

Arboricultural report on trees on land at Willington Grange, Horsemans Green,
Whitchurch SY13 3BZ

March 2015

Sylvan Resources Ltd. forestry and arboriculture

Dog Field House, Abcott, Clungunford, Craven Arms, Shropshire SY7 0PX tel:
01588 660547 e-mail: jon@sylvanresources.co.uk

1.0 Instructions and scope of this report

My instructions are.

- 1) To undertake a BSS 5837 survey of trees within and near to the boundaries of this proposed development site.
- 2) To provide a report commenting on the general condition of the trees, a tree survey schedule, a tree survey plan, root protection area plan and arboricultural impact assessment.

2.0 Instructions received from

Les Stephan Planning, 9 Sweetlake Business Village, Longden Road
Shrewsbury, SY3 9EW

3.0 Designations

No checks have been made to establish if the site is within a Conservation Area; neither have any enquires been made to determine if all or some of the trees are the subjects of a Tree Preservation Order. Before undertaking any tree work it is recommended that the status of the site and the trees is investigated.

4.0 Tree survey

The trees were surveyed in accordance with British Standard Specification 5837 (2012). The Standard applies to trees whose diameters exceed 75mm measured 1.5 metres from the ground. The findings of the survey are appended and should be read in conjunction with the appended drawing SR 1. This indicates the locations of the trees, the extent and shape of their crowns, and the BSS 5837 category into which they have been placed. The survey method is described in BSS (2012) "Trees in Relation to Construction." A detailed inspection of individual trees with respect to decay, defects and hazards was not made. No investigations were made to determine the impact of the trees on existing structures both within and outside the boundaries to the property.

5.0 Site description

The site is currently used as pasture; a number of young trees have been planted into it, older trees occur along its boundaries. The site is reasonably level and freely draining, its north and west boundaries border highways and it is enclosed by mature hedgerows except to its south east.

6.0 Development proposals

A large detached house and garages are proposed.

7.0 Arboricultural Impact assessment

7.1 Tree Removal

The proposals require the removal of the trees identified in Table 1 and on the accompanying plan titled SR2 Tree Removal.

Table 1 Trees and hedgerows removed by the development proposals

Tree number, hedgerow and species	Reason for removal
Tree 2 Acer campestre	To enable development of the site
Tree 3 Quercus robur	To enable development of the site
Tree 4 Quercus robur	To enable development of the site
Section of hedge between Points A and B on SR2	To provide access to the site.

The trees removed by the development proposals are young and it may be possible to translocate them thereby resulting in no net loss of trees from the site.

7.2 Root protection

BSS 5837 describes a Root Protection Zone (RPZ) and the tree it encloses as concentric circles. For single stemmed trees the radii of RPZs are assumed to be twelve times the diameters of the enclosed trees, and for multiple stemmed trees the radii are derived from the square root of the squared sum of the diameters of the stems. Irrespective of these rules, the Standard indicates that the radius of an RPZ should rarely (if ever) exceed 15 metres. The area and shape of an RPZ may be changed if local conditions dictate or if a trees condition indicates that a larger zone is required. The grey circles on SR 3 show the boundaries to the RPZs of the retained trees. SR 3 also shows as a broken red line the boundaries to Tree Protection Zones (TPZs). These boundaries have been created by:

- linking the RPZs of the retained trees together and/or,
- linking RPZs to canopy boundaries where these exceed the RPZ boundaries and/or,
- extending the TPZ beyond the RPZ and canopy boundaries wherever possible, and /or

d) including hedgerows within the protection zones.

SR 3 shows that two small RPZ areas are breached by the margins of a new bell mouth entrance. A small area of the RPZ of Tree 10 is also breached by a terrace enclosing the proposed house.

8.0 **Method statements for protecting the retained trees**

8.1 **Areas unaffected by development (enclosed by the TPZ boundary line on SR3).**

The trees and hedges identified in Table 1 and on SR2 shall be removed. The boundaries to the TPZs, indicated on SR3, shall be identified by white painted marker pegs driven into the ground along the perimeters indicated by the brown line on SR3. "Heras" type fencing shall be erected outside the perimeters indicated by the pegs and signs instructing people to keep out of the TPZ's shall be fixed to it. This fencing shall remain until construction work has been completed.

