removed or when access has been made available.

5.1.6 Those trees which overhang the public footpaths or public highways, as detailed at **Appendix 1**, shall require future maintenance in order to maintain clearance heights for vehicular or pedestrian traffic. These heights should be 5.6m above a road and 2.5m above a footpath.

6. Arboricultural Implications Assessment (AIA)

6.1 Proposed Development

6.1.1 The proposed development consists of a hybrid planning application. This includes both full and outline elements, as follows:

6.1.2 Full planning permission for:

- Works (including partial demolition) and a change of use to the Grade II listed Kirk Mill, to create an eighteen bedroom hotel and bar/restaurant.
- Demolition of redundant factory buildings.
- Works to the barn building to create 7 holiday cottages.
- Construction of a twenty bedroom Hotel and Spa, Wedding Venue, and Kids Club.
- Change of use of Malt Kiln House to a hotel.
- Extensive provision of Public Open Space.
- Provision of a new cricket pitch and construction of a new pavilion.

6.1.3 Outline planning permission for:

- Up to 46 residential dwellings, split over two sites, with a maximum of 42 and 4 units on each.

6.1.4 Drawing No. 660_**Chipping 140220_RevB v2** has been supplied by the client. The resulting Development Proposals Plans (Site Plan A and B) can be found at **Appendix 7** and are the basis for which this AIA has been prepared.

6.2 Trees to be Removed

6.2.1 In order to facilitate the aspects of the development, the following trees will require removal for the reasons detailed below:

6.2.2 **T24, T25, T26, T27, T28, T29, T30, T62, T67, T68, T69, G70, T73, T74, T75** and **T76** shall require removal as they are situated directly within the footprint of the proposed development or as they are situated so close to the proposed development that retaining them is not practical as they are unlikely to survive the demolition or construction phase.

6.2.3 In addition, those sections of **H15, G21** and **G63** which are shown in **red** on Development Proposals Plan A at **Appendix 7** require removal in order to facilitate aspects of the proposed development.

6.3 Implications for the Retained Trees

6.3.1 Where possible, the retained trees will be protected during the construction phase by a temporary protective barrier (protective fencing), in accordance with BS 5837: 2012. The installation of the temporary protective barrier will be the very first job on site following the tree removal and pruning works.

6.3.2 Wherever possible the temporary protective barrier will be positioned to enclose the entire **Root Protection Area** (**RPA**) and canopies of the retained trees, in order to create a **Construction Exclusion Zone** (**CEZ**).

6.3.3 Routes for pedestrian and site traffic should ideally be located outside, and diverted away from, the RPAs of the retained trees. Where this is not possible, temporary protective surfaces must be laid over the exposed RPAs which will distribute the weight of site vehicles, machinery or pedestrians whilst allowing moisture to reach the tree rooting area beneath.

6.3.4 No demolition works must commence until the temporary protective fencing is in place. JCA should be informed in advance of such activities so that monitoring arrangements can be made.

6.3.5 It is proposed to construct an access road within the RPA of **T18, G22, T23, T48** and **T77**. Where applicable, special engineering methods will be required in order to protect the roots of trees during the development and to ensure that they are able to access oxygen, water and nutrients once the development is complete.

6.3.6 New buildings are proposed adjacent to **T17**. Where the new buildings encroach into the RPA of this tree, in order to minimise root damage, special engineering techniques, such as pile foundations, must be adopted in favour of the more traditional strip foundations.

6.3.7 Areas where work is required within the RPA of a retained tree are highlighted in **blue** on the Development Proposals Plan at **Appendix 7**.

6.3.8 Where utilities need to be brought onto the site, these should ideally be routed away from the RPAs of the trees. Where this is not possible, methodologies on the installation of underground services without damage to tree roots should be considered. All service providers should be consulted prior to commencement of works with the aim of minimising the number of service runs on the site.

6.3.9 The site compound, which typically includes the site office, mess facilities, toilets, storage of materials and parking, must be located away from the trees and outside the RPAs. Care should also be taken to prevent soil contamination with chemical spillages, including petrol, diesel and oils.

6.4 Remedial Measures

6.4.1 As part of the proposed development will encroach into the RPAs of **T17, T18, G22**, **T23, T48** and **T77**, it would therefore be prudent to apply *mycorrhiza* fungi to the soils around these trees after the construction phase is complete. *Mycorrhiza* is a fungus that forms a symbiotic relationship with the tree roots. A tree root associated with *mycorrhiza* takes up nutrients more effectively so benefitting their recovery.

7. Conclusions

7.1 The trees surveyed were generally found to be in good or fair condition.

7.2 The site is within a Conservation Area and that there is a Tree Preservation Order in force within the Kirk Mill complex.

7.3 **T1, T32, T35, G50, G66** and **T88** have been recommended for removal for arboricultural reasons, as discussed in **Section 5.1.2** and detailed at **Appendix 1**.

7.4 **T16, T17, T18, G22, T23, T41, T48, T78** and **T85** have been recommended for pruning works for reasons of public safety and to enhance their long term health, as summarised in **Section 5.1.3** and detailed at **Appendix 1**.

7.5 **G2, T3, T8, T16, T17, G22, T23, T59, T77, T78, T79, T81, T82** and **T87** require an annual inspection as they have structural or physiological defects, as discussed in **Section 5.1.4** and detailed at **Appendix 1**.

