ARBORICULTURAL METHOD STATEMENT
to BS 5837:2012
at
Victoria Mill
Watt Street
Sabden
Lancashire
BB7 9ED

Client:
Skipton Properties

Client Address:
Riparian Court
Riparian Way
Cross Hills
Keighley
West Yorkshire
BD20 7BW

Client Telephone:
01535 639620

JCA Ref:
13611-B/AJB

JCA Limited
Arboricultural & Ecological Consultants

Contents

1. Introduction

1.1 Purpose of the Method Statement

1.1.1 This Arboricultural Method Statement has been prepared to ensure good practice in the protection of retained trees during the development at **Victoria Mill**, **Watt Street**, **Sabden**.

1.2 Terms of Reference

1.2.1 JCA Limited is instructed by **Skipton Properties** to prepare an Arboricultural Method Statement for the proposed development, based on our arboricultural report dated 15th March 2018 (JCA Ref: **13611-A/AJB**). The arboricultural survey and report conforms to the most recent specifications outlined in BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*.

1.2.2 We are in formed that the proposed development will consist of: *'Full application for the demolition of existing structures and removal of culvert to Sabden Brook; development of 30 dwellings including reconstruction of former Marbil Office Building as dwellings; reconstruction of base of mill chimney as an ecology tower; and associated access and landscaping. Former Victoria Mill site, Watt Street, Sabden.'*

1.2.3 Drawing No. **1582SPLVMS-SL01 Rev D** has been supplied by the client; this plan can be found at **Appendix 4** and is the basis for which this Arboricultural Method Statement has been prepared.

1.3 Status of the Method Statement

1.3.1 This Arboricultural Method Statement should be included as part of the specification and schedule of works issued to the building contractor, and can form part of the contract.

1.3.2 This Arboricultural Method Statement should be available on site for inspection by the local authority, contractors and other relevant persons.

2. Tree Works Prior, During and Post Construction

2.1 Tree Works Prior to Construction

2.1.1 Prior to any construction activity, the first operation on site will be the undertaking of the necessary arboricultural works, as described at **Appendix 1**.

2.1.2 The tree works include:

- The removal of **T17**, for arboricultural reasons.
- The removal of **G6, G7, T13, G14, T15, T18, T19, T20, G21, T22, T23, T25, T26, T27, T28, T29, T30, T31, T32**, **T33** and **G37**,to facilitate the proposed development.
- The pruning of **T11** and **T12**, to facilitate the development (as detailed at **Appendix 1** and demonstrated in a blue line on the plan at **Appendix 4**).

2.2 Tree Works During Construction

2.2.1 In this case, no above tree works are envisaged to be required during the construction phase.

2.2.2 Damage to trees during the construction phase should be entirely prevented by the installation of the temporary protective barrier (fencing and ground protection), to create a Construction Exclusion Zone (CEZ). All persons on site must be aware of limitations that apply within the CEZ (please refer to **Section 3.1.3**).

2.2.3 If any trees on site are damaged, this must be immediately reported to JCA to agree on appropriate remedial action. Contact numbers for all parties can be found at **Section 7**.

2.3 Tree Works Post Construction

2.3.1 No tree works are required during the post-construction phase.

2.4 Recommendations For Tree Works

2.4.1 All work must be undertaken to BS 3998: 2010 - *Recommendations for tree work* and carried out by qualified, experienced and, ideally, Arboricultural Association approved contractors who must be adequately insured.

2.4.2 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the attention of JCA immediately. No liability can be accepted by JCA in respect of the trees unless the recommendations of this Method Statement are carried out under our supervision.

3. The Protective Barrier Prior, During and Post Construction

3.1 Protective Barrier Prior to Construction

3.1.1 The installation of the temporary protective barrier will be the very first job to be undertaken on site following the completion of the tree works (**Section 2.1**). This barrier will comprise of a combination of both protective fencing and ground protection, as detailed below and in **Section 3.2**.

3.1.2 The protective fencing must be constructed in accordance with BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations* and will be located as shown on the Tree Protection Plan at **Appendix 4**. Where possible, the protective barrier will enclose the entire Root Protection Area (RPA) of the trees to make a Construction Exclusion Zone (CEZ); **this area is to be considered a restricted area; no pedestrians, vehicles, equipment or machinery are allowed within the CEZ and the storage of materials is not permitted, unless specified within this Method Statement**.

3.1.3 The protective fencing will be installed in accordance with BS 5837: 2012 and will comprise of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground, taking care to avoid underground services and structural roots. Finally, weld mesh panels are to be securely fixed on the scaffold framework. Please refer to **Appendix 2** for protective fencing details.

3.1.4 Once the fencing is installed, waterproof signs with the sentence '*Protected tree zone, no storage or operations within this are*a' are to be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the cordoned off area. A prepared sign is available at **Appendix 2**.