8.2 **Areas affected by development (shaded purple on SR3)**

The RPZ areas (shaded purple on SR3) will be breached by hard surfaces (access bell-mouth and terracing). Within these areas levels shall not be reduced, however they may be raised by the addition of top soil or inert no fines granular fills. Loading shall be dissipated by the installation of ground protection comprising Cellweb or a similar cellular confinement system laid over a geotextile membrane and filled with washed no fines stone. Further specifications relevant to the use of Cellweb are available at: http://www.geosyn.co.uk/products/cellweb-trees.asp?product_id=21. Access to the site by heavy plant, machinery and delivery vehicles shall not be permitted until installation of the ground protection in the site entrance has been completed. After completion of the development and all associated works, the stone used within the cellular confinement system may have become contaminated with soil and other fine grained particles. If so, it shall be replaced with clean no fines stone before dressing with clean washed no fines gravel or another water and gas permeable surfacing material.

8.3 Protected areas (enclosed by the TPZ boundary line) and areas affected by development (areas shaded purple)

Particular care shall be taken to avoid reducing existing ground levels within these areas, they may be raised with top soil or inert no fines granular fills.

Contaminants, for example, concrete mixings, diesel oil and vehicle washings, shall not be discharged within 10m of trees or where they may leach into the TPZs.

Fires shall not be lit on sites where flames and smoke may be carried to within 5 metres of a tree's foliage, branches and stems.

Notice boards, telephone cables or other services shall not be attached to trees.

Existing ground cover vegetation shall be killed using an appropriate non residual contact herbicide.

Rubbish and other debris shall be removed from these areas by hand or by machines operated from outside their boundaries and reaching into them.

No tree surgery or other remedial tree work is foreseen, any which is later found to be necessary shall be done at the post-development stage under the supervision of an arboriculturalist. It shall comply with BSS 3998 (2010). Arisings may be removed from site, chipped and left, or cut and mounded to form habitat piles. They should not be burnt where fire and smoke may damage retained trees. Stumps should not be dug or pulled. They may be ground, but consideration should be given to their retention as habitats for flora and fauna.

Although none is foreseen, if extensive pedestrian access is required over these areas, they shall be protected by using scaffold boards as walkways. Additional protection can be provided by laying these over a compressible layer such as bark mulch spread over a porous geo-textile membrane.

Vehicles and machinery shall not be permitted to enter these areas. Outside their boundaries care shall be taken to ensure that machines can operate without damaging retained trees. Where adequate clearance cannot be maintained, trees may be pruned to facilitate access. Pruning shall be specified and supervised by an arboriculturalist.

Excavations within these areas are not envisaged. If later they are found to be necessary, they shall be undertaken only after consultation with the supervising arboriculturalist. Digging shall be done by hand, to avoid damaging larger roots. Exposed roots shall be wrapped in dry, clean hessian

sacking and protected from temperature changes. Roots smaller than 25 mm diameter may be pruned back, preferably to a side branch, using a sharp tool (e.g. secateurs or handsaw) to make a clean cut and leaving as small a wound as possible. Roots larger than 25 mm should only be severed following consultation with an arboriculturist. If roots are accidentally damaged, the supervising arboriculturalist must be notified. Prior to backfilling, any hessian wrapping shall be removed. Before soil or other material is replaced the retained roots shall be surrounded with a sharp sand and top soil mix or other approved, loose, inert, granular fill,. Fill material shall be free of contaminants and other foreign objects potentially injurious to tree roots.

Water levels shall remain unchanged in these areas. Permeable surfaces may be used where surface water is unlikely to be contaminated by materials toxic to trees. If contamination is likely, an impermeable surface may be specified. Land drainage may be required if excess water is likely to accumulate but drains shall not be located within root protection areas.

