



20 Chearsley Road, Long Crendon

ARBORICULTURAL IMPACT ASSESSMENT

Site: 20 Chearsley Road
Postcode: HP18 9AW
Client: Mr & Mrs C Connelly

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Plans and Schedules to be read in conjunction with this report:

Type	Reference	Version
Tree Schedule	38-CHE-INF-SCH	1
Tree Constraints Plan	38-CHE-DRW-TCP	1
Arboricultural Implications Plan	38-CHE-DRW-AIP	1
Draft Tree Protection Plan	38-CHE-DRW-TPP	1

EXECUTIVE SUMMARY

I have been instructed to provide an assessment of the impact from a development proposal on the existing tree stock at 20 Cheersley Road, Long Crendon. This assessment is required to accompany a planning application for the construction of a new extension to the property for an indoor swimming pool.

A tree survey has been completed following the guidance provided by BS5837 (2012) *Trees in relation to design, demolition and construction – Recommendations*. A total of 12 trees or groups of trees have been recorded within the survey area, and all have been categorised as part of a quality assessment to determine the extent of the tree related constraints on site.

- Five trees, one group and one hedge have been categorised as moderate-quality Grade B;
- Three trees have been categorised as low-quality Grade C;
- Two trees have been categorised as poor-quality Grade U.

The proposed development will require the removal of four trees (T2 (B), T3 (U), T4 (B) & T7 (C)), three of which are within the footprint of the proposed extension. The fourth tree (T7) is within the access route to the construction site and its removal is required to facilitate access. The trees that are to be removed are located in the garden to the rear of the property and their loss will have no impact on the character of the locality or the visual amenity of the property.

The remaining trees will be protected throughout the development phase through the use of fencing to form a barrier, behind which there will be no access for machinery or materials required for development.

There is potential that the construction process could disturb the rooting environment of retained trees and a methodology has been specified to reduce the potential for negative impacts to those trees from these activities. This requires a combination of measures to shield the ground from potential compaction or contamination through the use of load spreading surfaces located on compressible materials, and these measures will remain in place until all construction activity has been completed.

1. INTRODUCTION

Instruction

1.1 I received written instruction from Mr and Mrs Connelly on 17th December 2020 to undertake a tree survey and prepare an arboricultural impact assessment to accompany a planning application at 20 Chearsley Road in Long Crendon.

Scope

1.2 The scope of the instruction was to:

- Complete a tree survey of all trees within the development area that could be affected by any works associated with the proposal. The tree survey was to be carried out in accordance with the recommendations laid down by BS5837 (2012) *Trees in relation to design, demolition and construction – Recommendations* ('BS5837').
- Provide advice to the design team on tree related issues including avoidance, mitigation and compensation measures.
- Prepare an Arboricultural Impact Assessment to accompany a planning application, to include details of any tree protection measures or other guidance to minimise the risk of harm to trees.

Site Description

1.3 20 Chearsley Road ('the Site') is a private residential dwelling located to the north west of the village of Long Crendon, centred at SP699092 and around postcode HP18 9AW (see Plate 1).