3.1.5 Once installed, the appointed arboriculturalist will be invited on site to inspect the protective fencing and ground protection, ensuring that it is located in the correct position and that it has been constructed in accordance with this Method Statement. No other work, including soil stripping, excavation, or the bringing onto site of materials or machinery, shall commence until the barrier is installed and confirmed to be acceptable by the appointed arboriculturalist.

3.1.6 It is important that the protective fencing be checked by the LPA or an arboricultural consultant prior to any construction works being carried out on site. **If the protective fencing is not correctly installed or if it does not comply with BS 5837: 2012, this could result in damage being caused to trees and consequently, a stop notice may be served by the LPA.**

3.2 Ground Protection

3.2.1 Where it is not possible to enclose the entire RPA of a tree with protective fencing (as shown in orange shade on the plan at **Appendix 4**), it will be necessary to lay appropriate ground protection which, in combination with the fencing described in **Section 3.1**, will comprise the protective barrier.

3.2.2 The ground protection will be installed prior to construction and retained until the material completion of development. The purpose of the ground protection is to enable site traffic to pass over the RPAs of trees, whilst minimising compaction and disturbance of the underlying soil which can lead to root asphyxiation and damage.

3.2.3 As only pedestrian traffic is required to pass over the RPA of **T10, T11** and **T12**, a suspended walkway will be constructed. This will be achieved by constructing a framework of scaffold poles attached to the main scaffolding and may incorporate driven poles at suitable intervals, if necessary. Scaffold boards will be placed over this framework and utilised as a walkway for **pedestrian use only**.

3.3 Protective Barrier During Construction

3.3.1 No operations shall take place which require the removal of part of the protective barrier without prior agreement with the Local Planning Authority or JCA.

3.3.2 The protective barrier must be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects must be repaired or replaced as soon as is reasonably practicable. Details of the site manager and relevant contact details can be found at **Section 7**.

3.4 Removal of the Protective Barrier

3.4.1 When the development phase is complete and the main site machinery has been removed, the Local Planning Authority should be invited to inspect the site to give approval for the removal of protective barrier.

3.4.2 When this approval has been given the protective barrier may be dismantled and removed from site.

3.4.3 It should be noted the same restrictions apply to all RPAs as the CEZ (please refer to **Section 3.1.3**).

4. Construction Phase

4.1 Demolition Works

4.1.1 In this case, demolition works are required adjacent to retained trees. Providing that the protective barrier is installed correctly and prior to the commencement of demolition/construction, no further actions are required to prevent foreseeable damage to these trees. See **Section 3** for further details regarding the protective barrier.

4.1.2 Where existing buildings are proposed to be demolished adjacent to retained trees, a sensitive method will be employed. In order to prevent damage to nearby trees, the buildings will be collapsed onto their existing footprint in a direction away from the trees; a method referred to as '*top down, pull back*'.

4.2 Ground Level Changes

4.2.1 No ground level changes are required within the RPA of any tree to be retained on this site. As such no mitigation actions are considered necessary.

4.3 Construction of Hard Surfaces

4.3.1 The proposed development entails the construction of hard surfacing in the form of a driveway within the RPA of **T34** (an off-site tree). In order to prevent foreseeable damage to tree roots, a 'no-dig' method of construction will be utilised within the area shown in blue shade on the plan at **Appendix 4**.

4.3.2 Please see **Appendix 3** for more information with regards to the no-dig method of hard surface construction.

4.3.3 The chosen system must be fit for purpose and of suitable construction to dissipate compaction damage to tree roots, allow gaseous diffusion to/from the soil and the percolation of water to the soil surface. This may require the use of specialist materials and sensitive edging systems to prevent damage to tree roots.

4.3.4 In order to afford **T34** maximum protection throughout development this no-dig surfacing must be constructed as an initial phase of construction following the erection of the protective fencing. Design principles will be included in an Arboricultural Method Statement and confirmed by an appropriately qualified engineer appointed by Skipton Properties.

4.3.5 Proposed hard surfaces are also present within the RPA of **T11** and **T12**, as shown in brown shade on the plan at **Appendix 4**. In this case, the proposed surface is situated within the footprint of existing hard surfacing in the form of a concrete pad. As such; the existing surface will be retained in situ to prevent disturbance to tree roots.

4.4 Construction of New Buildings

4.4.1 In this case, the proposed buildings are located at a sufficient distance from retained trees that no specialist foundation methods are required for arboricultural purposes.

4.5 Excavations and Services

4.5.1 The routing of the proposed utilities is situated outside the RPAs of retained trees. As such, no mitigation actions are considered necessary to mitigate potential damage to tree roots.

4.6 Location of the Site Compound

4.6.1 The site compound, typically including the site office, mess facilities, toilets, storage of materials and parking, must be located away from, and outside the RPA of retained trees. Areas designated for the storage and/or mixing of chemicals, including petrol, diesel and oils must also be located away from, and outside the RPA of retained trees. Such areas should be constructed with consideration to, and contingencies for, the occurrence of spillages, preventing the leaching of chemicals into unprotected, open ground.

