

Tree Survey and Report BS5837

Proposed Development
Gunby Hall Stables, Bubwith

APRIL 2020

RICHARD LANCASTER: TREES & LANDSCAPE
ENVIRONMENTAL CONSULTANCY

1. Instructions

- To carry out a survey of all the trees potentially affected by a proposed planning application for a residential development at Gunby Hall Stables, Gunby Road, Bubwith, and to record information with reference to:
BS 5837: 2012: Trees in relation to design, demolition and construction.
- To comment and advise on the development proposals in relation to the survey findings and to detail measures required for the protection of any trees to be retained.

2. Inspection Details

The site and trees were inspected in late winter conditions on 7th April 2020.

3. Site Context

The site comprises part of the land associated with the farm of Gunby Hall, previously split into two different properties. The east part of the site is covered by a group of mixed trees, termed '*the Copse*' for the purposes of this report; the western section is an open yard with a large grass verge fringing the copse and the building to be converted for the development.

Gunby Hall is in a rural location, outside the village of Bubwith, surrounded by an agricultural landscape with most of the local tree cover being found in small copses and hedgerows.

It is not believed that there are any tree protection measures in place (i.e. Tree Preservation Orders) but this has not been absolutely confirmed through contact with East Riding of Yorkshire Council. The site is not within a Conservation Area.

4. Condition of Trees

The condition of the trees inspected accompanies this report in schedule form, and locations are noted on the accompanying survey drawing. The copse has been assessed overall in a woodland context; and individual trees then noted where they have structural or health issues, or where there is potential conflict with the proposed drive.

Information is detailed and described as follows:

- Tree type with reference number,
- Species in Latin, with English common name,
- Maximum height, and trunk diameter at 1.5m above ground level,
- Crown spread, and height from ground to lowest part of crown,
- Age Class,
- Physical and structural condition,
- Preliminary Management Recommendations,
- Estimated remaining contribution (RC); (or Safe useful life expectancy; SULE),
- Tree Quality Assessment in relation to BS 5837: 2012,
- Root protection areas calculated in accordance with BS 5837: 2012,
- In addition, photographs were taken and filed.

Recommendations have been made with regard to the development proposals, likely construction methods, and summary comments added in relation to ongoing management.

5. Wildlife and Countryside Act

Where birds and bats may be affected by work to trees and hedges, consideration should be given to the timing and scope of work. Bats are protected under the Wildlife & Countryside Act 1981 and subsequent legislation and it is an offence to deliberately or recklessly disturb them or damage their roosts. If the presence of bats is suspected when works commence then contact should be made with Natural England, or via the UK Bat Line and 'The Bat Conservation Trust' (0345 1300 228). It is also suggested that tree felling and major pruning should be avoided in the bird nesting season, generally specified as March 1st to July 31st, though often extending through August.

6. Development Comments

6.1. General

The proposed development is conversion of an existing low-rise stable building located to the west, a good distance away from the copse surveyed for this report. There are no trees close to the building, so construction works can proceed around it without any impact.

It is assumed access for construction will utilise the existing stone driveway from Gunby Road, which will take vehicles around and past the northern edge of the copse – hence this group has been assessed in the report although it is outside the red-line delineated planning site. Using this access will avoid increased

Access to the finished property is proposed to be via a new single driveway through the copse via a re-configured access, which is the main trigger for the preparation of this report.

6.2. Tree Constraints Plan

The locations of the trees are shown on the attached survey drawing, along with allocated grades in relation to criteria in BS5837: 2012. Trees of grades 'A' and 'B' are normally considered as features to be retained in any proposed development, with grade 'C' trees retained only where they do not significantly affect proposals. Trees graded 'U' are those with recommendations to fell, and/or with only minimal amenity or conservation contribution.

Overall, the copse is considered Grade A as a landscape feature due to its amenity impact, conservation value and species diversity. Individually however, the trees are generally not necessarily of the highest quality and there are many that individually can be classed as Grade C or even Grade U, as detailed in the schedule.

6.3. Root Protection Area

Root protection areas (RPAs) for any retained trees are derived from area calculations based on stem diameter, overlapped to create a zone of root protection (Construction Exclusion Zones (CEZ)). Suggested construction details for these fences are included in BS5837:2012, and are shown on the tree protection plans (TPPs).

