



ED.15.1.9

Bishopton Lane, Stratford-on-Avon

Pre-development Tree Survey Report

May 2015

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1.0 Terms of Reference

- 1.1 We are instructed by CSa Environmental Planning, on behalf of Miller Strategic Land & Taylor Wimpey UK, to undertake a tree survey of land at Bishopton Lane, Stratford-on-Avon. The survey and report is in line with B.S. 5837: 2012 'Trees in relation to design, demolition & construction - Recommendations'.
- 1.2 This is a pre-development advisory document designed to inform conceptual design and operational planning by highlighting the above and below ground arboricultural constraints in the context of proposed development.
- 1.3 All trees within the survey boundary have been inspected from ground level only. Should further more detailed inspection be deemed appropriate, this will be covered under Recommendations. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on a number of external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.
- 1.4 This survey and report has been completed by Richard O'Shea, who holds the formal qualification FdSc in Arboriculture and the LANTRA Certificate in Professional Tree Inspection. Richard is also a Professional member of the Arboricultural Association.
- 1.5 This report, its appendices and any subsequent revisions or additional information, may form part of a formal planning application in respect of the development of this site, and as such will be open to public scrutiny and comment.

2.0 Survey Methodology

- 2.1 The trees have been assessed using the current recommendations, as detailed in British Standards BS5837: 2012, in order to arrive at a Quality Category for each individual tree or group of trees. For full details of the assessment criteria see 'Table 1. Cascade chart for tree quality assessment' of BS5837:2012, shown in Appendix 2.
- 2.2 A Root Protection Area (RPA) has been assigned to each tree, calculated using the stem diameter at 1.5 metres above ground level. The RPA of all trees and groups have been plotted on the Tree Constraints Plans in addition to stem locations, canopy spreads and quality categories (drawings 1028.01-D-001/002/003 are attached as Appendix 3).
- 2.3 All trees, groups of trees and hedges surveyed have been given an identification reference T1-T73, G1-G6 and H1-H14. All collected survey data and work recommendations for individual trees and groups of trees are presented in the survey schedule which forms Appendix 1 to this report.
- 2.4 The scope of the survey was based on the extent of the Topographical survey provided (Ref: 2313-24Jan_08-01/02/03/04 and 05). The position of trees has been recorded using the Topographical survey, where trees were not shown their position was approximated using onsite observations. Groups have been defined by their similar characteristics such as species and age composition, condition and quality. Individual trees with a stem diameter below 75mm have not been recorded during the survey.
- 2.5 All trees and groups have been surveyed to record tree species, age class, diameter at breast height (dbh), height, crown spread, condition, estimated remaining contribution, recommendations, Quality Category and Root Protection Area (RPA).

3.0 Site Overview

- 3.1 The site is a strip of agricultural land sandwiched between the A46 and Bishopton Lane; there are basically 3 arable fields and 1 pastoral field at the east end adjacent to the canal. The ground is undulating, being higher at the west end and sloping down towards the flat eastern section.
- 3.2 The soils are Denchworth clays, which are slowly permeable. There are several wet areas over the fields indicative of the poorer drainage on this soil type.
- 3.3 The tree population is almost exclusively located on the site boundaries, and hedgerows define the field boundaries. There are no field trees in the arable areas with the exception of 3 former hedgerow oaks adjacent to the easternmost grass field.
- 3.4 The majority of the individual trees are located in the hedge or on the verge adjacent to Bishopton Lane. There is also a strip of early-mature broadleaf trees planted alongside the A46 on highways land. Most of the remaining trees are located in or around Spa Farm garden, which is adjacent Bishopton Lane to the east of the site.
- 3.5 There are various hedgerows bordering and dissecting the site; some are older enclosure hedges while the hedges bordering the new planting along the A46 (H1, H2 and H3) are approximately 30 years old.

4.0 Summary of Findings & Conclusions

4.1 A total of **73**no. Individual trees **6**no. Groups of trees and **14** hedgerows have been surveyed. A breakdown of the numbers of tree features in each quality category can be seen in the table below:

Quality Category	Individual Trees	Groups of Trees	Totals
A (trees of high quality with an estimated remaining life expectancy of at least 40 years)	T56, T58, T62, T65, T66, T67	-	6
B (trees of moderate quality with an estimated remaining life expectancy of at least 20 years)	T1, T2, T5, T6, T7, T8, T11, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T26, T30, T31, T32, T33, T36, T38, T40, T41, T47, T48, T49, T50, T52, T53, T57, T59, T60, T68, T71	G1, G2, G3, G6	44
C (trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm)	T3, T4, T9, T10, T12, T28, T34, T35, T39, T42, T43, T44, T45, T46, T51, T54, T55, T61, T63, T64, T69, T70, T73	G4, G5	25
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)	T27, T29, T37, T72,	-	4
Totals	73	6	<u>79</u>

4.2 All A & B Category trees (high & moderate quality) will under normal circumstances be retained on or adjacent to development sites, and should ideally influence and inform the conceptual design, site layout, and in some cases the specific construction methods to be used.

4.3 On this site there are 6 trees that have been assigned A Category in respect of their high arboricultural merit and particular visual importance within the local landscape. The 6 mature oaks form prominent features adjacent Bishopton Lane (T56, T58, T62) and along a former field boundary to the east of the site (T65, T66 and T67). They have been crown lifted in the past and have sustained storm damage of varying degrees but are generally in good to fair condition.



