

**ARBORICULTURAL IMPACT ASSESSMENT
to BS 5837:2012
at
Land at Green Road
Dodworth
Barnsley
S75 3RR**

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1. Introduction

1.1 Purpose of the Report

- 1.1.1 A report is needed at **Land at Green Road, Dodworth, Barnsley, S75 3RR**, 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 **Dacres Commercial** to prepare an Arboricultural Impact Assessment based upon a JCA Ltd *BS 5837:2005 Trees in relation to construction* report, dated 23rd October 2008 (JCA Ref: 8631/SF).

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 Only two specific areas of the proposed development are considered within the Arboricultural Implication Assessment in **Section 6** and as detailed on the Tree Plan at **Appendix 6**.

1.4 Survey Details

- 1.4.1 The survey took place during the month of June 2008 with an additional visit in August 2012.
- 1.4.2 The survey was conducted by Simona Ferutta and Adam Winson MSc, BSc (Hons).
- 1.4.3 Inspection was made at ground level. Further investigation, such as climbed inspections or decay detection surveys, may be recommended where appropriate.
- 1.4.4 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible measurements were estimated.

2. Site Description

Land Use

2.1.1 The site is currently a mix of residential properties and neglected areas which are surrounded by rows and groups of trees.

2.2 Topography

2.2.1 The site generally slopes from the north down to a small beck running across the site.

2.3 Treescape

2.3.1 The trees on this site have a moderate impact on the local treescape. Attention is drawn to the group of trees on the southern stream bank which has a significant impact on the local treescape.

2.3.2 Surrounding the site is a semi-rural, residential area containing a reasonable mix of garden and field boundary trees.

2.4 Amenity Value

2.4.1 The trees on site collectively provide a reasonable amenity to the surrounding area. Occasional specimens have a high amenity value.

2.5 Age Class Mix

2.5.1 The trees surveyed ranged in age from young to mature. However, the trees were predominantly early-mature.

2.6 Species Diversity

2.6.1 Species surveyed include Sycamore, Ash, Horse Chestnut, Goat Willow and fruit trees. The predominant species were Sycamore and Ash.

3. Status of the Trees

- 3.1 A check was made on June 2008 with: *Barnsley Metropolitan Borough Council*.
- 3.2 We are informed that there are five Tree Preservation Orders in force on this site which date from 1974 to 2004. The TPOs affect many of the trees within the area surveyed.
- 3.3 Before any work is organised, all the necessary steps to get the permission of the Local Planning Authority should be taken.
- 3.4 *No work should be done to any trees until this 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 Plan at **Appendix 6** for tree locations.

5. Discussion

5.1 Tree Condition & Recommended Works

- 5.1.1 In total 39 items of vegetation were surveyed. They were generally found to be in fair condition.
- 5.1.2 Of the surveyed items of vegetation, 1 tree and 1 group was identified as retention category 'A', 11 trees or groups were identified as retention category 'B', 22 were identified as retention category 'C' and 4 were identified as retention category 'U'. Please refer to **Appendix 2** for retention category and definition criteria.
- 5.1.3 **Five** trees were identified as category 'U'. These trees require removal for arboricultural reasons regardless of any on site development, as detailed below:
- 5.1.4 Tree **T21** has major decay at the base of the tree and it is within falling distance of the adjacent residential gardens. The removal is of **moderate priority**. Consideration should be given to retaining part of the tree stem for habitat value.
- 5.1.5 Trees **T29**, **T32** and **T33** all have significant Bleeding Canker of Horse Chestnut infections and only have a very limited safe useful life expectancy. They all overhang and are within falling distance of the adjacent road. Their removal is of **moderate priority**.
- 5.1.6 Tree **T37** is a dead specimen which overhangs the road. This tree should be removed as a matter of high priority.
- 5.1.7 Please refer to **Appendix 1** for a list of remedial work which is required for the existing treescape.

