



SJ Stephens Associates

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Arboricultural Impact Assessment

- Tree Survey
- Tree Protection Plan
- Preliminary Arboricultural Method Statement

At:-

Richfield Avenue
Reading
RG1 8EQ

On behalf of:-

Reading Borough Council
Civic Office
Bridge Street
Reading
RG1 2LU

Prepared by:

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Survey Date: February 2019
Report Date: 6th March 2019
Project no: 1280

CONTENTS

- 1 BACKGROUND**
- 2 SURVEY DETAILS AND SCOPE**
- 3 SURVEY LIMITATIONS**
- 4 LEGAL PROTECTION OF TREES**
- 5 PRELIMINARY ARBORICULTURAL METHOD STATEMENT**
- 6 ARBORICULTURAL IMPACT ASSESSMENT**
- 7 REFERENCES**

Appendices

- A Tree Protection Plan: drawing no: 1280-01revA**
- B Tree Schedule**
- C BS 5837:2012 - Trees in relation to design, demolition and construction, Table 1**
- D Tree Protection Fencing Detail**

1 BACKGROUND

- 1.1** This Arboricultural Impact Assessment relates to the proposed construction of a new secondary school on land off Richfield Avenue and provides recommendations for the management of trees on the site. It has been instructed by Reading Borough Council.
- 1.2** The tree survey was undertaken by Trevor Osborne, BSc(Hons) Dip Arb L4 (ABC) and Simon Stephens, and this report has been prepared, by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.
- 1.3** This survey and report have been prepared in accordance with recommendations provided in BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations.
- 1.4** Documentation supplied:
 - Topographical Survey

2 SURVEY DETAILS AND SCOPE

- 2.1 The site survey included trees and shrubs, within influencing distance of the proposed development, with a stem diameter over 75mm at 1.5m height, located within the area shown on the Tree Protection Plan, included as Appendix A.
- 2.2 Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.
- 2.3 The suitability of trees for inclusion in the future development was considered, in particular considering the safe useful life expectancy, and sustainability, of trees on the site after development is completed.
- 2.4 Tree details have been added to the plan received, which is included as Appendix A. Tree locations have been taken from the topographical survey provided. Where not included on the topographical survey, they have been determined by measuring distances from features shown on the plan, using a laser measuring device. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:
- **Number:** an identity number for each tree, prefixed with a "T", which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees, normally of the same species, are located close together and are similar in character and requirements, they have been treated as a Group under a single Number, prefixed with a "G".
 - **Species:** common name.
 - **Tree height:** approximate height in metres.
 - **Stem diameter:** diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
 - **Branch spread:** approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.
 - **Canopy clearance:** approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
 - **Age class:** Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
 - **Condition:** features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
 - **Management Recommendations:** recommendations to ensure the health and safety of the tree, within the future development.
 - **Estimated Remaining Contribution:** <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.
 - **Category grading:** tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
 - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal (Red)

- Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)
- Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
- Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
- Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

For category A, B and C trees, a subcategory has been allocated, providing information on the reasons for selection of a specific category, as follows:

- Subcategory 1: mainly arboricultural values.
 - Subcategory 2: mainly landscape values.
 - Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
 - **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.
 - **Root Protection Area (RPA):** the area in m², as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

3 SURVEY LIMITATIONS

- 3.1 No internal decay devices, or other invasive tools to assess tree condition, were used.
- 3.2 No soil excavation or root inspection was carried out.
- 3.3 This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.
- 3.4 The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees close to highly populated areas or public highways should normally be checked for safety annually, by a suitably qualified person.

4 LEGAL PROTECTION OF TREES

- 4.1.1 The Reading Borough Council Tree Preservation Order Directory was viewed on the council website on 06-03-2019. Although this does not show any Tree Preservation Orders for Cow Lane or the relevant section of Richfield Avenue, the council should be notified before any tree work starts to check there are no other Tree Preservation Orders that have been missed.

5 PRELIMINARY ARBORICULTURAL METHOD STATEMENT

5.1 Site Overview

- 5.1.1 The proposal is for the construction of a new secondary school on land off Richfield Avenue. The proposed site plan is still to be finalized, but is expected to be contained within the areas bounded by Tree Protection Fencing on the Tree Protection Plan attached as Appendix A.
- 5.1.2 Alongside Richfield Avenue there are a number of good quality semi-mature and early mature London plane, however the majority of trees are thorn growing at tight spacing in blocks. While these blocks are providing reasonable screening many of the thorn are beginning to deteriorate.
- 5.1.3 To the west of Cow Lane there is low quality, hedging containing mostly elm with thorn and willow, with declining ash further to the north. To the east there are blocks of thorn and goat willow. Many of the trees are becoming engulfed in ivy and bramble. There are very occasional fine trees, such as the oak (T86) and the willow (T146), which are providing high amenity value, however the area feels neglected and somewhat depressing and would benefit from management.
- 5.1.4 The area south of the school site is similarly neglected, with mostly thorn trees engulfed in ivy and bramble.
- 5.1.5 There are better trees further to the east within the garden centre area and the adjacent car park, where there is a large, mature poplar, T66.

5.2 Tree Work

- 5.2.1 Details of proposed tree works are included in the Tree Schedule included as Appendix B.
- 5.2.2 All tree work must be undertaken to the standards set out in BS 3998:2010 Tree work – Recommendations.

5.3 Root Protection Areas

- 5.3.1 Root Protection Areas are shown for all trees in the tree schedule attached as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan attached as Appendix A. This shows the distance that construction must normally be kept back from a tree, to provide the Root Protection Area recommended in BS 5837.

5.4 Tree Protection Fencing

- 5.4.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, attached as Appendix A. This will provide full protection of the Root Protection Areas of all retained trees, other than for areas hatched cyan on the Tree Protection Plan, indicating Ground Protection Areas, where roots must be protected, as described in section 5.5 below.
- 5.4.2 Tree works can be completed before Tree Protection Fencing is erected, however no contractors plant or vehicles must be allowed to track within the Root Protection Areas unless ground protection panels are laid.
- 5.4.3 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D. Alternatively, weldmesh panels can be supported on blocks, providing the blocks are pinned to the ground with road pins, or similar, and the panels are braced, as per Figure 3 of BS5837:2012, which is also reproduced in Appendix D.
- 5.4.4 After erection of Tree Protection Fencing and installation of ground protection, 2 days notice must be given to the Local Planning Authority before demolition or construction, including any ground work, starts on site. Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the Local Planning Authority.
- 5.4.5 Notices must be fixed to the Tree Protection Fencing stating:- "Tree Protection Fencing – No construction activity to take place within this area".

5.5 Ground Protection Areas

- 5.5.1 The Ground Protection Areas, which are hatched cyan on the Tree Protection Plan, contain hard surfacing which is protecting any underlying roots. No excavation must be permitted beneath the base course within these areas.

5.6 General measures

- 5.6.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.6.2 No mixing of cement, or concrete, or storage of fuel must take place within 10m of retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.6.3 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.
- 5.6.4 Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots. Tractor mounted rotovators or other heavy mechanical cultivation must not be used within the Root Protection Areas.
- 5.6.5 A copy of the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

5.7 Bat roosts

- 5.7.1 The current legislation makes it a criminal offence to disturb, damage or destroy any bat roost or hibernation area. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

5.8 Birds

- 5.8.1 The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1st March to 31st July, however this can vary depending on species and location. During these months a careful inspection must be made before work commences and works must be postponed if active nests are found.

5.9 Arboricultural Supervision

5.9.1 A qualified Arboricultural Consultant must be retained during the period of construction to carry out the following:

- to prepare a detailed Arboricultural Method Statement, to full layout details, details of drainage, services and contractors facilities. The Arboricultural Method Statement must be approved by the Local Planning Authority, prior to construction or ground work starting on site.
- to inspect Tree Protection Fencing and ground protection, prior to construction or demolition starting on site.
- as necessary, to advise on any issues at the request of the local planning authority, the developer, architect or contractor.

The details of each site visit must be recorded using a site visit proforma, with copies circulated to the contractor, developer and the local authority Tree Officer within 3 working days of the visit.

