

**BARNBURGH LANE, GOLDTHORPE PH.2
for Gleeson Homes & Regeneration**

TREE SURVEY



Chartered Landscape Architects

1 Isis Court,
YORK

Rosetta Way
YO26 5NA

Telephone +44 (0)1904 794276
Facsimile +44 (0)1904 786962

Email: design@rosettalandscape.co.uk
Web: www.rosettalandscape.co.uk

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DRAWING: 2595/1 (EXISTING TREES ON SITE)

1.0 GENERAL

- 1.1 This tree survey was undertaken by Martin Popplewell (Landscape Architect) and Scott Reid (Arboricultural Consultant) on 15 Sep 2015 on behalf of Gleeson Homes & Regeneration in conjunction with proposals for residential development on site.
- 1.2 The survey should be read in conjunction with drawing 2595/1 (Existing Trees on Site).
- 1.3 The survey area is located around 1 km south-east of the village of Goldthorpe which itself lies around 10 km South East of Barnsley. To the North lies an area of residential development currently under construction. Open fields –in agricultural use at the time of the survey – bound the site to the East and west. A wetland area containing a pond abuts the site to the South.
- 1.4 The site was formally in agricultural use but this has now ceased and the site is covered in rough grassland – badly drained in places. Ground is relatively level across the site at around 25 metres Above Ordnance Datum (AOD). Beyond the site to the south, East and West ground levels remain the same whereas to the North ground rises gradually to around 30 m AOD on Barnburgh Lane.
- 1.5 Due to the fact that no significant trees are found on site it is assumed that none of the vegetation is included within a Tree Preservation Order.
- 1.6 Trees grow and can develop weaknesses, the climate is thought to be changing and the many other factors which affect trees are rarely static. It is advisable to have trees inspected by a qualified arboriculturist regularly, and in this instance it is recommended that these inspections should be made every year.
- 1.7 The report is based upon a visual inspection. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.
- 1.8 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.
- 1.9 No liability can be accepted by the consultant in respect of the trees unless the recommendations (see Section 9) are carried out under their supervision and within the timescale indicated.
- 1.10 The report aims to consider both the aesthetic qualities of the trees as well as their health. The health of the trees is considered in relation to the proposed change of use to housing.
- 1.11 It must be noted that this tree report and accompanying drawing(s) do not constitute a Schedule of Works, and approval should be sought from the local authority prior to any works commencing.

2.0 SPECIES AND THEIR ARRANGEMENT IN THE LANDSCAPE

- 2.1 All trees surveyed lie along or beyond the site perimeter.

2.2 The principal tree species on or adjacent to the site is Hawthorn. These can be found as isolated specimens along the southern site boundary, as well as within hedging along or other boundaries.

2.3 Other species present are Sycamore and Elder – the former within hedging along the Eastern boundary and the latter within an area of planting to the South.

3.0 HEIGHT AND SIGNIFICANCE IN THE LANDSCAPE

3.1 The most visually-prominent trees are the mature Hawthorn (T2, T3 and G4) along the southern boundary. These only reach a height of around 7m but their local prominence relates as much to their presence as a group as their height.

3.2 Other than the above the only vegetation consists of hedging along most of the site boundaries. Although the individual specimens contained therein are only of modest quality and height (around 7 m maximum) these do provide dense screening at lower levels from offsite views.

3.3 The hedgerows are generally unmaintained features but could be brought back into management relatively easily.

4.0 AGE AND CONDITION

4.1 The majority of trees surveyed fall within the 'Early mature' and 'Mature' categories and all but one are in Fair or Good condition with no action required in the main.

4.2 There is only group of dead trees on site (G4) – probably due to poor ground conditions as a result of waterlogging from the adjacent pond. Their removal will visually marginally benefit the area as a whole.

5.0 ENVIRONMENTAL CONDITIONS

5.1 Due to their location on a low-lying ground (in comparison to land to the North) trees on site could be expected to be subject to potential impact from prevailing winds. Indeed, there is no evidence of this at the present time and the development of the site is likely to provide increasingly sheltered conditions for any retained trees over time.

5.2 Ground water conditions are assessed to be a significant factor in present health of some trees to the southern end of the site due to the waterlogged nature of the ground – this includes parts of the south Eastern corner as well as offsite land to the South. It is likely however that ground conditions will improve significantly as a result of the introduction of surface water drainage following development.

6.0 CODES USED WITHIN SCHEDULE

Column	Information
1	Tree reference number (recorded on tree survey drawing).
2	Species (common and scientific names, where possible).
3	Height of tree in metres.
4	Stem diameter in centimetres at 1.5m above adjacent ground level (on sloping ground taken on the upslope side of the tree base) or immediately above the root flare for multi-stemmed trees. # - estimated value
5	Branch spread in metres taken at the four cardinal points to derive an accurate representation of the crown (recorded on the tree survey drawing).
6	Age class (young, semi mature, early mature, mature, over mature, veteran).
7	Height in metres of crown clearance above adjacent ground level (to inform on ground clearance, crown stem ratio, and shading).
8	Physiological condition (e.g. good, fair, poor, dead).
9	Estimated remaining contribution in years (e.g. less than 10, 10-20, 20-40, more than 40).
10	Category grading. Trees are assessed in terms of quality in accordance with BS 5837:2012 into U or A to C categories (see Section 7.0) which are recorded on the tree survey drawing.
11	Notes on appearance and structural condition (e.g. collapsing, the presence of any decay, and physical defect).
12	Preliminary management recommendations, including further investigation of suspected defects that require more detailed assessment, and potential for wildlife habitats.

7.0 TREE QUALITY ASSESSMENT

7.1 TREES UNSUITABLE FOR RETENTION

Definition – Category U

(Shown in broken outline on drawing with cross at trunk location)

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.