6. Arboricultural Implications Assessment (AIA)

6.1 Proposed Development

6.1.1 The specific areas of development considered within this impact assessment are a diverted watercourse and the re-alignment of a wall. Drawing No. **BM2005/01** has been supplied by the client; this plan can be found at **Appendix 6** and is the basis for which this AIA has been prepared.

6.2 Trees to be Removed

6.2.1 The new watercourse culvert for the proposed ditch crossing currently runs within the RPA of **T22**. If the proposed works are implemented at the highlighted location then **T22 would require removal**. This would be unfortunate as this is a high value retention category 'A' tree.

6.2.2 It is strongly recommended, if feasible, that the new watercourse culvert for the proposed ditch crossing is repositioned further north, away from **T22**. This will likely mean the removal of **T23 to T27**, yet these are only low value trees and shrubs and their removal would not negatively impact the surrounding area.

6.2.3 The planting of semi-mature replacement trees would mitigate the loss of **T23 to T27** and would be an overall improvement to the surrounding treescape.

6.3 Implications for the Retained Trees

6.3.1 The erection of protective fencing, in accordance with BS 5837: 2012, will be the very first job on site following the tree removal and pruning works. The fencing should ideally be positioned to protect the entire **Root Protection Area (RPA)** of the retained trees, in order to create a **Construction Exclusion Zone (CEZ)**.

6.3.2 Where it is not possible to protect the entire RPAs by fencing, or where work is required within the RPA of a retained tree, specialist measures must be taken during the construction phase to avoid ground compaction and minimise root damage. Such areas are highlighted in **blue** on the Development Proposals Plan at **Appendix 7**.

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 Care must be taken to avoid causing damage to tree roots when removing the existing wall which encroaches within the RPA of part of **T31** and **T34**. JCA should be informed in advance of such activities so that monitoring arrangements can be made.
- 6.3.5 A newly aligned wall is proposed adjacent to part of **T31** and **T34**. In order to minimise root damage, the wall will be constructed on pile foundations.
- 6.3.6 Those trees which are in close proximity to the proposed ditch crossing/culvert diversion will be protected throughout the excavation and construction phase by protective fencing.
- 6.3.7 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.
- 6.3.8 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.

7. Conclusions

- 7.1 The trees surveyed were generally found to be in fair condition.
- 7.2 Five trees have been recommended for removal regardless of any development.
- 7.3 The arboricultural implications of the development have been considered and discussed in **Section 6**.
- 7.4 All development work carried out in close proximity to trees should be done so in a manner sympathetic to their needs. Otherwise the condition of the trees may deteriorate in the months and years following the development, leading to a loss of amenity and potentially hazardous trees.
- 7.5 The protection of retained trees can be achieved by the creation of a Construction Exclusion Zone based on the Root Protection Area of a tree. The Root Protection Area of each tree or group is marked on the Tree Plan at **Appendix 6**.
- 7.6 The proposed development should be accompanied by an Arboricultural Method Statement (AMS) detailing the specific protection measures necessary for each tree. This should specify fencing standard and positions (the creation of the Construction Exclusion Zone), acceptable construction techniques and necessary tree works.
- 7.7 Upon instruction JCA are able to provide a comprehensive Arboricultural Method Statement in order to ensure the continued health of trees throughout the proposed development. We are also able to provide trees planting schemes and organise tree works.