6 ARBORICULTURAL IMPACT ASSESSMENT

6.1 The following trees / tree groups, categorized as per BS 5837 (see Appendix C for details), are proposed for removal in order to facilitate the proposed development:

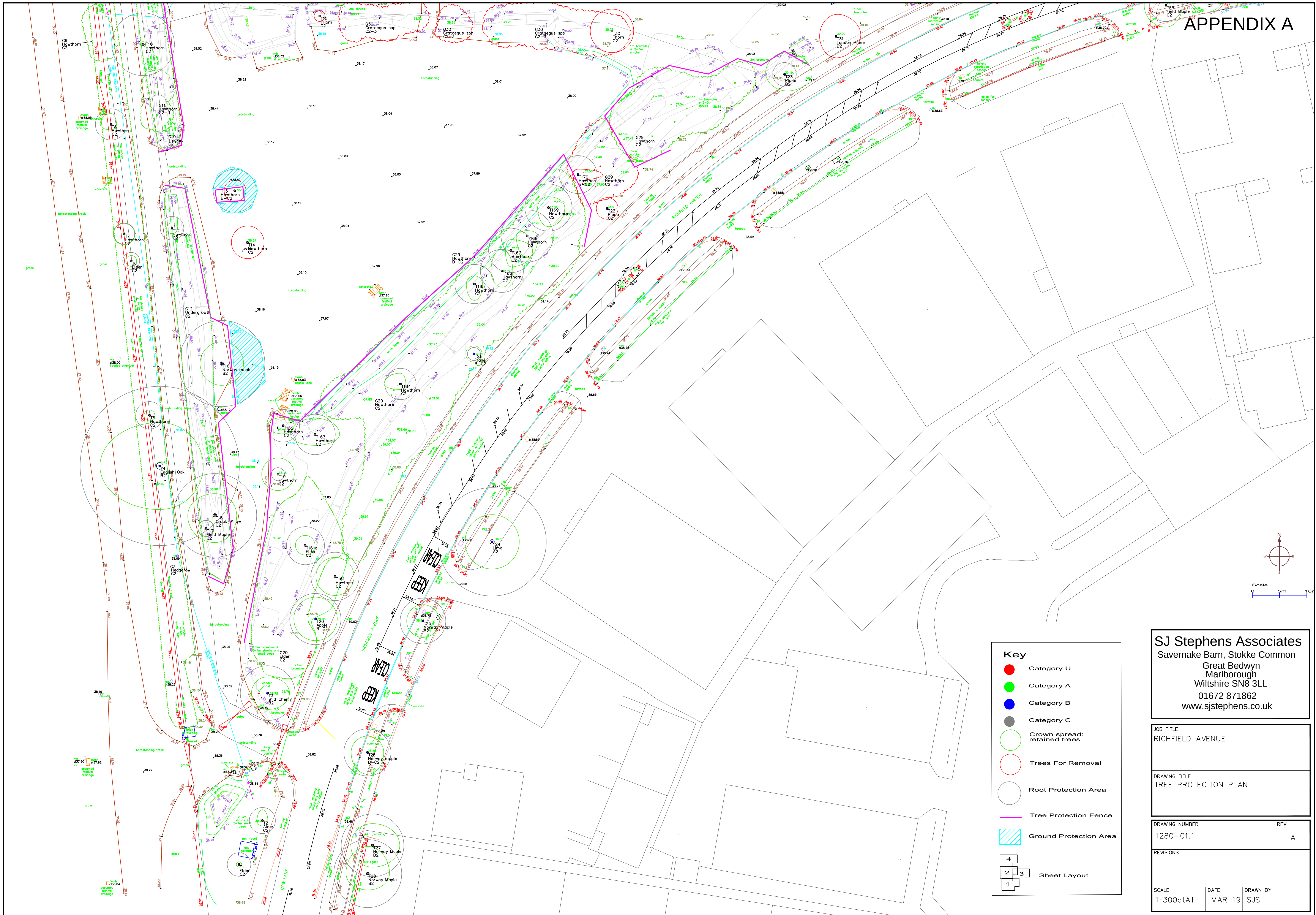
- Category C – low quality: two trees – T22 and T107 and one group – G30.
- Category B/C – between categories B and C: three trees and two groups
 - T14 – a mature thorn, which is beginning to decline, which will be removed if Pay & Display car park is constructed.
 - G29(part) – a 10m section of a belt of hawthorn to facilitate construction of a new access road.
 - T77a – a 12m wild cherry, with twin stems and a tight fork, to be removed for the new access road.
 - G77(part) – a tight group of thorn – part of which will need to be removed for the new access road.
 - T170 – a 6.5m thorn, which needs to be removed for the new access.
- Category B – moderate quality: one tree
 - T31 – a 9m London plane which needs to be removed for the new access road.

- 6.2 Other low quality trees are recommended for removal for arboricultural, rather than development, reasons.
- 6.3 Apart from one 9m London plane, no trees of any particular significance are proposed for removal to facilitate the proposals.
- 6.4 Provided the recommendations in this report are followed, the arboricultural impact of this development on existing trees will be minimal. If the project can provide the opportunity for the formulation of a landscape strategy, including new and replacement tree planting, for this neglected area there will be significant long term arboricultural benefit.

7 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
- *BS3998:2010 Tree Work. Recommendations.*
- *BS8545:2014 Trees: from nursery to independence in the landscape. Recommendations.*
- *NJUG 10: Guidelines for the planning, installation and maintenance of Utility Services in proximity to trees. (Published by the National Joint Utilities Group).*
- *Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice. Published by the Building Research Establishment.*
- *Common sense risk management of trees (FCMS024). Published by the National Tree Safety Group (www.ntsgroup.org.uk)*
- *The Body Language of Trees: A handbook for Failure Analysis. Mattheck & Breloer.*

APPENDIX A



APPENDIX A

Site Boundary

Key

Category U

Category A

Category B

Category C

Crown spread: retained trees

Trees For Removal

Root Protection Area

Tree Protection Fence

Ground Protection Area

Sheet Layout

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JOB TITLE
RICHFIELD AVENUE

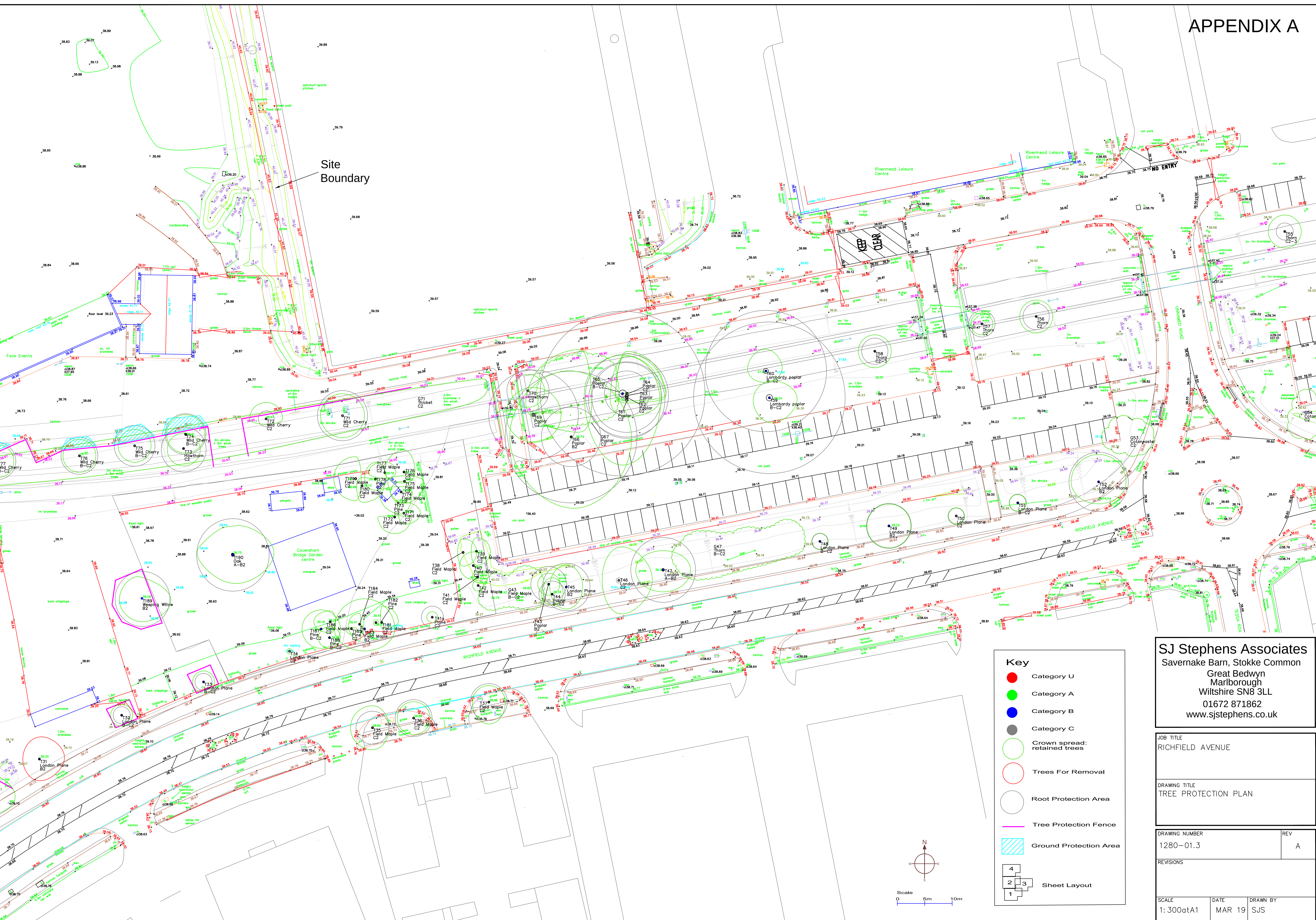
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TREE PROTECTION PLAN