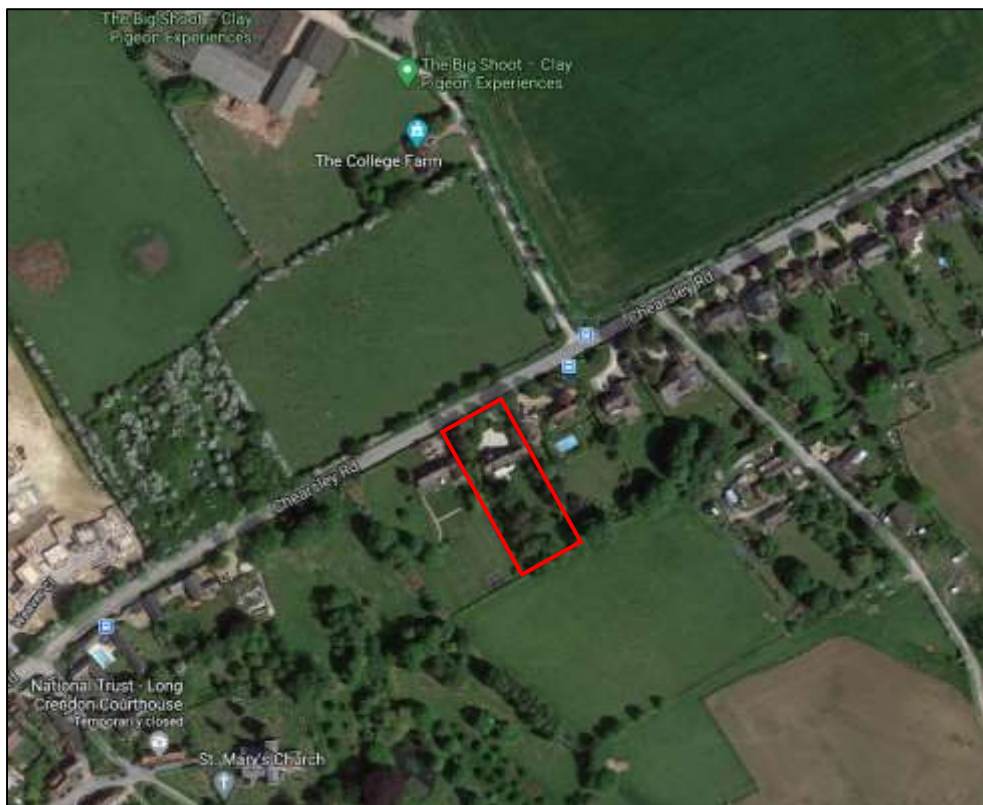


Plate 1: Location of 20 Chearsley Road (highlighted in red) (Source: Google Maps 07.01.2021)

- 1.4 The property is owned by Mr and Mrs Connelly ('the Applicant').
- 1.5 The Site is on the southern side of Chearsley Road, and is screened from the public highway by a line of trees and shrubs that have been planted along the boundary. The Site is also screened from neighbouring properties to the east and west by linear groups of coniferous trees planted on both boundaries.
- 1.6 The application area is in the north east corner of the main lawn to the rear of the property, an area of garden that is dominated by three mature trees.
- 1.7 The Site as a whole is populated by a number of mature trees that make a notable contribution to the setting of Chearsley Road, with many of these being located to the north of the house where they add to the screening function. The garden to the rear of the property also has several large mature trees but these have been planted to provide a more scattered feel, creating space and structure across the open ground. The planting is more dense on the eastern boundary with clusters of trees screening the neighbouring garden.

Proposed Development

- 1.8 The Proposed Development is for an extension to the existing property to house a new swimming pool and pump room.

Caveats and Limitations

- 1.9 While all reasonable efforts have been made to identify defects in the subject trees, the statements made in this report do not take into account the effects of extreme weather events, vandalism or accidents, or changes to the site that may affect trees that have taken place since the date of the survey.
- 1.10 While I am able to warrant that the survey has been undertaken in accordance with industry best practice recommendations and guidance, no warranty is provided in relation to changes to the site that occur after the date of the survey that may have an impact on the tree stock present at the time of the survey.
- 1.11 The comments and observations made within this report will cease to be valid either within two years of the date of the survey (unless specifically stated elsewhere within the report), or when site conditions change or any works to trees take place that have not been specified within this report, whichever is the sooner.
- 1.12 The survey has been undertaken without the benefit of a topographical survey. The location of all trees and groups detailed in this report have been taken using the GPS technology embedded in a Samsung Galaxy 10.1 tablet connected to a mobile phone (iPhone SE (2020)). No warranty is given as to the accuracy of the location of the trees plotted on the plans.
- 1.13 This survey has been limited to identifying arboricultural features within the site. It therefore does not include any ecological assessment or landscape appraisal of trees, groups, woodlands or hedges beyond the scope of BS5837: 2012 *Trees in relation to design, demolition and construction* ('BS5837').
- 1.14 This report relies on the following documents and plans that have been provided by third parties:

Document Name	Document Reference	Prepared By	Supplied Date
Proposed Layout	1342.20	Ian Slater Architects	21.12.2020

2. TREE SURVEY AND CONSTRAINTS

Tree Survey Methodology

- 2.1 I undertook a tree survey on 06th January 2021. The conditions at the time of the survey were overcast with occasional very light rain. Following an initial introduction to the site by the Applicant, I was unaccompanied during the survey.
- 2.2 The extent of the survey area within the Site was limited to those areas where the proposed extension will be installed, and the access routes to that location. It did not include any trees in the southern half of the garden as these are beyond the extent of any development.
- 2.3 Observations were conducted from ground level, utilising the “Visual Tree Assessment” (VTA) system as outlined in The Body Language of Trees, A Handbook for Failure Analysis Research for Amenity Trees No.4 (Mattheck and Breloer, 1994) with the aid of binoculars.