7.6 The arboricultural implications of the development have been considered and discussed in **Section 6** and detailed on the plans at **Appendix 7**. This includes the removal of **T24, T25, T26, T27, T28, T29, T30, T62, T67, T68, T69, G70, T73, T74, T75** and **T76** and sections of **H15, G21** and **G63**.

7.7 All development work carried out in close proximity to trees must be executed in a manner sympathetic to their needs. Otherwise, the condition of the trees may deteriorate in the months and years following development, leading to a loss of amenity and resulting in potentially hazardous trees. Care must therefore be taken to ensure that the retained trees are suitably protected.

7.8 In accordance with **Section 6.1** of **BS 5837: 2012**, our client has requested the preparation of an **Arboricultural Method Statement (AMS)**, in order to ensure that all the retained trees survive the development process. The **AMS** will detail which trees are to be removed, which trees are to be retained and any other tree works which are required to facilitate development. The **AMS** will also advise on temporary protective barriers, temporary ground protection, site supervision, location of services and it will detail specialist construction techniques.

Appendices

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 1	Over mature Common Ash *Fraxinus excelsior*	17	3	3 S	84 #	3 3 3 3	Overhanging the car park and the footpath. Multi-stemmed at 3.5m. Previously topped at 5m with re-growth present. Massive hollow with severe decay noted at the base.	Remove as a matter of **low priority**.	FAIR	POOR	MOD	<10	U
G 2	Semi-mature to early-mature Mixed	11	0 +	0+ n/a	To 43	See plan	Group of trees of reasonable form located on the field boundary. Species include Hawthorn, Field Maple, Elder, Elm and Common Ash. Decay cavities, deadwood and bark scars noted. Not fully inspected due to dense vegetation.	Monitor annually.	GOOD	GOOD	MOD	20-40	B
T 3	Early-mature Sycamore *Acer pseudoplatanus*	16	5	5 S	53	4 4 4.5 4.5	Twin-stemmed at 1m with a balanced crown. Occasional pruning wounds. Bark scar with decay noted at 1.5m.	Monitor annually.	GOOD	FAIR	MOD	20-40	C
G 4	Early-mature Common Ash *Fraxinus excelsior*	To 15	3+	4+ S	To 44	See plan	Three trees of vertical form in a tight group with one homogenous crown. Crossing stems noted. Occasional pruning wounds. Acceptable condition at present.	No action required.	GOOD	FAIR	MOD	20-40	C
G 5	Young to mature Mixed	To 18	0 +	0+ n/a	To 80	See plan	Group of trees of good form located on or beyond the boundary line. Species include Hawthorn, Common Ash, Goat Willow, Beech, Sycamore, Common Alder, Holly and Common Oak. Not fully inspected due to dense vegetation.	No action required.	GOOD	GOOD	MOD	40+	B
T 6	Young Common Ash *Fraxinus excelsior*	11	3	3 S	13	2 1 1.5 1	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
G 7	Semi-mature Mixed	To 11	0 +	0+ n/a	To 20	See plan	Three trees of poor form with no major visible defects. Species include Common Ash, Hawthorn and Holly. Insignificant specimens.	No action required.	GOOD	GOOD	LOW	20-40	C
T 8	Mature Common Ash *Fraxinus excelsior*	13	3	3 N	65 #	6 6# 4.5 5.2	Multi-stemmed at 4m with a balanced crown. Occasional pruning wounds due to crown lifting. Decay cavities and deadwood noted.	Monitor annually.	GOOD	FAIR	MOD	20-40	B
T 9	Early-mature Lombardy Poplar *Populus nigra 'Italica'*	14	8	8 N	28	4 4 3 1.8	Single-stemmed and vertical with an unbalanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects. Minor deadwood noted.	No action required.	GOOD	GOOD	LOW	20-40	C
T 10	Mature Sycamore *Acer pseudoplatanus*	14	1	1 S	92 # at base	6.5 7# 6.3 6.5	Twin-stemmed at 0.5m with a balanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects.	No action required.	GOOD	GOOD	MOD	20-40	B