Appendices

Appendix 1: Tree Descriptions and Recommendations

Ref No.	Age & Species & Latin Name	Height (m)	Crown Height (m)	Stem or Cat. Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition & Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G1	Early-Mature Ash and Sycamore <i>Fraxinus excelsior</i> and <i>Acer pseudoplatanus</i>	9 to 13	2 to 6	10 to 40	See plan	A group of ash and Sycamore trees under <u>TPO 7/1996</u> (named T2 to T16 in this Order). Single stemmed and vertical with balanced crowns. Some crowns are overhanging private gardens. No evidence of significant pruning. No major visible defects. Ivy and an understorey of Elder (<i>Sambucus nigra</i>), Hawthorn (<i>Crataegus monogyna</i>) and young Ash and Goat Willows (<i>Salix caprea</i>) was noted.	Thin out the understorey vegetation and remove the Ivy.	FAIR FAIR	M O D	40+	B
G2	Young to Semi-Mature Ash and Sycamore <i>Fraxinus excelsior</i> and <i>Acer pseudoplatanus</i>	9 to 12	2 to 6	Up to 30	See plan	Not under a TPO. Single stemmed and vertical with balanced crowns. Some of the crowns are overhanging a private garden. An understorey of Elder (<i>Sambucus nigra</i>) and Hawthorn (<i>Crataegus monogyna</i>) was noted.	Thin out the understorey vegetation and remove the Ivy.	FAIR FAIR	M O D	40+	C
T3	Mature Hawthorn <i>Crataegus monogyna</i>	6	2	22	3.5 3.5 3.5 3.5	Not under a TPO. Single stemmed and vertical with a balanced crown. An understorey of Elder (<i>Sambucus nigra</i>) and Hawthorn (<i>Crataegus monogyna</i>) was noted.	No action required.	FAIR FAIR	M O D	40+	C
A4	Young to Semi-Mature Sycamore <i>Acer pseudoplatanus</i>	Up to 14	2 to 6	Up to 35	See plan	Outer trees of a larger area adjacent to the banks of a stream under <u>TPO 16/1974</u> (part of the area named A2 in this Order). Single stemmed and vertical with balanced crowns. An understorey of Elder (<i>Sambucus nigra</i>), Hawthorn (<i>Crataegus monogyna</i>) and young Ash and Goat Willows (<i>Salix caprea</i>) was noted.	Thin out the younger trees.	FAIR FAIR	M O D	40+	A
T5	Mature Sycamore <i>Acer pseudoplatanus</i>	14	3	47	3.5 3.5 3.5 4	A tree under <u>TPO 9/1995</u> (named T2 in this Order). Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	No action required.	FAIR FAIR	M O D	40+	B
G6	Early-Mature Sycamore and Walnut <i>Acer pseudoplatanus</i> and <i>Juglans regia</i>	9 to 11	2 to 4	30 to 45	See plan	Trees under <u>TPO 9/1995</u> (Sycamore, named T1 in this Order) and <u>TPO 7/1996</u> (Walnut, named T1 in this Order). Single stemmed and vertical with balanced crowns. The Walnut has grown through the fence. Some crowns overhang the private gardens.	No action required.	GOOD GOOD	H I G H	40+	B
G7	Young to Semi-Mature Ash, Sycamore and Horse Chestnut <i>Fraxinus excelsior</i> , <i>Acer pseudoplatanus</i> and <i>Aesculus hippocastanum</i>	6 to 9	1 to 3	Up to 30	See plan	Restricted access prevented a detailed inspection. A group of young trees, some under <u>TPO 9/1995</u> (one Ash, one Horse Chestnut and seven Hawthorn (<i>Crataegus monogyna</i>) within G1 in this Order). The trees have grown after the felling of the older specimens. Single stemmed and vertical with balanced crowns. Some of the crowns overhang the public footpaths. No evidence of significant pruning. No major visible defects. An understorey of Elder (<i>Sambucus nigra</i>), Hawthorn (<i>Crataegus monogyna</i>) was noted.	No action required.	FAIR GOOD	H I G H	40+	C
G8	Mature Sycamore and Horse Chestnut <i>Acer pseudoplatanus</i> and <i>Aesculus hippocastanum</i>	-	-	-	See plan	A group of trees under <u>TPO 7/1974</u> (area A1 in this Order). – Please refer to T29 to T39 for individual tree details.	NA	- -	- -	- -	N/A

