

BS5837:2012

Arboricultural Impact Assessment

Greyfriars
Hitchin Hill
Hitchin SG4 9AJ

Written by: Tom Grayshaw

BA (Hons) Tech Cert (ArborA) Dip Arb L6 (ABC) MArborA

Date: 16/05/2025

Job number: 2725

Report reference: TGA.2725.ArbImpactAssessment

Contents

1. Introduction	3
2. Survey method & limitations	4
3. Arboricultural Impact Assessment	5
4. Tree Survey Schedule	8

1. Introduction

- 1.1. This report provides an arboricultural impact assessment of the proposed development at Greyfrairs, Hitchin Hill, Hitchin SG4 9AJ in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 1.2. The arboricultural impact assessment was instructed by Andy & Mollie Clark in May 2025. A survey was carried out on 9th May 2025 in accordance with BS5837:2012 which is appended below.
- 1.3. The proposed development is the construction of a new outbuilding within the garden area (Outbuilding A), and replacement of an existing wooden shed with a new outbuilding (Outbuilding B).
- 1.4. The proposed layout is shown on the Tree Protection Plan reference TGA.2725.TPP.002.
- 1.5. The local planning authority is North Hertfordshire District Council who can be contacted at: North Hertfordshire District Council, Development and Conservation, PO Box 10613, Nottingham, NG6 6DH.
- 1.6. The site is within the Hitchin Conservation Area. As such any tree on site with a stem diameter greater than 75mm is afforded protection. The Council will require six weeks prior notice of intended works to trees situated in a conservation area. However works to trees are exempt from this requirement if the works are approved as part of a full planning permission.
- 1.7. It is understood that the proposed development falls within permitted development, but an application will be submitted due to the location of the site within a conservation area.

2. Survey method & limitations

- 2.1. The survey has been carried out following BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. Further notes on survey method are included in the comments section of the schedule where required.
- 2.2. Trunk diameters were measured at 1.5m above ground level using a diameter tape. For trees that were offsite or inaccessible at the time of survey, stem diameters may be estimated. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter given may be an estimated average or an estimated maximum.
- 2.3. Tree heights were measured with a Hagloff clinometer or estimated in relation to those measured with the clinometer.
- 2.4. Crown clearance is interpreted as the height of lowest foliage from the crown above ground level.
- 2.5. Tree canopies were measured in four directions using a Leica Deisto laser measure. Where required dimensions were estimated by pacing. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar.
- 2.6. Categories are based on the Table 1 -Cascade chart for tree quality assessment from BS5837:2012 (see appendix 1 below). An assessment was made of each tree's health and condition, and an assessment of its life expectancy if its surroundings were to be unchanged.
- 2.7. Where dimensions were estimated the reason is given in the survey comments for that tree or group.
- 2.8. Where trees are located on neighbouring land dimensions are estimated.
- 2.9. Where stems or branches are obscured by ivy or other materials a full assessment of those parts was not possible.
- 2.10. No soil assessment was carried out at the time of survey.
- 2.11. No topographical survey was provided therefore the positions of trees was measured in relation to existing features on site with the assistance of a laser measure.
- 2.12. Information from this survey may be used for NHBC chapter 4.2 foundation calculations with the limitation that the survey was not carried out explicitly for that purpose. It is recommended that further advice is sought from the author prior to use of this report for this purpose.
- 2.13. This report provides tree survey data in accordance with BS5837:2012. The survey was not carried out for health and safety purposes.

3. Arboricultural Impact Assessment

- 3.1. This impact assessment is of the effects of the proposed development on the existing trees. Where required, mitigation measures are proposed to reduce or avoid impact, as recommended in BS5837:2012 section 5.4.
- 3.2. The proposed development is building an outbuilding to replace the existing wooden shed with a new outbuilding (outbuilding B), and the construction of a new outbuilding within the garden area (outbuilding A).
- 3.3. All work activity will be undertaken by hand because there is no access within the garden area for vehicles or plant. Tree protection fence is therefore not required. (Installation of BS5837:2012 tree protection fence would require the removal of mature shrubs and plants from the garden that would cause more harm than protection.)

Outbuilding A:

- 3.4. Trees T5 & T10 are proposed to be removed to allow for the proposed outbuilding A to be constructed.
- T5 is a U category Crab Apple tree with extensive decay throughout the main stem. The tree is in very poor condition and would be recommended for removal irrespective of any development proposals due to the risk of it falling.
 - T10 is a self-seeded Sycamore with a stem diameter of 240mm and a height of 15m. The tree is growing amongst the group of trees located adjacent to the garden fence, but located on the interior of the site. Its removal will not have any impact on the landscape value of the wider group, and therefore its removal is considered acceptable.
- 3.5. Outbuilding A is within the RPAs of the adjacent trees in G7, T8, T9 & T11. A precautionary approach is therefore recommended to ensure there is no adverse impact on tree roots in constructing a foundation. In order to ensure that there is no root damage from excavation, a conventional concrete slab type base will not be used.
- 3.6. The outbuilding will be seated on EasyPADs.¹ These are a 400mm x 400mm pads which are set on a plastic crate base approximately 200-300mm below existing soil level. The requirement for excavation is minimal, and therefore unlikely to have any impact on roots from the trees.
- 3.7. All excavation will be carried out by hand to ensure there is no root damage. If significant large roots are found, the layout of the pads can be cantilevered to avoid the root.