Image1: T65, T66, T67, field boundary oaks viewed from the south east.

4.4 A significant proportion of tree cover is B Category and largely comprises hedgerow trees and planted individual's adjacent Bishopton Lane. They are early-mature broadleaves that are in good condition and provide a degree of visual amenity lining the highway. Ash species are dominant with frequent silver birch and Norway maple and occasional field maple, rowan, lime and common alder.



Image2: T15-T20, silver birch and ash lining Bishopton Lane, viewed from the west.

- 4.5 A strip of broadleaved plantation runs along the northern boundary of the site adjacent the A46. The groups (G1, G2) comprise a mix of relatively young native species that include ash, wych elm, field maple, silver birch, hawthorn, blackthorn, goat willow, oak and cherry. The plantation has potential to provide a valuable natural screen/sound buffer between the highway and any future development proposals.
- 4.6 The remaining element of tree cover is C Category and U Category and mainly comprises planted amenity trees and self-sown hedgerow trees that are of low value or unsuitable for retention due to their young age, small size, impaired condition or limited life expectancy.
- 4.7 It may not always be possible or desirable to retain low quality trees within the context of a proposed development, unless in such a location that they do not represent a significant constraint to the design brief. Young trees, and those with a stem diameter of less than 150mm, will normally be placed in the C category, unless it is considered that they are of especially good form or are of a species that is particularly rare, in which case they may be upgraded. In certain cases it may be appropriate to consider re-location of young C category trees within the site.
- 4.8 The U Category trees have been recorded due to the presence of irremediable defects and a reduced life expectancy. These should generally be removed for reasons of sound arboricultural practice or health & safety, irrespective of any development proposals, unless they offer particular conservation value to the site. Trees T27, T29 and T37 are small roadside amenity trees and do not pose a significant health and safety issue due to their small size and T72 is a dead 5m high stem within a hedgerow that should be retained for wildlife habitat where possible.
- 4.9 Hedges have been recorded as part of the tree survey but have not been assigned a category as they are not assessed in accordance with BS5837:2012.
- 4.10 The hedgerows are generally comprised of native species such as hawthorn blackthorn, elm, field maple, ash and hazel and border the site or divide up the fields. Small sections of evergreen hedge including Leyland cypress and common Laurel form screening along the garden boundary of Spa Farm.

- 4.11 In summary, the vast majority of trees on the site are confined to the field boundary along Bishopton Lane. This provides opportunities for the large open areas of the site to be developed with minimal arboricultural constraints. This is favorable for retention and integration of a substantial proportion of the trees within any future development scheme.

5.0 Recommendations

- 5.1 The Root Protection Area (RPA) represents the minimum area around each tree that must be left undisturbed to ensure their survival. The RPA and/or crown spread of individual trees and groups will generally form a construction exclusion zone; under certain circumstances it may be possible to build or operate within these areas providing that appropriate measures and specifications have been formally agreed between the Local Planning Authority, the consulting arboriculturalist and the developer / client.
- 5.2 The construction exclusion zone should be suitably protected with appropriate temporary fencing for the duration of the demolition (where applicable) and construction phases of the development; exact specifications for this will depend on the nature of the proposed development. Generic specifications for protective fencing and other tree protection measures can be obtained from British Standards 5837: 2012 (Section 6.0); precise and specific recommendations can be defined following the drawing up of detailed plans by the project arboriculturalist.
- 5.3 The project arboriculturalist should be consulted throughout the conceptual design and operational planning stages to provide technical input and an Arboricultural Impact Assessment (AIA) should be produced as part of the detailed design process. The AIA will evaluate the direct and indirect effects of any proposals and detail tree protection measures and provide mitigation recommendations where necessary.
- 5.4 All tree work recommendations are based on the existing land use and are detailed in the Tree Survey Schedule (Appendix 1). All tree works must only be carried out by suitably qualified and experienced contractors, and should conform to guidelines set out in British Standards 3998: 2010 'Tree work – Recommendations'.

6.0 Statutory Obligations

- 6.1 Works to trees which are covered by Tree Preservation Orders [TPOs] or are within a Conservation Area [CA] require permission or consent from the Local Planning Authority [LPA]. It is necessary to gain confirmation from the LPA of any TPOs or CAs on the site, and to follow the necessary application procedure if tree surgery or indeed felling, is required in respect of protected trees. Full planning consent will however, override the need for a separate application, providing that details of all tree works were included in the submission and subsequently approved by the local authority.
- 6.2 Stratford-on-Avon Council has been contacted and we are currently awaiting a response to confirm whether trees within the site are protected by a TPO or Conservation Area status.
- 6.3 It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981 and the 'Conservation of Species and Habitats Regulations 2010'. Therefore, avoid carrying out significant tree works during the bird nesting season [mid-March to end of July] and ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any tree work.