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 11	Mature Lombardy Poplar *Populus nigra 'Italica'*	19	3	3.5 N	53	5 5 5 5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Minor deadwood noted.	No action required.	GOOD	GOOD	MOD	40+	B
T 12	Mature Common Alder *Alnus glutinosa*	12	3	3 E	35 #	4.8# 4.2# 5.3 3	Relatively close to overhead power lines. Twin-stemmed at 3m with a balanced crown which leans towards and overhangs the road. Occasional pruning wounds. Not fully inspected due to limited access and vegetation at the base.	No action required.	GOOD	GOOD	MOD	40+	B
G 13	Early-mature to mature Lombardy Poplar *Populus nigra 'Italica'*	To 19	2 +	2+ n/a	To 65	See plan	A row of 22 trees which are all single-stemmed and vertical with balanced crowns. Occasional pruning wounds yet no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
G 14	Semi-mature Common Ash *Fraxinus excelsior*	To 12	0 +	0+ n/a	To 30#	See plan	A group of 3 trees of reasonable form with no major visible defects. The crowns overhang the road. Not fully inspected due to limited access.	No action required.	GOOD	GOOD	LOW	20-40	C
H 15	Early-mature Mixed	To 2.5	0	0 E	To 5#	See plan	A well maintained Hazel, Hawthorn, Elder, Beech, Common Ash and Blackthorn hedgerow. No major visible defects.	No action required.	GOOD	GOOD	MOD	40+	C
T 16	Mature Common Ash *Fraxinus excelsior*	16	4	4 S	72 #	6 6 7 7.5	Single-stemmed and vertical with a balanced crown which overhangs the road. Occasional pruning wounds. Moderate deadwood throughout, this may indicate the onset of Ash Die-back. Ivy and the hedge at the base prevented a detailed inspection.	Crown clean to remove the deadwood as a matter of **moderate priority**. Monitor annually.	FAIR	FAIR	MOD	20-40	B
T 17	Over mature Common Ash *Fraxinus excelsior*	20	5	5 E	95 #	9.5 9.5 9.5 9.5	Single-stemmed and vertical with a balanced crown which overhangs the road. No evidence of significant pruning. Moderate deadwood throughout, this may indicate the onset of Ash Die-back. A Sycamore is growing from the base and into the lower crown of the tree. Ivy and the hedge at the base prevented a detailed inspection.	Remove the Sycamore at the base and crown clean to remove the deadwood as a matter of **moderate priority**. Monitor annually.	FAIR	FAIR	MOD	20-40	B
T 18	Over mature Common Ash *Fraxinus excelsior*	19	3	4 n/a	95#	12 # 12 # 12 # 12 #	Multi-stemmed at 4m with a balanced crown. No evidence of significant pruning. Minor deadwood and snapped branch stubs noted throughout. Limited inspection due to vegetation and limited access.	Crown clean to remove the deadwood as a matter of **moderate priority**.	GOOD	GOOD	MOD	40+	B
T 19	Mature Common Ash *Fraxinus excelsior*	13	0.5	0.5 E	44	5 5 6 4	Single-stemmed and leaning with a balanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects.	No action required.	GOOD	GOOD	MOD	20-40	B
T 20	Mature Sycamore *Acer pseudoplatanus*	16	3	1.5 E	49#	6 6 6# 6.5#	Single-stemmed and vertical with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Not fully inspected due to vegetation.	No action required.	GOOD	GOOD	MOD	40+	B

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G 21	Young Mixed	To 10 #	0 +	0+ n/a	To 12	See plan	Dense plantation containing Silver Birch, Common Ash, Goat Willow, Rowan, Cherry, Common Oak, Hazel and Common Alder. Not fully inspected due to limited access and dense vegetation.	No action required.	GOOD	GOOD	MOD	40+	B
G 22	Young to mature Mixed *Mixed*	To 18	0 +	0+ n/a	To 70 #	See plan	Dense woodland group with crowns which overhang the road in places. Species include Common Ash, Sycamore, Goat Willow, Hawthorn, Elm sp., Norway Maple and Common Alder. Deadwood (particularly on the Common Ash), dead stems, decay cavities and bark scars noted.	Crown clean to remove the deadwood as a matter of **moderate priority**. Monitor annually.	GOOD	GOOD	MOD	40+	B
T 23	Mature Common Ash *Fraxinus excelsior*	18	4	5 E	90#	9# 9# 7# 10#	Overhanging the footpath. Multi-stemmed at 5m with a balanced crown. No evidence of significant pruning. Minor deadwood throughout, this may indicate the onset of Ash Die-back. Not fully inspected due to Ivy and basal vegetation.	Crown clean to remove the deadwood as a matter of **low priority**. Monitor annually.	FAIR	FAIR	MOD	20-40	B
T 24	Young Silver Birch *Betula pendula*	11	4	4 n/a	7	2 1 2 2	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 25	Young Silver Birch *Betula pendula*	9	0.5	0.5 n/a	8	2.5 2.5 2.5 2.5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 26	Semi-mature Norway Spruce *Picea abies*	13	1	1 E	25 #	2.8 1.5 3 2.5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 27	Semi-mature Norway Spruce *Picea abies*	13	1	1 E	18 #	2.5 1.5 3 1	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 28	Early-mature Norway Spruce *Picea abies*	16	2	2 E	35 #	3.2 3.2 3.2 3.2	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	20-40	C
T 29	Early-mature Common Ash *Fraxinus excelsior*	15	3	3 E	34	5 5 5 5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to restricted access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 30	Early-mature Goat Willow *Salix caprea*	14	0	0 n/a	28 #	3 3 3 2.5	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Minor bark wound present at the base. Limited inspection due to restricted access.	No action required.	GOOD	GOOD	LOW	20-40	C