Ref No.	Age & Species & Latin Name	Height (m)	Crown Height (m)	Stem or Cat. Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition & Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G9	Mature Sycamore and Horse Chestnut <i>Acer pseudoplatanus</i> and <i>Aesculus hippocastanum</i>	-	-	-	See Plan	A group of trees under TPO 7/1974 (area A1 in this Order). Please refer to T29 to T39 for individual tree details.	-	-	-	-	-
G10	Mature Fruit trees <i>Prunus sp.</i>	3	1	Up to 20	See Plan	A group of fruit trees. Single stemmed and leaning with unbalanced crowns. Some of the crowns overhang a private road. Deadwood and pruning wounds noted.	Remove the deadwood.	POOR POOR	L O W	<10	C
T11	Early-Mature Yew <i>Taxus baccata</i>	10	0	42 at base	1 0 3 3	Multi-stemmed at ground level with an unbalanced crown - overwhelmed by a close by Horse Chestnut. Minor deadwood noted.	Remove the deadwood.	POOR POOR	L O W	10-20	C
T12	Mature Hawthorn <i>Crataegus monogyna</i>	5	1.5	34	3 3 3 3	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. Minor deadwood noted.	Remove the deadwood.	GOOD FAIR	M O D	10-20	B
T13	Dead	7	3	32	-	A dead tree stump.	No action required	DEAD DEAD	D E A D	<10	C
G14	Early-Mature Lawson Cypress <i>X Cupressocyparis leylandii</i>	6 to 7	0	20 at base	See Plan	Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	No action required.	GOOD GOOD	M O D	40+	C
T15	Over-Mature Pear tree <i>Pyrus sp.</i>	5	2	48 at base	0 3 4 2	Twin-stemmed at 0.5m with an unbalanced crown. Pruning wounds noted.	Monitor.	FAIR FAIR	M O D	<10	C
T16	Mature Apple tree <i>Malus sp.</i>	6	2	21	1 2 3 4	Single stemmed and vertical with an unbalanced crown. No evidence of significant pruning. No major visible defects.	No action required.	FAIR FAIR	M O D	40+	C
T17	Early-Mature Apple <i>Malus sp.</i>	4	1.5	15 to 21	See Plan	Multi-stemmed at 1.5m with a balanced crown. Pruning wounds due to crown lifting.	No action required.	GOOD GOOD	M O D	20-40	C

Ref No.	Age & Species & Latin Name	Height (m)	Crown Height (m)	Stem or Cat. Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition & Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
H18	Mature Elder, Hawthorn and Sycamore <i>Sambucus nigra</i> , <i>Crataegus monogyna</i> and <i>Acer pseudoplatanus</i>	2.5	0	-	See Plan	A mixed hedge which has been recently pruned.	No action required.	GOOD GOOD	M O D	20-40	C
H19	Semi-Mature Elder and Hawthorn <i>Sambucus nigra</i> and <i>Crataegus monogyna</i>	2.5	0	-	See Plan	A mixed hedge which has been recently pruned.	No action required.	GOOD GOOD	M O D	20-40	C
G20	Young Western Red Cedar and Sycamore <i>Thuja plicata</i> and <i>Acer pseudoplatanus</i>	4	0 to 1	Up to 10	See Plan	A group of three Western Red Cedars and a Sycamore. Single stemmed and vertical with balanced crowns. No evidence of significant pruning. No major visible defects.	No action required.	GOOD GOOD	M O D	40+	C