APPENDICES

- 1. Tree Survey Schedule**
- 2. Survey Criteria and Categorisation**
- 3. Tree Constraints Plan (A3)**

Appendix 1
Tree Survey Schedule

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
INDIVIDUAL TREES															
T1	Ash	MA	13	5	5	6	6	2	650	M	40+	Original hedgerow tree. Moderate deadwood. Past crown lifted and minor branch failures.		B,2	7.8
T2	English oak	MA	13	4	3	5	6	2	550	M	40+	Original hedgerow tree. Minor crown dieback and deadwood. Past crown lifted. Asymmetric crown bias east - recent failure of pear tree to east.		B,2	6.6
T3	Ash	MA	9	4	2	4	5	2	400	P	10-20	Original hedgerow tree. Biased crown. Ivy. Moderate dieback and deadwood.		C,2	4.8
T4	Ash	MA	12	5	3	5	3	3	400	M/P	10-20	Past crown lifted. Original hedgerow tree. Moderate upper crown dieback. Deadwood. Asymmetric crown.		C,2	4.8
T5	Ash	MA	12	5	7	5	5	1.5	700	MG	40+	Past crown lifted. Original hedgerow tree. Ivy. Minor deadwood. Low limb to east.	Sever ivy.	B,2	8.4
T6	Ash	MA	9	4	3	2	3	2	330	G	40+	Past crown lifted over the road.		B,2	4
T7	Field maple	MA	7	3	3	3	3	2	260	G	40+	Past crown lifted over the road. Dense canopy.		B,2	3.1
T8	Silver birch	MA	8	2	2	2	2	2.5	220	MG	20-40	Past crown lifted. Basal wound (mowing).		B,2	2.6
T9	Ash	MA	8	4	3	3	3	2.5	380	M	10-20	Past crown lifted. Breakout scar plus broken branch on roadside. Previously cut at hedge height with regrowth. Basal sub-stem is crossing/wounding main stem.	Remove broken branch. Recut with hedgerow.	C,2	4.6
T10	Lime	Y	6	2	2	2	2	2	170	G	40+	Crossing and broken branches. Metal pipe wedged at base (former support to tree). Past crown lifted with minor wounds.	Formative prune / remove pipe.	C,2	2
T11	Ash	M	16	6	6	7	6	4	690	MG	20-40	Past tree surgery (crown lifted). Old coppice. Heavy basal flare. Twin stem at 4m, good open crown form.		B,2	8.3
T12	Lime	Y	6	2	2	2	2	2	170	G	40+	Basal wound (minor). Metal pipe wedged at base (former support to tree). Past crown lifted with minor wounds.	Formative prune / remove pipe.	C,2	2
T13	Silver birch	MA	16	3	3	3	3	3	350	G	20-40	Past crown lifted with wounds. Good form.		B,2	4.2
T14	Silver birch	MA	12	3	3	3	3	3	290	G	20-40	Past crown lifted with wounds. Basal wound.		B,2	3.5
T15	Silver birch	MA	9	2	2	2	2	3	210	G	20-40	Past crown lifted with wounds. Reduced crown density and slight roadside lean.		B,2	2.5

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T16	Silver birch	MA	8	2	3	2	2	3	220	G	20-40	Past crown lifted with wounds.		B,2	2.6
T17	Ash	MA	9	4	3	3	4	3	400	MG	40+	Multi-stem at 3m. Crown lifted over road with wounds. Basal wound, canker on trunk and minor deadwood.		B,2	4.8
T18	Ash	MA	12	5	5	5	5	4	510	MG	40+	Twin stem at 2m. Crown lifted over the road. Minor deadwood.		B,2	6.1
T19	Ash	MA	12	5	5	5	4	4	460	G	40+	Twin stem at 2m. Crown lifted over the road. Canker on trunk and minor deadwood.		B,2	5.5
T20	Ash	MA	9	5	5	4	5	4	420	G	40+	Broad open crown. Crown lifted over road.		B,2	5
T21	English oak	OM	16	6	6	6	6	4	1000	M	20-40	Hedgerow tree. Dieback and retrenchment. Heavy burring on trunk / stems.		B,2	12
T22	Silver birch	MA	9	2.5	2	2.5	1	3	280	MG	20-40	Crown weighted east. Stem/branch wound at 2m.		B,2	3.4
T23	Silver birch	MA	10	2	2	3	2	3	300	G	20-40	Past crown lifted. Good form.		B,2	3.6
T24	Silver birch	MA	10	2	2	2	2	3	240	G	20-40	Past crown lifted.		B,2	2.9
T25	Silver birch	MA	11	2	2	3	2	3	270	G	20-40	Past crown lifted.		B,2	3.2
T26	Silver birch	MA	10	1	2	3	2	3	210	MG	20-40	Past crown lifted. Crown bias over the road.		B,2	2.5
T27	Rowan	Y	3	1	1.5	1	1	1.5	100	MP	-10	Poor form and vigour. Tag 2812. Crown lifted with wounds.		U	N/A
T28	Common alder	Y	5.5	1.5	1.5	1.5	1.5	2	180	MG	10-20	Single stem.		C,2	2.2
T29	Rowan	Y	3	1	1	1.5	1	1.5	100	MP	-10	Poor form, suppressed by young hedgerow ash.		U	N/A
T30	Ash	MA	9	4	4	4	4	3	420	MG	20-40	Past crown lifted. Stem wounds and crown epicormics.		B,2	5
T31	Lime	MA	7	3	3	3	3	3	240	G	40+	Past crown lifted. Good form, balanced crown.		B,2	2.9
T32	Field maple	MA	9	4	4	4	4	3	330	G	40+	Past crown lifted with wounds. Multi-stem at 1.5m and dense canopy.		B,2	4
T33	Ash	MA	9	4	4	4	4	3	240 / 240	G	40+	Past crown lifted. 2 stems at 1.5m		B,2	4.1
T34	Norway maple	MA	8	3	3	3	3	2	240	G	20-40	Past crown lifted. Multi-stem at 2m.		C,2	2.9
T35	Rowan	Y	3	1	1.5	1	1	1	100	MP	10-20	Twin stem at 0.5m Dieback and poor form.		C,2	1.2
T36	Norway maple	MA	8	3.5	3.5	3.5	3.5	3	280	G	20-40	Past crown lifted. Multi-stem at 2.5m.		B,2	3.4