7. Arboricultural Implications Assessment

7.1. Tree Constraints and Proximity to Driveway

The new proposed drive route is shown on the Brian Scott Design drawings and the attached Tree Protection Plan (TPP).

Using the existing northern approach for the construction access will avoid any increased stress and damage from these vehicle movements if the new drive was to be used instead. On the northern drive two trees are to be crown lifted (Cherry T12 and Maple T13) to 4m to increase clearances. And a CEZ fence is required to avoid any vehicles straying onto the adjacent verge and thus root spread from retained trees.

The proposed drive follows an obvious route through the copse without any mature trees, though the roots of the Sycamore group to the south are likely to see some minor impact. Some smaller trees are to be removed or coppiced (Sycamore T10, Robinia T11, and some of G1) and two larger adjacent trees (Willows T8, T9) are identified for felling on safety grounds due to their northward lean.

Ideally the new drive should be constructed in the late summer or autumn period to optimize drier ground conditions and to avoid potentially more damaging root impact should construction be done in the more active growing season, i.e. early spring to mid-summer. The TPP proposes CEZ fences immediately along the drive perimeter to give tight control of the construction space. These can be relatively simple and low level but must be fixed to avoid creep back into the copse i.e. secured to driven timber posts.

Construction is to use a no-dig construction methodology, which in summary, comprises:

A shallow scrape of existing soil to a maximum depth of 100mm to remove weed, grass and debris and to establish a relatively level surface. Application of a free-draining structural geotextile membrane, between driven timber edge restraints (no strip footings), a sub-surface of a 'geo-grid' mesh to retain no-fines hardcore, and a finished surface of gravel, permeable block paving, or free-draining bit-mac. Thus, the new drive levels will be a nominal 200 to 250mm above existing levels, to be made up with carefully replaced and graded on-site topsoil.

If any alterations or additional space is required for the driveway this must be agreed with the local authority before any works or access commences.

7.2. Tree Management and Planting

The copse would benefit from a simple management plan being drawn up, to ensure continuity of cover as the existing trees decline further. Some replanting or self-seeding has happened to some degree on the north and west fringes but within the main copse new planting will be more problematical due to existing heavy shade and root competition. However, the tree removal recommended or suggested in this report will create some small spaces for new trees, which could include native species not currently evident such as Oak and Hornbeam. Beech is another possibility but the ground may be too wet and still too shaded). Hornbeam is a reasonable substitute.

The width of the grass verge on the western side allows for some new amenity tree planting which will not compromise the immediate curtilage of the proposed property (though slightly compromised by the existing overhead wires).

Arboricultural Method Statements and Tree Protection Plan

1. General

The following arboricultural method statement and the Tree Protection Plan should be read and assessed in conjunction with the accompanying tree report. The report details and comments on all the significant trees present on site in relation to BS 5837 2012, while this statement includes general notes and advice relating to the relationship between trees, demolition, development and construction.

Site personnel, employees and contractors, will be made aware of these Arboricultural Method Statements (AMS) before development commences and will attend a site induction meeting, if required. A copy of the AMS and notes / plans will also be kept in the site office file so that it can be referred to or viewed at all times.

2. Tree protection plan

When trees are shown as retained then the Root Protection Areas indicated on the accompanying drawings must be respected during development. These protected areas are the Construction Exclusion Zones. Fencing must be erected prior to any site works commencing, including demolition, preparatory excavations and materials delivery.

These areas to be protected with secure fencing which will prevent access throughout the development and which will be installed prior to starting and not be removed until completion. Depending on the scale of the development and the trees to be protected, the CEZ fencing should be appropriate to the degree of protection required. The fencing must be clearly labeled "TREE PROTECTION: DO NOT MOVE". All fencing should be checked on site by an arboricultural consultant to ensure it is correctly placed suitable for the purpose.

3. 'No-dig' roads, paths and driveways:

Method statement for the Construction of 'No-dig' roads, paths and driveways

The proposed new drive is to be constructed with a No-Dig Construction methodology, as summarized in Paragraph 7.1 above. Full construction details and the site management process will be prepared and submitted to ERYC for approval before any works commence.