5. Post Construction Phase

5.1 Completion Meeting

5.1.1 Upon completion of the works as specified in **Section 4**, a JCA consultant will invite the Local Planning Authority representative to meet with them on site to agree on any remedial works which may be required.

5.1.2 Any necessary remedial works will be confirmed in writing and must be carried out in accordance with BS 3998: 2010 - *Recommendations for tree work.*

5.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, JCA recommend that a further check is carried out prior to any works being undertaken post development.

5.2 Post Construction Landscaping

5.2.1 Following completion of the main construction phase, the protective fencing and ground protection may be removed and the landscaping phase can commence.

5.2.2 The retained trees on site may be subject to some form of landscaping or seeding beneath their canopies after the development phase.

5.2.3 Landscaping works must be carried out in such a way as to avoid ground level changes or deep digging within RPAs. Tractor mounted rotovation or other mechanised cultivation methods must not be used within the RPAs of retained trees.

5.2.4 Heavy machinery is not permitted in the vicinity of retained trees, unless otherwise stated in this method statement.

5.2.5 Herbicides should be appropriate for the purpose and should not be used in such a way as to damage any retained trees or vegetation.

5.2.6 If in doubt, regarding the impact of proposed landscape operations, please contact the appointed arboriculturalist.

5.3 Tree Planting Scheme

5.3.1 A Tree Planting Scheme has been formalised for this development as part soft landscaping proposals, the planting of trees may go ahead in the first tree planting period after construction is complete.

6. Timescale of Works

6.1.1 The timescale for arboricultural requirements are summarised below:

Timescale	Action	✓	Initial
Stage 1	All requirements listed in the planning consent are approved by the Local Authority planning office.		
Stage 2	Undertake the tree works (as detailed at **Appendix 1)**.		
Stage 3	Install the temporary protective fencing around the trees (as detailed at **Appendix 2** and as shown on the Tree Protection Plan at **Appendix 4**).		
Stage 4	Install ground protection within the RPAs of those trees which are not fully protected by the fencing (as detailed in **Section 4**).		
Stage 5	Have the Local Planning Authority inspect the fencing and ground protection measures prior to any on site construction. Once inspected, the protective fencing and ground protection must not to be moved or breached.		
Stage 6	Undertake the demolition of the existing buildings (as detailed in **Section 4**).		
Stage 7	Install the permanent no-dig hard surface within the RPA of **T34** whilst undertaking suitable measures to avoid root damage and soil compaction (as detailed in **Section 4** and at **Appendix 3**).		
Stage 8	Undertake the construction phase.		
Stage 9	Following the completion of the construction phase and when all site traffic and machinery has left, the protective fencing and ground protection can be removed.		
Stage 10	Undertake the landscaping scheme.		

7. Relevant Contact Details

Contact Name	Organisation/Detail	Contact Number
Andrew Bussey Arboricultural Consultant	JCA Limited	01422 376335
Alex Shutt Tree Officer	Ribble Valley Borough Council	01200 414499
TBC Site Manager	TBC	TBC

Appendices

Tree Ref.	Age Common Name *Botanical 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	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Early-mature Beech *Fagus sylvatica*	16	0	1 n/a	45	6# 6# 6# 6#	Situated on adjacent land. Overhanging the car park and water course. Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects. Not fully inspected due to limited access.	No action required.	GOOD	GOOD	MOD	MOD	40+	1 B 2
T 2	Early-mature Silver Birch *Betula pendula*	15	2	3 S	36	6.5 3.5 5# 5#	Situated on adjacent land. Overhanging the car park and water course. Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects. Not fully inspected due to limited access.	No action required.	GOOD	GOOD	MOD	LOW	40+	1 B 2
T 3	Early-mature Common Lime *Tilia x europaea*	17	1	2 n/a	50	6 5 4.5# 6#	Situated on adjacent land. Overhanging the footpath and watercourse. Twin-stemmed at 3.5m with a balanced crown. No evidence of significant pruning. Included bark at the stem junction. Not fully inspected due to limited access.	No action required.	GOOD	FAIR	MOD	MOD	20+	1 B 2
T 4	Semi-mature Sycamore *Acer pseudoplatanus*	14	3	3 n/a	30	4 5 3# 4.5	Situated on adjacent land. Overhanging the watercourse. Multi-stemmed at 1m with a balanced crown. No evidence of significant pruning. Dirt pocket present at the stem junction. Not fully inspected due to limited access.	No action required.	GOOD	FAIR	LOW	MOD	10+	C 1
T 5	Early-mature Sycamore *Acer pseudoplatanus*	17	1	2 n/a	40, 30, 30, 30 & 20	6 7 7# 6	Situated on adjacent land. Overhanging the watercourse. Multi-stemmed at ground level with a balanced crown. No evidence of significant pruning. No major visible defects. Not fully inspected due to limited access.	No action required.	GOOD	GOOD	MOD	MOD	40+	1 B 2
G 6	Semi-mature Mixed *Details in observations*	To 10	0+	0+ n/a	To 25#	See plan	Located adjacent to the watercourse. Common Ash, Sycamore and Wych Elm of poor individual form and little significance. Limited long term future due to their restricted location adjacent to the building and retaining wall. Not fully inspected due to limited access.	Remove to facilitate the demolition of existing features.	GOOD	FAIR	LOW	MOD TO HIGH	10+	C 1
G 7	Semi-mature Mixed *Details in observations*	To 15	0+	0+ n/a	To 30#	See plan	Common Ash, Sycamore and Wych Elm of poor individual form. Limited long term future due to their restricted location adjacent to the building and retaining wall. Not fully inspected due to limited access.	Remove to facilitate the demolition of existing features and provide clearance for new landscaping.	GOOD	FAIR	LOW	MOD TO HIGH	10+	C 1
T 8	Mature Horse Chestnut *Aesculus hippocastanum*	20	2	3 n/a	105	7 6 9 7	Situated on adjacent land. Overhanging the road. Multi-stemmed at 2.5m with a balanced crown. Occasional pruning wounds. Minor dirt pocket at the stem junction. Occasional crossing branches noted. No major visible defects.	No action required.	GOOD	GOOD	MOD	MOD	40+	1 A 2