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T37	Common alder	MA	4	1	1.5	1	1	2	50 / 80 / 80 / 110	P	-10	Past tree surgery (crown lifted). 4 stems at 1m. Thin crown / deadwood. Major dieback - 2 dead stems.		U	N/A
T38	Common alder	MA	8	2	2	2	2	3	280	MG	20-40	Past crown lifted. Minor included branch/stem union.	Formative prune (remove sub-stem).	B,2	3.4
T39	Hornbeam	Y	7	1	2	2	2	2	170	MG	20-40	Ivy-clad. Large stem wound on south side. Stem lean east.		C,2	2
T40	Norway maple	MA	9	4	3	4	3	2	320	MG	20-40	Past tree surgery (crown lifted). Ivy on trunk. 4 stems at 2m. Minor wound / deadwood.	Sever ivy.	B,2	3.8
T41	Field maple	MA	9	4	4	4	3	2	330	G	40+	Past tree surgery (crown lifted). Multi-stem from 2m.		B,2	4
T42	Norway maple	Y	5	1	1.5	1	1	3	100	MG	10-20	Suppressed by adjacent field maple. Stem wound.		C,2	1.2
T43	Norway maple	Y	7	2	2	2	2	3	120/140	MG	10-20	Twin-stemmed. Minor basal bark inclusion.		C,2	2.2
T44	Norway maple	Y	7	2	2	2	2	3	150	G	20-40	Sweeping stem. Reasonable crown form.		C,2	1.8
T45	Ash	MA	7	3	3	3	3	3	150/150/180/200	M	10-20	4 stems from ground level: infolded bark at union. In third party garden boundary.		C,2	4.1
T46	Ash	MA	9	3	3	4	3	3	150/150/200	M	20-40	In third party land; garden boundary/hedgerow. 3 stems from ground level: infolded bark at union. Bias south.		C,2	3.5
T47	Ash	MA	16	5	4	4	4	4	250/300/350	M	20-40	3 basal stems: infolded bark at union. In third party land; garden boundary. Reduced vigour and minor deadwood.		B,2	6.3
T48	Common walnut	MA	6	2.5	2.5	2.5	2.5	1.5	210	G	40+	On edge of G3 on garden boundary.		B,2	2.5
T49	Horse chestnut	MA	12	4	4	4	4	0.5	200 / 250 / 300	MG	40+	3 stems at 0.5m: infolded bark. Good crown health.		B,2	5.3
T50	Common walnut	MA	9	2.5	2.5	2.5	2.5	1.5	230	G	40+	On edge of G3 on garden boundary.		B,2	2.8

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T51	Field maple	Over M	3	1	1	2	2	1.5	580	P	-10	Top broken off at 3m. <i>Ganoderma adspersum</i> bracket at base: basal damage and extensive stem rot. Live branches on west side of trunk. RPA reduced.	Retain within hedgerow where possible.	C,3	2
T52	English oak	MA	12	3.5	3.5	3.5	3.5	5	320	G	40+	Within garden boundary. Past crown lifted. Power line through crown.		B,2	3.8
T53	Ash	MA	9	3	4	3	4	5	320	G	40+	Within garden boundary. Past crown lifted. Power line through crown.		B,2	3.8
T54	Cherry	M	7	4	3	2	3	3	250	MP	10-20	3 stems from 1.75m. 1 stem has bark wound. Past tree surgery over road. Power line through crown. Moderate deadwood.		C,2	3
T55	English oak	MA	8	2	1	3	4	4	270	M	20-40	Suppressed by mature oak. Some dead stems. Past tree surgery over road and power line.		C,2	3.2
T56	English oak	M	20.5	10	9	10	8	5	1080	MG	40+	Prominent roadside tree. Broad spreading crown. Past tree surgery over road, leaving dead stubs. Moderate deadwood. Power line in lower crown.	Remove deadwood over the road	A,2	13
T57	Ash	MA	13.5	3	2	3	2	5	320	G	40+	Within conifer hedge. Forks at 4m and reasonable form. Past tree surgery; branches removed over road.		B,2	3.8
T58	English oak	M	19	9	9	9	11	3	1200	MG	40+	Prominent roadside tree. <i>Inonotus dryadeus</i> bracket (old) at base; in one flute only (noted during 2012 survey). Breakout scar at 6m on south side of trunk; further breakout scars/stubs in crown. Moderate deadwood. Power line in lower canopy.	Reduce crown spread over road by 3-4m. Crown clean.	A,2	14
T59	English oak	M	13	5	5	5	5	3	700 (OI)	MG	40+	Heavily Ivy clad. Minor deadwood throughout crown. Old pruning stubs over road.	Sever ivy.	B,2	8.4
T60	English oak	M	12	5	5	5	5	2	750 (OI)	M	20-40	Heavily Ivy clad. Thin crown, moderate deadwood.	Sever ivy.	B,2	9
T61	Ash	MA	8	2.5	2.5	2.5	2.5	1.5	290 / 170	M	10-20	Multi stemmed (2 stems at 0.25m). Poor form although union good. Past tree surgery: roadside branches removed.		C,2	4