Tree Ref.	Age Species <i>Latin Name</i>	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread			Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
						N	W	E							
T 21	Mature Ash <i>Fraxinus excelsior</i>	15	5	3 N	65	6 5 5			Single-stemmed becoming multiple-stemmed at 5 meters co-dominant stem at 3 meters. Large decay pocket at base. Large <i>Ganoderma sp</i> around base.	Remove or pollard to 3 for habitat stick.	POOR	POOR	MOD	<10	U
T 22	Mature Sycamore <i>Acer pseudoplatanus</i>	16	3	2 E	72	7 8 7			Twin-stemmed at 3 meters. Dense suckers at base. Old barbed-wire in part of stem which is occluded. No major visible defects.	Clear suckers and wire. Lift 3 meters.	GOOD	GOOD	LOW	10-20	A
T 23	Early-mature Hawthorn <i>Crataegus monogyna</i>	5	2	2 E	40 ivy	0 2.5 2.5			Multiple stemmed at 1 meter. Dense ivy. Single-stemmed and leaning with an unbalanced crown. Dieback noted. Limited long term value.	Remove	FAIR	FAIR	LOW	10-20	C
T 24	Early-mature Hawthorn <i>Crataegus monogyna</i>	5	2	2 S	35 ivy	2 1 3			Multiple stemmed at 0 metres. Dense ivy. Single-stemmed and leaning with an unbalanced crown. Dieback noted. Limited long term value.	Remove	FAIR	FAIR	LOW	10-20	C
T 25	Early-mature Ash <i>Fraxinus excelsior</i>	8	3	2 N	28	1 4 2			Natural regeneration. Co-dominant stem at base. Ivy throughout.	Remove ivy.	GOOD	FAIR	LOW	20-40	C
T 26	Semi-mature Hawthorn <i>Crataegus monogyna</i>	4	1	1 N	25	2 2 2			Multiple-stemmed at 0 metres. Dense shrub form. No major visible defects.	No action required	GOOD	FAIR	LOW	10-20	C
T 27	Early-mature Hawthorn <i>Crataegus monogyna</i>	5	1	1 N	30	2 2 2			Multiple-stemmed at 0 metres. Dense shrub form. No major visible defects.	No action required	GOOD	FAIR	LOW	10-20	C
T 28	Mature Ash <i>Fraxinus excelsior</i>	16	5	5 N	60	6 6 6			Multiple-stemmed with an unbalanced crown. Ivy noted. Access prevented a detailed inspection.	No action required	FAIR	FAIR	MOD	20-40	C
T 29	Mature Horse Chestnut <i>Aesculus hippocastanum</i>	6	3	3 E	57	3 4 3			The crown overhangs the road. Multiple-stemmed at 3 metres. Top snapped out at 5 metres. Bleeding Canker of Horse Chestnut. Large stem damage. No long term value.	Remove	POOR	POOR	MOD	<10	U
T 30	Mature Sycamore <i>Acer pseudoplatanus</i>	17	4	3 E	56	3 7 3			Multiple-stemmed at 4 metres with a crown which overhangs the road. Occasional pruning wounds noted. No major visible defects.	No action required	GOOD	FAIR	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			Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
						N	W	E							
T 31	Mature Sycamore <i>Acer pseudoplatanus</i>	18	5	4 E	60	3 9 4	9	9	Single stemmed and vertical with a crown which over hangs the road. Occasional pruning wounds but no major visible defects.	No action required	GOOD	GOOD	MOD	20-40	B
T 32	Mature Horse Chestnut <i>Aesculus hippocastanum</i>	17	4	3 N	76	0 8 6	8	8	Twin-stemmed at 1.5 metres. Western stem overhangs the road. Large splitting and cracks with dieback. Bleeding Canker of Horse Chestnut noted. Cavity on largest stem at 2 metres with decay. Limited long term value.	Remove	POOR	POOR	MOD	10-20	U
T 33	Mature Horse Chestnut <i>Aesculus hippocastanum</i>	16	4	2 E	56	5 5 3	5	5	Twin-stemmed at 2 metres with a crown which overhangs the road. The Eastern stem is dead - Major cracking and splitting. Bleeding Canker of Horse Chestnut noted. No long term value.	Remove	POOR	FAIR	MOD	10-20	U
T 34	Mature Sycamore <i>Acer pseudoplatanus</i>	17	5	4 W	63	4 8 6	6	6	Twin-stemmed at 3 metres with a crown which overhangs the road. Occasional pruning wounds and minor stem wounds but no major visible defects.	No action required	GOOD	GOOD	MOD	40+	B
T 35	Mature Sycamore <i>Acer pseudoplatanus</i>	17	5	5 W	65	6 7 6	7	7	Single stemmed with a crown which overhangs the road. Shrubs prevented a detailed inspection but no major visible defects were found.	No action required	GOOD	GOOD	MOD	40+	B
T 36	Semi-mature Horse Chestnut <i>Aesculus hippocastanum</i>	4	3	3 W	20	2 3 2	3	3	A suppressed specimen with no long term value.	No action required	FAIR	FAIR	LOW	10-20	C
T 37	Early-mature Horse Chestnut <i>Aesculus hippocastanum</i>	9	3	2 W	40	4 4 4	4	4	Dead tree with a crown which overhangs the road. Succumbed to Bleeding Canker of Horse Chestnut.	Remove - high priority	DEAD	DEAD	DEAD	<10	U
T 38	Early-mature Horse Chestnut <i>Aesculus hippocastanum</i>	8	2	2 E	31	3 4 2	4	4	Single-stemmed with no major visible defects.	No action required	GOOD	GOOD	LOW	20-40	C
T 39	Mature Sycamore <i>Acer pseudoplatanus</i>	18	4	4 E	52	4 7 4	8	8	Single-stemmed with no major visible defects.	No action required	GOOD	FAIR	MOD	20-40	B