Tree Ref.	Age Common Name *Botanical 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	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 9	Mature Common Lime *Tilia x europaea*	26	5	7 n/a	87	9 6 6.5 9	Situated on adjacent land. Overhanging the road. Twin-stemmed at 5m with a balanced crown. Occasional pruning wounds. No major visible defects.	No action required.	GOOD	GOOD	MOD	MOD	40+	1 A 2
T 10	Mature Common Lime *Tilia x europaea*	26	4	5 n/a	85#	10 8 9 5	Situated on adjacent land. Overhanging the road. Twin-stemmed at 7m with a balanced crown. Occasional pruning wounds. No major visible defects. Not fully inspected due to epicormic growth at the base.	No action required.	GOOD	GOOD	MOD	MOD	40+	1 A 2
T 11	Mature Horse Chestnut *Aesculus hippocastanum*	18	2	2 n/a	103	7 8.5 7.5# 4.5#	Situated on adjacent land. Overhanging the road. Multi-stemmed at 4m with a balanced crown. Occasional pruning wounds. No major visible defects. Not fully inspected due to limited access to the south and east.	Prune back the southern and south-eastern canopy extent by the removal of secondary and tertiary branches only.	GOOD	GOOD	MOD	MOD	40+	1 A 2
T 12	Mature Common Lime *Tilia x europaea*	26	4	6 n/a	90#	11 8 7 9#	Situated on adjacent land. Overhanging the road and building. Twin-stemmed at 5m with a balanced crown. Occasional pruning wounds. No major visible defects. Not fully inspected due to epicormic growth at the base. Not fully inspected due to limited access to the south and east.	Prune back the southern and south-eastern canopy extent by 2m and crown lift to 5.6m by the removal of secondary and tertiary branches only.	GOOD	GOOD	MOD	MOD	40+	1 A 2
T 13	Early-mature Sycamore *Acer pseudoplatanus*	17	2	2 n/a	40	4 5 5 5	Single-stemmed and vertical with a balanced crown. Growing from the base of a retaining wall with the potential to cause future structural damage to this feature.	No action required. Remove to facilitate the proposed development. n/a	GOOD	FAIR	MOD	MOD	10+	C 1
G 14	Young to semi-mature Mixed *Details in observations*	To 11	0+	0+ n/a	To 22	See plan	A linear group of Common Ash, Norway Maple and Sycamore of poor individual form.	Remove to facilitate the proposed development.	GOOD	FAIR	MOD	MOD	10+	C 1
T 15	Young Common Ash *Fraxinus excelsior*	6	1	2 W	16	4 5 3 2	Situated on adjacent land. Single-stemmed and leaning with an unbalanced crown and a very poor form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
G 16	Semi to early-mature Mixed *Details in observations*	To 17	0+	0+ n/a	To 40	See plan	Presumed to be situated on adjacent land. A dense, off-site group of Sycamore and Common Ash of poor individual form. Included bark and vertical bark wounds noted.	No action required.	GOOD	FAIR	MOD	MOD	10+	C 1
T 17	Mature Sycamore	19	5	5	60	10# 6 7	Located adjacent to the watercourse within boggy, washed out terrain. Severely leaning and unbalanced over the adjacent building. Water has	Remove for arboricultural reasons as a moderate	FAIR	POOR	LOW	MOD	<10	U