DRAWING NUMBER 1280-01.2	REV A
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REVISIONS

SCALE 1:300atA1	DATE MAR 19	DRAWN BY SJS
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APPENDIX A



Key

-  Category U
-  Category A
-  Category B
-  Category C
-  Crown spread:
retained trees
-  Trees For Removal
-  Root Protection Area
-  Tree Protection Fence
-  Ground Protection Area



Sheet Layout

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DRAWING TITLE
TREE PROTECTION PLAN

DRAWING NUMBER	REV
1280-01.3	A

REVISIONS

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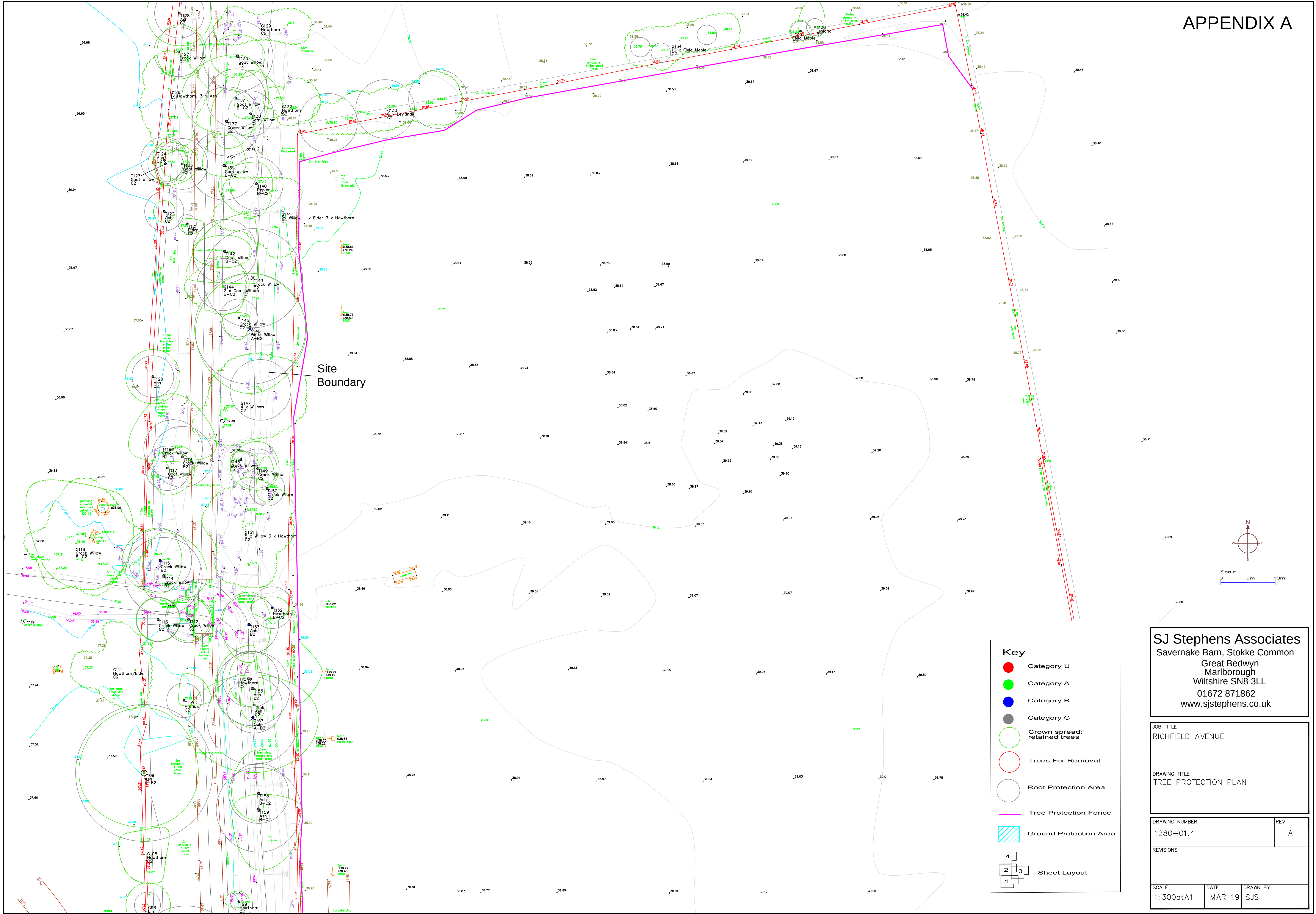
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APPENDIX A



Key

- Category U
- Category A
- Category B
- Category C
- Crown spread: retained trees
- Trees For Removal
- Root Protection Area
- Tree Protection Fence
- Ground Protection Area
- Sheet Layout

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JOB TITLE RICHFIELD AVENUE		
DRAWING TITLE TREE PROTECTION PLAN		
DRAWING NUMBER 1280-01.4		REV A
REVISIONS		
SCALE 1:300atA1	DATE MAR 19	DRAWN BY SJS

