

TREE FIRST LTD.
TREE SURVEY & ASSESSMENT

Tree Survey & Report to British Standard BS5837:2012


Tree Survey & Report British Standard BS5837:2012



2 Holly Garth, North Ferriby

HU14 3FE



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Full Document Release

Signed: 

Date: 20th March 2024

Tree First Ltd. accept no responsibility for injury that may occur as a result of incorrectly interpreting this report.

If works are not likely to start within 12 months of this survey work, it is recommended that an updating survey is undertaken to ascertain any changes which may have occurred.

**Trees are living organisms whose health and condition can change rapidly as a result of environmental changes. All trees, even healthy ones, are at risk from unpredictable climatic and man-made events. The assessment of risk for these trees is based upon factors evident at the time of the inspection, the potential an individual tree has for survival, and the interpretation of those factors by the inspector. The health, condition and safety of these trees should be checked on a basis commensurate with the level of risk as specified in this report.*



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Section 1. Report Information

1.1 Introduction

This report has been commissioned by **Mr & Mrs Hobson**, 2 Holly Garth, North Ferriby HU14 3FE

This is for the purposes of supporting a full planning application to East Riding of Yorkshire Council for the construction of a single storey kitchen extension to the rear of the existing dwelling at the above address.

The survey has been undertaken to assess the species composition, quantity & quality of trees located both within the existing rear garden, as well as in adjacent gardens to the proposed development & the access drive.

The survey has been conducted in accordance with BS 5837 *Trees in Relation to Design, Demolition and Construction - Recommendations 2012*.

The trees are in the area highlighted yellow on aerial photographs of the site in **Image 1**.

The specific details of the tree species are set out in **Table 1** below.

Tree Genus & species	Common Name	No. of Trees in Survey
<i>Acer spp.</i>	Maple	1
<i>Aesculus x carnea</i>	Red Horse Chestnut	1
<i>Betula nigra</i>	River Birch	1
<i>Betula papyrifera</i>	Paper bark birch	1
<i>Carpinus betulus</i>	Hornbeam	3
<i>Cercis canadensis</i>	Eastern Redbud	1
<i>Ilex x altaclarensis</i>	Highclere Holly	1T/1G3
<i>Prunus cerasifera</i>	Myrobalan/Cherry Plum	1
<i>Prunus laurocerasus</i>	Cherry Laurel	1
<i>Populus deltoides</i>	Eastern Cottonwood	2
<i>Sorbus aria</i>	Whitebeam	1
<i>Tilia x europaea</i>	Common Lime	1

Table 1. Individual tree species present within the survey group.

1.2 Site Location



Image 1.

Aerial photograph of the proposed development site (highlighted in yellow) in the context of its relationship to the immediate built and natural environment.

(Reproduced under licence from google Earth Pro 09/2023)

1.3 Tree Survey Methodology

- i. The trees were visually assessed on Wednesday 6th March 2024 in light rain & overcast conditions.
- ii. The site visit was conducted in full and open consultation with the applicant regarding establishing the scale of the proposed development, but it did not included a formal review of finalised construction plans.
- iii. The survey was undertaken from ground level.
- iv. The survey data collected was sufficiently detailed to achieve the following objectives:
 - Locate and identify the trees at (or in close proximity to) this site ✓
 - Collect data relating to size, form and canopy relationships ✓
 - Identify and assess the tree (s) current physiological and structural condition ✓
 - Propose appropriate classification in the context of their estimated Safe Use Life Expectancy ✓
 - To produce a plan illustrating the location and above classifications of existing trees ✓
 - To suggest a program of retention or removal based on the above information ✓
- v. The measured trees have NOT been tagged as part of this this survey
- vi. Shrub species have ONLY been individually surveyed where these have tree-like proportions.

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Section 2. Tree Survey Data

Table 2. Individual tree assessments within the survey group

Tree No. on plan	Genus & species	Ht. (m)	Crown Spread (m)	Height of lowest branch (m)	Stem Dia. @ 1.5m (mm)	Life stage	Estimated Remaining Contribution in years	General Observations P – Physiological condition S – Structural condition.	RPA	BS5837:2012 Category/Sub-category
T01	<i>Sorbus aria</i> Whitebeam	3.7	N – 0.8 E – 0.8 S – 0.8 W – 0.8	0.5 All round	45	EM	10+	P: GOOD S: FAIR Very young tree in planted border along boundary fence. Potentially obstructing access from side passage for movement of materials and equipment for proposed extension. Suitable candidate for short-term or permanent transplanting	Radius N/A Area N/A	C1
T02	<i>Carpinus betulus</i> Hornbeam	4	N – 0.8 E – 0.8 S – 0.8 W – 0.8	0.6 All round	55	EM	10+	P: GOOD S: FAIR Very young tree in planted border along boundary fence	Radius N/A Area N/A	C1
T03	<i>Acer sp.</i> Maple	3.4	N – 1.5 E – 0.1 S – 0.6 W – 1.5	1.4 NW	45 @1.2	NP	10+	P: GOOD S: FAIR Very young tree in planted border along boundary fence	Radius N/A Area N/A	C1