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T62	English oak	M	14	10	8	6	10	4	1100 (OI)	M	40+	Stunted broad spreading crown. Heavily Ivy clad. Past tree surgery: branch cut back over road with retained stubs.	Sever ivy.	A,2	13.2
T63	Crack willow	MA	10	1	2	6	2	4	260 (OI)	M	10-20	Lean towards road: unbalanced crown.	Coppice	C,2	3.1
T64	Crack willow	M	0.75	1	1	1	1	N/A	800 (agl)	M	10-20	Crack willow stool: recoppiced to ground with young regrowth. RPA adjusted.		C,2	3
T65	English oak	M	18	6	9	9	9	5	1010	MG	40+	Main branch forks at 6m. Minor trunk wounds. Deadwood up to 150mm throughout crown. Trunk growth flailed by hedgecutter. Spreading lateral branches. Rot hole to old callus wound at 3m on east side. Ploughed to west within 1m.		A,2	12
T66	English oak	M	19	7	8	6	8	5	1100	MG	40+	Forks at 8m. Deadwood upto 150mm throughout crown. Trunk growth flailed by hedgecutter. Spreading lateral branches. Ploughed to within 1m west side.		A,2	13
T67	English oak	MM	14	6	5	4	6	5	840	MG	40+	Main forks at 6m. Suppressed on south side. Minor deadwood. Breakout scar on eastern side of stem; largely occluded. Trunk growth flailed by hedgecutter. Ploughed to west within 1m.		A,2	10
T68	English oak	MA	11	4	5	4	4	0.5	340 / 360	G	40+	2 stems at 0.5m: minor infolded bark but sound fork at present. Minor low deadwood.		B,2	5.9
T69	English oak	Y	8	3	3	1	2	0.5	240	MG	40+	Suppressed by adjacent oak.		C,2	2.9
T70	English oak	Y	7	3	4	3	3	0.25	240	G	40+	Sub-stem twisted around trunk and crossing branches.	Reduce sub-stem.	C,2	2.9
T71	English oak	Y	6	3.5	3.5	3.5	3.5	0.5	390	G	40+	Wet ground around base. Open grown.		B,2	4.7
T72	Ash	MM	5	1	1	1	1	3	400 (OI)	D	-10	Dead stem - top broken at 5m. Ivy clad.		U	N/A
T73	English oak	MA	6	1	1	2	2	2	150 / 150 / 200	M	40+	3 stems at 1m: minor decay at union. Standing in wet ground within G5.		C,2	3.5

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
GROUPS OF TREES															
G1	Ash / Wych elm / Field maple / Silver birch / oak / goat willow / cherry / Native hedge (Blackthorn / Hawthorn)	MA	5-8					0	50-150	G	40+	Y trees at 1-2m spacing on A46 bank. Good future screening/sound buffer. Native hedge on top of bank behind trees: H2 is on field side.		B,2	To canopy edge
G2	Ash / Wych elm / Field maple / Silver birch / Dogwood / goat willow / Native hedge (Blackthorn / Hawthorn)	MA	5-8					0	50-150	G	40+	Y trees at 1-2m spacing on A46 bank. Good future screening/sound buffer. Native hedge on top of bank behind trees; H5 is on field side.		B,2	To canopy edge
G3	Common walnut (x6) / Apple trees (x4) / Hazel stools (x2)	MA	6-11					1	160-330	M-G	40+	Group of Walnut with some old Apple and 2 Hazel stools. Approx 6m spacings. Good vigour.		B,2	To canopy edge
G4	Common walnut (x3) / Horse chestnut (x2) / English oak (x1)	Y	1.5-4					0.5	25-150	MG	40+	Along garden boundary. Horse chestnut to east - recent branch failure. Walnut have reduced vigour.		C,2	To canopy edge
G5	Blackthorn	M	4-5					0	25-75	MG	40+	Dense Blackthorn clump: partially removed. Recently flailed.		C,2	To canopy edge
G6	Field maple	MA	9					3	200-250	G	20-40	3 trees; 2 single stem, 1 twin stem. Hedgerow trees - good individuals.		B,2	To canopy edge

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
HEDGES															
H1	Blackthorn / Hawthorn / Hazel / Wych hazel / Dog rose	MA	6	2					25-100	MG		Native hedge on highways side of fence. Some dead Hawthorn/ Blackthorn stems. Good 1m field margin. Edge flailed up to 4m.		N/A	N/A
H2	Blackthorn / Hawthorn / Hazel / Wych hazel / Dog rose	MA	6	2					25-100	MG		Continuation of H1 .Native hedge on highways side of fence. Some dead Hawthorn/ Blackthorn stems. Good 1m field margin. Edge flailed up to 4m.		N/A	N/A
H3	Blackthorn / Hawthorn / Hazel / Wych hazel / Dog rose	MA	6	2					25-100	MG		Continuation of H2. Native hedge on highways side of fence. Some dead Hawthorn/ Blackthorn stems. Good 1m margin.		N/A	N/A
H4	Blackthorn / Hawthorn	MA	1.5	2.5					25-75	G		Native hedge - decent. c.30 years old. Well trimmed for most part: good 'A' shape.		N/A	N/A
H5	English elm / Hawthorn / blackthorn / ash / Field maple / Bramble	M	4-7	3					50-150	M		Elm 30-50% of hedge: some stems dying back at north end around culvert. M hedge: larger Elm stumps within it. Good 1m margin. Edge flailed.		N/A	N/A
H6	Hawthorn / English elm / Field maple / Bramble	M	4-7	3					5-150	MG		Reasonable hedge: a lot of Bramble in base. Originally trimmed to 1.5m, and now allowed to grow on. Dead elm.		N/A	N/A
H6a	Hawthorn / English elm / Field maple / Blackthorn	M	1.5	2					25-75	M		Hedge trimmed to 1.5m. Decent basal width. Stops in middle of field.		N/A	N/A
H7	Hawthorn / English elm / Bramble / privet /Blackthorn / dogrose / field maple	M	2-8	3					10-150	M		Predominantly hawthorn with frequent elm and blackthorn. Some dead elm. Native hedge along Bishopton Lane.		N/A	N/A
H8	Hawthorn / English elm / Bramble / privet /Blackthorn / dogrose / field maple	M	2-8	3					10-150	M		Continuation of H7. Predominantly hawthorn with frequent elm and blackthorn. Some dead elm. Native hedge along Bishopton Lane.		N/A	N/A