J C Terry MSc, MICFor, MRICS, CENV
Sylvan Resources Ltd.
5th November 2014

Tree Survey Schedules

Land at Willington Grange, Horsemans Green, SY13 3BZ

surveyors:

DJH

KEY TO NOTATIONS USED

KEY:

STEM D = Stem diameter (mm) at 1.5m above ground level

BRANCH S = Branch spread (m)

C.C = Height of crown clearance (m)

L.E = Life expectancy (yrs)

AGE CLASS:

Y = Young

M = Middle aged

Ma = Mature

O = Over mature

V = Veteran

Category Grading

A = High quality & value

B = Moderate quality & value

C = Low quality & value

R = In need of removal

EXTRA NOTES:

Tree/ Group No	SPECIES	HEIGHT m	STEM DIAMETER mm	BRANCH SPREAD m				AGE CLASS	C.C m	PHYSIOLOGICAL CONDITION	STRUCTURAL CONDITION	L.E	PRELIMINARY MANAGEMENT	CATEGORY GRADING
				N	S	E	W							
1	Aesculus hippocastanum Horse chestnut	6.5	130	2	2	2	2	Y	1.5	Pruned to 1.5m Good	Good	20+	None required	B2
2	Acer campestre Field maple	6.5	110	1.5	2.5	2.5	2.5	Y	1.7	Pruned to 1.5m Good	Good	20+	None required	B2
3	Quercus robur Oak	4	120	2	2	2	2	Y	1.9	Pruned to 1.9m Good	Good	20+	None required	B2
4	Quercus robur Oak	6.5	160	5	5	3	3	Y	1.9	Pruned to 2.0m Good	Good	20+	None required	B2
5	Acer campestre Field maple	5.5	80	1	1.5	2	1.5	Y	2	Pruned to 1.9m Good	Good	20+	None required	B2
6	Acer campestre Field maple	5.5	80	1	1.5	2	1.5	Y	2	Good	Good	20+	None required	B2
7	Crataegus monogyna Hawthorn	6	10,7,7	2	2	2	2	Ma	0	Good	Multistemmed x3 stems	20+	None required	B2
8	Acer campestre x 2 trees	12	23,21,21, 17	4	4	3	3	Ma	0	Good	Fork at ground level	20+	None required	B2
9	Crataegus monogyna Hawthorn	5		2	3	1.5	1	Ma	0	Fair	Poor form, scrubby hedgerow growth suppressed by T8	20+	Consider coppicing/laying	B2
10	Quercus robur Oak	15	700	6	5	6	5	Ma	1.8	Good (supressing Holly below)	Good	20+	None required	A2

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11	Ilex aquifolium Holly	7	70	2	2	2	2	Ma	1.4	Supressed by Oak, hedgerow tree/shrub	Good	20+	None required	B2
12	Fraxinus excelsior (Ash)	7	70	1	2	1	1	Ma	0.4	Hedgerow tree/shrub	Good	20+	None required	B2
13	Fraxinus excelsior (Ash)	9	80,80	2	2	2	2	Ma	0	Hedgerow tree/shrub	Good	20+	None required	B2
14	Ilex aquifolium Holly	7.5	130,80,70	1	2	2	2	Ma	0	Hedgerow tree/shrub	Good	20+	None required	B2
15	Ilex aquifolium Holly	7.5	90,90,10	1	1.5	1.5	1.5	Ma	1	Hedgerow tree/shrub	Good	20+	None required	B2
16	Quercus robur Oak	18	900	6	6	8	8	Ma	3	Good	Good	20+	None required	A2
17	Quercus robur Oak	20	1300		14	11	10	Ma	4	Good	Good, some pruning in lower canopy	20+	None required	A2
18	Quercus robur Oak	20	1600	9	14	14	8	Ma	8	Dying back in upper crown	Extensively pruned over lane, slight lean south.	20+	None required	A2

Qr Quercus robur
Cm Crataegus monogyna
Ia Ilex aquifolium
Ap Acer pseudoplatanus
Fe Fraxinus excelsior
Ah Aesculus hippocastanum
Ac Acer campestre

Hedge row containing C monogyna,
P spinosa, I aquifolium, S Nigra.