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 31	Early-mature Yew *Taxus baccata*	13	0	0 n/a	35 #	3.5 3.5 3.5 3.5	Multi-stemmed at 1m with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
T 32	Mature Horse Chestnut *Aesculus hippocastanum*	12	1	3 E	90#	5# 6# 4 6	Multi-stemmed at 2.5m with a balanced crown. Occasional pruning wounds. Significant die-back due to Bleeding Canker of Horse Chestnut throughout.	Remove as a matter of **moderate priority**.	POOR	POOR	MOD	<10	U
G 33	Mature Mixed	To 20	0 +	0+ n/a	To 90	See plan	Group of trees situated in a private garden. Limited inspection due to restricted access. Species include Scots Pine, Beech, Yew, Cherry sp. and Apple sp. No major visible defects observed.	No action required.	GOOD	GOOD	MOD	40+	B
T 34	Early-mature Yew *Taxus baccata*	13	2	2 W	51 at base	3.5 4 4.8 4	Multi-stemmed at 1m with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	40+	B
T 35	Over mature Horse Chestnut *Aesculus hippocastanum*	3.5	2	2 n/a	100#	0.5 0.5 0.5 0.5	Standing dead stem with the crown removed.	Remove as a matter of **low priority**.	POOR	POOR	LOW	<10	U
T 36	Early-mature Norway Spruce *Picea abies*	18	4	4 S	39	4 3 7.2 4	Single-stemmed and leaning with an unbalanced crown. No evidence of significant pruning and no major visible defects. Ivy prevented a detailed inspection.	No action required.	GOOD	GOOD	LOW	20-40	B
T 37	Mature Sycamore *Acer pseudoplatanus*	16	4	3 S	50 # at base	7 7 6 4	Multi-stemmed at ground level with an unbalanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
G 38	Mature Mixed	To 20	0 +	0+ n/a	To 90	See plan	Group of trees situated in a private garden. Limited inspection due to restricted access. Species include Scots Pine, Beech, Yew, Cherry sp. and Apple sp. No major visible defects observed.	No action required.	GOOD	GOOD	MOD	40+	B
T 39	Over-mature Beech *Fagus sylvatica*	23	0	0 n/a	90 #	12 # 12 # 12 # 12 #	Estimated to be Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to restricted access.	No action required.	GOOD	GOOD	MOD	40+	A
T 40	Early-mature Common Alder *Alnus glutinosa*	13	1.5	1.5 W	45 # at base	3 5 1 4.5	Multi-stemmed at ground level with an unbalanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 41	Mature Common Ash *Fraxinus excelsior*	17	1	1 S	54	6 6 6 7	Multi-stemmed at 4m with a balanced crown. No evidence of significant pruning and no major visible defects. Deadwood noted.	Crown clean to remove the deadwood as a matter of **low priority**.	GOOD	GOOD	LOW	40+	B
T 42	Over-mature Common Ash *Fraxinus excelsior*	24	1	1 S	65 #	9 # 9 # 9 # 9 #	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Ivy and restricted access prevented detailed inspection.	No action required.	GOOD	GOOD	MOD	20-40	B
G 43	Young to over-mature Mixed	To 20	0 +	0+ n/a	To 65	See plan	Group of trees of reasonable form. Species include Sycamore, Common Ash, Elder and Hawthorn. Limited inspection due to access and vegetation yet no major visible defects observed.	No action required.	GOOD	GOOD	MOD	40+	B
T 44	Semi-mature Common Oak *Quercus robur*	7	3	3 n/a	18	3 3 3 3	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	40+	C
T 45	Mature Sycamore *Acer pseudoplatanus*	18	3	3 n/a	72# & 68#	5.8 7# 7.6 8	Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	A
T 46	Mature Common Lime *Tilia x europaea*	18	1	1 n/a	82 #	7.5 8# 7.5 7	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	A
T 47	Mature Sycamore *Acer pseudoplatanus*	17	2	2 n/a	65 #	7 # 7 # 7 # 7 #	Twin-stemmed at 2m with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
T 48	Early-mature Common Ash *Fraxinus excelsior*	17	3	3 W	50 #	7 # 7 # 7 # 7 #	Twin-stemmed at 2m with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Deadwood noted.	Crown clean to remove the deadwood as a matter of **low priority**.	GOOD	GOOD	MOD	20-40	B
T 49	Semi-mature Common Ash *Fraxinus excelsior*	13	4	4 E	To 20	3 0 6 4	Single-stemmed and leaning with an unbalanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Suppressed by T48.	No action required.	GOOD	FAIR	LOW	10-20	C
G 50	Semi-mature Common Ash *Fraxinus excelsior*	To 7	0+	0+ n/a	To 40 #	See plan	A dead stem and a vertical and balanced tree growing from the riverside retaining wall with the potential to cause future damage to this feature.	Remove as a matter of **low priority**.	POOR	POOR	LOW	<10	U

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G 51	Semi-mature Cypress sp. *Cupressus sp.*	To 10	0+	0+ E	To 29#	See plan	Situated on adjacent land. Two trees of vertical and balanced form. No major visible defects. Not fully inspected due to limited access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 52	Early-mature Common Oak *Quercus robur*	13	1	1 E	46	5 6 6 5	Single-stemmed and vertical with a balanced crown containing very minor deadwood. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	40+	C
G 53	Semi-mature Mixed	To 10	0 +	0+ n/a	To 16	See plan	Self seeded Elm sp. Goat Willow and Common Ash of poor form and little significance.	No action required.	GOOD	FAIR	LOW	10-20	C
G 54	Semi-mature to mature Mixed	To 18	0 +	0+ n/a	To 55	See plan	A group of waterside trees comprised mainly of Common Alder with occasional Common Ash throughout. No major visible defects. Deadwood and decay cavities with good ecological potential were noted throughout. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	40+	B
G 55	Young Mixed	To 12	0 +	0+ n/a	To 13	See plan	Single-stemmed trees of low value yet with no major visible defects. Species include Sycamore, Goat Willow, Common Ash and Silver Birch.	No action required.	GOOD	GOOD	LOW	20-40	C
G 56	Semi-mature to early-mature Hawthorn *Crataegus monogyna*	To 8	0 +	0+ n/a	To 30	See plan	Group of overgrown hedgerow trees with no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
G 57	Semi-mature Common Alder *Alnus glutinosa*	To 11	0 +	0+ n/a	To 20	See plan	Waterside trees of reasonable form. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 58	Early-mature Common Alder *Alnus glutinosa*	13	0	0 n/a	30 #	4 4.5 1 2	Single-stemmed and leaning with an unbalanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 59	Mature Common Ash *Fraxinus excelsior*	14	0	0 n/a	45 #	4.5 6 3 4.5	Multi-stemmed at 3m with a balanced crown. No evidence of significant pruning and no major visible defects. Deadwood and decay cavities noted. Limited inspection due to access.	Monitor annually.	GOOD	GOOD	LOW	20-40	C
G 60	Young to mature Mixed	To 18	0 +	0+ n/a	To 70 #	See plan	An area of planted or self-seeded Common Ash, Sycamore, Goat Willow, Hawthorn, Elm sp., Norway Maple and Common Alder. Deadwood, dead stems, decay cavities and bark scars noted. Limited inspection due restricted access.	No action required.	GOOD	GOOD	LOW	40+	B