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T1	Elder	3.5	180	0.5	0.5	0.5	0.5	0.2	Mature	Poor specimen engulfed in Ivy and bramble		<10	C2	2.2	15
T2	Alder	4.5	200	2	1	1	1	1	Mature	Poor Specimen engulfed in Ivy		5-15	C2	2.4	18
T3	Wild Cherry	5	420	3	3	4	3	2.0	Mature	Healthy vigour and good crown spread.		15-30	B2	5.0	80
G3	Hedgerow	3-8	125					0.3		Stem diameter 50-125mm. Mostly elm, with elder. Dense ivy and bramble in places. Low quality.		10-20	C2		
T4	English Oak	14	1220	8	8	8	11	4.5	Mature	Sparse canopy and minor deadwood throughout. Ivy is beginning to creep up the stem to the crown break.	Sever Ivy at base and remove dead wood. Reinspect in 24 months.	>40	B2	14.6	673
T5	Hawthorn	4	210	1	1	1	1	0.3	Early Mature	2 x Stems both 150mm tree beginning to be engulfed with Ivy.		5-15	C2	2.5	20
T6	Elder	4	130	1	1	1	1	0.2	Mature	Poor Specimen, engulfed by Ivy, Multi-stemmed from base. Average DBH 40mm		<10	C2	1.6	8
T7	Hawthorn	4	160	2	2	2	2	0.2	Mature	Canopy is of good vitality, multi-stemmed from base average DBH 50mm		5-15	C2	1.9	12
T8	Hawthorn	4	240	2	2	2	2	0.3	Mature	Multi-stemmed average 80mm engulfed in ivy		5-15	C2	2.9	26
G9	Hawthorn	4	125-250					0.3	Semi- Mature	4 x Hawthorns all engulfed in Ivy, poor specimens		5-15	C2	3.0	28
T10	Hawthorn	4	480	0.5	0.5	0.5	0.5	0.3	Mature	Poor vitality, engulfed in Ivy		5-15	C2	5.8	104
G10	Thicket	2-7	125							Stem diameter 50-125mm. Elm and thorn- mostly engulfed in ivy.	Clear all apart from better individual tree and inter plant.	5-15	C2	1.5	7
G11	Hawthorn	5	125-250					0.3	Mature	4 x Hawthorns all engulfed in Ivy, poor specimens, evidence of burrowing animals, probably rabbits.		5-15	C2-3	3.0	28
T12	Hawthorn	4	180	1	1	1	1	0.3	Mature	Poor specimen, poor vitality. Engulfed in Ivy		5-15	C2	2.2	15
G12	Undergrowth	1.8-6	150							Stem diameter 50-150mm. Area of unmanaged undergrowth. Containing areas of elm and elder. Patches of blackthorn. Low quality.		5-15	C2	1.8	10
T13	Hawthorn	5	330	2	2	2	2	0.3	Mature	5 X stems all approx. 150mm.	Retain if possible within car park.	5-15	B-C2	4.0	49
T14	Hawthorn	9.5	370	3	3	3	3	0.3	Mature	Multi stemmed from the ground- 6 stems average 150mm. Poor specimen. Beginning to decline.	Remove to construct car park	5-15	C2	4.4	62
T15	Hawthorn	4	80	1	1	1	1	0.3	Semi- Mature	Engulfed in Ivy. Aggregates and soil piled up.	Remove to allow new planting	5-15	C2	1.0	3
T16	Norway Maple	10	660	4	4	4	4	1.7	Mature	Good canopy vitality and balance. Ivy beginning to take hold.	Remove section of ivy from base.	20-40	B2	7.9	197
T17	Field Maple	5	120	1.5	1.5	1.5	1.5	1.5	Semi- Mature	Poor Specimen, evidence of poor rooting, large bend at base.		5-15	C2	1.4	7

Richfield Avenue

Appendix BBS 5837: 2012 Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T18	Crack Willow	12	640	4	5	4	5	1.6	Mature	Multi-stemmed from base 4 x 320mm limbs. Large crack in western limb. Ivy present throughout.		10-20	C2	7.7	185
T19	Hawthorn	6	100	3	3	3	3	0.5	Mature	Burification at 1.5m both stems 70mm. Good vitality in the canopy, evidence of decay on the south side.		5-15	C2	1.2	5
G20	Elder	3-5	150							Stem diameter 100-150mm. Area of undergrowth, with dense bramble and occasional elder.	Clear and replant.	5-15	C2	1.8	10
T20	Apple	5	390	4	4	4	4	1.5	Mature	Good all round vigour and healthy canopy spread. Bramble beginning to encroach from the Southern side. History of poor pruning.		10-20	B-C2	4.7	69
T21	London Plane	5	100	1.5	1.5	1.5	1.5	1.8	Semi-Mature	Good specimen, straight stem and good vitality in the crown		>40	B-C2	1.2	5
T22	London Plane	5	210	2	2	2	2	2	Semi-Mature	Good specimen, straight stem and good vitality in the crown	Remove to construct new road.	>40	C2	2.5	20
T23	London Plane	5	180	4	3	5	3.5	1.5	Semi-Mature	Good specimen, straight stem and good vitality in the crown. Slight lean to east.		>40	B2	2.2	15
T24	Lime	15	830	5	5	5	5	4	Mature	Good balanced crown and healthy vitality through out. Bifurcates at 1.5m, strong union. Nice tree		20-30	A2	10.0	311
T25	Norway Maple	5	350	3	3	3	3	3	Mature	Straight stem. Evidence of decay on the road side from mechanical damage but is compartmentalising well.		15-30	B2	4.2	55
T26	Norway Maple	5	360	3	4	3	3	3	Mature	Mechanical damage on the truck from 0.5m to 3m on road side.		15-30	B-C2	4.3	59
T27	Norway Maple	8	480	4	4	5	4	2.5	Mature	Historic pruning wound at 3m. Good balanced canopy		15-30	B2	5.8	104
T28	Norway Maple	8	520	5	3	4	4	3	Mature	Evidence of swelling at 1m from tree consuming a rope. Good vitality throughout the canopy.		15-30	B2	6.2	122
G29	Hawthorn	8	40-380					0.5	Mature	Approximately 120 Hawthorn trees vary in size from 40mm to 380mm. Age varies from young to mature. Generally good vitality but evidence of decay on some. There is also approximately 20/30 Elders scattered through out as understory.	Remove a 10m section for new road. Remove any dead, dying trees and infill plant gaps where possible.	15-30	B-C2	4.6	65
T30	Thorn	10	440	4	4	4	4	0.5		Six stems from base- average 180mm. Extensive dieback.	Remove	5-15	C2	5.3	88
G30	Hawthorn	9	100-300					0.3	Mature	10 mature Hawthorn. All have been aggressively engulfed by Ivy. Aggregates and soil have been piled up high on the trunks of the tree. Several trees have already failed. Poor collection of trees, however a strong habitat for wildlife.	Remove for new parking area and to allow new planting.	<10	C2/3	3.6	41

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T31	London Plane	9	200	4	4	4.5	3	1.7	Early Mature	Good specimen, straight stem and good vitality in the crown. Broken branches. Slight lean to east.	Remove for new road.	>40	B2	2.4	18
T32	London Plane	4.5	130	2	2	2	2	1.6	Early Mature	Good specimen, straight stem and good vitality in the crown		>40	B-C2	1.6	8
T33	London Plane	4.5	130	2	2	2	2	1.6	Early Mature	Good specimen, straight stem and good vitality in the crown		>40	B-C2	1.6	8
T34	London Plane	4	50	0.5	0.5	0.5	0.5	1.6	Early Mature	Under developed, poor quality poor vigour.		<10	C2	0.6	1
T35	Field Maple	5	250	4	4	3	4	1.6	Mature	Bifurcates union at 2.5m		10-20	C2	3.0	28
T36	Field Maple	5	280	3	3	3	3	1.6	Mature	Evidence of poor pruning that will effect life span		10-20	C2	3.4	35
T37	Field Maple	5	280	3	4	3	3	1.6	Mature	Evidence of mechanical damage at the base, tree is compartmentalising.		10-20	C2	3.4	35
T38	Field Maple	6	270	2.5	2.5	2.5	1	1.6	Mature	Good vitality through the canopy. Tight fork at 1m. Within garden centre area.		10-20	C2	3.2	33
T39	Field Maple	6	160	2.5	2.5	2.5	1	1.6	Mature	Healthy canopy, evidence of poor pruning causing swelling on the stem. May effect life span. Within garden centre area.		5-15	C2	1.9	12
T40	Field Maple	6	210	2.5	2.5	2.5	2.5	1.6	Mature	Co-dominate stem from base both 150mm. Poor specimen bad pruning wounds. Within garden centre area.		5-15	C2	2.5	20
T41	Field Maple	6	210	1	1	1	1	1.6	Mature	Co-dominate stem from base both 150mm. Poor specimen bad pruning wounds. Within garden centre area.		5-15	C2	2.5	20
T41a	Plane	5	80	2	2	2	2	2	Young	Good quality young tree. Within garden centre area.		>40	C2	1.0	3
T42	Field Maple	6	170	1	1	1	1	1.6	Mature	Bifurcates at 1m, wide union. Deadwood throughout.		10-20	C2	2.0	13
T43	Poplar	10	270	2	2	2	2	1.6	Semi- Mature	Bifurcates fork at 3m, good strong union. Canopy vitality good. Nice tree		>40	B2	3.2	33
G43	Field Maple	5-7	75-150					1	Early Mature	Tightly spaced group providing good screening.		10-20	B-C2	1.8	10
T44	Poplar	9	200	3	2	2	2	1.6	Semi- Mature	Canopy leans east over footpath. Vitality good	Planted too close to the more developed oak. Recommend removing to allow T43 to develop	>40	B-C2	2.4	18
T45	London Plane	11	360	4	4	3	3	1.6	Early Mature	Good balanced canopy, good vitality, the under story shrubs are beginning to engulf the trunk and lower canopy.	Remove understory, where competing.	20-40	B2	4.3	59
T46	London Plane	4	40	6	5	6	3	1.6	Young	Good straight stem, average vitality		>40	C2	0.5	1