¹ <https://easypads.co.uk/>

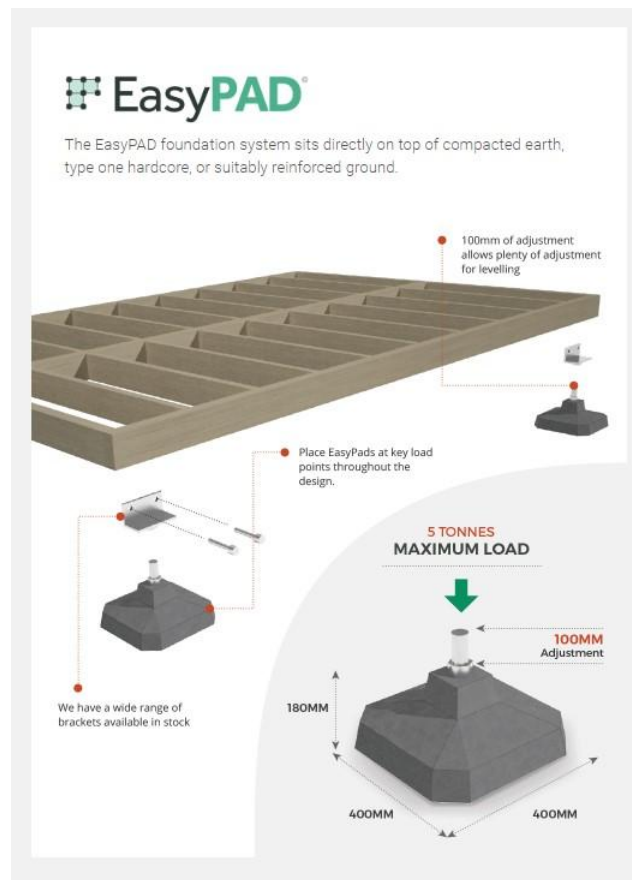


Image from www.easypads.co.uk

- 3.8. The proposed base system will allow water to drain into the soil underneath the area, ensure roots continue to receive rain water. The building will be raised off the ground with the base system to allow water and air to circulate. This is confirmed to be in accordance with BS5837:2012 section 7.5.



Position for outbuilding A (marked out with orange flags)

- 3.9. The canopy of trees G7, T8, T9 & T11 are currently to a height of 3- 3.5m above ground level, above the area of the proposed outbuilding. It is therefore recommended for the canopies of the trees to be trimmed to 5m above outbuilding area. This will have no adverse impact on the screening effect of the trees as seen from outside the site, as they have dense canopies on the offsite (northwest) side. The pruning required is minimal (mainly small diameter new growth hanging from the beech and sycamore) and could be undertaken using secateurs.

Outbuilding B:

- 3.10. The proposed outbuilding B is within the root protection area (RPA) of T4. This area is currently site of an existing shed building on a patio slab foundation. The area of the proposed outbuilding is already covered with hard surface of the shed foundation.
- 3.11. The existing shed is a wooden structure and will be demolished by hand, with the pieces carried by hand to the driveway area and removed off site.
- 3.12. The proposed outbuilding will be constructed using the existing hard surface as a base and will therefore have no adverse impact on the adjacent trees.



Existing shed and position of outbuilding B marked out in orange

- 3.13. This report concludes that the development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

Tom Grayshaw BA (Hons) Tech Cert (ArborA) Dip Arb L6 (ABC) MArborA
Director
16 May 2025

4. Tree Survey Schedule

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Fagus sylvatica (Beech)	15(3)	230(1)	3.5, 1, 3, 5	EM	40+	Uneven crown shape due to competition with adjacent trees.	C2
T2	Acer pseudoplatanus (Sycamore)	15(3)	170, 240(2)	3, 2, 3, 5	EM	40+	Twin stem from ground level. Unbalanced crown shape.	C2
T3	Ulmus procera (English Elm)	12(3)	230(1)	3, 3, 3, 3	EM	<10	Limited life expectancy due to Dutch Elm Disease. Ivy infested.	U
T4	Acer pseudoplatanus (Sycamore)	16(4)	570(1)	6, 6, 6, 6	M	40+	Landscape value as part of boundary screening. Ivy on main stem.	B2
T5	Malus sylvestris (Crab Apple)	5(4)	230(1)	0, 3, 5, 0	EM	<10	Unbalanced crown shape. Missing bark over most of lower stem with decayed heartwood visible. Former twin stem with co dominant stem removed at 1m where there is extensive decay. Poor condition and limited life expectancy.	U
T6	Fagus sylvatica (Beech)	15(2)	350(1)	4, 4, 4, 4	EM	40+	Landscape value as part of boundary screening. One of a group of trees growing at the top of the bank demarcated by the wooden boundary type fence.	B2
G7	Acer pseudoplatanus (Sycamore)	15(3)	200(1)	3, 3, 3, 3	EM	40+	Average estimated diameter given for multiple stems. Low individual quality but landscape value as part of boundary screening. Self-seeded trees on outside of boundary type fence.	B2
T8	Fagus sylvatica (Beech)	15(3)	370(1)	2, 4, 6, 3	M	40+	Part of boundary group. Shared canopy with adjacent trees. Uneven crown shape.	B2

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T9	Acer pseudoplatanus (Sycamore)	15(6)	290, 330(2)	3, 3, 3, 3	M	40+	Twin stem from ground level.	B2
T10	Acer pseudoplatanus (Sycamore)	15(3)	240(1)	3, 3, 3, 3	EM	40+	Tall drawn up crown with few side branches. One of the self-seeded trees but just inside boundary fence. Tree surrounded by shared canopy such that removal would not affect the overall screening effect of the group.	C2
T11	Fagus sylvatica (Beech)	15(3.5)	550(1)	4, 4, 7, 7	M	40+	Part of boundary screening. Canopy reduced in the past then regrown to current extents. One low branch extends to east near area of proposed outbuilding at 3.5m above ground level. Branch is away from the pegged outline by 0.5m. Scope to crown lift tree if required to clear roof of proposed outbuilding.	B2