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G 61	Young to semi-mature Cherry & Aspen *Prunus sp. & Populus tremula*	To 13	0 +	0+ n/a	To 24	See plan	Planted trees of reasonable form with no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 62	Mature Sycamore *Acer pseudoplatanus*	15	2	2 n/a	52	6.3 6.3 6.3 6.3	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	B
G 63	Young to early-mature Mixed	To 14	0 +	0+ n/a	To 50	See plan	Group of mixed planted trees of good quality and with good screening potential. Species include Cherry sp., Hawthorn, Common Ash, Rowan, Sycamore, Common Oak and Silver Birch. Limited inspection due to dense vegetation.	No action required.	GOOD	GOOD	MOD	20-40	B
G 64	Young to semi-mature Mixed	To 13	0 +	0+ n/a	To 30	See plan	Riverside trees of low value yet with no major visible defects. Species include Common Alder, Elm sp., Goat Willow and Elder.	No action required.	GOOD	GOOD	LOW	20-40	C
G 65	Young to mature Mixed	To 17	0 +	0+ n/a	To 45	See plan	Group of attractive riverside trees of good value with crowns which overhang the road in places. Species include Sycamore, Copper Beech, Elm sp. and Willow sp. Limited inspection due to restricted access.	No action required.	GOOD	GOOD	MOD	20-40	B
G 66	Young to early-mature Mixed	To 15	0 +	0+ n/a	To 30	See plan	Group of riverside trees growing against and from the top of the retaining wall. Species include Common Alder, Cherry sp., Sycamore and Elm sp. *Phytophthora* noted within the group.	Remove as a matter of **low priority**.	FAIR	POOR	LOW	<10	U
T 67	Mature Common Alder *Alnus glutinosa*	17	4	4 W	62 #	5 # 6 # 6 # 6 #	Waterside tree which is single-stemmed and vertical with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Limited inspection due to waterside location.	No action required.	GOOD	GOOD	MOD	20-40	B
T 68	Mature Sycamore *Acer pseudoplatanus*	17	0	0 n/a	To 50 #	5 8 4 5	Waterside tree which is twin-stemmed at ground level with a balanced crown which overhangs the road. No evidence of significant pruning. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
T 69	Early-mature Common Alder *Alnus glutinosa*	15	3	3 n/a	To 40 #	6 6 4 3	Waterside tree which is multi-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
G 70	Young to semi-mature Mixed	To 12	0 +	0+ n/a	To 20	See plan	Single-stemmed trees of low value. Species include Common Alder, Sycamore, Elm sp. and Common Ash.	No action required.	GOOD	GOOD	LOW	20-40	C

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 71	Mature Common Ash *Fraxinus excelsior*	14	4	4 n/a	48 #	6 # 6 # 6 # 6 #	Twin-stemmed at 2m with a balanced crown which overhangs the road. Multiple pruning wounds due to crown lifting yet no major visible defects. Limited inspection due to restricted access.	No action required.	GOOD	GOOD	MOD	20-40	B
G 72	Young to mature Mixed	To 17	0 +	0+ n/a	To 70 #	See plan	A group of waterside Common Ash, Sycamore, Norway Spruce, Beech and Hawthorn. Limited inspection due to restricted access.	No action required.	GOOD	GOOD	MOD	40+	A
T 73	Early-mature Sycamore *Acer pseudoplatanus*	6	0	0 n/a	29 #	3.5 # 4 # 3.5 # 3 #	Growing on the top of waterside retaining wall. Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	MOD	20-40	C
T 74	Semi-mature Crack Willow *Salix fragilis*	6	0	0 n/a	34#	3 3.2 5 # 4 #	Growing on the top of waterside retaining wall. Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Minor deadwood. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	MOD	20-40	C
T 75	Semi-mature Common Ash *Fraxinus excelsior*	7	3	3 n/a	17	3 # 3 # 3 # 3 #	Growing from the base of T76 on the top of waterside retaining wall. Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Limited inspection due to riverside location.	No action required.	GOOD	FAIR	LOW	10-20	C
T 76	Early-mature Hawthorn *Crataegus monogyna*	4.8	0.5	0.5 n/a	35# at base	4.3 3 # 4.2 3.3	Growing on the top of waterside retaining wall. Multiple stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	LOW	20-40	C
T 77	Over-mature Common Alder *Alnus Glutinosa*	5.8	2	2 n/a	62	5# 4.3 4.3 4.3	Multiple stemmed at 5.5 metres with a balanced crown. No evidence of significant pruning. Significant decay cavities to lower stem. The main stem has snapped out at 3m and has large decay cavity at this point. The defects noted present a good ecological potential.	Monitor annually.	GOOD	POOR	LOW	20-40	B
T 78	Over-mature Common Alder *Alnus Glutinosa*	14	2	2 n/a	76	6 6 6 6.1	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Slight die-back to upper crown. Slight decay noted to buttress to the north and the south. 2 decay cavities noted at 3.5m. The defects noted present a good ecological potential.	Crown clean to remove the deadwood as a matter of **low priority**. Monitor annually.	FAIR	FAIR	LOW	20-40	B
T 79	Early-mature Common Alder *Alnus Glutinosa*	4.8	1.5	1.5 n/a	36	3# 2.6 3# 3#'	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Large vertical decayed hollow to main stem from base to 2.5 metres. The defect noted presents a good ecological value.	Monitor annually.	GOOD	POOR	LOW	20-40	C
G 80	Semi-mature to mature Hawthorn and Alder *Crataegus monogyna and Alnus sp.*	To 6.5	0	0 n/a	To	See plan	Overgrown hedgerow with intermittent individual trees of good form and good ecological value. No major visible defects. Limited inspection due to barbed wire fence and vegetation.	No action required.	GOOD	GOOD	LOW	10-20	B