4. Barriers and ground protection within the Root Protection Area

Not applicable at present.

5. Progress of development

Prior to any demolition or the commencement of installation of access roads, services or foundations, a pre-start meeting may be held involving the Local Authority Tree Officer, Arboricultural Consultant, site manager/foreman, and Supervising Officer, to ensure that the Construction Exclusion Zone fencing is in place and preparatory tree works are completed.

The site should be visited on a regular basis by an arboricultural consultant once development has begun, if required, to ensure that all protection measures are being adhered to and any problems in relation to retained trees and vegetation are resolved.

6. Preparatory Tree works

All recommended preparatory tree works and shrub clearance should be carried out prior to development of the site including the erection of protection fencing. All tree pruning and felling is to be undertaken by suitable experienced tree contractors and in accordance with the minimum requirements of BS 3998: 2010: Recommendations for Tree Work.

7. Pile foundations within the Root Protection Area:

Not applicable at present.

Tree No.	Species	Ht (m)	DBH (mm)	Spread N, E, S, W	Ht 1 st branch	Ht to crown	Age Class	Physiological and Structural Condition. Preliminary Management Recommendations	Est RC years	Grade BS5387	RPA (rad, m2)	Photo
W1	Horse Chestnut Sycamore Robinia Willow Scots Pine Hawthorn Yew, Holly (Alder, Rowan) (Field Maple) Various shrubs	8 to 18 Avg Of 16	80 to 750 Avg Of 400	As Plan	-	-	SM M LM	Overall: A valuable contribution to local amenity. A very diverse mix of species, and a fairly diverse mix of ages, increasing to the north side. Typical woodland canopies, some narrow and drawn upwards with general decline, especially central Sycamores. Leaning trees as noted below, probably made worse by increasing instances of waterlogging. (Some Pine trees previously failed). Typical woodland deadwood in evidence, and honey fungus as noted for T3 <i>Ongoing woodland management recommended.</i>	30+	A As Copse (group)	Plan	All
T1	Horse Chestnut <i>Aesculus hippocastanum</i>	18	650	6, 8, 5, 6	3	3	M	Seemingly sound and healthy, no clear signs of Bleeding Canker infection (<i>Pseudomonas</i>). Stem base appears to be sound. Large overextended limb at 3m projecting over garden to south-east. <i>Recommend 30% weight reduction of limb to SE.</i>	20-30	B	7.8 190	4, 5
T2	Horse Chestnut <i>Aesculus hippocastanum</i>	14?	350	2, 5, 3, 0	2	2	M	Severe decline, tree base has failed and is leaning into T1. Probably in stable position but rubbing causing damage to T1 & considered unsightly. <i>Recommend full removal</i>	0-10	U	N/A	5
T3	Horse Chestnut <i>Aesculus hippocastanum</i>	18	600	5, 5, 6, 6	3	3	M	Apparent decline, foliage fair at present but two large limbs have already been shed at 6.5m & 8m. Bark death and wood decay in stem base west side, honey fungus present. Stem hole @ 4.5M N <i>Carefully monitor decline, fell as desired.</i>	10-20	C	7.2 165	5, 6, 7
T4	Field Maple <i>Acer campestre</i>	14	325	2, 5, 5, 3	2	2	M	Fair foliage health, very hollow stem and leaning south over neighbouring property. Strong tree but some risk of breakage/failure. <i>Recommend pollard between 2 and 4m AGL</i>	10-20	C	N/A	8

