Tree Survey



The old mission, counter drain drove, tongue end, Spalding, Lincolnshire, PE11 3JJ

January 21st 2023

Project:

Proposed planning application for 2 new dwellings at the old mission, counter drain drove, tongue end, Spalding, Lincolnshire, PE11 3JJ. Existing building to be demolished to allow for new dwellings.

Introduction

Tree survey to accompany the planning application for the old mission, counter drain drove, tongue end, Spalding, Lincolnshire, PE11 3JJ.

The proposal seeks to develop the unused/derelict site to provide 2 private and affordable semidetached 3 bedroom homes. Both with their own garage and off-road car parking spaces.

The work involved collecting data relating to the existing tree stock, in order to inform the proposed redevelopment of this Site. The initial tree survey is considered to be compliant with BS5837.

The overall site is approximately 0.1 hectare and on there is two unused/derelict building to be demolished use to be Motivated engineering techniques. The only trees on the site are located around the boundary. The four types of tree species are Lime, red horse chestnut, ash and coniferous. To allow the proposed dwellings to be built the coniferous will all need to be felled/removed. The only other tree which needs to be felled/removed is tree ref no T41 (red horse chestnut) due to the poor condition and location.

Tree Survey

This report provides the results of a tree survey undertaken on Thursday 30th May 2019. The weather conditions were dry, overcast and still (approximately force 1 Beaufort Scale). The tree survey was conducted in accordance with the recommendations provided in British Standard 5837:2012 *Trees in relation to design, demolition and construction - Recommendations*. Only trees with a diameter greater than 7.5 cm at 1.5 metres height above ground level were included in the survey.

No invasive investigations or climbing inspections were necessary to confirm visual or audible signs of defect or debility and no tissue or soil samples were undertaken. Where identified, signs of substantial defects or debility significant to the pre-development context have been recorded.

The tree survey involved collecting the following data:

- Reference numbers (for tree identification)
- Tree species
- Approximate height in metres
- Trunk diameter measured at 1.5m above ground level (DBH)
- Branch spread in metres, measured from trunk to outer edges of the crown in north,east, south, and west directions
- Height to lowest branch above ground level
- Approximate age class (Y=Young, SM=Semi-Mature, M=Mature, LM=Late-Mature, OM=Over-Mature)
- Condition (e.g. good, fair/average, poor, dead)
- Structural
- Category grading according

BS 5837 categorisation for tree quality table shown below

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U 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	• 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; see [BS5837:2012]* ***4.5.7****.*		
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Trees to be considered for retention			
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	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	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	Trees with material conservation or other cultural value
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher	Trees present in groups or woodlands, but without this conferring on them significantly greater collective	Trees with no material conservation or other cultural value

Tree data for the old mission counter drain drove shown below

Findings for each tree surveyed are summarised on plan 3B 800/01 individually within the tree survey table.

Tree Ref No.	*Species*	*Overall Height (m)*	*DBH (mm)*	*Crown Spread (m)*		*Ht of Lowest branch (m)*	*Age Class*	*Condition / comments*	*Category*
T1	Ash	6	200	N	1.7	1.5	SM	Fair condition, no visble defects	A
				E	1.5				
				S	1.4				
				W	1.8				
T2	Ash	6	200	N	1.9	1.6	SM	Fair condition, no visble defects	A
				E	1.8				
				S	1.4				
				W	1.7				
T3	Ash	8	300	N	1.5	12	SM	Fair condition, tight forks at 1.8m approx, no visble defects	A
				E	2.3				
				S	2.3				
				W	1.5				
T4	Ash	6	250	N	1	2.4	SM	Fair condition, leaning no visble defects	A
				E	1.9				
				S	2				
				W	1.3				
T5	Ash	7	300	N	2	0.5	SM	Fair condition, 3 stem tight forks at 1.8m approx, leaning	A
				E	3.3				
				S	1.7				
				W	1.5				
T6	Ash	6	190	N	1	1.6	SM	Fair condition, no visble defects	A
				E	1				
				S	1				
				W	1.5				
T7	Ash	6.5	250	N	0.9	1.3	SM	Fair condition, tight forks at 1.4m approx, no visble defects	A
				E	1.5				
				S	0.8				
				W	0.7				
T8	Ash	5.5	110	N	0.8	3	Y	Fair condition, no visble defects	A
				E	1				
				S	0.9				
				W	1.2				
T9	Ash	7	190	N	1.2	3.7	SM	Fair condition, tight forks at 3.7m approx, no visble defects	A
				E	1.1				
				S	1				
				W	1.5				
T10	Conifer	7	200	N	2.6	1	SM	Fair condition, no visble defects	A
				E	3.3				
				S	3.1				
				W	3.4				
T11	Conifer	5.5	150	N	2.4	1	SM	Fair condition, no visble defects	A
				E	2.8				
				S	2.4				
				W	3				
T12	Conifer	6	180	N	2.4	1	SM	Fair condition, no visble defects	A
				E	3.2				
				S	3				
				W	3.3				
T13	Conifer	5.5	150	N	2.4	1	SM	Fair condition, no visble defects	A
				E	2.7				
				S	2.2				
				W	3				