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T47	London Plane	9.5	490	3.5	4	5	5	1.5	Mature	Crown break at 1.5m. Good vitality. Strong unions		>40	A-B2	5.9	109
G47	Thorn	3-4	25-75					0.5	Semi-Mature	Dense belt of thorn, providing good screening.		10-20	B-C2		
T48	London Plane	5	120	1.5	1.5	1.5	1.5	1.5	Young	Good straight stem, good vitality		>40	B-C2	1.4	7
T49	London Plane	10	340	4	4	4	4	1.5	Early Mature	Poor Burification union at 3.5m. Low limb almost touch ground.	Crown raise canopy to 2m	>40	B2	4.1	52
T50	London Plane	4	120	1	1	1	1	1.5	Young	Good straight stem, slight northern lean		>40	C2	1.4	7
T51	London Plane	4	130	1	1	1	1	1.5	Young	Good straight stem, balanced canopy Burification at 3m		>40	B-C2	1.6	8
T52	London Plane	10	450	5	4	5	5	1.5	Early Mature	Good vigour, strong. Burificates at 3m. Balanced canopy		>40	B2	5.4	92
G53	Cotoneaster	4	100					0.3	Mature	Multiple plants multi stemmed, visually attractive		10-20	C2	1.2	5
G54	Cotoneaster	4	100					0.3	Mature	Multiple plants multi stemmed, visually attractive		10-20	C2	1.2	5
T55	Hawthorn	4	130	3	3	3	3	0.3	Mature	Multi-stemmed, completely engulfed in Ivy. Poor specimen. Next to stream offering good habitat and conservation value		10-20	C2-3	1.6	8
T56	Hawthorn	5	130	3	3	3	3	0.3	Mature	Inaccessible due to bramble and water hazard. Multi-stemmed from ground.		10-20	C2	1.6	8
T57	Hawthorn	5	150	2	2	2	2	0.3	Mature	Multiple stems from ground, average DBH 50mm. Bramble growing through out. Showing healthy vigour in the canopy.		10-20	C2	1.8	10
T58	Hawthorn	5	130	3	3	3	3	0.3	Mature	Inaccessible. Good vigour		10-20	C2-3	1.6	8
T59	Lombardy Poplar	26	1150	3	4.5	5	3	3	Mature	Burification union at 5m. Tight fork, but shows good reaction wood. Epicormic growth at base. No evidence of decay.		15-30	B-C2	13.8	598
T60	Lombardy Poplar	22	920	4	2	3	3	3	Mature	Good straight stem, Good vitality and no sign of decay		15-30	B-C2	11.0	383
T61	Poplar	20	580	8	3	6	3	5	Early Mature	Group of Poplars all leaning north. Good vigour and no evidence of decay		15-30	C2	7.0	152
T62	Poplar	20	530	8	1	7	2	4	Early Mature	Group of Poplars all leaning north. Good vigour and no evidence of decay		15-30	C2	6.4	127
T63	Poplar	20	630	8	1	7	2	4	Early Mature	Group of Poplars all leaning north. Good vigour and no evidence of decay		15-30	C2	7.6	179
T64	Poplar	14	340	5	3	5	3	3	Early Mature	Inaccessible leaning north over water		15-30	C2	4.1	52
T65	Poplar	20	1340	7	13	7	7	1.5	Mature	Large tree with spreading canopy. Low large limb on southern side over carpark. Minor deadwood in canopy. Ivy beginning to encroach	Sever Ivy at base and remove deadwood from canopy.	15-30	B-C2	16.1	812

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T66	Poplar	20	1320	12	13	11	11	2	Mature	Major limb at 2m to south west. Occasional broken branches, but still growing strongly.		20-40	B2	5.4	92
G67	Poplar	11	220-450	10	5	2	10	4	Early Mature	Multi-stem 220/450/250mm. Poor specimens all leaning North over the water. Many are ivy clad with a substantial lean to the north over the water. Poor specimens		15-30	C2	5.4	92
T69	Poplar	11	680	5	5	5	5	3	Mature	5 x stems from base all approx 280 DBH. Heavily leaning south west.		15-30	C2	8.2	209
T70	Hawthorn	4	320	3	3	3	3	0.5	Mature	Multi-stemmed average DBH 80mm Engulfed in thick bramble.		15-30	C2	3.8	46
T71	Wild Cherry	6	380	4	4	4	4	2.5	Mature	Good Balanced canopy Burification union is hidden by Ivy. Average vitality		15-30	C2	4.6	65
G71	Thicket	1.5-4.5	250							Stem diameter 75-250mm. Dense bramble, with thorn, elder and hazel growing through.		10-20	C2		
T72	Wild Cherry	5	120	3	1	3	3	2	Mature	Poor specimen, Ivy throughout canopy leaning North East.		15-30	C2	1.4	7
T73	Hawthorn	5	340	3	3	3	3	0.5	Mature	Multi-stemmed average DBH 70mm. Engulfed in Ivy		10-20	C2	4.1	52
T74	Wild Cherry	6	310	3.5	3.5	3.5	3.5	1.5	Mature	Bramble encroaching into canopy. Good vitality		15-30	B-C2	3.7	43
T75	Wild Cherry	6	310	3	3	3	3	2	Mature	Good vitality in canopy, tight burification fork.		15-30	B-C2	3.7	43
T76	Wild Cherry	5	280	3	3	3	3	2	Mature	Good vitality large crossing limb in crown. Ivy present		15-30	B-C2	3.4	35
T77	Wild Cherry	5	280	3	3	3	3	2	Mature	Good vitality large crossing limb in crown. Ivy present		15-30	B-C2	3.4	35
T77a	Cherry	12	300	4	4	4	4	1.7	Early Mature	Birfurcates at 1.8m- tight fork.	Remove to create new link.	10-20	B-C2	3.6	41
T77b	Cherry	11	290	4	4	4	4	1.7		Reasonble form and structure.		20-40	B2	3.5	38
G77	Thorn	7.5-9.5	140							Stem daimeter 100-140mm. Tight group.	Remove as necessary for new access.	15-30	B-C2	1.7	9
T77c	Goat willow	5	150	3	3	3	3	1		Growing from base of ditch.		15-30	C2	1.8	10
T77d	Thorn	5	130	1.5	1.5	1.5	1.5		Early Mature			15-30	B-C2	1.6	8
G78	Thicket	3-6	125							Stem diameter 75-125mm. Dense thicket containing elder, thorn and bramble.		10-20	C2	1.5	7
T78	Elder	5	220	1	2	2	2	0.1	Dead		Remove		U	2.6	22
T79	Hawthorn	5	270	4	4	3	4	0.5	Mature	Multi-stemmed average 120mm. Spoor specimen. Soil and aggregates piles up to trunk and covered in ivy		5-15	C2	3.2	33
G79	Willow	4-7	200							Stem diameter 120-200mm. Low quality willow growing up through bramble.		15-30	C2		