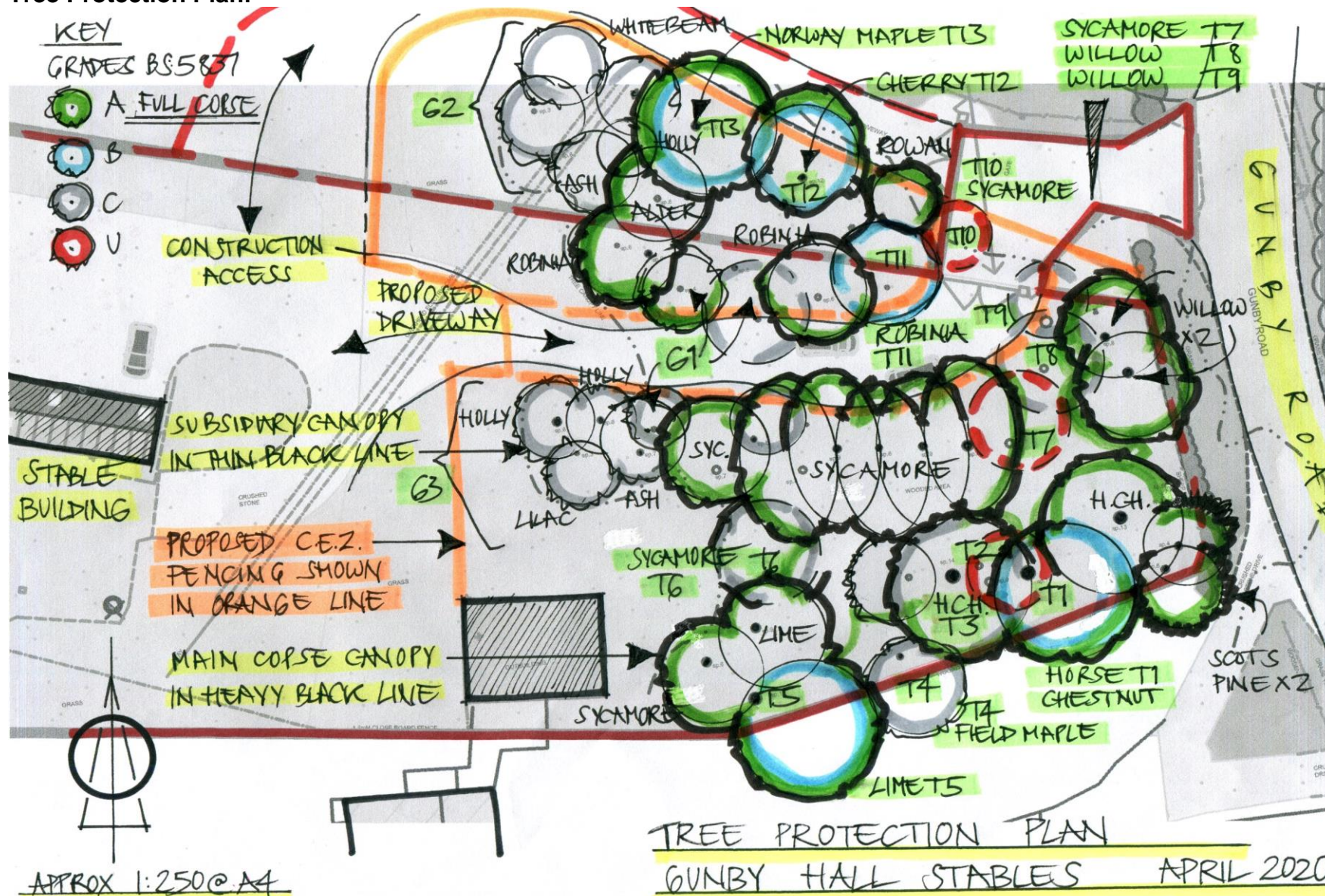
Tree No.	Species	Ht (m)	DBH (mm)	Spread N, E, S, W	Ht 1 st branch	Ht to crown	Age Class	Physiological and Structural Condition. Preliminary Management Recommendations	Est RC years	Grade BS5387	RPA (rad, m2)	Photo
T5	Lime <i>Tilia species</i>	18	725	1, 9, 8, 2	3	3	M	Fair health with significant lean over garden to south. Not over the driveway but any failure would be dramatic. Extensive deadwood, typical of Lime. Stem base appears to be stable and secure in ground, but this ground is soft. <i>Recommend overall crown reduction of nominal 30%, including crown clean & rebalance to north.</i>	20-30	B When pruned	8.7 240	8, 9
T6	Sycamore <i>Acer pseudoplatanus</i>	18	575	6, 4, 1, 5	2	2	M	Fair foliage health, thin & high crown, deadwood and decline evident. Slight outlier from group. Close to outbuilding and adjacent trees have previously been lost, but not considered a significant safety hazard. <i>Carefully monitor decline, fell if desired to create space & light for replanting (3 new trees).</i>	10-20	C	N/A	9
T7	Sycamore <i>Acer pseudoplatanus</i>	16	475	6, 4, 3, 3	4~	4~	M	Fair foliage health, very hollow stem and leaning north towards proposed drive. Deadwood in canopy above and some risk of failure. <i>Recommend full removal and replanting.</i>	0-10	U	N/A	11 12
T8	Willow (Crack?) <i>Salix species</i>	15	350	6 north	4~	4~	M	Fair foliage health, unbalanced, leaning north towards proposed drive and gate. Deadwood in canopy and soft ground may contribute to failure. <i>To be removed for development purposes and to create space for new planting. Alternatively, coppice at ground and allow shrubby regrowth.</i>	10-20	C	N/A	3 13
T9	Willow (Crack?) <i>Salix species</i>	15	450	7 north	4~	4~	M	Fair foliage health, unbalanced, leaning north towards proposed drive and gate. Deadwood in canopy and soft ground may contribute to failure. <i>To be removed for development purposes and to create space for new planting.</i>	10-20	C	N/A	3 13 16

