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Title: BS5837 Tree Report

Site: St Pauls Vicarage,
Boxley Road,
Maidstone
Kent
ME14 2AH

Client: Hill-Wood & Co. (Kent) Limited

Survey Date: 8th September, 2022

**Report
Issue Date:** 7th October, 2022

Reference: L845AIA

**Based upon
Design Layout:** A1581-10 P6

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1. Arboricultural Impact Assessment Summary

Suitability of current design layout in relation to trees

- 1.1 It will be necessary to remove 6No. individual C category trees (T12, T13, T14, T15 and T16) and 1No. C category Hedge (G41) to allow the proposed design layout. **Mitigation: The majority of these trees including the hedge G41 have recently been cut down to ground level. The removal of these trees is therefore unlikely to have a significant effect on locality amenity.**
- 1.2 Providing the measures outlined in this report are followed it should be relatively straight forward to protect the remaining retained trees including TPO'd tree T28 and in particular ensure that there is little effect on the street scene on Boxley Road.
- 1.3 I am therefore led to the conclusion that the current design layout is reasonably acceptable for development in relation to trees.

2. Overview

This BS 5837 (2012) tree report consists of the following:

- A Tree Survey. This records the tree details and assigns a category in accordance with BS5837. The tree survey schedule (See Appendix 2) supplies the information that is shown on the Tree Constraints Plan.
- Tree Constraints Plan (TCP). A scale drawing showing the crown spread, tag number, BS5837 category and nominal Root Protection Area of each surveyed tree. This should be used to inform a basic design layout that takes account of important trees (see attached Appendix 6).
- An Arboricultural Impact Assessment (AIA). Study undertaken by an Arboriculturist, to identify, evaluate and aim to mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of the current design layout proposal (see item 3 below).
- An Arboricultural Method Statement (AMS). Methodology for the implementation of any aspect of development that has the potential to result in loss or damage to a tree (see item 4 below).
- A Tree Protection Plan (TPP). A Scale drawing showing the current design layout proposals, tree retention and tree and landscape/protection measures (see attached Appendix 7).
- Tree Removal Plan (TRP)
A Scale drawing showing the trees to be retained and the trees to be removed (see attached Appendix 8).

3. Arboricultural Impact Assessment (AIA)

Scope of the AIA

- To superimpose the proposed site layout Drawing No A1581-10 P6 onto the Tree Constraints Plan L845TCP.
- Assess the conflict between existing trees/replacement planting and the proposed site layout.
- Outline specific mitigating measures on the Tree Protection Plan (See Appendix 7) that will reduce impact to an acceptable level and will inform the preparation of tree surgery requirements (see Appendix 4) and an Arboricultural Method Statement (AMS) detailed enough for planning application purposes.

The specific mitigating measures shown on Tree Protection Plan L845TPP included as Appendix 7 should reduce the risk of damage to an acceptable level. In addition the following general impacts are considered and mitigated accordingly:

- 3.1 There is a risk that limited space to demolish and carry out the construction process will put pressure on protected areas. **Mitigation: Ensure that demolition, the deliveries and storage of materials, site accommodation and construction processes are well planned prior to commencement of the project.**
- 3.2 It will be necessary to remove 6No. individual C category trees (T12, T13, T14, T15 and T16) and 1No. C category Hedge (G41) to allow the proposed design layout. **Mitigation: The majority of these trees including the hedge G41 have recently been cut down to ground level. The removal of these trees is therefore unlikely to have a significant effect on locality amenity.**
- 3.3 There will be 3 No. U category trees (T4, T20 and T40) and 1No. partial stump (S42) to be removed within the site boundaries. **Mitigation: Due to their poor quality or the damage they are likely to cause in the next ten years these trees are likely to have been removed irrespective of development.**
- 3.4 There will be a minor impingement on the RPA of 5No. individual retained trees (T2, T6, T17, T28 and T44) by the proposed positioning of new hard surfaces. **Mitigation: The RPA of these trees is based upon a nominal assessment of likely root spread. It would not be unreasonable to assume that roots may have spread into other adjacent areas that, on this site, can be simply protected with protective fencing during the demolition and construction phase. The species of trees involved suggests that the distance from main stems and buttress roots where impingements would occur is unlikely to have a significant effect on the long term health of the trees and there is adequate scope for future root growth elsewhere.**

In addition recommended arboriculturally supervised excavation (for T2, T6 and T17) in line with the impingements will reduce the risk of retained roots being damaged during construction.