General Data Capture

- 2.4 For reference, individual trees are identified with the letter T and associated number on the Tree Schedule and on a plan showing the extent of tree constraints. The stem diameter of each tree on Site was recorded using a digital hypsometer or rounded down diameter tape at 1.5m above ground level. Measurements were taken in millimetres. The height of the subject trees was measured to the nearest metre using a digital hypsometer.
- 2.5 Maximum crown spread of the subject tree was measured from the edge of the trunk to the tips of the live lateral branches taken at four compass points (N-E-S-W) using a Leica Disto digital laser measure. Crown spread measurements were taken in metres.
- 2.6 Tree age was estimated from visual indicators (such as tree size and appearance of bark) and is provided as a provisional guide.
- 2.7 Groups of trees are identified with the letter G and number on the associated schedule and plans. Crown spread for groups was assessed using topographical data to position the extents. Stem diameter of groups of trees was set as an average stem diameter of the trees within these individual groups and a maximum height of the tallest tree within the group.
- 2.8 Hedges are identified with the letter H and number on the associated schedule and plans. Each hedgerow was surveyed recording the species, the maximum height and the average width of the hedge. Any individual trees present within the hedgerow were recorded as an individual tree.

Categorisation

- 2.9 In compliance with BS5837 the trees surveyed have been categorised according to their arboricultural quality and value which is summarised in Table 1.

Table 1 - Summary of BS5837 categorisation colours

Category	Colour	Description
A	Green	Trees of high quality with an estimated remaining life expectancy of at least 40 years
B	Blue	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
C	Grey	Trees of low quality with an estimated remaining life expectancy of at least 20 years
U	Red	Those trees 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

Tree Constraints and the Root Protection Area

- 2.10 The Root Protection Area (RPA) of the trees were calculated in accordance with Section 4.6.1 in BS5837. This is calculated from the measurement of the stem diameter as recorded in the tree schedule attached to this report and are plotted on a plan showing the extent of constraints presented by trees to any development scheme (hereinafter referred to as the Tree Constraints Plan ('TCP')).
- 2.11 The RPA forms the initial Construction Exclusion Zone (CEZ) to protect the trees within and adjoining the Site and is plotted on the plan by a magenta line with the text RPA inscribed. The shape and size of RPAs can be amended if required as a result of topographical or other physical impediments to a uniform spread of the rooting system. One tree (T8) has had its RPA adjusted to account for its proximity to the main structure of the property.
- 2.12 The default position of this proposal is that there should be no development within the RPA of retained trees. However, where there is an overriding need for construction and associated activity within the RPA of trees, arboricultural mitigation should take place to minimise any negative impacts to those trees.
- 2.13 The above ground constraints posed by canopy spread are plotted as a continuous line around the tree, with the extent of the canopy spread hatched in the corresponding BS5837 retention category colour.

Soils

- 2.14 An online search has been undertaken with the Geology of Britain¹ viewer to provide a summary of the geological materials that underlie the site. This shows that the Site is located on Portland Sand Formation, a limestone and calcareous limestone mix that is described as being a freely draining lime-rich loamy soil.
- 2.15 The soil type will also impact on the decision making for any replacement or enhancement planting scheme that may be considered as part of this application.

¹ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?>

Statutory Considerations

2.16 The Site is located within the boundary of Aylesbury Vale District Council (AVDC), the Local Planning Authority (LPA). A search has been undertaken on the AVDC website to determine the presence or otherwise of Tree Preservation Orders (TPO) or Conservation Areas.

2.17 The results of the search reveal that the Site is not located within a Conservation Area, although several trees on site are subject to a TPO (see Table 2 & Plate 2).