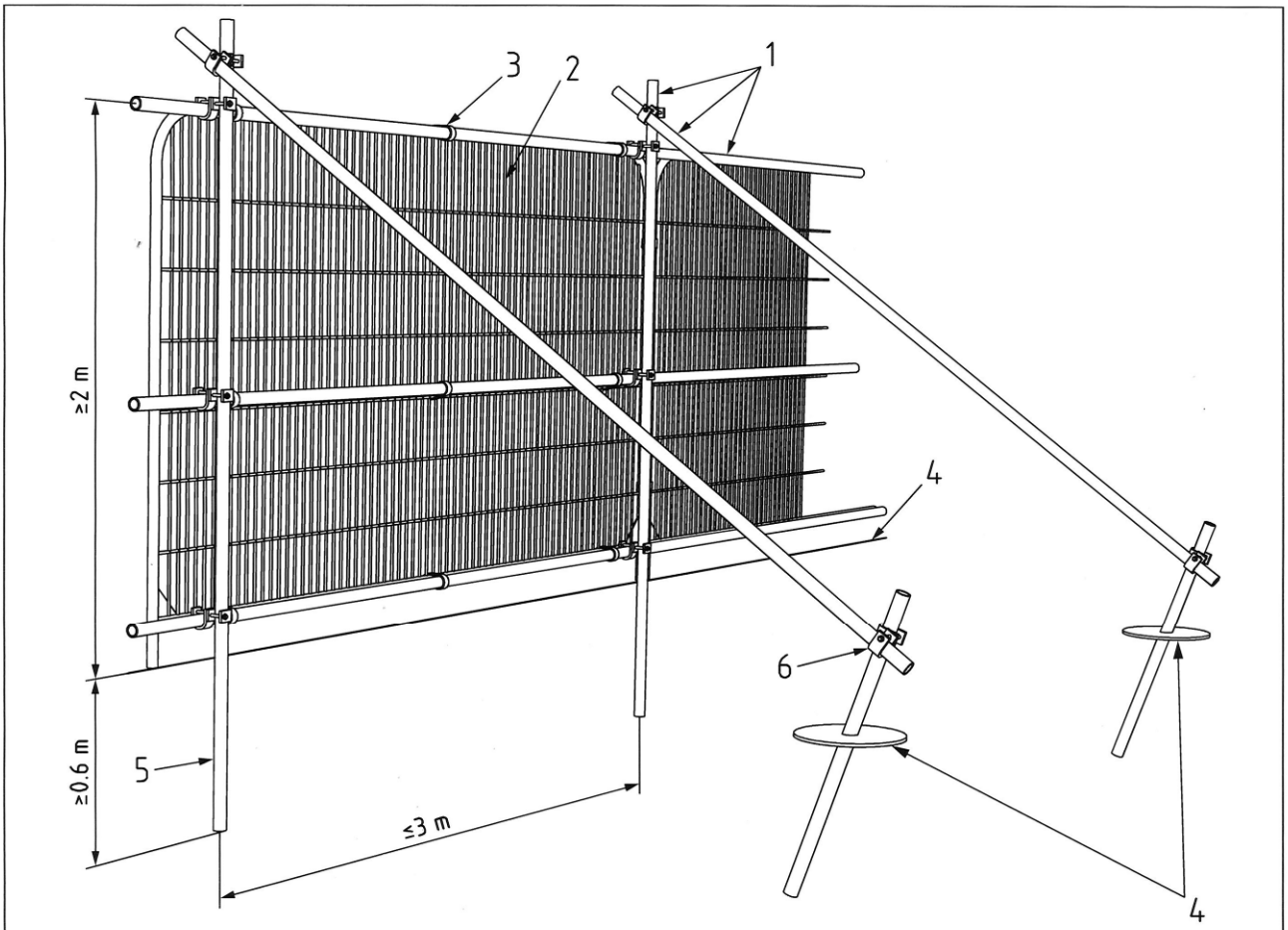
Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
	Acer pseudoplatanus			n/a		3	washed out under the root plate which is also rising at the opposite side to the lean of the stem.	as a **moderate priority**.						