T04	<i>Betula nigra</i> River Birch	1.8	N -0.9 E -0.9 S -0.8 W -1.1	1.1 W	20 @1m	NP	10+	P: FAIR S: FAIR Very young tree in planted border to south of boundary hedge. Minor dead wood (<10%) throughout crown	Radius N/A Area N/A	C1
T05	<i>Populus deltoids</i> Eastern Cottonwood	26	N -#6.6 E -6.5 S -8 W -8.5	7 SE	665	MA	40+	P: FAIR+ S: FAIR Large specimen tree. Previously crown lifted to approx. 6.5m above ground level. Canopy biased NW-SE. Previous pruning wounds steadily occluding. Protected by Tree Preservation Order	Radius 8m Area 201 sqm	A1
T06	<i>Carpinus betulus</i> Hornbeam	2.5	N -0.3 E -0.3 S -0.3 W -0.3	0.55 All round	25 @1.1	NP	10+	P: GOOD S: FAIR Very young tree in planted border to south of boundary hedge	Radius N/A Area N/A	C1
T07	<i>Carpinus betulus</i> Hornbeam	2.6	N -0.25 E -0.25 S -0.25 W -0.25	0.5 All round	20 @1.1	NP	10+	P: FAIR S: FAIR Very young tree in planted border to south of boundary hedge	Radius N/A Area N/A	C1
T08	<i>Populus deltoids</i> Eastern Cottonwood	26.9	N -#8 E -8.4 S -8.5 W -11.8	4.5 SE	900	MA	40+	P: FAIR+ S: FAIR Large specimen tree. Previously crown lifted to approx. 6.5m above ground level. Canopy biased NW-SE. Previous pruning wounds steadily occluding. Protected by Tree Preservation Order	Radius 10.8 Area 366 sqm	A1

T09	<i>Betula papyrifera</i> Paper bark Birch	2.8	N -0.5 E -0.5 S -0.5 W -0.5	0.4 SE	30 @ 0.6	EM	10+	P: FAIR- S: FAIR Young tree in planted border to south of boundary fence. Tree shows long-term decline in vitality due to subordination to T08	Radius N/A Area N/A	C1
T10	<i>Aesculus x carnea</i> Red Chestnut	12.5	N -5.1 E -6 S -2.6 W -4.7	4.1 SW	570	MA	20+	P: FAIR S: FAIR Grafted specimen tree in planted border along east boundary fence. Increasingly impacted by shade from over-hanging canopy of T08 and competition from G11 & T13. Bacterial canker at 1.1m on S face of trunk with exposed & desiccated sap wood – condition typical of species	Radius 6.9 Area 150 sqm	B1
G11	<i>Ilex x altaclerensis</i> Highclere Holly	7.8	N -3.2 E -2.3 S -3.6 W -2.6	2.5 NW	MS 3 140, 110, 130	EM	20+	P: FAIR S: FAIR Group of 3no. independent stems with collective canopy in planted border along east boundary. Increasingly shading west canopy face of T10. Extensively crown-lifted to permit under-planting.	Radius 1.8m Area 10 sqm	B2
T12	<i>Ilex x altaclerensis</i> Highclere Holly	6	N -2.5 E -2.2 S -1.8 W -2.9	2.7 AR	MS 2 150, 155	EM	10+	P: FAIR S: FAIR Group of 2no. attached stems with collective canopy in planted border along east boundary. Extensively crown-lifted to permit under-planting.	Radius 3.6m Area 232 sqm	C2

T13	<i>Tilia x europaea</i> Common Lime	13.8	N -4.2 E - #6 S - 3.3 W - 4.6	2.7 NE-S	510	EM	20+	P: FAIR S: FAIR- Young tree in planted border along east boundary. Crown heavily biased NE-S over neighbouring garden. Exposed sap wood pruning wound facing W at scaffold union from historic stem removal/failure. Depth of decay unknown	Radius 6.1m Area 128 sqm	B2
T14	<i>Cercis canadensis</i> Eastern Redbud	8.1	N -1.7 E - 4.5 S - 1.7 W - 1.3	2.35 N	235	EM	10+	P: FAIR+ S: FAIR Young tree in planted border immediately adjacent to E boundary fence. Previously topped at 8m. Significant amount of epicormic growth on full height of stem from recent exposure to light. Trunk leans SE 10° towards/over boundary fence.	Radius 2.8m Area 25 sqm	C1
T15	<i>Prunus cerasifera</i> Myrobalan	5.8	N -1.3 E - 3.8 S - 2.8 W - 1	1.6 SE	245 @1.4	OM	<10	P: FAIR- S: POOR Tree in poor condition with central column of decay with opening from ground level into branch structure. Substantial number of water-shoot development. Tree protected by Tree Preservation Order?	Radius 2.7m Area 23 sqm	C2
STM 1	<i>Populus deltoides</i> Eastern Cottonwood	2.2	N/A	N/A	#500	N/A	10+	P: DEAD S: DEAD Tree previously reduced to Standing deadwood monolith (STM)	Radius N/A Area N/A	N/A