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
G80	Hawthorn	5	190					0.5	Mature	Declining trees. Soil and aggregates piles up. Ivy and bramble heavy present throughout		<10	C2	2.3	16
T81	Hawthorn	5	600	3	2	3	3	0.5	Mature	Very poor condition. Completely engulfed in Ivy.		5-15	C2	7.2	163
G81	Thorn	5-6.5	125							Stem diameter 100-125mm.		15-30	B-C2	1.5	7
T82	Goat willow	5.5	750	3.5	4	3.5	3	3	Mature	In serious decline, poor vitality.		<10	C2	9.0	254
T83	Goat willow	5.5	670	5	3	5	2	2	Mature	4 x Stems 380,380,270,300. Poor specimen, ivy heavy present, historic poor pruning and mechanical damage.		10-20	C2	8.0	203
T84	Elm	5.5	110	2	1	3	2	2	Mature	Good vitality, significant lean to the east.		10-20	C2	1.3	5
T85	Hawthorn	5	310	3	3	3	3	1.5	Mature	Multi-stemmed average DBH 160mm. Good balanced canopy. Significant deadwood in canopy. Average vitality		10-20	C2	3.7	43
T86	Oak	22	1150	8	10	10	8	4	Veteran	Great specimen, excellent health and vitality throughout. Burification at 7m, strong unions.		>40	A2	13.8	598
T87	Hawthorn	3.5	180	1	1	1	1	1.5	Mature	Single stem truck, Ivy present throughout.		15-30	C2	2.2	15
T88	Hawthorn	3.5	200	2	2	2	2	0.5	Mature	Ivy and bramble present throughout. Barbwire has been engulfed by tree stem. Poor specimen		10-20	C2	2.4	18
T89	Hawthorn	4	260	2	2	2	2	0.5	Mature	Multi-stemmed average DBH 50mm. Poor specimen. Ivy and Bramble heavy present. Soil and aggregates piled up to trunk.		10-20	C2	3.1	31
T90	Ash	6.5	460	3	3	4	2	2	Mature	3 x stems 180,320,280. Poor specimen. Bacterial cankers present		5-15	C2	5.5	96
T91	Elm	8	390	3	3.5	3	5	1.5	Early Mature	Poor specimen. Good vitality in crown. Prominent stem bend at base.		20-40	B-C2	4.7	69
G92	Elm	10	380					1	Early Mature	7 trees/stems. Average DBH 380, all leaning north. Good vitality but poor specimens.		15-30	B-C2	4.6	65
G93	Hawthorn	5.5	180					0.5	Mature	5 x trees. Heavy Ivy clad and thick bramble. Trees struggling.	Remove section of ivy from base of trees.	5-15	B-C2	2.2	15
T94	Horse Chestnut	14	650	5	5	5	6	2.5	Mature	Co-dominate at 2m. Tight union, included bark present. Mechanical damage on north side of base.		20-40	B-C2	7.8	191
T95	Hawthorn	5	410	2.5	3	2.5	3	0.5	Mature	Vitality good. Soil and aggregates piled up to stem. Ivy heavy throughout.		10-20	C2	4.9	76
G96	Thorn, Field maple	8	75-125					0.5	Mature	4 x trees hawthorn and field maple. Completely engulfed in ivy and bramble. Soil and aggregated piled up. Vitality average. Difficult to ID.		10-20	C2	1.5	7
T97	Field Maple	15	830	5	5	7	8	1	Mature	2 x stems 650,510, Good vitality, good balanced crown. Ivy present.		20-40	B2	10.0	311

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
G98	Elm	9	200					1.5	Semi-Mature	2 Trees each 200 DBH, difficult to ID. Inaccessible due to bramble		10-20	C2	2.4	18
T99	Hawthorn	5	130	3	2	2	2	0.5	Mature	Average vitality. Bramble heavily present.		10-20	C2	1.6	8
T100	Hawthorn	5	250					0.5	Mature	4 x stems. 170,150,70,70. good vitality bark necrosis evident.		10-20	C2	3.0	28
G101	Willow	5-8	125							Stem diameter 75-125mm. Dense clump of willow.		15-30	C2	1.5	7
T101	Ash	14.5	290	3	6	3	3	2	Mature	Good vitality, good crown spread. Bifurcates at 3m and 4.5m. Encroaching the high fence line on the north side. Strong unions. Good tree		>40	B2	3.5	38
T102	Goat willow	6	550	6	6	5	5	4	Mature	Poor specimen. Heavy ivy. History of branch failure. Soil and aggregates piled up around base. Cavity at 1m.		15-30	C2	6.6	137
G103	Undergrowth	3-8	125					0		Stem diameter 75-125mm. Dense undergrowth containing elder and thorn, growing through dense bramble.		10-20	C2	1.5	7
T103	Hawthorn	5	285	4	2	3	2	2	Mature	Poor vitality throughout. Ivy and Bramble heavy present.		10-20	C2	3.4	37
T104	Field Maple	8.5	510	7	3	3.5	4	2.5	Mature	Multi-stemmed. 320,300,250. Good vitality. Ivy present		10-20	B2	6.1	118
T105	Hawthorn	6	150	3	3	3	3	0.5	Mature	Poor Specimen. Ivy heavily present.		10-20	C2	1.8	10
T106	Crack Willow	3	120	1	1	1	1	0.5	Mature	Regrowth from a previously removed tree.		10-20	C2	1.4	7
T107	Sycamore	6	300	5	4	3	4	2.0	Mature	Co-dominate at 1.5m. Good crown spread. Ivy and bramble present.	Remove to construct new road.	10-20	C2	3.6	41
G108	Hawthorn	8	50-150	0	0	0	0	0.5	Mature	Inaccessible thick bramble and ivy. Struggling trees, poor vitality.		10-20	C2	1.8	10
T109	Ash	16	1050	12	10	10	12	2	Mature	Good vitality, balanced crown. Ivy heavy present.		20-40	A-B2	12.6	499
T110	Prunus	6	265	5	1	5	1	0.6	Mature	Poor struggling specimen. Mechanical damage on north side. Heavily clad in Ivy.		5-15	C2	3.2	32
G111	Hawthorn/Elder	2-5	160					0.3	Semi-Mature	Small trees all approx. 160mm DBH. Poor specimens heavily engulfed in Ivy and bramble.		5-15	C2	1.9	12
T112	Crack Willow	7	360	4	4	4	4	0.5	Mature	Multi-stemmed, average DBH 170mm. Evidence of historic branch failure throughout the canopy. Heavily engulfed in ivy and bramble.		20-40	C2	4.3	59
T113	Crack Willow	7	340	4	4	4	4	0.8	Mature	Multi-stemmed from base. Average DBH 150mm		20-40	C2	4.1	52
T114	Crack Willow	17.5	590	8	5	8	4	4	Mature	2 x stems 500,320. Good vitality. Leaning significantly to the north.		20-40	B2	7.1	157
T115	Crack Willow	17.5	480	6	6	4	7	3	Mature	Good specimen, good vitality. Bifurcates at 5m.		20-40	B2	5.8	104