No.	Species (common name)	Age class	Height (M)	Crown spread :				Crown clearance	Stem dia. (mm)	Condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
H9	Hawthorn / English elm	M	5-6	3					25-150	MG		First 15m at canal end still mature stems approx 5-6m high and ivy clad. Remainder is managed at approx 1.5m		N/A	N/A
H9a	Hawthorn hedge with some blackthorn and young planted trees (Horse chestnut / English oak / Swedish whitebeam / Ash)	MA	4-5	3					25-150	M-G		Garden-edge hedge with hedgerow trees.		N/A	N/A
H10	Blackthorn / Hawthorn / English elm	M	1.75	1.5					25-75	M		Trimmed hedge.		N/A	N/A
H11	Hawthorn / Ash (x1)	Over M	4-5	5					25-200	M		M Hawthorn hedge between ditch and canal. 1 Y Ash at south end. Gaps especially at south end to Bishopton Lane.		N/A	N/A
H12	Common laurel	MA	2-3	2					10-50	MG		Trimmed hedge. Chlorotic at east end.		N/A	N/A
H13	Leyland cypress	MA	5-9	3.5					250-400a gl	MG		Short section of hedge next to road at end of H9. Suppressed at roadside end by M Oak.		N/A	N/A
H14	Leyland cypress / Common laurel	MA	7-15	5					100-250	MG		Leyland cypress with some Laurel at east end near gateway. West side topped near ash.		N/A	N/A

Appendix 2

Survey Criteria and Categorisation

APPENDIX 2: SURVEY CRITERIA

Tree No.	Reference ID given to each tree or group of trees (unless tagged)
Species	Common name. Botanical name may be given if clarification is required
Age Class	Young, middle aged, mature or over-mature
Height	Estimated in metres
Crown Spread	Crown spread (North / East / South / West) measured from centre of trunk, in metres
Crown clearance	Approximate height between lowest part of canopy and ground level (metres)
Stem dia.	Trunk diameter/s (mm) measured at 1.5m above ground level, or other height as specified
Condition	Good, Fair, Poor or Dead based on the general physiological health and structural condition of the tree
Estimated Remaining Contribution	An estimation of the life expectancy in years, if the natural cycle of the tree is allowed to run its full course. (<10, 10-20, 20-40, 40+ years)
Comments	A brief description of the tree or group relating to its form, vitality and presence of any significant defects.
Recommendations	All tree work is based on current tree condition and the existing land use and will include work such as hazard abatement, encroachment pruning, thinning of groups/woods and good arboricultural practice.
Quality Category	Based on B.S.5837 Quality categories: A = Those of High Quality & Value B = Those of Moderate Quality & Value C = Those of Low Quality & Value U = Unsuitable for retention Subcategory values: 1) Arboricultural 2) Landscape 3) Cultural
RPA	Root Protection Area is based on stem diameter (mm) and is provided as the radius of circle measured in metres from centre of tree, or may be expressed as an area (m ²)

Tree Quality Categorisation

BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. p.9

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	<ul style="list-style-type: none"> 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 <p><i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>			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

Appendix 3
Tree Constraints Plan (A3)