Tree Ref No.	*Species*	*Overall Height (m)*	*DBH (mm)*	*Crown Spread (m)*		*Ht of Lowest branch (m)*	*Age Class*	*Condition / comments*	*Category*
T14	Conifer	6	170	N	2.6	1	SM	Fair condition, no visble defects	A
				E	3.3				
				S	3				
				W	3.3				
T15	Conifer	5	150	N	1.8	1	SM	Fair condition, no visble defects	A
				E	2.2				
				S	1.9				
				W	2.5				
T16	Conifer	5.5	160	N	2	1	SM	Fair condition, no visble defects	A
				E	2.1				
				S	2				
				W	2.6				
T17	Conifer	5	150	N	2.4	1	SM	Fair condition, no visble defects	A
				E	2.8				
				S	2.3				
				W	3.1				
T18	Conifer	6	150	N	2.4	1	SM	Fair condition, no visble defects	A
				E	2.6				
				S	2.4				
				W	3.2				
T19	Conifer	6	150	N	2.3	1	SM	Fair condition, no visble defects	A
				E	2.7				
				S	2.5				
				W	3.1				
T20	Conifer	6.4	165	N	2.6	1	SM	Fair condition, no visble defects	A
				E	3.3				
				S	3				
				W	3.3				
T21	Conifer	7	175	N	2.5	1	SM	Fair condition, no visble defects	A
				E	3.3				
				S	3				
				W	3				
T22	Conifer	5.2	155	N	2.4	1	SM	Fair condition, no visble defects	A
				E	2.7				
				S	2				
				W	3				
T23	Conifer	4.9	160	N	2.6	1	SM	Fair condition, no visble defects	A
				E	3				
				S	3				
				W	3.3				
T24	Conifer	5.5	200	N	2.6	1	SM	Fair condition, no visble defects	A
				E	3.3				
				S	3.2				
				W	3.6				
T25	Conifer	5	150	N	2	1	SM	Fair condition, no visble defects	A
				E	2.6				
				S	2.4				
				W	3.2				

Tree Ref No.	*Species*	*Overall Height (m)*	*DBH (mm)*	*Crown Spread (m)*		*Ht of Lowest branch (m)*	*Age Class*	*Condition / comments*	*Category*
T26	Conifer	5	155	N	2.3	1	SM	Fair condition, no visble defects	A
				E	2.7				
				S	2.5				
				W	3				
T27	Conifer	7.1	210	N	2.7	1	SM	Fair condition, no visble defects	A
				E	3.4				
				S	3.1				
				W	3.7				
T28	Conifer	7.2	250	N	2.8	1	SM	Fair condition, no visble defects	A
				E	3.5				
				S	3				
				W	3.9				
T29	Conifer	6.8	200	N	2.7	1	SM	Fair condition, no visble defects	A
				E	3.4				
				S	3.1				
				W	3.8				
T30	Conifer	6.1	210	N	2.6	1	SM	Fair condition, no visble defects	A
				E	3.3				
				S	3.3				
				W	3.6				
T31	Conifer	6	220	N	2.8	1	SM	Fair condition, no visble defects	A
				E	3.5				
				S	3				
				W	3.8				
T32	Conifer	4.8	100	N	1.3	1	SM	Fair condition, no visble defects	A
				E	1.7				
				S	1.4				
				W	2				
T33	Conifer	6.3	200	N	3	1	SM	Fair condition, no visble defects	A
				E	3.4				
				S	3.1				
				W	4				
T34	Conifer	6.5	210	N	2	1	SM	Fair condition, no visble defects	A
				E	2.3				
				S	2				
				W	2.5				
T35	Conifer	6	150	N	2.3	1	SM	Fair condition, no visble defects	A
				E	2.7				
				S	2.5				
				W	3				
T36	Conifer	7	200	N	2.4	1	SM	Fair condition, no visble defects	A
				E	2.8				
				S	2.4				
				W	3.1				
T37	Red Horse Chestnut	4	350	N	3	2.5	SM	Fair condition, Tree Preservation Order on this tree	A
				E	3.2				
				S	3.7				
				W	3.6				
T38	Lime	13	700	N	4.7	2.4	LM	Fair condition, Tree Preservation Order on this tree	A
				E	3.8				
				S	3.9				
				W	3.9				