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
G116	Crack Willow	8-19	200-600					2	Mature	8 x Willow trees. Several have failed but continued to grow. Significant evidence of poor unions throughout.		15-30	B-C2	7.2	163
T117	Goat willow	9	340	3	5	5	3	2	Mature	Multi-stemmed average DBH 170mm Poor canopy from regrowth.		15-30	C2	4.1	52
T118	Crack Willow	13.5	470	2	3.5	2.5	3	2	Mature	Multi-stemmed x 3 180,155, 410. Poor specimen, mechanical damage in canopy. Ivy heavily present.		15-30	B2	5.6	100
T119	Crack Willow	8	450	9	2	7	7	1.5	Mature	Large lateral branch on the western side. 50% of the crown leaning north.		10-20	B2	5.4	92
T120	Ash	7	320	5	5	5	5	1.5	Semi-Mature	3 x stems 220,170,150. Poor specimen multi stemmed from base. Bramble heavily present.		20-40	C2	3.8	46
T121	Elder	4.5	140	1	2	3	1	0.3	Mature	Poor specimen, heavily damaged on the north side. Bramble and ivy through out.		5-15	C2	1.7	9
T122	Ash	6	300	2	2	2	2	1	Semi-Mature	Multi-stemmed. Average DBH 150mm. Poor specimen. Declining at the tips D/W through-out.		<10	C2	3.6	41
T123	Goat willow	7	270	4	4	6	2	0	Mature	Tree has partially failed at base. Ivy present throughout.		10-20	C2	3.2	33
T124	Ash	8	360	4	4	4	2	1.6	Mature	Multi-stemmed average DBH 180mm poor specimen. Barbwire engulfed by stem. Declining		5-15	C2	4.3	59
T125	Goat willow	6	390	2.5	3	1	4	1	Mature	Poor specimen, ivy heavily present and history of failure.		10-20	C2	4.7	69
G126	1x Hawthorn, 3 x Ash	8-15	150-450					0.3	Semi-Mature	All trees multi-stemmed. Poor quality, heavy bramble and ivy. Ash dying back.		10-20	C2	1.5	7
T127	Crack Willow	7	380	5	5	5	4	1	Mature	2 x stems 270,270. Poor specimen, evidence of cavities and decay. History of failure.		10-20	C2	4.6	65
T128	Ash	10	380	6	6	6	6	1	Mature	Multi-stemmed average DBH 220 mm. Poor specimen. Good vitality through crown.		10-20	C2	4.6	65
G129	Hawthorn	4-7	160						Semi-Mature	All multi-stemmed trees. Average DBH 160mm. Ivy present.		15-30	C2	1.9	12
T131	Goat willow	8	450	8	7	6	10	2	Mature	2 x stems 340,290. Strong unions throughout. No evidence of failure. Good Vitality. Minor Deadwood. Good Tree		20-40	B-C2	5.4	92
T130	Goat willow	12	540	4	4	5	5	1.5	Mature	6 x stems. All approx. 220mm. Multi-stemmed from ground. Significant decay on all stems.		5-15	C2	6.5	132
G132	Hawthorn	6	350					0.3	Mature	2 x stems 250,250. good vitality.		15-30	C2	4.2	55
G133	6 x Leylandii	9	150-450					0.3	Mature	Average to poor vigour. Heavy growth of neighbouring vine on the south side.		10-20	C2	5.4	92

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
G134	10 x Field Maple	6	150					0.3	Semi-Mature	Small trees, average vitality. Engulfed by aggressive vine.		15-30	C2	1.8	10
T135	Field Maple	6	150	2	2	2	2	0.5	Semi-Mature	Poor specimen. Included bark at Burification. Covered in vine.		10-20	C2	1.8	10
T136	Leylandii	5	130	2	3	2	5	0.1	Semi-Mature	Poor specimen, strangled by encroached vine.		5-15	C2	1.6	8
T137	Crack Willow	7	530	6	5	5	3	0.6	Mature	3 x stems 330,290,290. Poor specimen, evidence of decay. Ivy present throughout.		10-20	C2	6.4	127
T138	Goat willow	8	350	8	1	6	3	0.6	Mature	2 x Stems. 240,250 Partially failed.		10-20	C2	4.2	55
T139	Goat willow	10	530	6	2	4	4	2	Mature	2 x stems 420,320. Poor specimen, decay evident. Ivy present		10-20	B-C2	6.4	127
T140	Poplar	12	410	4	6	3	7	2	Semi-Mature	Canopy vigour good. Historic failure. Slight lean to the north/east.		20-40	B-C2	4.9	76
G141	2x Willow, 1 x Elder 3 x Hawthorn.	10	210					0	Mature	Average stem DBH 210mm. Poor specimens, poor vitality. Undermined by rabbits		15-30	C2	2.5	20
T142	Goat willow	10	490	3	3	5	6	3	Mature	multi-stemmed average DBH 280mm. Poor Specimens		10-20	B-C2	5.9	109
T143	Crack Willow	11	760	12	1	1	12	0.5	Mature	Partially failed north bound, continues to grow.		10-20	C2	9.1	261
G144	2 x Goat willows	8	400					0.5	Mature	2 x Stems 290,280. Poor specimen. Poor unions throughout. Dead wood in canopy.		10-20	B-C2	4.8	72
T145	Crack Willow	7	290	1	4	2	3	1	Semi-Mature	Poor specimen. Cavity and decay at base		10-20	C2	3.5	38
T146	White Willow	23	850	10	12	10	10	3	Mature	Burificates at 5 metres, strong union. Historic failures in canopy. Good vitality. Slight swelling at base at 2 m. Fine landscape tree.	Remove broken branches.	>40	A-B2	10.2	327
G147	4 x Willows	8	470					1.5	Mature	All multi-stemmed from ground. Average DBH 270mm. Historic failure throughout. Cavity and decay evident.		10-20	C2	5.6	100
T148	Crack Willow	6	140	1.5	2.5	3	2	1.5	Mature	Straight stem. Vitality good. Slight lean to the east.		20-40	C2	1.7	9
T149	Crack Willow	6	300	5	4	4	5	5	Mature	Vitality good, no cavities present. Slight eastern lean.		20-40	C2	3.6	41
T150	Crack Willow	6	270	6	2.5	1.5	2	0	Mature	Poor specimen, leaning to the north		10-20	C2	3.2	33
G151	5 x Willow 3 x Hawthorn	8	280					0.5	Mature	Average DBH 280mm. Poor specimen, cavities and decay evident through out, but providing screening.		10-20	C2	3.4	35
T152	Hawthorn	8	320	2	2	3	4	1	Mature	Good vitality, good canopy spread. Good tree		15-30	B-C2	3.8	46
T153	Ash	12	450	6	7	4	5	4	Mature	Good canopy spread. Average vitality. Burificates at 4m, strong wide union. Minor deadwood. Willow stem resting in south of crown.	Remove Willow stem	20-40	B2	5.4	92

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T154	Hawthorn	8	430	5	5	1	4	1.5	Mature	4 x stems 250,250,180,160. Good vigour. Encroaching into T155's canopy.		10-20	C2	5.2	84
T155	Ash	15	570	8	7	1	7	6	Mature	Burificates at 1.8m. Included bark but tree reaction wood is good.		20-40	C2	6.8	147
T156	Ash	15	430	8	3	2	2.5	6	Mature	Burificates at 3.5m. Strong union. Significant epimoric growth in crown.		20-40	C2	5.2	84
T157	Oak	16	710	8	10	12	12	3.5	Mature	2 long laterals on the north and south side. Good vitality and balanced crown. Evidence of failure 6m on south side. Minor deadwood throughout. Strong unions.		>40	A-B2	8.5	228
T158	Ash	16	460	8	5	1	5	4.5	Mature	Single stem with a northern lean. Significant cavity at 3m from branch failure. Average specimen		20-40	B-C2	5.5	96
T159	Ash	15	650	8	5	11	3	2	Mature	Large lateral branch on the eastern side. Signs of dieback throughout canopy.		10-20	B-C2	7.8	191
T161	Hawthorn	5	370	3.5	3.5	3.5	3.5	1	Mature	Burificates at 1m. Good balanced canopy. 2 x stems 300mm 220mm. Average vitality		15-30	C2	4.4	62
T161a	Elder	5	150	3.5	3.5	3.5	3.5	1.5	Mature			5-15	C2	1.8	10
T162	Hawthorn	5	250	1.5	1.5	2	3	1	Mature	Co-dominant from base. Evidence of nails in trunk at 2m. Poor specimen, poor vitality. Stems DBH. 170,150,100		10-20	C2	3.0	28
T163	Hawthorn	4.5	310	3	2	4.5	4.5	0.5	Mature	Poor specimen. Good vitality. Multi-stemmed from 0.5m. DBH 180,180,180.		10-20	C2	3.7	43
T164	Hawthorn	6	240	2	1	1	3	3	Mature	Multi-stemmed. DBH 170,170. Tight co-dominant union. Good supporting reaction growth.		10-20	C2	2.9	26
T165	Hawthorn	6	300	1.5	3	1.5	1.5	3	Mature	Tight co-dominant union at 1m. Evidence of included bark. Mechanical damage on north side. Stem DBH 220, 200		10-20	C2	3.6	41
T166	Hawthorn	5	330	4	3	2	2	1.5	Mature	Average vitality through canopy. Poor structure. Deadwood throughout.		10-20	C2	4.0	49
T167	Hawthorn	6	340	2	3	4	1	0.5	Mature	Stem DBH 190,240,110,100. Good vitality. Multi-stemmed from base. Poor specimen.		15-30	C2	4.1	52
T168	Hawthorn	6	400	1	4	2	2	0.5	Mature	Multi-stemmed 5 x approx. 180mm DBH		10-20	C2	4.8	72
T169	Hawthorn	6	360	2	3.5	3	2	0.5	Mature	Good vitality, good canopy spread. Mechanical damage on N/W side.		15-30	C2	4.3	59
T170	Hawthorn	6.5	290	1	1	4.5	1	1	Mature	Good vitality, canopy lean to the east. Bifurcates at 2m. Good specimen	Remove to construct new road.	15-30	B-C2	3.5	38
T171	Field Maple	5.5	250	2	2	3	1	0.3	Semi-Mature	Poor specimen, evidence of included bark. Good vitality. DBH. 190,160		15-30	C2	3.0	28