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 81	Over-mature Common Alder *Alnus Glutinosa*	6	2	0.5 N	55#	4.8 4.8 5# 4.8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Decay at base leads to hollow stem. Severe decay leads to an additional hollow stem at 2.8m. The defects noted present a good ecological value. Limited inspection due to barbed wire fence.	Monitor annually.	GOOD	GOOD	LOW	10-20	C
T 82	Over-mature Common Alder *Alnus Glutinosa*	9	2.8	1 NE	68#	5.5# 5.6 6# 6#	Twin-stemmed at 5m with a balanced crown. No evidence of significant pruning. Two decay cavities noted at 1.8m. Limited inspection due to barbed wire fence.	Monitor annually.	GOOD	GOOD	LOW	20-40	A
T 83	Mature Common Alder *Alnus Glutinosa*	8.5	2.2	1 S	49#	6# 6.4 6# 6.9	Single-stemmed with a slight lean and a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to barbed wire fence.	No action required.	GOOD	GOOD	LOW	40+	B
T 84	Over-mature Common Alder *Alnus Glutinosa*	15	3	1.5 S	100#	6# 7.1 9# 6.8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to barbed wire fence and vegetation.	No action required	GOOD	GOOD	LOW	40+	A
T 85	Over-mature Sycamore *Acer pseudoplatanus*	19	2	2 n/a	115#	11# 7.5# 9# 8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Minor deadwood. Limited inspection due to barbed wire fence.	Crown clean to remove the deadwood as a matter of **low priority**.	GOOD	GOOD	MOD	40+	A
G 86	Semi-mature Elder, Hawthorn *Sambucus nigra, Crataegus monogyna*	To 4	1	1 n/a	To 13	See plan	2 trees of low value, no major visible defects.	No action required.	GOOD	GOOD	LOW	10-20	C
T 87	Over-mature Common Alder *Alnus Glutinosa*	7	2	2 n/a	78	2 3 2 6	The crown of this tree has snapped out at approximately 6m leaving an unbalanced tree. The remaining stem is hollowed at the top and has good ecological potential.	Monitor annually.	FAIR	POOR	MOD	10-20	C
T 88	Over-mature Common Ash *Fraxinus excelsior*	21	1	1 n/a	90#	11# 6# 6 10.5	Multi-stemmed at 6m with a balanced crown. No evidence of significant pruning. Many decay cavities present throughout the crown. Vast internal decay to base leads to large hollow within base of main stem. The decay appears to have destroyed over 70% of the live wood, as such; this tree is likely to be structurally unsound and is likely to collapse. Please note that this tree has a good ecological value and also has bat roost potential.	Dismantle leaving a 7m wildlife stick prior to the tree collapsing on the adjacent T89 which is regarded as a high retention category specimen. This work is of a **moderate priority**.	GOOD	GOOD	MOD	<10	U
T 89	Over-mature Sycamore *Acer pseudoplatanus*	19	2.5	2 N	105#	11# 12# 9# 8.5	This tree appears to be situated on adjacent land. Twin-stemmed at 5m with a balanced crown. No evidence of significant pruning. No major visible defects. Minor deadwood.	No action required.	GOOD	GOOD	MOD	40+	A

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements

A2.1.1 *HEIGHT* of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

A2.1.2 *CROWN HEIGHT* is an indication of the average height at which the crown begins.

A2.1.3 *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.

A2.1.4 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

A2.2 Evaluations

A2.2.1 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

A2.2.2 *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.

A2.2.3 *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.

A2.2.4 *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.

A2.3 Retention Categories

A2.3.1 ***A (marked green on the plan) = trees of high quality.***

These trees are of high quality and value with a good life expectancy. They may be further sub-divided as follows:

A1) Particularly good examples; perhaps rare or unusual species, or forming an essential part of arboricultural features e.g. avenues.

A2) Groups of trees having a significant landscape impact or with excellent screening properties, or those softening the effect of existing structures.

A3) Those having significant conservation or historical value e.g. veteran trees.