STM 2	<i>Populus deltoides</i> Eastern Cottonwood	2.4	N/A	N/A	500	N/A	10+	P: DEAD S: DEAD Tree previously reduced to Standing deadwood monolith (STM)	Radius N/A Area N/A	N/A
SHB1	<i>Prunus laurocerasus</i> Cherry Laurel	2.4	N -2.3 E -1.5 S -1.4 W -0.9	1.15 S + 0.95 N	MS2 90 (x2)	MA	10+	P: FAIR S: FAIR- Large shrub in planted border along east boundary fence. Canker at on W face of trunk with exposed & desiccated sap wood creating column of decay from ground level to +1m – condition typical of species when heavily pruned	Radius 2.1m Area 14 sqm	N/A
H1	<i>Ligustrum ovalifolium</i> Privet	2.4	1.2 depth	0.2 all round	15 (x X00+ no. stems)	MA	20+	P: FAIR S: FAIR Well established & regularly clipped hedge between rear boundary fence & planted border, approx. 17m in length (intermittently broken by tree stems & standing monoliths. RPA well within the anticipated exclusion zone T05 & T08 – no separate protection would be required	Radius 1m Area 4 sqm	B2
H2	<i>Ligustrum ovalifolium</i> Privet	2.4	0.9 depth	0.2 all round	15 (x X00+ no. stems)	MA	20+	P: FAIR S: FAIR Well established & regularly clipped hedge between east boundary fence & planted border, approx. 12m in length. RPA well within the anticipated exclusion zone for T10 & T13 – no separate protection would be required	Radius 1m Area 4 sqm	B2

Appendix A: BS 5837:2012 Tree Survey Schedule Key

Tree No.

Tree numbers applied as T1 etc. to each tree are as per the Tree Survey Plan and subsequent drawings, where trees occur as a cohesive group these are suffixed with a G, they are assessed as such, with all size data being given as mean figures unless otherwise stated. Any trees on-site and off-site that are appropriate to be included but are omitted from the topographical survey supplied are included in the schedule, though their positions are shown only indicatively.

Life Stage

NP	Newly planted – a tree within 3 years after planting
EM	Young Mature – a tree within its first one third of life expectancy
MA	Middle-aged – a tree within its second third of life expectancy
MAT	Mature – a tree in its final one third of life expectancy
OM	Over Mature – a tree having reached its maximum life span and is declining in health and size due to old age
V	Veteran – a tree that is of interest biologically, aesthetically or culturally because of its age, size and condition

Physiological Condition

An assessment of the physiological condition (i.e. health/vitality) of the tree categorized into:

GOOD	a tree in a healthy condition with no significant problems
FAIR	a tree generally in good health with some problems that can be remediated
POOR	a tree in poor health with significant problems that can't be remediated
DEAD	a tree without sufficient live material to sustain life

Structural Condition

An assessment of the structural/safe condition of the tree categorized into:

GOOD	- a tree in a safe condition with no significant defects
FAIR	- tree in a safe condition but with defects or with significant defects that can be remediated
POOR	- a tree with significant defects that can't be remediated

Notes related to both physiological and structural condition follow the categorization in order support the statement and give greater detail on the true quality and value of the tree.

Preliminary Management Recommendations

These may include further investigations for the presence or extent of decay or climbed inspections, Ivy removal or pruning works when access is a non-moveable aspect etc. (NB this is **not** intended to be a specification for tree work and further advice maybe required prior to implementation). Trees assessed as being in apparently immediately hazardous condition will be notified to the client separately as soon as practicable.

Appendix B: BS 5837: 2012 Cascade Schedule

Figure BS 5837: 2012 Cascade chart for tree quality assessment		
Category & Definition	Criteria	Identification
<p>Trees unsuitable for retention)</p> <p>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</p>	<p>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 (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</p> <p>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</p> <p>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> <p>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve. For example habitat reinstatement may be appropriate (e.g. U category tree used as a bat roost: installation of a bat box in a nearby tree)</p>	<p>Dark Red</p>
<p>Category A (Trees considered for retention) Those of high quality with an estimated remaining life expectancy of at least 40 years</p>	<p>1. Mainly arboricultural qualities - Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/ or principle trees within an avenue)</p> <p>2. Mainly landscape qualities - Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p> <p>3. Mainly cultural values, including conservation - Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)</p>	<p>Light Green</p>
<p>Category B (Trees considered for retention) Those of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	<p>1. 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 minor 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</p> <p>2. Mainly landscape qualities- Trees present in numbers, usually 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.</p> <p>3. Mainly cultural values, including conservation – trees with material conservation or other cultural value</p>	<p>Mid-Blue</p>
<p style="text-align: center;">Category C</p> <p>Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm</p>	<p>1. Mainly arboricultural qualities- Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p> <p>2. 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 benefits.</p> <p>3. Mainly cultural values, including conservation – trees with no material or conservation value</p> <p>NOTE: Whilst Category C 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</p>	<p>Grey</p>