Arboricultural report on trees on land neighbouring Crawforton, Hadnall, Shropshire

February 2015

Sylvan Resources Ltd. forestry and arboriculture

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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 Ltd, Unit 9 Sweetlake Business Village, 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; they should be read in conjunction with the appended drawing SR 1. This drawing 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 neighbours Crawforton to its north and was once occupied by a tennis court owned by this property. The site is approximately square and bordered by trees and hedges on its boundaries.

6.0 Development proposals

The applicant proposes to build four dwellings with detached garages in accordance with the layout shown on the appended drawing SR3.

7.0 Arboricultural Impact assessment

Tree Removal

The proposed layout requires 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 indicative proposals

Tree Number	Description	Reason for removal
11	Tilia europaea	To provide access to the site
12	Tilia europaea	To provide access to the site

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, 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 shall rarely (if ever) exceed 15 metres. The area and shape of an RPZ may be changed if local conditions dictate or the tree's condition indicates that a larger zone is required. The grey circles on SR 3 show the boundaries to the RPZs calculated in accordance with the BSS 5837 formula. SR3 also shows the boundary to a Tree Protection Zone (TPZ). This has been plotted by:

a) linking the RPZs of the retained trees together to form a continuous protection zone and/or,

b) linking RPZs to canopy boundaries where these exceed the RPZ boundaries and/or

c) where space permits, extending the TPZ boundary beyond the minimum calculated according to the BSS formula and/or

d) including hedgerows within the protection areas.

None of the RPZs of the retained trees are affected by the development proposals.

Tree surgery

Tree work shall be done at the pre-development stage. The majority of the work is likely to comprise removing Trees 11 and 12 and removing dead wood from the retained trees.

Tree work 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 shall not be dug or pulled. They may be ground but consideration should be given to their retention as habitats for flora and fauna.

8.0 **Method statements for protecting trees.**

Tree Protection Zone boundary

This shall be identified by white painted marker pegs driven into the ground. Where existing hard surfaces prevent identification by this means, the boundary shall be identified with white paint. “Heras” type fencing shall be erected outside the perimeters indicated by the pegs and paint and signs instructing people, construction materials and machinery to keep out of the TPZ shall be fixed to it. BSS 5837 (2012 pages 19-22) provides more detailed specifications for boundary protection; these are to be followed at all stages of development.

Management of work outside the Tree Protection Zone.

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

ii) 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.

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

v) The TPZ shall not be entered by machinery or heavy vehicles.

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

Post removal of the TPZ boundary fence**.**

This section describes tree protection from the post construction phase to the point when the properties are handed over to their buyers. During this stage, the gardens to the properties are likely to be landscaped and enclosed by fences, walls or by other means. In addition to the tree protection methods described below those described in the previous section (i-v above) will also apply.

If after removal of the TPZ boundary fence, extensive pedestrian access is required over RPZ's these 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.

Soil surfaces shall not be skimmed to establish new levels within the RPZs. Loose organic matter shall be removed, and new surfaces established above former levels. An inert granular fill may be used to raise levels within RPA's. Suitable granular materials include, no-fines gravel, washed aggregate, or cobbles. It may be necessary to install a load suspension layer such as a cellular confinement system.

To maintain soil gas and water levels, new impermeable surfacing within RPZs should not exceed a maximum width of 3 metres. It shall be situated tangentially to one side of the tree, or confined to an area no greater than 20% of the tree's RPA.

Water levels shall remain unchanged in RPZs. 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 should not be located within root protection areas.

J C Terry MSc, MICFor, MRICS, CENV
Sylvan Resources Ltd.
12th February 2015

Tree Survey Schedules

Site Hadnall **surveyors:** J T

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:

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	Fraxinus excelsior (Ash)	13	1470	5	5	5	5	Ma	0	Good	Multistemmed x 7 limbs. Poor form	15+	Consider singling	B2
2	Quercus robur Pedunculate Oak	5	300	3	2.5	2.5	3	M	0.7	Good	"Cauliflower" head, poor form.	20+	None required	A2
3	Fraxinus excelsior (Ash)	8	170	0	2	2	1	M	0.7	Poor, large wound on trunk.	Fair	10+	None required	B2
4	Fraxinus excelsior (Ash)	8.5	280	2	3	1	2	Ma	1.6	Poor, wounds on stem, crown dying back. Signs of bacterial infection	Fair	5+	Consider removal	U
5	Cupressocyparis leylandii (Leyland cypress)	6	120	2	2	2	2	Ma	1.5	Good	Good	20+	None required	A2
6	Quercus robur Pedunculate Oak	9	380	5	3.5	5	5	Ma	2	South side of crown has some die back following pruning, otherwise good.	Good	20+	None required	A2
7	Fraxinus excelsior (Ash)	15	370	4	4	5	4	Ma	6	Good	Leans east	20+	None required	A2
8	Taxus baccata Yew	6	250	3	3	3	3	Ma	1.4	Good	Good	20+	None required	A2