Boundary hedge

Crown Spread

Category 'A'

Category 'B'

Category 'C'

Category 'U'

0 80m

Sylvan Resources Ltd

Dog Field House, Abcott, Clungunford, Craven Arms, Shropshire. SY7 0PX

01588 660547

SR1 Tree survey

SCALE :
1 : 1000

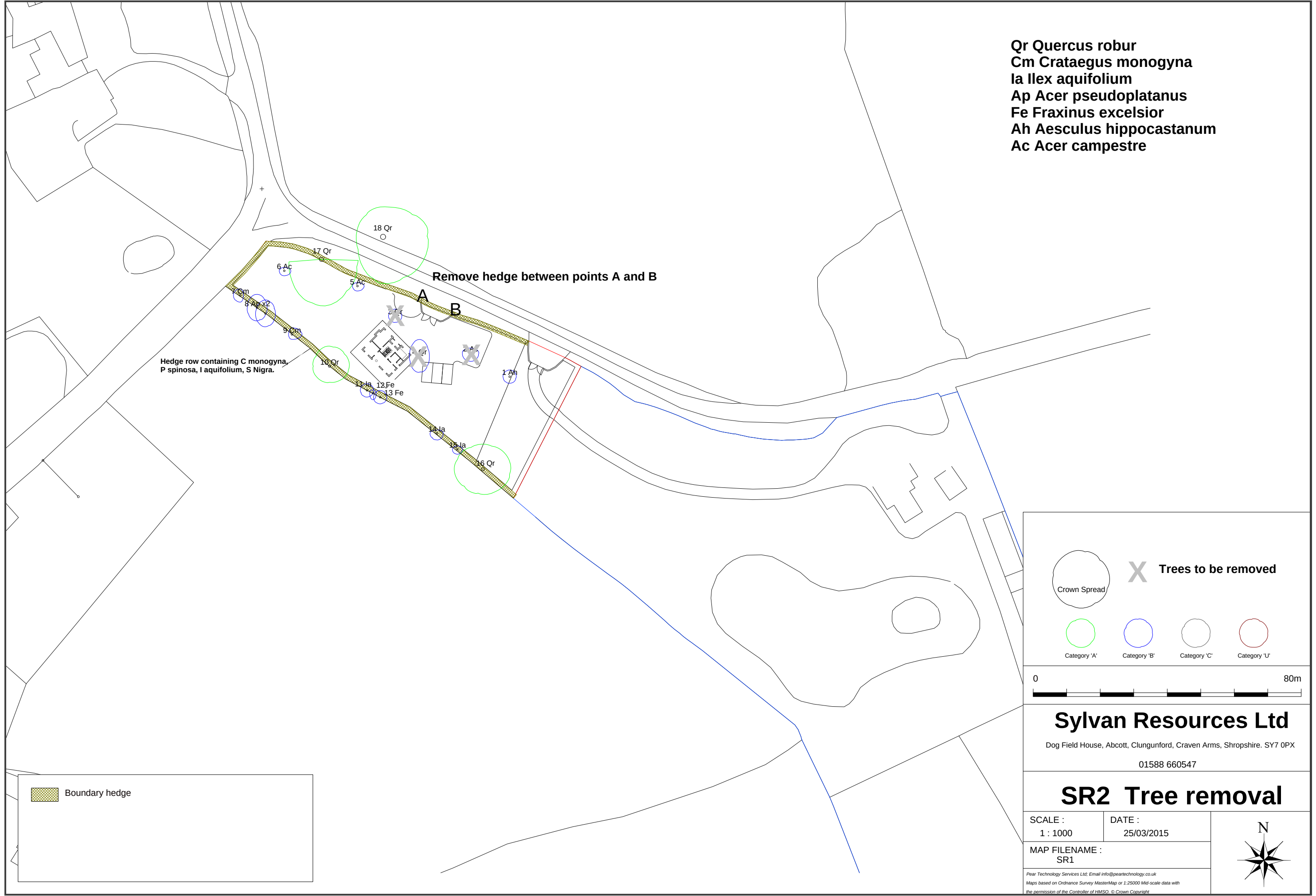
DATE :
25/03/2015

MAP FILENAME :
SR1

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Qr Quercus robur
Cm Crataegus monogyna
Ia Ilex aquifolium
Ap Acer pseudoplatanus
Fe Fraxinus excelsior
Ah Aesculus hippocastanum
Ac Acer campestre



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Dog Field House, Abcott, Clungunford, Craven Arms, Shropshire. SY7 0PX
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SR2 Tree removal

SCALE : 1 : 1000	DATE : 25/03/2015	
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