Tree No.	Species	Ht (m)	DBH (mm)	Spread N, E, S, W	Ht 1 st branch	Ht to crown	Age Class	Physiological and Structural Condition. Preliminary Management Recommendations	Est RC years	Grade BS5387	RPA (rad, m2)	Photo
T10	Sycamore <i>Acer psd'platanus</i>	7	100	3, 2, 0, 1	2	2	Y	Small tree, fair health, stem damage, leaning. <i>To be removed for development purposes.</i>	10-20	C	N/A	14
T11	Robinia <i>Robinia pseudoacacia</i>	16	300	3, 4, 3, 3	4~	5~	M	Fair foliage health, typical thin & high crown, deadwood evident, weak twin stem at 5m. <i>To be removed for development purposes.</i>	20-30	B	N/A	15
T12	Cherry <i>Prunus avium var.</i>	14	350	8, 5, 4, 4	3	2.5 drive	M	Sound and healthy, fair form, low and unbalanced over access drive to north. Some deadwood. <i>Crown lift to 4m clear over drive, clean if desired.</i>	20-30	B	4.2 55	17
T13	Norway Maple (Purple?) <i>Acer platanoides</i>	14	550	5, 6, 5, 4	3	3 drive	M	Sound and healthy, fair form, low unbalanced over access drive to north. Tight x2 junction at 3m currently appears sound but possible future risk. <i>Crown lift to 4m clear over drive, clean if desired.</i>	20-30	B	6.6 140	17 18
G1	Holly Hawthorn Yew	4 to 10	100-300 M/S	Plan	1	1	SM M	Various small trees and shrubs along proposed drive. Fair condition, some evergreen, though limited external amenity value <i>Retain or prune/coppice as required.</i>	10-20	C	Plan	10 15
G2	Whitebeam Ash, Alder Malus, Holly and mixed Shrubs	2 to 12	100-300 M/S	Plan	0-2	0-2	SM M	North-western group, in fair condition overall. Ash and Alder sound and healthy, Whitebeam because of overhead cables. Some shrub content and evergreen screen value. <i>Retain with fenced protection, from drive access.</i>	10-20	C	Plan	19
G3	Holly, Yew, Lilac, Ash	4 to 10	100-300 M/S	Plan	1	1	SM M	South western group, in fair condition overall. Ash probably self-seeded, broken branch in Yew. Evergreen screen value. <i>Retain with fenced protection</i>	10-20	C	Plan	20