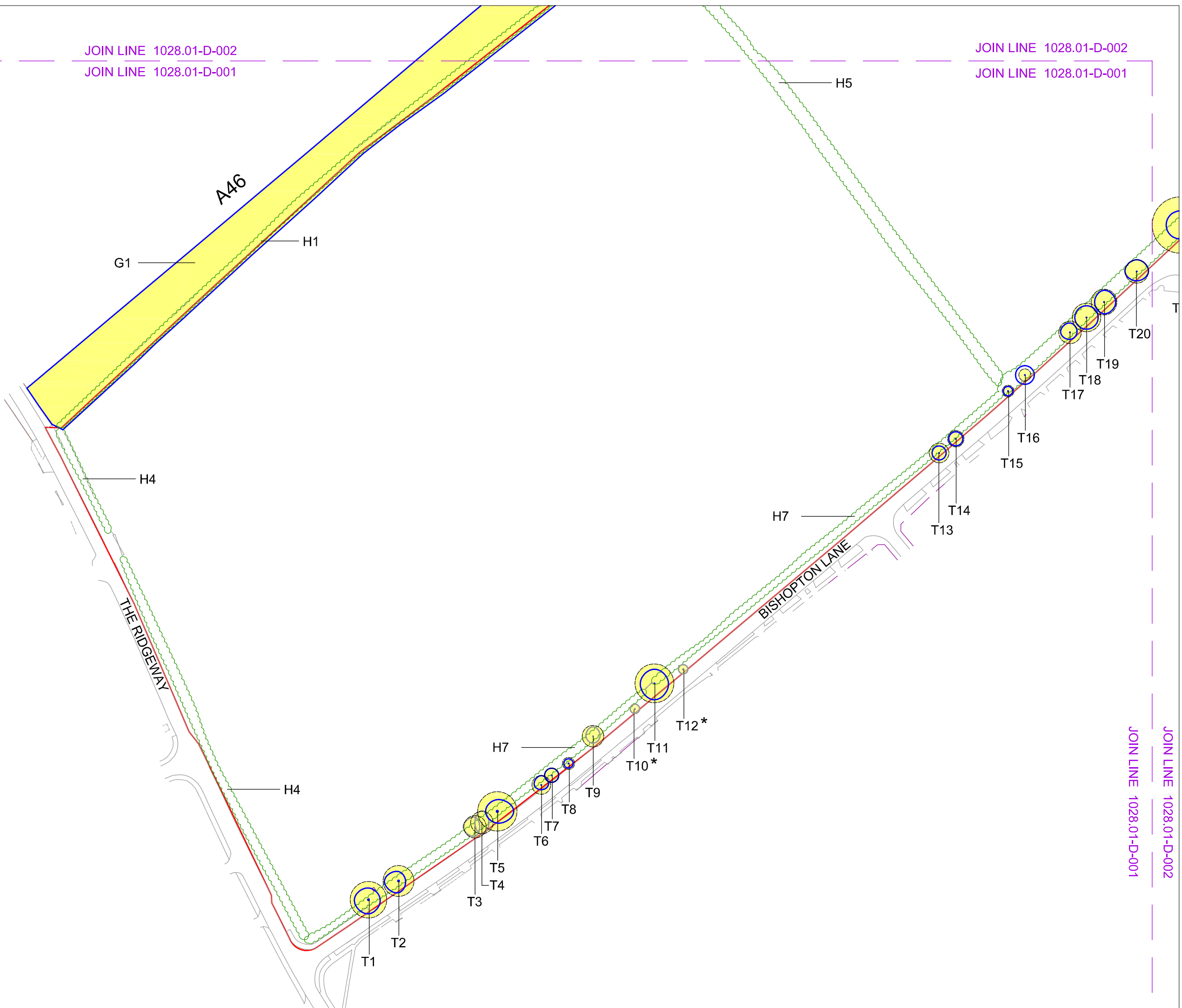


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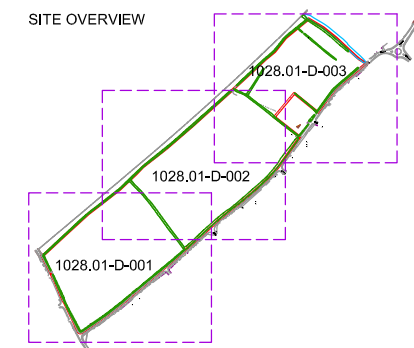
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JOIN LINE 1028.01-D-002

JOIN LINE 1028.01-D-001



- Crown spread of category A
- Trees/groups of high quality and value
 - Crown spread of category B
- Trees/groups of moderate quality and value
 - Crown spread of category C
- Trees/groups of low quality and value
 - Crown spread of category U
- Trees/groups unsuitable for retention
 - Root Protection Area (RPA)
 - Survey boundary
 - Approximate Tree Location
(Not shown on topographical survey)
 - Hedgerow / shrub vegetation
- NOTE: To be read in conjunction with tree survey schedule 1028.01-S-001



REVISIONS

REV	Date	Description

PROJECT INFO

Project:	Bishopston Lane Stratford-upon-Avon Tree Constraints Plan
Client:	Miller Strategic Land & Taylor Wimpey UK
Project No:	1028.01
Drawing No:	1028.01-D-001
Rev:	-
Scale:	1:1500 @ A3
Date:	28.04.15
Drawn:	JOS
Checked:	RO'S
Figure No:	1 of 3 see 1028.01-D-002 & 003



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JOIN LINE 1028.01-D-001

JOIN LINE 1028.01-D-002

JOIN LINE 1028.01-D-003

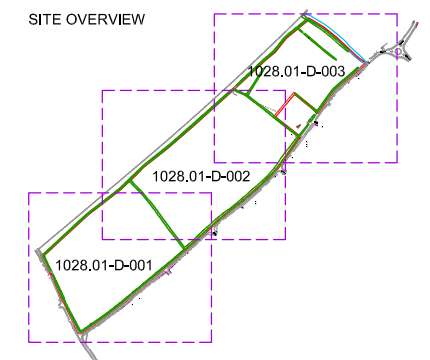
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JOIN LINE 1028.01-D-003

JOIN LINE 1028.01-D-002



-  Crown spread of category A
- Trees/groups of high quality and value
 -  Crown spread of category B
- Trees/groups of moderate quality and value
 -  Crown spread of category C
- Trees/groups of low quality and value
 -  Crown spread of category U
- Trees/groups unsuitable for retention
 -  Root Protection Area (RPA)
 -  Survey boundary
 -  Approximate Tree Location
(Not shown on topographical survey)
 -  Hedgerow / shrub vegetation
- NOTE: To be read in conjunction with tree survey schedule 1028.01-S-001



REVISIONS

REV:	Date:	Description:

PROJECT INFO

Project: Bishopton Lane
Stratford-upon-Avon
Tree Constraints Plan

Client: Miller Strategic Land &
Taylor Wimpey UK

Project No: 1028.01

Drawing No: 1028.01-D-002

Rev: -

Scale: 1:1500 @ A3

Date: 28.04.15

Drawn: JOS

Checked: RO'S

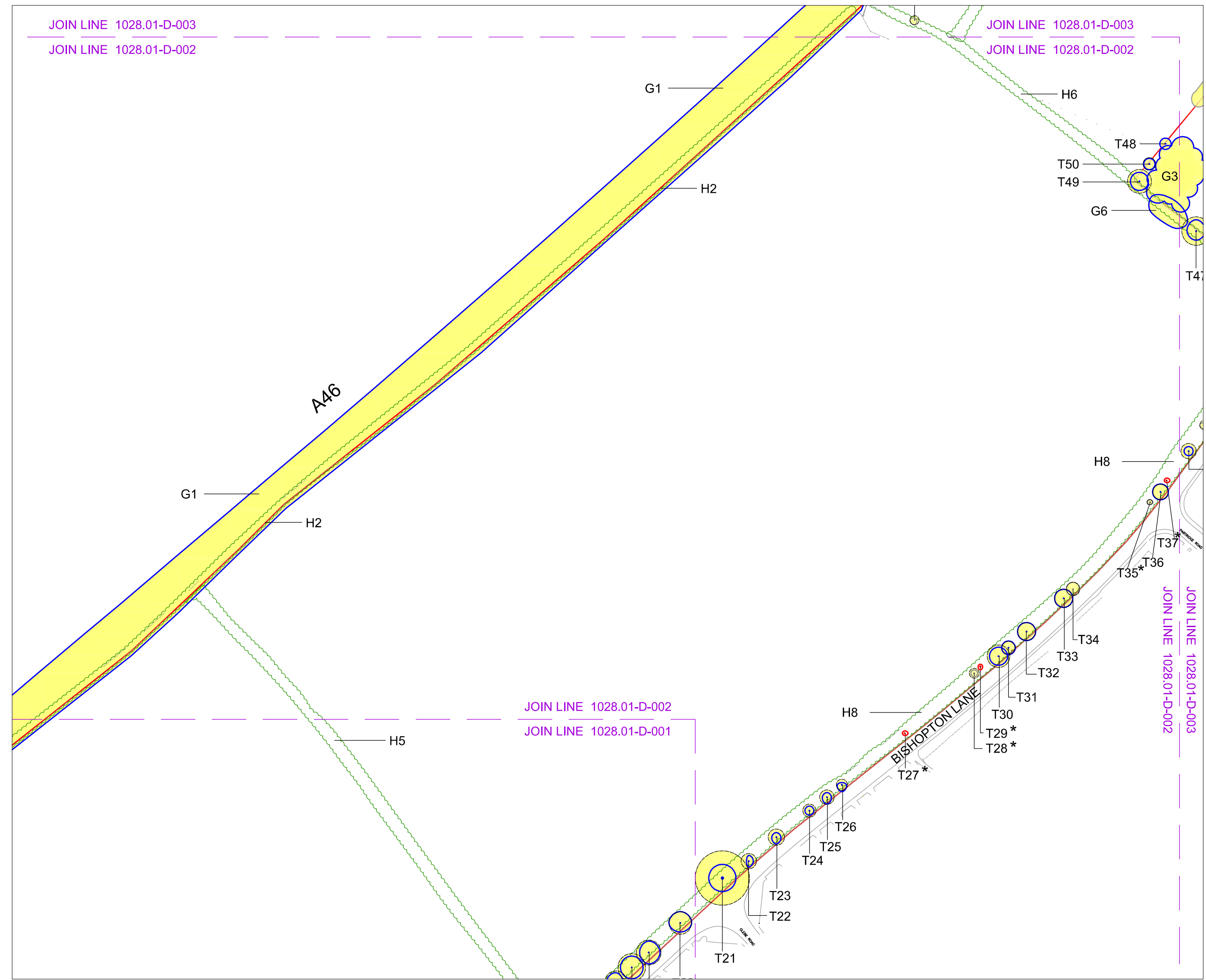
Figure No: 1 of 3 see 1028.01-D-001 & 003









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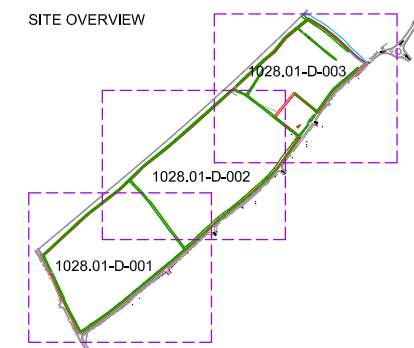


-  Crown spread of category A
- Trees/groups of high quality and value
-  Crown spread of category B
- Trees/groups of moderate quality and value
-  Crown spread of category C
- Trees/groups of low quality and value
-  Crown spread of category U
- Trees/groups unsuitable for retention
-  Root Protection Area (RPA)
-  Survey boundary

* Approximate Tree Location
(Not shown on topographical survey)

 Hedgerow / shrub vegetation

NOTE: To be read in conjunction with tree survey schedule 1028.01-S-001



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Stratford-upon-Avon
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Checked: RO'S

Figure No: 1 of 3 see 1028.01-D-001 & 002



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