Tree Ref.	Age Common Name *Botanical 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	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 18	Semi-mature Common Ash *Fraxinus excelsior*	17	6	6 E	29	4.5 0 6 3	Single-stemmed and vertical with a balanced crown and a tall and slender form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 19	Semi-mature Common Ash *Fraxinus excelsior*	18	6	6 NW	46	4 3 4 2.8	Single-stemmed and vertical with a balanced crown and a tall and slender form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 20	Semi-mature Common Ash *Fraxinus excelsior*	18	14	14 n/a	31	3 2.5 2 4	Twin-stemmed at 1m with an unbalanced crown and a tall and slender form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
G 21	Early-mature Mixed *Details in observations*	To 18	4	4 n/a	38 & 34	4.5 3 4 2	A Sycamore and Common Ash which are growing from the same location. Both trees when viewed together are twin-stemmed at ground level with a unbalanced crowns.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 22	Early-mature Common Ash *Fraxinus excelsior*	17	6	7 W	64	6 6.5 3 3	Twin-stemmed at 1m with an unbalanced crown with a poor and slender form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 23	Early-mature Sycamore *Acer pseudoplatanus*	17	2	2 n/a	74#	5# 5 6.5 5	Multi-stemmed at ground level with a balanced crown. Included bark at the stem junction. Not fully inspected due to vegetation.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 24	Early-mature Common Ash *Fraxinus excelsior*	19	5	5 n/a	55	6# 7# 7# 4#	Situated on adjacent land. Not shown on the topographical plan provided yet within influencing distance of the development area. Twin-stemmed at 8m with a balanced crown. Not fully inspected due to vegetation.	No action required.	GOOD	GOOD	LOW	MOD	40+	B 1
T 25	Early-mature Common Ash *Fraxinus excelsior*	19	5	1 E	45# x 2	5# 6# 12# 4	Presumed to be situated on adjacent land. Twin-stemmed at ground level with an unbalanced crown. The co-dominant stem to the northeast is long and heavy over the dam.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 26	Semi-mature Goat Willow *Salix caprea*	8	1	1 N	28#	5 1 4 1	A dam-side tree. Single-stemmed and leaning with an unbalanced crown.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	HIGH	10+	C 1
T 27	Early-mature Common Ash *Fraxinus excelsior*	18	5	4 n/a	55	8# 7 8# 2	A dam-side tree. Single-stemmed and leaning to the north with an unbalanced crown.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 28	Early-mature Common Alder *Alnus glutinosa*	19	0	0 n/a	43# x 3 Ave.	6 5 5 3.5	A dam-side tree. Multi-stemmed at ground level with a balanced crown.	Remove to facilitate the proposed development.	GOOD	GOOD	LOW	MOD	20+	C 1

Tree Ref.	Age Common Name *Botanical 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	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 29	Early-mature Sycamore *Acer pseudoplatanus*	20	0	0 n/a	57, 25 & 23	6# 5 6 5	A dam-side tree. Multi-stemmed at ground level with a balanced crown. A decay cavity was noted at 3m on the main stem.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 30	Semi-mature English Elm *Ulmus procera*	8	0	0 n/a	27	7 4 4 0	A dam-side tree. Single-stemmed and leaning with an unbalanced crown and a very poor form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	HIGH	10+	C 1
T 31	Early-mature Sycamore *Acer pseudoplatanus*	19	0	0 n/a	28# x 8 Ave.	6# 5 5 4	A dam-side tree. Multi-stemmed at ground level with a balanced crown. Not fully inspected due to limited access.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 32	Semi-mature Common Ash *Fraxinus excelsior*	19	0	0 n/a	45 x 2	4 4 4 4	A dam-side tree. Twin-stemmed at ground level with a balanced crown and a tall and slender form.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	MOD	10+	C 1
T 33	Semi-mature English Elm *Ulmus procera*	11	0	0 n/a	15 x 4	4 3 5 4	Multi-stemmed at ground level with a balanced crown.	Remove to facilitate the proposed development.	GOOD	FAIR	LOW	HIGH	10+	C 1
T 34	Semi-mature Sycamore *Acer pseudoplatanus*	13	0	0 n/a	25 x 3	4 4 4 4	Situated on adjacent land. Multi-stemmed at ground level with a balanced crown. Included bark present at the stem junction.	No action required.	GOOD	FAIR	LOW	MOD	10+	C 1
G 35	Early-mature Sycamore *Acer pseudoplatanus*	To 14	1	2 n/a	To 38#	See plan	Situated on adjacent land. Three trees of reasonable form in a close knit group. Bark wounds noted on the main stems. Not fully inspected due to limited access.	No action required.	GOOD	FAIR	LOW	MOD	10+	1 C 2
T 36	Mature Common Ash *Fraxinus excelsior*	19	2	8 S	75#	7# 8# 9# 11#	Situated on adjacent land. Twin-stemmed at 9m with a balanced crown. No evidence of significant pruning. Moderate deadwood and slight die-back noted. Decay is present at the base. Not fully inspected due to limited access.	No action required.	FAIR	FAIR	LOW	MOD	10+	1 C 2
G 37	Young to semi-mature Mixed *Details in observations*	To 13	0+	0+ n/a	To 15	See plan for indicative crown spreads.	Understory Sycamore, Common Ash, Goat Willow, English Elm, Hawthorn and Holly of poor individual form and little significance.	No action required.	GOOD	FAIR	LOW	LOW TO HIGH	10+	C 1

Appendix 2: Protective Barrier

A2.1 The protective barrier will be installed in accordance with BS5837: 2012. The default specification of BS 5837: 2012 (pictured below for reference) recommends a vertical and horizontal, scaffold framework, well braced to resist impacts, with vertical tubes at no more than 3m intervals. These should be driven into the ground. Weld mesh panels should be affixed to this framework with scaffold clamps.



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Protective Barrier to BS 5837: 2012. To be used where situated in open ground.