KEY

Dimensions	Life St: Life Stage (or age class)	Other Headings & Notes	Grade: Tree Quality based on BS5837:2012
Ht: Maximum height of tree, in metres.	Y – Young	Ref: Reference number (which <i>may</i> refer to a tag fixed to a tree). T – Tree, H – Hedge, G – Group	U – Trees in such a condition where any existing value would be lost in 10 years.
DBH/Diam: Stem diameter at ~ 1.5m above ground level (AGL), in mm.	SM – Semi-Mature	Species: Common name, plus Latin name where appropriate. Species in brackets () indicate shrub or subsidiary species, in hedges and in groups.	A – Trees of high quality and value.
Spread: Minimum spread of branches to the 4 cardinal points, in metres.	EM – Early-Mature	Est RC: Estimated remaining contribution, in years.	B – Trees of moderate quality and value.
Ht 1st branch: Height AGL of first significant branch, and growth direction where applicable, in metres.	M – Mature	RPA: Root Protection Area, in m ² , calculated from stem diameter, in accordance with BS5837.	C – Trees of low quality and value. <i>Trees in this category should not be retained where they impose significant constraints on development.</i>
Ht to Crown: Height AGL to lowest significant section of canopy, and direction where applicable, in metres.	OM – Over-Mature	Photo: Photograph reference number, where applicable.	Avg: Shorthand for 'Average'
~ – indicates estimated dimension.	V – Veteran	Other Abbreviations: AGL – Above Ground level CEZ – Construction Exclusion Zone TPP – Tree Protection Plan	

Tree Protection Plan:



Photographs: 7th April 2020



Photo 1: Scots Pine from south east, Horse Chestnuts behind



Photo 2: Group from Gunby Road to east



Photo 3: Willow group from north east



Photo 4: Within southern section, looking west.



Photo 5: Horse Chestnut T1 LHS, and failed T2 in centre leaning into tree to left.



Photo 6: Base of Horse Chestnut T3



Photo 7: Broken limb in Horse Chestnut T3

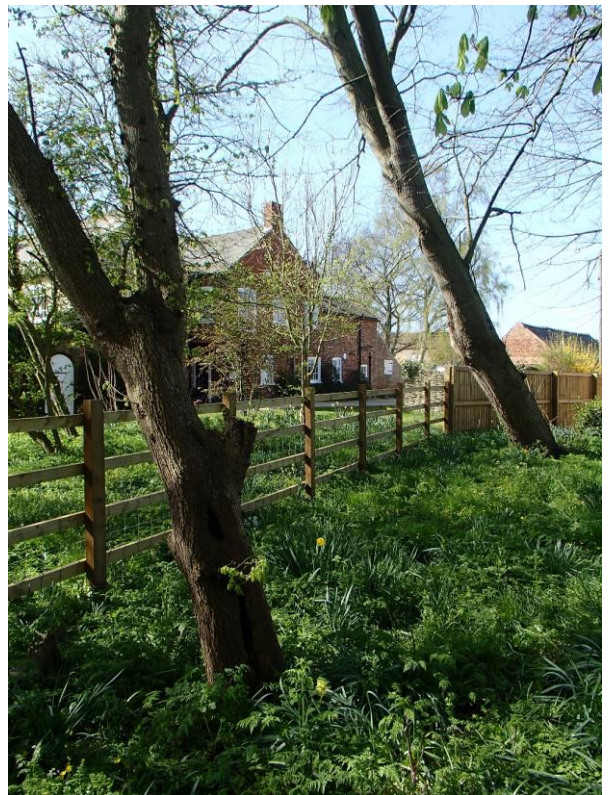


Photo 8: Field Maple T4 LHS, leaning Lime T5 RHS



Photo 9: Lime T5 to left, Sycamore T6 centre front



Photo 10: Sycamore group, centre of site. Part of group 1 below canopies.



Photo 11: Canopy detail, central Sycamore group



Photo 12: Hollow base of Sycamore T7



Photo 13: Willow group, T8 & T9 to fell to LHS



Photo 14: Small trees on drive, T10 to fell to RHS.



Photo 15: Route of proposed drive, looking west. Robinia T11 to fell centre right. Group 1 at end.



Photo 16: Route of proposed drive, looking east towards gate. T8 & T9 in view.



Photo 17: Existing drive, Cherry T12 centre. T13 to RHS



Photo 18: Existing drive, Norway Maple T13



Photo 19: Small mixed group, some below overhead wires, north-west corner.



Photo 20: Small mixed group, centre west, at end of proposed drive. Part of group 1.