Richfield Avenue

Appendix BBS 5837: 2012 Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T172	Field Maple	4	230	0	3	3	3	0.5	Semi-Mature	Poor specimen, Stem DBH. 130,130,130.		10-10	C2	2.8	24
T173	Pine	6	120	0.5	0.5	0.5	0.5	1.5	Early Mature	Average vitality. Closely planted among the field maples.		20-40	C2	1.4	7
T174	Field Maple	5.5	160	1	4	2	4	2	Semi-Mature	Mechanical damage on the north side of trunk. Poor vitality.		10-20	C2	1.9	12
T175	Field Maple	6.5	260	1	4	3.5	3	2	Mature	Average form and average vitality.		10-20	C2	3.1	31
T176	Field Maple	6.5	210	4	2	2	3.5	2	Semi-Mature	Co-dominant from base average specimen poor vitality		10-20	C2	2.5	20
T177	Field Maple	5	250	2	1	2	3	1.8	Semi-Mature	Poor specimen. Evidence of mechanical damage at truck. In decline		<10	C2	3.0	28
T178	Pine	6.5	250	3	2	2	2	4	Early Mature	Average vitality. Good specimen.		>40	C2	3.0	28
T179	Field Maple	6	420	4	4	1	4	1.8	Mature	Burification at 1.5m. DBH 270,320mm. Good vitality and strong wide union.		15-30	C2	5.0	80
T180	Field Maple	6	270	1.5	3	4	1	1	Mature	Good specimen. Straight trunk. Good vitality.		15-30	C2	3.2	33
T181	Field Maple	4.5	160	3	1	3	0	1	Semi-Mature	Bifurcates at 2.5m. Average vitality. Poor historic pruning.		10-20	C2	1.9	12
T182	Pine	6	190	0.5	0.5	0.5	0.5	3	Early Mature	Average specimen, average vitality. Located directly under T192		20-40	C2	2.3	16
T183	Field Maple	9	310	5.5	4	5.5	5.5	4	Mature	Good vitality. Good specimen. Nice tree		15-30	B2	3.7	43
T184	Field Maple	5	220	2	3	0	2	3	Semi-Mature	Good vitality. Average specimen.		15-30	C2	2.6	22
T185	Pine	7	220	0	1	1	1	2.5	Early Mature	Poor vitality, average specimen.		20-40	C2	2.6	22
T186	Field Maple	5	220	2	2	1	3	2.5	Semi-Mature	Good vitality, strong unions		15-30	C2	2.6	22
T187	Pine	10	390	3.5	3.5	3.5	3.5	3	Semi-Mature	Good vitality, strong straight trunk. Growth predominantly on the eastern side.		20-40	B-C2	4.7	69
T188	Pine	10	290	2	2	2	2	3	Semi-Mature	Good vitality, strong straight trunk. Growth predominantly on the western side		20-40	B-C2	3.5	38
T189	Weeping Willow	11.5	420	4	4	5	4	2	Early Mature	Good canopy spread. Mulch piled up high to base. Cavity at base on western side. Evidence of swelling		20-40	B2	5.0	80
T190	Oak	11.5	550	5	5	6.5	5	2	Early Mature	Great balanced canopy. Burification at 3m. Strong unions. Good vitality. Good specimen.		40>	A-B2	6.6	137

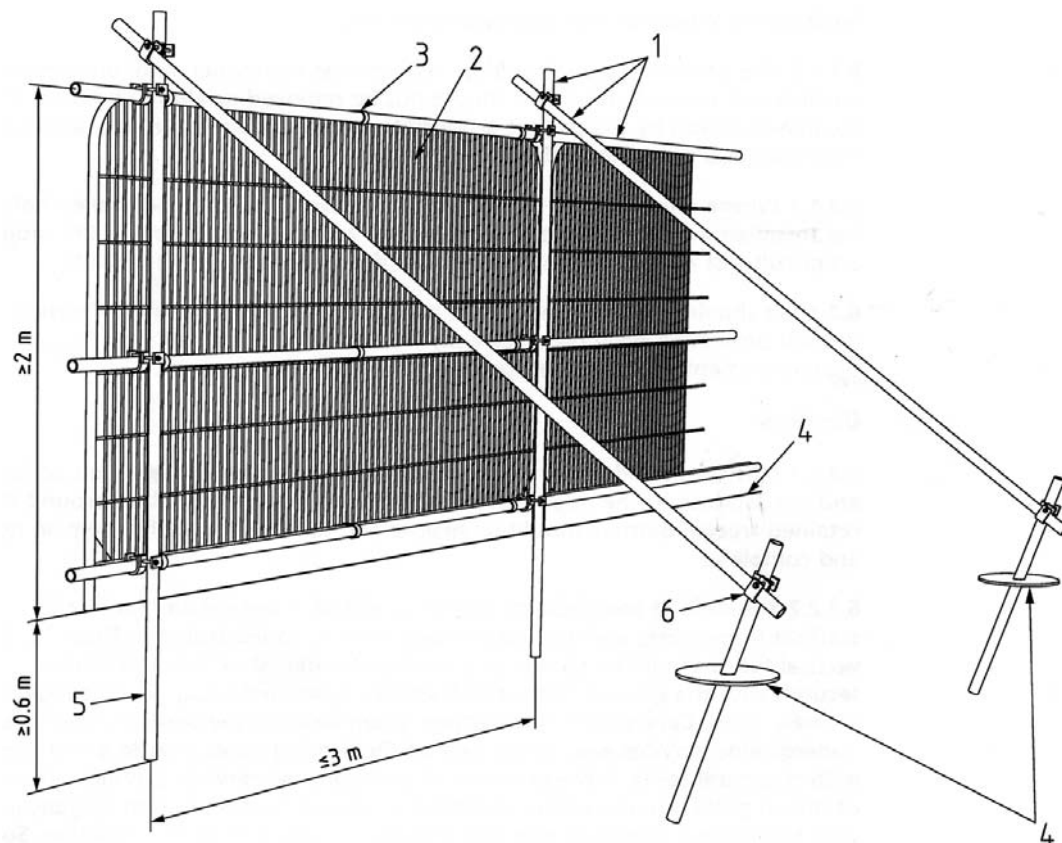
BS 5837:2012, Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Figure 2

Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m galvanised 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



Examples of above-ground stabilising systems

Figure 3a

Stabiliser strut with base plate secured with ground pins

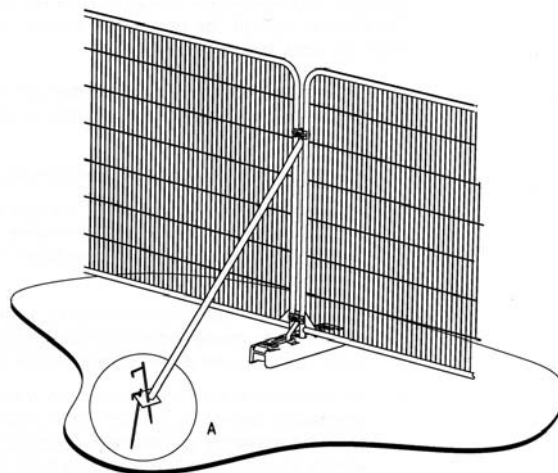
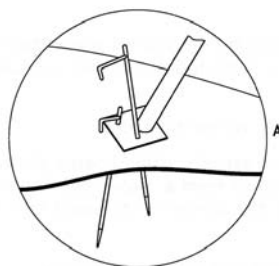


Figure 3b

Stabiliser strut mounted on block tray