A2.3.2 ***B (marked in blue on the plan) = trees of moderate quality.***

These trees are of moderate quality and value with a significant life expectancy. They may be further sub-divided as follows:

B1) Trees that might be included in the high category but because of their numbers or slightly impaired condition, are downgraded in favour of the better individuals.

B2) Groups of trees forming distinct landscape features, thereby attracting a higher collective rating than they might as individuals.

B3) Trees with clearly identifiable conservation or other cultural benefits.

A2.3.3 ***C (marked in grey on the plan) = trees of low quality.***

These trees are of low quality and value, and are in adequate condition to remain until new planting could be established. They may be further sub-divided as follows:

C1) Trees not qualifying in higher categories.

C2) Groups of trees which do not form a distinct landscape feature.

C3) Trees with very limited conservation or other cultural benefits.

A2.3.4 ***U (marked in red on the plan) = unsuitable for retention: trees for removal.***

These trees are in such a condition that any existing value would be lost within 10 years. This may be due to any of the following:

1) Failure is likely due to serious, irredeemable, structural defects.
2) Removal of other category U trees will render them exposed and unstable.
3) They are in serious, overall decline or are dead.
4) They are of low quality and suppressing adjacent trees of better quality.
5) Diseases are present which may affect the health of adjacent trees.

These trees should be removed or treated in such a way as to make them safe where they have high ecological value, such as in a woodland setting.

Appendix 3: General Guidelines

A3.1 All work must be to BS 3998: 2010 '*Recommendations for tree work'*.

A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.

A3.3 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.

A3.4 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.

A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.

A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly. In this instance it is recommended that these inspections are made every year.

Appendix 4: Glossary of Terms & Abbreviations

Arboriculture	The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber.
Canker	Disease damaged area of a tree, usually caused by fungus or bacteria.
Co-dominant Stem	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.
Crown Lift	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
Crown reduce	The reduction of a tree's height or spread while preserving its natural shape.
Crown thin	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.
Deadwood	Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.
Dieback	Where branches are beginning to show signs of death usually at the tips in the crown.
Epicormic shoots	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.
Formative pruning	The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.
Included bark	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
Pollarding	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.
Remedial pruning	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.
RPA	Root Protection Area – Theoretical rooting area of a tree as defined in BS5837:2012 *Trees in relation to construction.*
Topping	Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping causes serious health problems to a tree.

Appendix 5: 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 Coordinator

Toby Thwaites *BSc (Hons), HND (Arboriculture).* 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 was promoted to Technical Coordinator and now oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Consulting Staff: Arboriculture

Andy Bagshaw *FdSc (Arboriculture).* Andy joined JCA in 2005 having gained several years experience in tree surgery and landscaping. He is trained in aerial rescue and is JCA's principal first aid person. Andy has obtained a foundation degree in Arboriculture at the University of Central Lancashire, is QTRA qualified and is a JCA team leader who manages an office of Consulting Arboriculturists.

Toby Parsons *Cert. Arb. (RFS), Tech. Cert. (Arbor.A).* Toby joined JCA after spending 6 years working as a senior climber for various Arboricultural contractors in the East Midlands and the South-West. He has gained the Level 2 Certificate in Arboriculture (RFS) and an Arboricultural Technicians Certificate. Toby is LANTRA certified in Professional Tree Inspection.

Scott Reid *ND (Arboriculture and Forestry).* Scott joined JCA after working with other consultancy companies in the south of England. He specialises in trees in relation to development and holds a National Diploma, various NPTC qualifications and is currently studying for his Level 4 Diploma in Arboriculture.

Andrew Bussey Andrew joined JCA having spent 12 years working as a tree surgeon for various private companies and a Local Authority. He has various NPTC qualifications, is QTRA qualified and is currently studying for his Arboricultural Technicians Certificate.

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.

Michelle Ryan *BSc (Hons) Arboriculture.* Michelle has recently joined JCA having previously worked for a Local Authority. She obtained a degree in Arboriculture at the University of Central Lancashire and has various NPTC qualifications. Michelle is seeking to become LANTRA certified in Professional Tree Inspection.

Liam Plummer *BSc (Hons), Ecology.* Liam graduated from Bangor University in Ecology. He has recently joined JCA having worked for the Forestry Commission Scotland and previously in the Arboriculture and Conservation sectors. Liam has various NPTC qualifications and has completed several National Diploma (Arboriculture) units.

Charles Cocking. Charles joined JCA in January 2014 as an Apprentice having previously worked for the company on a part time basis during 2013. In between his roles at JCA, Charles will be studying at Myerscough College, Preston, undertaking a one year RFS course which will be followed up by a further two year course, in order to obtain a Foundation degree in Arboriculture – *FdSc (Arboriculture).*

Consulting Staff: Ecology

David Ryder. David has recently joined JCA as our in-house ecologist. He brings with him over 8 years experience in the field of ecological consultancy. David holds a Natural England Licence to disturb and handle bats and is currently undergoing assessment for Chartered Institute of Ecology & Environmental Management (CIEEM) membership.

Alice Palmer. Alice Palmer. *BSc (Hons) Ecology, MSc (Dist) Biodiversity and Conservation.* Alice joined JCA in 2014 after graduating from the University of Leeds, having obtained a BSc in Ecology and an MSc in Biodiversity and Conservation. Alice is a student member of the Chartered Institute of Ecology & Environmental Management (CIEEM), and is working towards a graduate membership of CIEEM and a Class 18 Natural England bat licence.