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) = retention most desirable.

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) = retention desirable.

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 which could be retained.

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) = 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 BS5837:2005 <i>Trees in relation to construction</i> .
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. He has since developed JCA's portfolio of services and its extensive client base. Jonathan 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 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

Andrew Bagshaw FdSc (Arboriculture). Andrew 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. Andrew has obtained a foundation degree in Arboriculture at the University of Lancashire, is QTRA qualified and is a JCA team leader who manages an office of Consulting Arboriculturists.

Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), ND, MICFor, AIEEM. Adam has extensive experience in arboriculture, having worked with trees for over 15 years. In 2010 Adam obtained an MSc in Arboriculture and Urban Forestry (with distinction), also gaining the top student award. Adam has had articles published in industry magazines including original research in a peer reviewed UK Forestry Commission publication in 2012.

Robert Godwin BA (Hons), MSc (Arboriculture and Urban Forestry), MArborA. Robert is a Professional Member of the Arboricultural Association and a Professional Associate of the Institute of Chartered Foresters. He has a degree in Landscape Planning & Management and has several years experience as a Consulting Arboriculturist. Robert has recently obtained an MSc in Arboriculture and Urban Forestry.

Victoria Black FdSc (Arboriculture). Victoria has been with JCA since 2002 building her knowledge of the Arboricultural business. She has recently obtained her foundation degree in Arboriculture at the University of Lancashire.

Andrew Bussey Andrew joined JCA having spent 12 years doing tree surgery 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.

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), an Arboricultural Technicians Certificate and is QTRA qualified.

Phil Humeniuk FdSc (Arboriculture), MicFor. Phil has recently joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. He obtained his foundation degree in Arboriculture at the University of Central Lancashire.