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9	Ilex aquifolium Holly	8	130	2	1	1	3	Ma	2	Good	Close to T8, within hedge	20+	None required	A2
10	Tilia europaea Lime	21	640	5	5	5	5	Ma	0	Good, basal epicormic growth	Lower canopy pruned over A49	20+	None required	A2
11	Tilia europaea Lime	14	350	2	4	4	4	Ma	0	Basal epicormic growth, some die back in upper part of the crown	Fair	15+	Consider pollarding	B2
12	Tilia europaea Lime	16	460	4	4	4	4	Ma	0	Basal epicormic growth, some die back in upper part of the crown	Fair	15+	Consider pollarding	B2
13	Tilia europaea Lime	15	400	4	4	4	4	Ma	0	Basal epicormic growth, some die back in upper part of the crown	Fair	15+	Consider pollarding	B2
14	Tilia europaea Lime	16	430	4	4	4	4	Ma	0	Basal epicormic growth, some die back in upper part of the crown	Fair	15+	Consider pollarding	B2
15	Tilia europaea Lime	16	180	5	5	5	5	Ma	0	Basal epicormic growth, some die back in upper part of the crown	Fair	15+	Consider pollarding	B2
16	Fagus sylvatica Beech	14	2000	6	6	6	6	Ma	0	Fair, some bark damage	Multistemmed x 10 stems, lower canopy pruned over A49	20+	None required	B2

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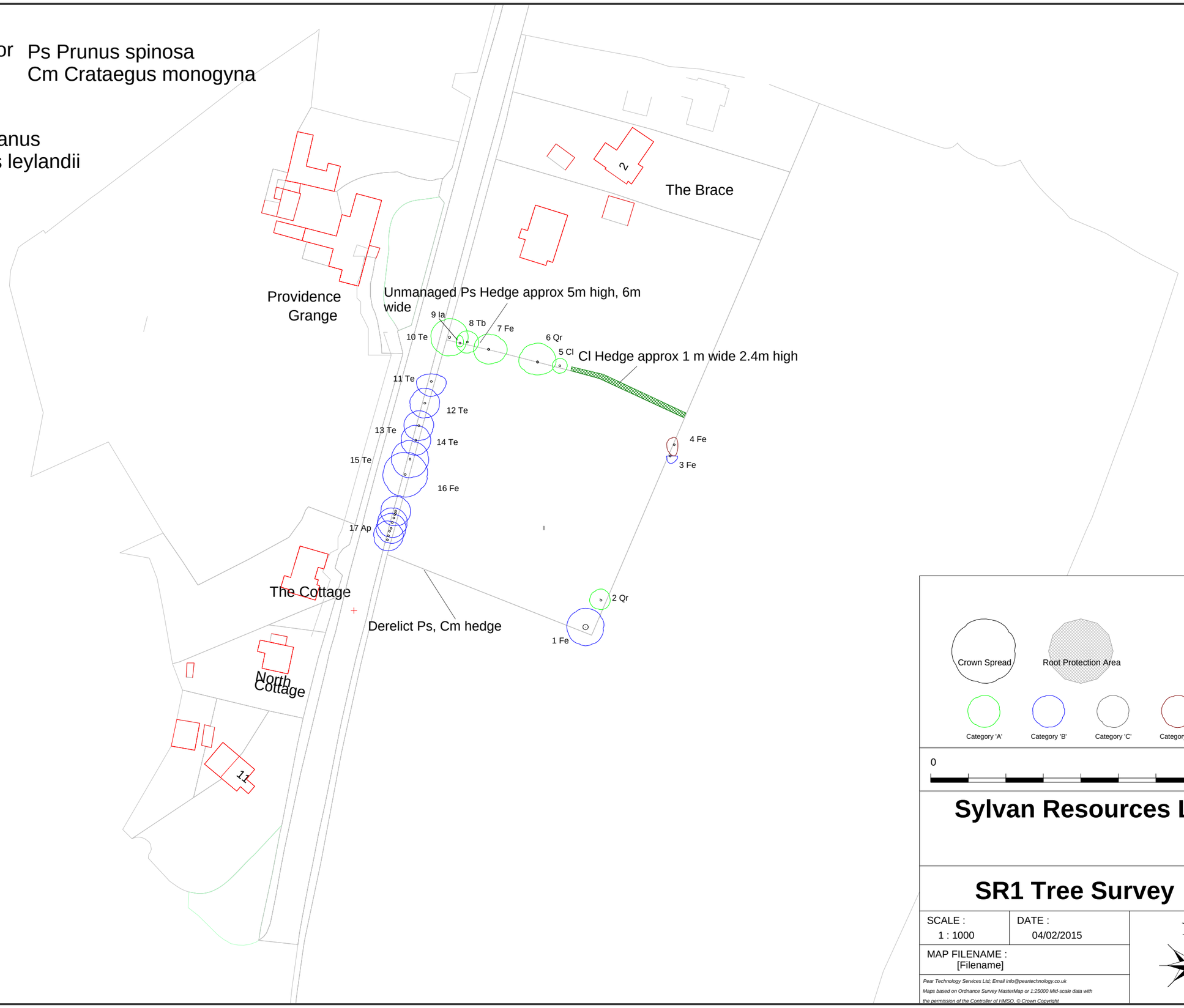
17	Group of 9 Acer pseudoplatanus. Sycamore	18	320	4	4	4	4	Ma	0	Fair, ivy colonising some stems, some dead stems.	Lower canopy pruned over A49	15+	Consider thinning and removing dead stems.	B2