Criteria – Category U

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.

NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve;

7.2 TREES TO BE CONSIDERED FOR RETENTION

Definition - Category A1, A2, A3

(Shown in heavy outline on drawing with star at trunk location)

Trees of high quality with an estimated life expectancy of at least 40 years.

Criteria - Category A

A1 *(Mainly arboricultural qualities)*

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).

A2 *(Mainly landscape qualities)*

Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.

A3 *(Mainly cultural values, including conservation)*

Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).

Definition - Category B1, B2, B3

(Shown in medium outline on drawing with solid dot at trunk location)

Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Criteria - Category B

B1 *(Mainly arboricultural qualities)*

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.

B2 *(Mainly landscape qualities)*

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.

B3 *(Mainly cultural values, including conservation)*

Trees with material conservation or other cultural value.

Definition - Category C1, C2, C3

(Shown in light outline on drawing with open circle at trunk location)

Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.

Criteria - Category C

C1 *(Mainly arboricultural qualities)*

Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.

C2 *(Mainly landscape qualities)*

Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value; and/or trees offering low or only temporary/transient landscape benefit.

C3 *(Mainly cultural values, including conservation)*

Trees with no material conservation or other cultural value.

NOTE: Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.

8.0 DETAILED SCHEDULE OF VEGETATION ON SITE

Tree number on dwg	Species	Height (m)	Stem diameter (cm)	Branch spread (m)	Age class	Crown clearance + Ht/direction of lowest branch	Physiological condition	Estimated remaining contribution (years)	Category grading	Notes / Structural condition	Preliminary management recommendations
T1	Hawthorn, Sycamore	4	7	3 m wide	SM	0	Good	10-20	C	Overgrown field hedgerow contains occasional young trees. Several gaps noted.	No action
T2	Hawthorn	6	13	N 5.5 S 5 E 4.5 W 4.5	M	3	Good	10-20	C	Tree lies offsite but canopy overhangs site boundary. Multi-stemmed with wide spreading dense Crown.	No action
G3	2nr. Hawthorn	7	13	N 5 S 6 E 6 W 6.5	M	1.5	Good	10-20	C	Pair of trees lie offsite but canopies overhang site boundary. Both multi-stemmed specimens with wide spreading dense crowns that read as one.	No action
G4	Hawthorn, Elder	7	11	As plan	M	0	Fair	10-20	C	Overgrown field hedgerow has been left unmaintained for some time and is now developing into a line of individual specimens (some of which are dead). Of limited arboricultural value.	No action
G5	Hawthorn	7	18	As plan	D	0	Dead	<10	U	Line of dead or dying trees on edge of wetland area/pond.	Remove
H6	Hawthorn	7	13	As plan	M	0	Fair	10-20	C	Overgrown field hedgerow has been left unmaintained for some time. Dense foliage to ground level.	No action
H7	Hawthorn	<7	10	As plan	SM	0	Fair	10-20	C	Unmaintained field hedgerow contains occasional larger individual specimens.	No action

9.0 GENERAL RECOMMENDATIONS

9.1 Generally

Any recommended tree works should only be carried out with the consent of the local authority.

9.2 Trees in relation to Development

Consider the depth of foundations with reference to NHBC recommendations.

9.3 Tree Work before Development

Remove all 'U' category trees including those approved for removal in relation to approved development. Erect a robust fence to protect not only the retained trees themselves, but also the rooting zones at limit of canopy spread or in accordance with BS 5837:2012.

9.4 Care of Trees during Development

It is recommended that the precautions below be issued to the site manager for display on site.

GENERAL PRECAUTIONS DURING DEVELOPMENT:

- Section 4.6 of British Standard 5837:2012 "Trees in Relation to Construction" gives details of the method for calculating the root protection area (RPA - based on stem diameter) which should be left undisturbed around each retained tree. This is to prevent soil compaction, stacking etc. during demolition/construction. The RPA is included on the Tree Constraints Plan together with an indication of Above Ground Constraints.
- Based on the above calculation, and taking into account site specific issues, fencing in accordance with BS 5837:2012 should be erected around trees to be retained. This shall comprise a framework of scaffold poles driven vertically into the ground with diagonal bracing for support and welded mesh panels wired to uprights. This must be erected before any site access for demolition or construction. The above details and distances of tree protection will normally be set as a condition of any planning approval.
- British Standard 5837:2012 provides guidance for methods of working on development sites in proximity to retained trees and the principles set down in Section 7 of the document should be strictly adhered to. The following principles are particularly important:
 - Traffic must not enter tree root protection areas.
 - Stacking of construction materials should not occur beneath any tree canopies or within tree root protection areas.
 - Cement mixing or flushing should not occur inside minimum tree protective zones or within 10m of any tree (including trees on adjacent properties).
 - Fires should not be lit within 10m of any tree/canopy (this distance should be increased if conditions are windy).
 - Toxic materials (cements, oils, etc) should not be stored beneath canopies or within tree root protection areas.

9.5 **Towards Conclusion of Development**

Surgery is best carried out at this stage so that any known root damage can be corrected by the appropriate crown thinning to restore root/shoot balance. Similarly, trees now seen in relation to garden situations can be shaped as required. Planting to augment existing trees as part of the landscape works can now be appropriately undertaken at this stage.

mp/ROSETTA LANDSCAPE DESIGN

Sep 2015

projects/docs/2595-ts-21sep15

APPENDIX



PHOTOGRAPHS



Photo 1: ▲

View south showing groups of mature Hawthorns that lie just beyond the southern boundary – T2 left, G3 centre and G4 right.

Photo 2:

View south west showing line of dead Hawthorns (G5) with glimpse of pond beyond.



Photo 3:

View north showing hedge H7 – typical of hedging along most site boundaries. ▼