TREE PROTECTION ZONE

KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED
BY STRICT PLANNING CONDITIONS

ANY DAMAGE CAUSED TO THESE TREES MAY
RESULT IN **CRIMINAL PROSECUTION**

RESTRICTED AREA:

- THE PROTECTIVE FENCE MUST NOT BE MOVED OR BREACHED
- NO PERSON, MACHINERY, VEHICLE OR PLANT IS PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO MATERIALS SHALL BE STORED WITHIN THE TREE PROTECTION ZONE
- NO EXCAVATIONS ARE PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO SPOIL IS TO BE DEPOSITED WITHIN THE TREE PROTECTION ZONE
- NO FIRES ARE TO BE LIT WITHIN THE TREE PROTECTION ZONE

REPORT TREE DAMAGE TO JCA LIMITED ON
01422 376 335

Appendix 3: Permanent Hard Surfaces

A4.1 This Appendix outlines the options available for constructing No-Dig hard surfaces within the RPA of a tree. The design of such a construction needs to be sensitive to the requirements of tree roots, substantial enough to withstand the expected levels of traffic and practicable in terms of ease of fabrication (See **Section 4.4** for details)

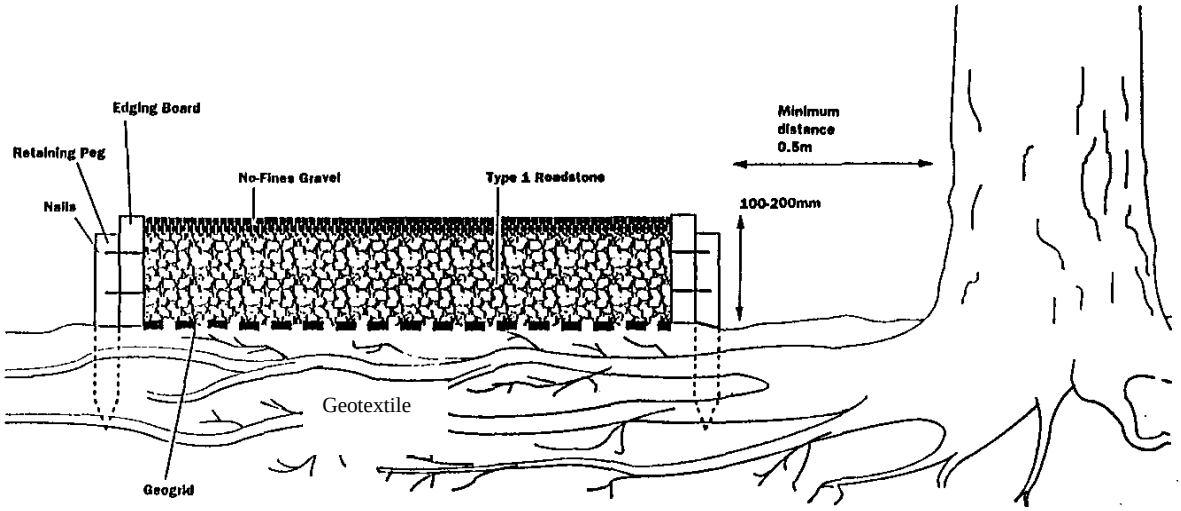
A4.2 We are not qualified to recommend any particular construction method in terms of durability or structural integrity and any proposed construction should be approved by a qualified structural engineer prior to implementation. However, with regards to trees, we make the following comments:

- Severance of roots and soil compaction should be avoided. However, if it is necessary to sever roots or if they are severed accidentally we must be informed so that we are able to assess and recommend accordingly.

- Air and water must be able to diffuse into the soil beneath the engineered surface. Toxic substances which could leach into the ground must be avoided, as should substances which affect the pH value of the soil, for example limestone.

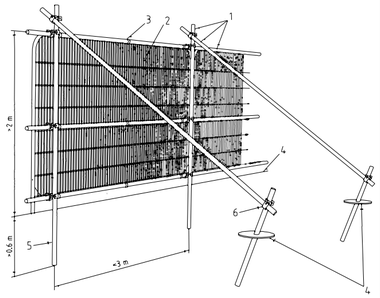
A4.3 **The No-Dig Method:** This involves construction of a surface with no excavation, soil stripping or site grading. All construction takes place above ground level. Preparation is as follows:

A4.4 Ground vegetation is killed using a suitable herbicide. Care must be taken to select a herbicide which does not damage the tree roots within the treated area. Once the vegetation has died, the dead organic matter should be removed. This helps prevent the future build up of anaerobic conditions or settlement due to decomposition.