- 3.5 There is a risk that new services entering the site will damage roots of retained trees. **Mitigation: Where possible services will enter the site or connect to existing services outside the RPA of retained trees. However if excavations are required they will be carried out in accordance with NJUG regulations. Attenuation tanks and soakaways will not be within the RPA of retained trees**
- 3.6 Due to the proximity of trees to the development and the likely soil conditions on site it is likely that there may be a significant effect on the load bearing capacity of soils by the retention, replacement or removal of trees. **Mitigation: A Structural Engineer could advise further on this using the species and proximity information from this report.**

3.7 There is a risk that trees may cast prohibitive shade on the finished development: **Mitigation: Due to the orientation of the site and the species of trees shade is unlikely to be prohibitive. If climate warning predictions are accurate the shade cast by trees may become considered as a benefit over the mid to long term.**

3.8 There is a risk that the increase in girth of stem and buttress roots of trees adjacent to the front wall (T1-T21) will significantly disturb the front wall. **Mitigation: This damage would occur irrespective of development. If it occurs it will be necessary to seek Arboricultural advice and negotiate remedial action.**

3.9 There is a risk that boundary walls would require strip foundations within the RPA of retained trees. **Mitigation: Use a 2m high fence with posts at 1.8m centres. Post holes will be excavated by hand and moved if roots over 25mm in diameter are encountered. Trees will be crown lifted to 2.5m to allow the erection of fencing if necessary.**

3.10 Regular inspections

In the long term regular inspections would maximise the safe useful life expectancy of the trees and ensure that tree owner's discharge their duty of care. The trees on this site would benefit from inspections on a 3 yearly basis or after severe weather.

3.11 Wildlife

Over recent years there has been new legislation concerning the protection of wildlife.

The Wildlife and Countryside Act 1981 and Countryside and Rights of Way act 2000 mean that it is an offence to wilfully or recklessly harm a bird nesting site, bat roost, certain mammals and some rare plants.

There did not seem to be any evidence of nesting birds or bat roosts on this site but a further inspection should be made by a suitably qualified agent of the developer or tree surgery contractor before any tree-work is carried out. If a nest or bat roost becomes evident the developer should contact Natural England wildlife Licensing Unit (0845 601 4523) for further advice.

3.12 Other considerations

If full planning consent is granted after the Local Authority have considered the recommendations in this report then work to trees required to fulfil either permission, or a condition attached to permission granted under the Town and Country Planning Act by the Local Authority does not need any additional authorisation. However before full planning permission is granted it would be necessary to apply to the Local Authority to work on trees covered by a TPO or in a Conservation Area.

4. Arboricultural Method Statement (AMS)

The purpose of this Arboricultural Method Statement (AMS) is to demonstrate that it will be possible to carry out development without causing unacceptable damage to trees, and vice versa, in sufficient detail to gain planning permission. At this stage there is limited information available in relation to the exact construction process.

Once planning permission has been granted, and it is clear that there will be a requirement for Arboricultural Supervision, a pre-commencement meeting will be arranged with the Arboricultural Consultant, the Main Contractor and ideally the LPA Tree Officer. This will resolve design and logistical details and inform a refined order of works. In addition it will allow the AMS and Tree Protection Plan to be revised and issued as working documents along with a Schedule of Supervision agreed by all parties.

General AMS

- Site equipment and storage areas for material will be outside the Construction Exclusion Zone (CEZ) formed by protective fencing indicated on Drawing L845TPP
- Any construction activity required within the retained RPA of retained trees will be carried out over approved temporary ground protection or under Arboricultural supervision.
- Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, will not be discharged within the RPA of retained trees indicated on Drawing L845TPP. Impermeable membrane and sand bag bunds will be used to prevent contaminants entering the RPA where sites slope towards trees. Item ???? below provides more information of how this will be achieved.
- Fires will not be lit in a position where their flames can extend to within 5m of foliage, branches or trunk.
- The jib or arms of machinery will not cross the line of protective fencing. Machinery with a height clearance greater than 5m will not be used on this site beneath the crown spread of retained trees.
- No additional below ground services or connections to existing services, temporary or permanent, will cross into the RPA of retained trees indicated on drawing L845TPP unless excavations are carried out under Arboricultural supervision and in accordance with NJUG regulations (see more detail in item....below). This will include the positioning of rainwater gulleys to soakaways or attenuation tanks. Soakaways and attenuation tanks will not be positioned within the RPA of retained trees.