Fe Fraxinus excelsior
Te Tilia europaea
Qr Quercus robur
Tb Taxus baccatta
Ap Acer pseudoplatanus
Cl Cupressocyparis leylandii
Ia Ilex aquifolium
Fs Fagus sylvatica

Ps Prunus spinosa
Cm Crataegus monogyna



Crown Spread
Root Protection Area
Category 'A'
Category 'B'
Category 'C'
Category 'U'

0 80m

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SR1 Tree Survey

SCALE : 1 : 1000

DATE : 04/02/2015

MAP FILENAME : [Filename]

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Ps Prunus spinosa
Cm Crataegus monogyna

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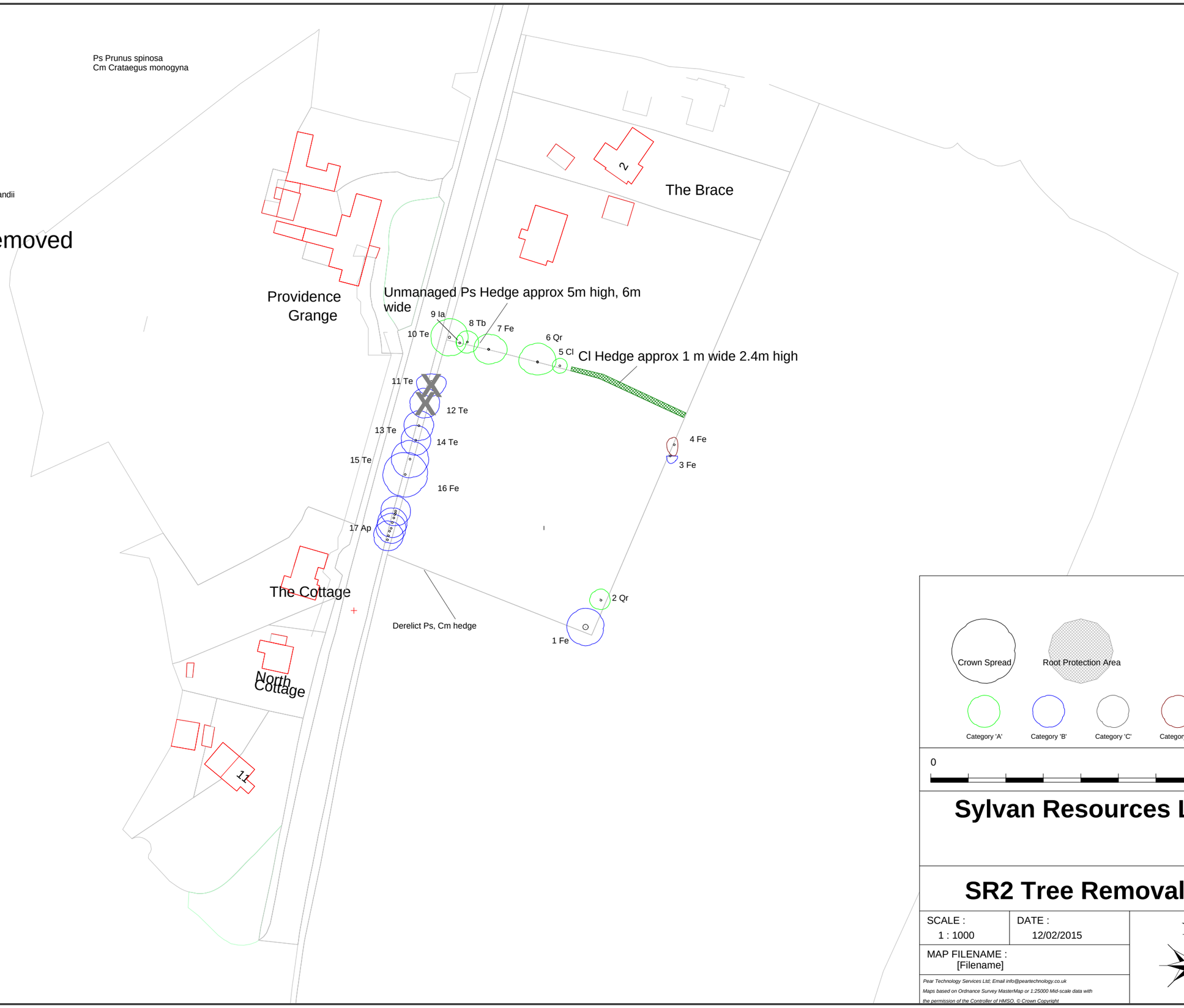
Te Tilia europaea
Qr Quercus robur
Tb Taxus baccatta
Ap Acer pseudoplatanus
Cl Cupressocyparis leylandii
Ia Ilex aquifolium
Fs Fagus sylvatica

X Trees to be removed



Crown Spread
Root Protection Area
Category 'A'
Category 'B'
Category 'C'
Category 'U'

0 80m

Sylvan Resources Ltd

SR2 Tree Removal

SCALE : 1 : 1000

DATE : 12/02/2015

MAP FILENAME : [Filename]