Administrative Staff

Sue Guest Administrative Team Leader.
Simeon Haigh *BSc (Hons).* IT Officer.
Lorraine Spink Administrative Assistant.
Yasmin Shahzad Administrative Assistant.
Catherine Cocking Accounts Manager.

Root Protection Area: RPA

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE. THE RPA SHOULD IDEALLY REMAIN UNDISTURBED IF A TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

Appendix 6: Site A Tree Constraints Plan

ADDRESS: Malt Kiln Brow, Chipping, Near Clitheroe, Lancashire.
JCA REF: 12407/AJB.

SCALE : 1:1000	PAPER SIZE : A2

SURVEYED BY: AJB	DRAWN BY: AJB	APPROVED BY: TT

BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES

Detailed definitions of these catagories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.

	CATEGORY A: 'RETENTION MOST DESIRABLE'
	CATEGORY B: 'RETENTION DESIRABLE'
	CATEGORY C: 'TREE WHICH COULD BE RETAINED'
	CATEGORY U: 'TREE FOR REMOVAL'
	ROOT PROTECTION AREA
	CENTRE OF TREE/SHRUB
	CENTRE OF TREE/SHRUB TO BE REMOVED
	ROOT PROTECTION AREA (PRIOR TO OFF-SETTING)

JCA Limited

Arboricultural & Forestry Consultants

N
W E
S

G86
T85
T87
T88
BARBED WIRE FENCE
BOTTOM OF BANK
INSIGNIFICANT BLACKTHORNS
T89
ORNAMENTAL TREE CANOPY
ROUGH GRASS
TIMBER PANEL FENCE
HEDGE / BUSHES
TREE CANOPY
NO ACCESS PRIVATE GARDENS
EXISTING BUILDING
OVERHEAD ELECTRIC CABLES
CHIPPING BROOK
TOP OF BANK
TOE OF BANK
STONE WALL
G80
T84
T83
T82
T81
T73
T74
T75
T76
T77
T78
T79
ESTIMATE LOCATIONS ARE SHOWN FOR T73 TO T76

Appendix 6: Site-B Tree Constraints Plan

ADDRESS: Malt Kiln Brow, Chipping, Near Clitheroe, Lancashire.
JCA Ref: 12407/AJB.

SCALE 1:500	PAPER SIZE A2

SURVEYED BY: AJB	DRAWN BY: AJB	APPROVED BY: SR

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BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES

Detailed definitions of these catagories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.

	CATEGORY A: 'RETENTION MOST DESIRABLE'
	CATEGORY B: 'RETENTION DESIRABLE'
	CATEGORY C: 'TREE WHICH COULD BE RETAINED'
	CATEGORY U: 'TREE FOR REMOVAL'
•	CENTRE OF TREE/SHRUB
•	CENTRE OF TREE/SHRUB TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA (PRIOR TO OFF-SETTING)

0 1 5 10 15 20 30 40 50 metres

Root Protection Area: RPA

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE. THE RPA SHOULD IDEALLY REMAIN UNDISTURBED IF A TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

Appendix 7: Site Plan-A
Development Proposals

ADDRESS: Malt Kiln Brow, Chipping, Near Clitheroe, Lancashire. JCA Ref: 12407/AJB.

SCALE : 1:500	PAPER SIZE : A2

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA ENCROACHED BY THE PROPOSED DEVELOPMENT
	PROPOSED DEVELOPMENT AREA BOUNDARIES
	PROPOSED PLANTING

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N
W E
S

0 1 10 20 30 40 50 100 metres

N
W E
S

G86
T85
T87
T88
T89
G80
T84
T83
G80
T82
T81
G80
T73
T74
T75
T76
T77
T78
T79

Appendix 7: Site Plan-B Development Proposals

ADDRESS: Malt Kiln Brow, Chipping, Near Clitheroe, Lancashire.
JCA Ref: 12407/AJB.

SCALE : 1:500	PAPER SIZE : A2

	TREE TO BE RETAINED
	TREE TO BE REMOVED
•	STEM OF TREE TO BE RETAINED
•	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA ENCROACHED BY THE PROPOSED DEVELOPMENT
	PROPOSED DEVELOPMENT
	PROPOSED PLANTING

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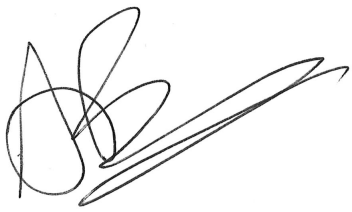
0 1 5 10 15 20 30 40 50 metres

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



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Andrew Bussey.

5th August 2015

For and on behalf of ***JCA Ltd***

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- Heave assessment
- Tree root identification

Tree Advice for Landowners, Homeowners, and Homebuyers

- Tree Safety/health surveys
- Tree surveys for mortgage purposes
- Planting advice/scheme design
- Garden tree and shrub maintenance plans

Tree Advice for Local Authorities and Estate Managers

- Tree Inventories and Risk Assessments
- TPO re-surveys
- Trees in Historic Parks and Gardens
- Veteran trees
- Woodland Management Plans
- Ancient woodland
- Tree planting schemes

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- Litigating subsidence claims
- Personal Injury cases
- Expert witness for planning inquiries and appeals

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Photo front cover: Sluice at Bowers Mill

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