Consulting Staff: Ecology

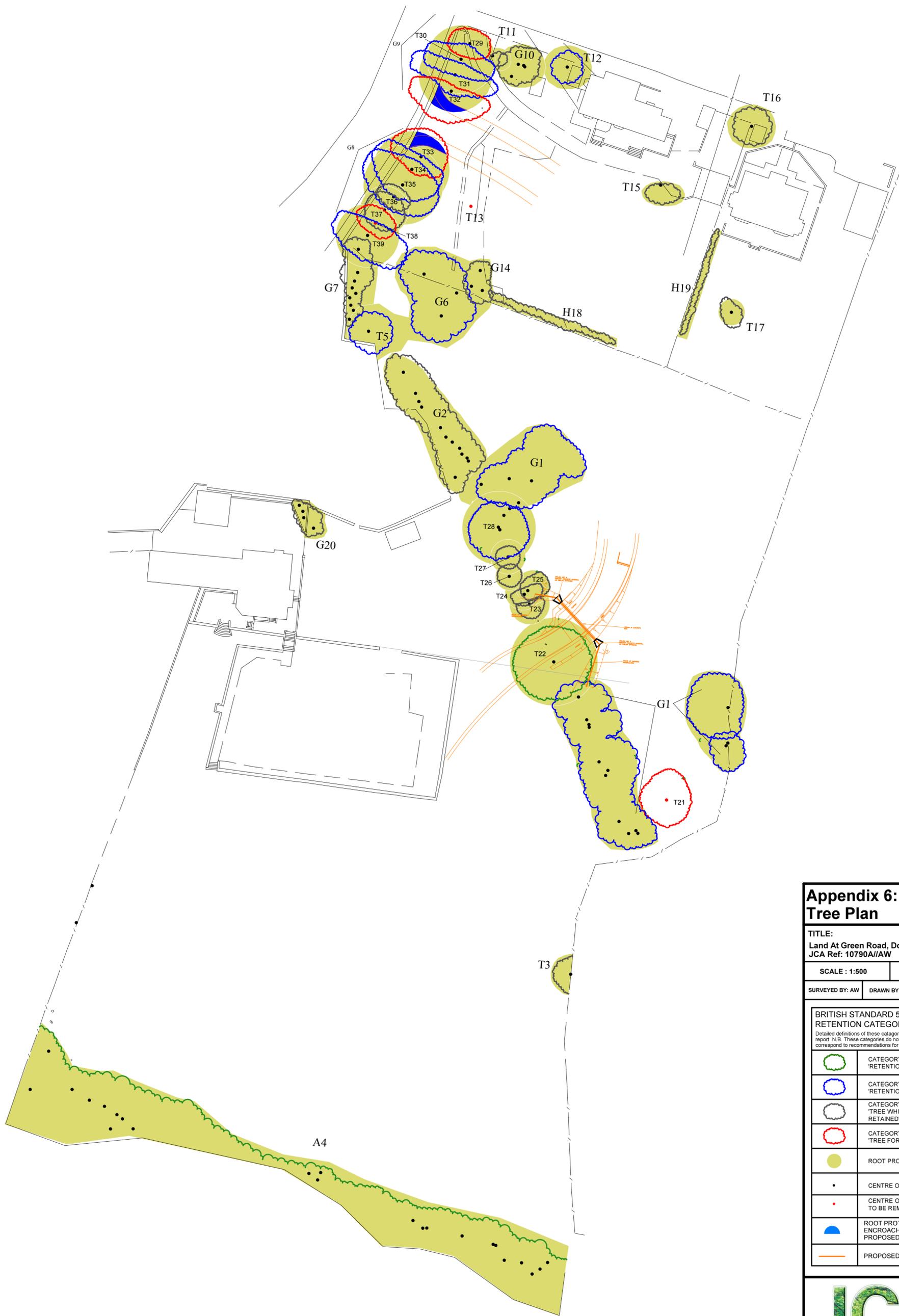
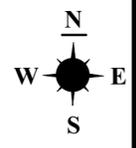
Christopher Shaw BSc (Hons). Chris is our in-house Ecologist, and joined JCA in 2010 after achieving a First Class degree in Biology at the University of Leeds. Prior to joining JCA, Chris has volunteered with a number of organisations including the Yorkshire Wildlife Trust, BTCV and a local Ecological Consultancy. He is currently undertaking a 'Certificate in Ecological Consultancy Course' with Acorn Ecology. Chris is actively involved in building JCA's portfolio of ecological services.

Administrative Staff

Sue Guest Administrative Team Leader.
Sally Whitwam Administrative Assistant.
Simeon Haigh BSc (Hons). IT Officer.

Catherine Cocking Accounts Manager.
Yasmin Hussain Administrative Assistant.
Liz Bone Trainee Administrative Assistant

Appendix 6: Tree Plan



Appendix 6: Tree Plan

TITLE:
Land At Green Road, Dodworth, S75 3RR.
JCA Ref: 10790A/AW

SCALE : 1:500 PAPER SIZE : A2

SURVEYED BY: AW DRAWN BY: AW APPROVED BY: TT

BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES	
	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 ENCROACHED BY THE PROPOSED DEVELOPMENT
	PROPOSED DEVELOPMENT



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



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

23rd August 2012

For and on behalf of *JCA Ltd*

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