Table 2: TPO at 20 Chearsley Road (Source: AVDC Protected Tree Search)

AVDC TPO Ref	AVDC TPO Tree No.	Description	TFL Tree Survey Ref
17/2000	T1	Purple Plum	Not recorded
17/2000	T2	Pine	Not recorded
17/2000	T3	Pine	Not recorded
17/2000	T4	Pine	T8

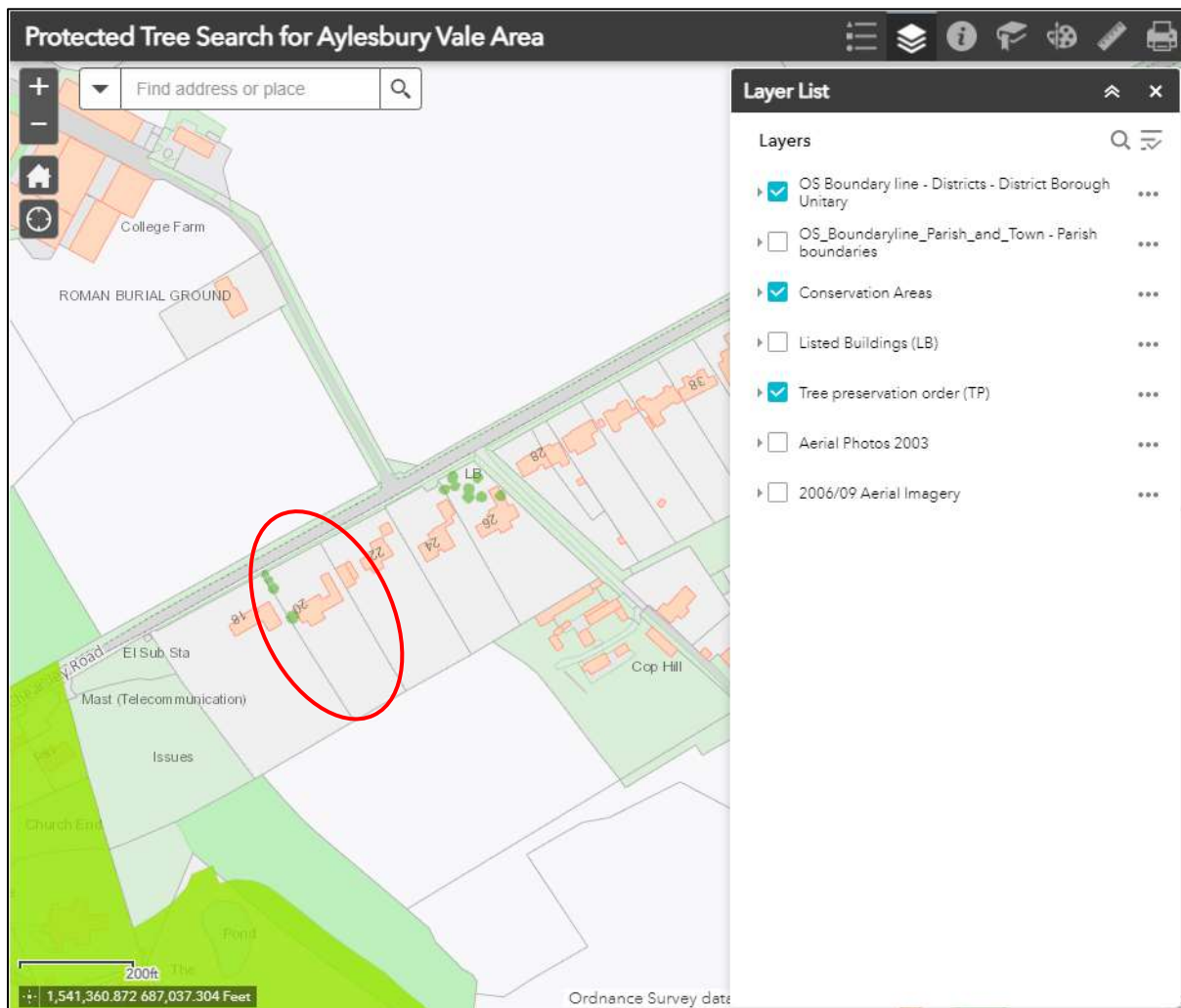


Plate 2: Extract from ADVC Protected Tree Search (accessed 07.01.2021)

3. ASSESSMENT OF EXISTING TREE STOCK

3.1 The tree survey recorded a total of 12 trees and groups of trees. A summary of the assessment of the quality of the trees can be seen in Table 3.

Table 3 - Summary of tree quality on site

	Category A	Category B	Category C	Category U	Total
Group	0	1	0	0	1
Hedge	0	1	0	0	1
Tree	0	5	3	2	10
Total	0	7	3	2	12

4. ARBORICULTURAL IMPACT ASSESSMENT

4.1 Development can have an adverse impact on trees and other woody vegetation within a Site, which can result in:

- i. Immediate tree removal to facilitate the footprint of a new development;
- ii. Potential future tree loss through the early decline of trees due to soil compaction;
- iii. Root disturbance and damage within a tree’s rooting area; and
- iv. Canopy removal or damage due to plant movement.