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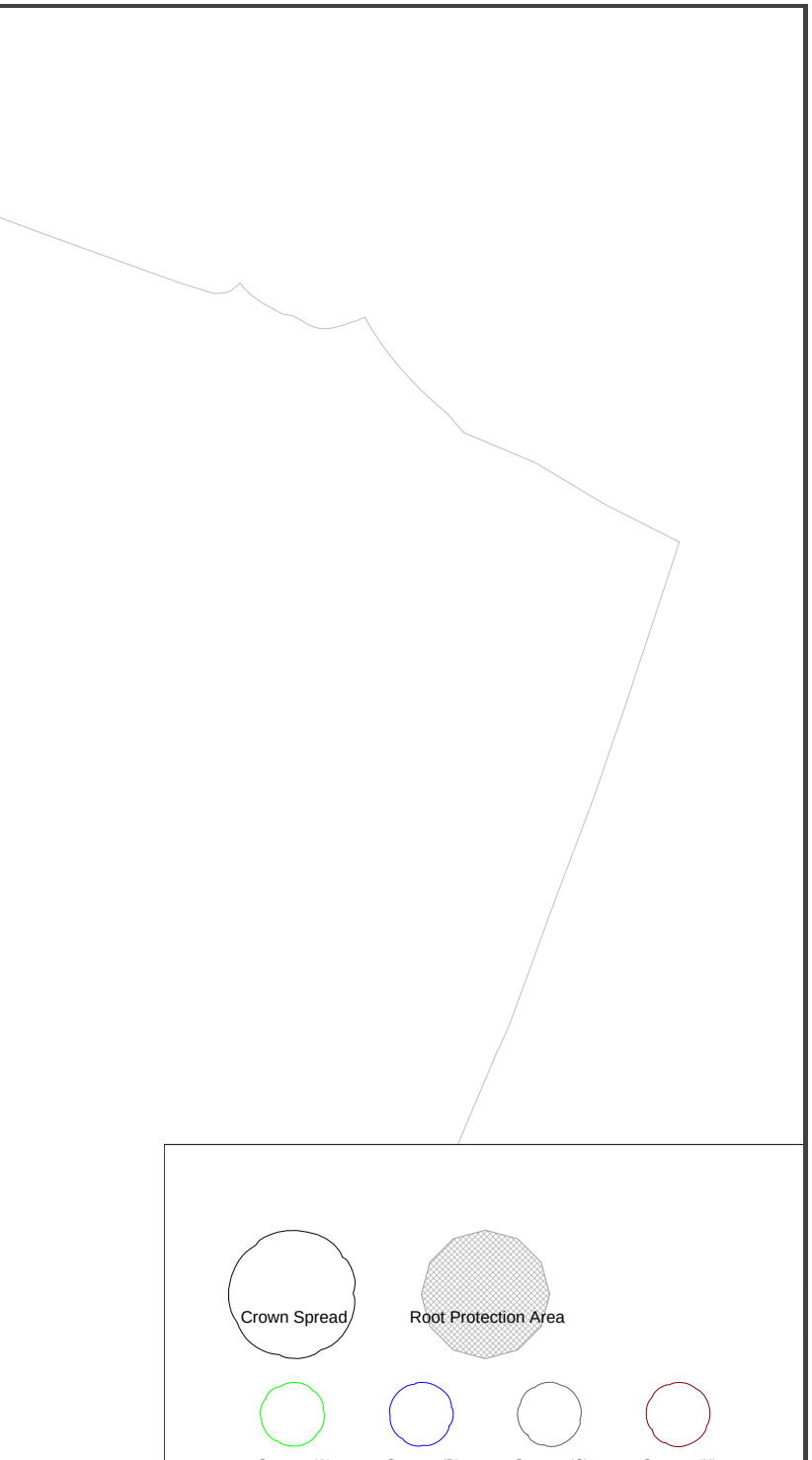
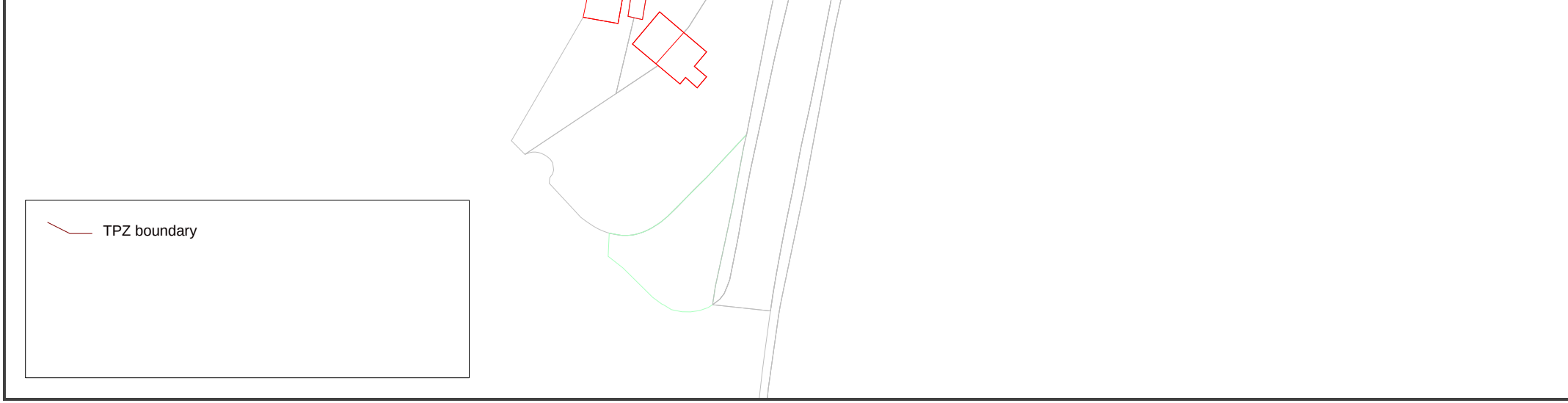

Crown Spread
Root Protection Area


TPZ boundary

Category 'A' Category 'B' Category 'C' Category 'U'

0 80m

Sylvan Resources Ltd

SR3 Tree Protection

SCALE :	DATE :
1 : 1000	09/02/2015

MAP FILENAME :
[Filename]

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