Tree Ref No.	*Species*	*Overall Height (m)*	*DBH (mm)*	*Crown Spread (m)*		*Ht of Lowest branch (m)*	*Age Class*	*Condition / comments*	*Category*
T39	Lime	12	1000	N	3.4	2	LM	Fair condition, Tree Preservation Order on this tree	A
				E	3.3				
				S	3				
				W	3.2				
T40	Ash	11	400	N	3.3	1.5	LM	Good condition & shape	B
				E	2.3				
				S	2.4				
				W	3				
T41	Red Horse Chestnut	7.5	260	N	3.7	1	SM	Poor condition, leaning, part failed, damged bark	C
				E	3.5				
				S	1.8				
				W	1.8				

Findings of survey

A total of 41 trees & 4 types of different trees were surveyed and shown on Drawing No. 3B 800/01. Located on separate document (named trees location).
To allow the proposal to be carried out 28 trees will need to be removed. This will allow access to both dwellings and the trees wont cause damage to the dwellings late on in the future. The existing conifers T 10 – T 36 (totalling 27 conifer trees) running allow the north boundary will need to all be removed. This will allow enough space to set the dwellings back from the road & away from the 3 trees with the preservation order attached. The other tree which will need to be removed is T 41 which is in a poor condition, to allow the shared driveway to be build. The attached plan shows the removal of 28 trees (27 conifers & 1 red horse chestnut) on site.

Tree preservation orders

The proposed development does not lie within a designated Conservation Area but there are 3 trees which have a tree preservation order attached to them. I believe that the tree 3 trees which have the tree preservation order are T 37 (red horse chestnut), T 38 (Lime) and 39 (Lime). Trees T 37, T38 & T 39 will all remain as per existing. This information was taken from the south Holland district council.

Arboricultural impact assessment

The proposed development of the site should have a positive impact on the local landscape to the front of the site by clearing the overgrown and unused/derelict buildings. The site has been unused for a long time and the existing building have become dangerous & need to be demolished for safety. The new proposal will improve site which is in a state of poor maintenance. However, this will involve the removal of trees to allow the work to be carried out, As discussed above, this will be a positive step as the tree is already causing over-shading.

The plan provided (Drawing No. 3B 800/01) shows the existing & the proposed trees which will remain & be removed making sure it doesn't affect the existing preservation order trees on the site.

The proposal is to remove the existing conifers T 10 – T 36 (totalling 27 conifer trees) which will not affect the other trees on the site including the preservation order trees. The only other tree which will need to be removed is T 41 due to the poor condition (leaning, part failed, damaged bark). The attached plan shows the removal of 28 trees (27 conifers & 1 red horse chestnut) on site.

Tree protection plan

The protection of the retaining trees including the TPO (Tree preservation orders) & RPA (root protection area) need to be comply according to BS5837:2012. This will include protective fencing (Heras/Block 'n' Mesh fencing which is bolted together securely) around at the outer edge of the canopy (assuming the canopy has not been cut back) as a minimum distance from the trunk. Existing trees covered by a TPO the RPA should be calculated according to BS5837:2012 with consideration for growing environment and any existing root obstructions, then the protective fencing is to be placed at the outer extents of the calculated RPA. Tree protection is required to prevent accidental damage to branches and trunk, to obstruct heavy machinery driving under the canopy crushing the roots and causing soil compaction, and to prevent materials being stored under the trees which may compact or contaminate the soil. Soil level should not be altered within the RPA as this is also damaging to the roots and detrimental to the survival of the tree.

It's not considered necessary to install any fencing at the front of the development leaning onto the counter drain drove road. There will be one shared entrance/driveaway into the site as per existing location keeping the groundwork to a minimal. Using the core tree root protection (TRP) system (or similar) is a CE certified cellular confinement system which is compliant according to BS5837:2012. This will provide protection for TPO & RPA and needs to be install as a shared entrance into the site. Figure 1 shows it distributes the weight of the traffic which in turn prevents subsoil compaction around the roots.

Figure 1



Oil, bitumen, cement or other material likely to be injurious to a tree should not be stacked or discharged within 10m of a bole, and materials generally should not be stacked or discharged within 5m of a bole. Concrete mixing should not be carried out within 10m of a tree. Care should be exercised when using cranes or similar equipment near the spread of the canopy of a tree.