4.2 A key principle in the design of this proposal has been the retention of the existing tree stock where possible.

Tree Removals

4.3 This development will result in the loss of 4 trees, the details of which are presented in Table 4.

Table 4: Summary of tree removals

	Remove				Remove Total
	A	B	C	U	
Group	0	0	0	0	0
Hedge	0	0	0	0	0
Tree	0	T2, T4	T7	T3	4
Total	0	2	1	1	4

4.4 Three of the trees that are to be removed (T2, T3 & T4) are within the footprint of the proposed extension and their retention is not feasible as part of this development. None of these trees are subject to a TPO.

4.5 The fourth tree (T7) for removal is located within the access route for site materials and personnel, and this is not subject to a TPO.

4.6 The loss of these trees will have no impact on the character of the area or the visual amenity of the site.

Tree Retention

- 4.7 The remaining trees on site, both those recorded as part of the survey and those that are beyond a zone of influence, will be retained and protected throughout the development phase.

5. TREE PROTECTION MEASURES

- 5.1 A draft Tree Protection Plan (TPP) has been prepared to provide illustrative guidance as to the location of the tree protection measures that will be utilised at the Site.

- 5.2 The following principles for the protection of retained trees will be adopted across the site for the duration of the project:

- All retained trees will be protected by fencing that will form a defined construction exclusion zone (CEZ).
- Where fencing cannot provide the necessary protection measures, alternative systems will be installed that will ensure retained trees are protected. This may include the use of either temporary or permanent ground protection.
- There will be no storage of materials, or access for construction workers or machinery within any CEZ.
- There will be no level changes within a CEZ.
- There will be no excavation within a CEZ.
- There will be no fires within a CEZ.

- 5.3 The purpose of fencing is to protect trees from harm during construction, and the type of fencing to be used shall be commensurate with the level of activity and potential for harm from those activities.

- 5.4 The form of protective fencing will be appropriate to the scale and scope of the operation, but it will be fit for its purpose. The location of the fencing has been defined on the TPP by a black dashed line and the area protected by this fencing is the CEZ (highlighted by orange hatching).

- 5.5 Temporary ground protection measures will be required to ensure that the access through the Site by machinery or personnel, does not cause harm to the rooting environment of retained trees. The purpose of the temporary measures will be to ensure there is no compaction of the soil and that risk of contamination of the soil is minimised.

- 5.6 Two different types of ground protection will be required during this development:

- **Pedestrian access and plant up to a gross weight of 2t:** Proprietary inter-linked ground protection boards will be placed on top of a compression-resistant layer (*e.g. 150 mm depth of woodchip*), laid onto a geotextile membrane. This area has been highlighted in green hatch on the TPP.
- **Materials Storage Compound:** A single thickness of scaffold boards placed on top of a scaffold frame so as to form a suspended platform laid onto a geotextile membrane. This area has been marked on the TPP with cyan hatching.

6. ABOUT THE AUTHOR

- 6.1 I am a director of Tree Frontiers Ltd and a chartered arboricultural consultant, with a first-class honour's degree in arboriculture from Myerscough College, accredited by the University of Lancaster.
- 6.2 I have 18 years' experience working in the sector and am a chartered member of the Institute of Chartered Foresters. I am also a professional member of the Arboricultural Association and abide by the code of ethics and professional standards of these institutions.

7. REFERENCES

7.1 This report has relied upon the following external reference sources:

- British Standards Institution (2012) BS5837: *Trees in relation to design, demolition and construction – recommendations*. London: BSI
- Gov.uk (2020) National Planning Policy Framework. [Available online: <https://www.gov.uk/government/publications/national-planning-policy-framework-2>]
- Aylesbury Vale District Council (2021) Local Planning Policy. [Available online: <https://www.aylesburyvaledc.gov.uk/section/adopted-aylesbury-vale-district-local-plan-avdlp> (Accessed 07.01.2021)]
- Aylesbury Vale District Council (2021) *Protected Tree Search* [Available online: <https://www.aylesburyvaledc.gov.uk/protected-tree-search> (Accessed 07.01.2021)]
- British Geological Society (2021) *Geology of Britain Viewer*. [Available online: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?> (Accessed: 07.01.2021)]