A light duty drive constructed using the ***No Dig Method.***

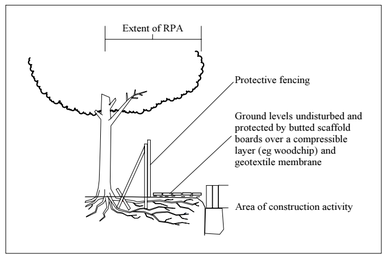
Default specification for a protective barrier



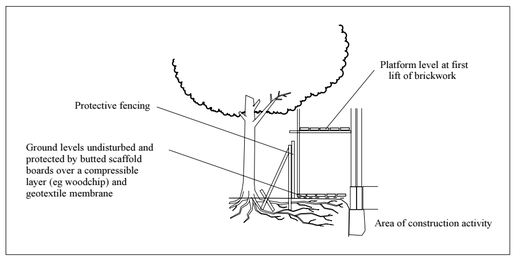
Key

1. Standard scaffold poles
2. Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3. Panels secured to uprights and cross-members with wire ties
4. Ground level
5. Uprights driven into the ground until secure (minimum depth 0.6m)
6. Standard scaffold clamps

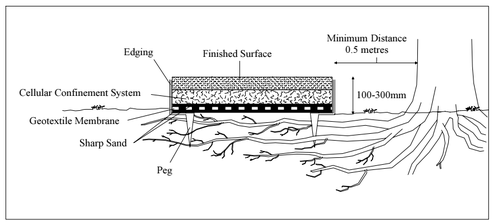
An example of a walkway within the RPA



An example of scaffolding within the RPA



An example of a 'no dig' road construction



TREE PROTECTION MEASURES

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE.

UNLESS OTHERWISE STATED IN THE ARBORICULTURAL METHOD STATEMENT, THIS AREA NEEDS TO REMAIN UNDISTURBED.

TO ACHIEVE THIS, PROTECTIVE FENCING WILL BE INSTALLED TO ENCLOSE THE RPA TO MAKE A CONSTRUCTION EXCLUSION ZONE (CEZ).

THIS AREA IS TO BE CONSIDERED A RESTRICTED AREA; NO PEDESTRIANS, VEHICLES, THE STORAGE OF MATERIALS, EQUIPMENT OR MACHINERY ARE ALLOWED WITHIN THE CEZ, UNLESS SPECIFIED WITHIN THE ARBORICULTURAL METHOD STATEMENT.

WHERE IT IS NOT POSSIBLE TO ENCLOSE THE RPA WITH THE PROTECTIVE FENCING, GROUND PROTECTION MEASURES WILL NEED TO BE LAID TO MINIMIZE ANY GROUND COMPACTION AND ANY DISTURBANCE TO THE UNDERLYING SOIL.

THE PROTECTIVE BARRIER WILL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES TAKING PLACE AND WILL BE RETAINED IN PLACE UNTIL THE MATERIAL COMPLETION OF DEVELOPEMNT.

IT IS IMPORTANT THAT THE PROTECTIVE BARRIER IS CHECKED BY THE LPA OR THE ARBORICULTURAL CONSULTANT PRIOR TO ANY CONSTRUCTION WORKS BEING CARRIED OUT. IF THE TREE PROTECTION MEASURES ARE NOT CORRECTLY INSTALLED OR IF THEY DO NOT COMPLY WITH BS 5837: 2012, THIS COULD RESULT IN DAMAGE BEING CAUSED TO TREES AND CONSEQUENTLY A STOP NOTICE MAY BE SERVED BY THE LPA.

Appendix 4: Tree Protection Plan

ADDRESS: Victoria Mill, Watt Street, Sabden, Lancashire, BB7 9ED.
JCA REF: 13611-B/AJB.

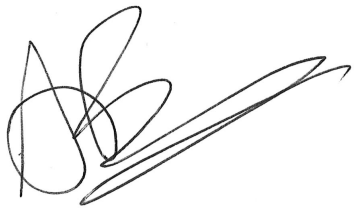
SCALE : 1:500	PAPER SIZE : A2

	TREE TO BE RETAINED
	TREE TO BE REMOVED
•	STEM OF TREE TO BE RETAINED
•	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	HARD STANDING TO BE INSTALLED WITHIN THE RPA USING THE NO-DIG METHOD OF CONSTRUCTION.
	PROTECTIVE FENCE LINE (CEZ)
	SECTION OF RPA REQUIRING GROUND PROTECTION MEASURES
	HARD STANDING TO BE INSTALLED UPON THE EXISTING CONCRETE PAD IN ORDER AVOID ROOT DISTURBANCE
	T11 & T12- MAXIMUM EXTENT OF CANOPY TO BE PRUNED BACK

JCA Limited
Arboricultural & Forestry Consultants

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

Signed



.....

Andrew Bussey.

15th March 2018

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

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JCA Ltd. Arboricultural and Ecological Consultants
Professional Tree and Ecology Advice nationwide

ARBORICULTURAL SERVICES

Guidance for Architects and Developers

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

Advice for Engineers, Loss Adjusters and Insurers

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

Advice for Local Authorities and Social Housing

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

Tree Advice for the Legal Profession

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

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

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

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

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

Ecological Post-Planning Services

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

HEAD QUARTERS:

Unit 80 Bowers Mill,
Branch Road,
Barkisland,
Halifax, HX4 0AD.

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Mobile: 07778 391986
Email: jon@jcaac.com
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