Order of Works in Relation to Trees with Site Specific AMS for Each Operation

4.1 Confirm Service routes

4.2 Carry out a pre-commencement meeting to refine Arboricultural Method Statement

- Arboricultural Consultant to meet with main contractor and ideally the Local Authority Tree Officer to resolve design and logistical details and inform a refined order of works.
- Mark out position of permitted buildings and hard surfaces adjacent to retained trees.
- Confirm exact tree surgery requirements.

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- Revise AMS and Tree Protection Plan and issue as working documents along with a Schedule of Supervision agreed by all parties.

4.3 **Carry out an induction meeting**

- Arboricultural consultant to revisit site to induct main contractor Project Manager and run through Arboricultural Method Statement. Main contractor Project manager will sign induction sheet to confirm that they understand the implications of protective measures not being followed.
- Issue main contractor Project Manager with standard sheets that they will use to induct sub- contractors. Sub-contractors will sign induction sheet to confirm that they understand the implications of protective measures not being followed.

4.4 **Carry out tree surgery**

- All tree-work will be carried out to BS3998, by a reputable, fully insured contractor. Tree surgery will not be undertaken by untrained construction operatives.
- Refer to schedule included as Appendix 4 for a tree by tree specification of tree surgery requirements.
- Stumps will be removed by stump grinder within the RPA of retained trees or treated to prevent regrowth with the appropriate herbicide by qualified operatives.

4.5 **Erect protective fencing**

Protective Fencing

- BS5837: (2012) *Trees in Relation to Development* stipulates the following:
 - 6.2.2.1 Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.*
- This will be achieved by erecting 2.3m high Heras fencing fixed to scaffold supports at 3m centres as shown in the following drawing (Fig.1) from BS5837 (2012).
- A bund will be positioned at the base of the protective fencing where sloping levels of the site mean that wet materials could run-off into the RPA of retained trees. The bund will consist of a layer of impermeable membrane (250 micron, 1200 gauge dpm) integrated into a toe-board upstand. The impermeable membrane will be held in place with a layer of 15kg hessian sand bags. Wet materials will evaporate off or be removed from site if they accumulate.
- Signs will be fixed to the construction side of the fence with the wording indicated in Fig. 2 below:

Fig. 1:

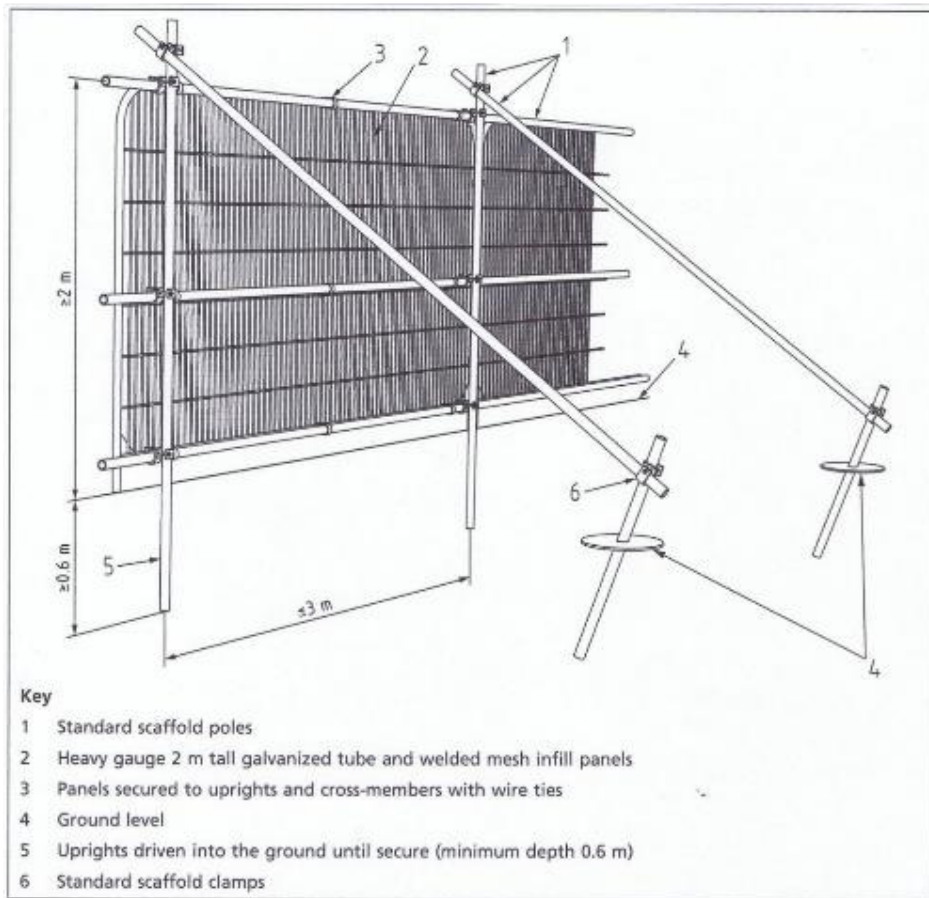


Fig. 2:



4.6 **Lay Temporary Ground Protection in the position shown on drawing No L845TPP**

- The light blue hatched areas indicated on the Tree Protection Plan L845TPP will require temporary ground protection to allow works or storage of materials within the RPA of retained trees. Temporary ground protection will be laid under Arboricultural supervision before demolition, construction or access to site by heavy plant at a maximum distance of 500mm from the proposed above ground build line.
- Due to the uneven nature of the area to be covered with temporary ground protection a scaffold framework will be constructed to support a level surface that can be used by foot traffic and to allow the erection of additional scaffolding later in the contract. The temporary ground protection will effectively be a “blocking lift”.
- No excavations beyond those required to position a minimum number of scaffold sole boards will be carried out to construct the scaffold framework. Scaffold sole boards will be positioned at least 1m from tree stems and buttress roots.
- Remove the upper organic layer of soil by hand digging (Approximately 50-100mm) beneath the proposed position of scaffold sole boards. Any roots encountered will be cut back to the edge of the excavation with a sharp saw or secateurs. Any roots encountered under 25mm in diameter will be cut back to the edge of the excavation with a sharp saw or secateurs. The significance of any roots over 25mm in diameter will be considered by the Arboricultural consultant. If a significant number of this size root are encountered it may be necessary to sleeve or bridge these roots within the proposed structure.
- Peg out permeable membrane to prevent weed growth beneath temporary ground protection.
- Arisings should be wheel barrowed out of the tree protection area or carried by hand. Machinery (even low ground pressure tracked vehicles) should not be used due to the risk of soil compaction.
- Level ground beneath proposed scaffold sole boards with sharp sand if necessary and position sole boards.
- Construct scaffold framework. The temporary ground protection platform will consist of 2 No layers of scaffolding board. A layer of impermeable membrane (250 micron, 1200 gauge dpm) will be positioned between the scaffold boards to reduce the risk of soil contamination by wet building materials. The dpm will be integrated into a toe-board upstand around the perimeter of the temporary ground protection to reduce the risk of wet materials from running off the edge of the temporary ground protection.
- The temporary ground protection platform will consist of a layer of impermeable membrane (250 micron, 1200 gauge dpm), 1 No. layer of scaffold boards, a further layer of impermeable membrane and another layer of scaffold boards. The dpm will be integrated into a toe-board upstand around the perimeter of the temporary ground protection to reduce the risk of wet materials from running off the edge of the temporary ground protection.
- Wet building materials that fall onto the temporary ground protection will be scraped off and removed from site.
- Temporary ground protection will remain in position until the contract is complete. A qualified Arboriculturalist will be consulted before re-location or re-positioning of temporary ground protection near the RPA of retained trees to allow the construction of the deck to the rear of the building and the deck that will support the shed.

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4.7 **Excavate to cut through roots within the RPA of Retained Trees.**

- A 600mm deep trench will be excavated under arboricultural supervision, in line with the proposed parking spaces and retaining wall within the RPA of T2, T6 and T17 (See dark blue dashed line on drawing No L845TPP).
- Excavation will be carried out by hand.
- Any roots encountered will be cut back to the edge of the excavation with a sharp saw or secateurs to avoid damage by machinery tearing out roots.
- Any root ends over 25mm will be temporarily covered with damp Hessian until the excavation is lined with an impermeable membrane (dpm) to reduce the risk of soil contamination from wet concrete.

4.8 **Position new service routes in accordance with NJUG regulations under Arboricultural supervision if it is necessary to impinge upon RPA of retained trees**

Excavations and Laying of services (if necessary) within the RPA of retained trees in accordance with NJUG regulations

- Excavations and laying of services etc. will be supervised by the Arboricultural Consultant.
- Excavations must comply with NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees, Volume 4. Summarized as:
- After careful removal of hard surfaces (if present) material digging must proceed with hand tools. Clumps of roots less than 25mm in diameter (including fibrous roots) should be retained in situ without damage. Throughout the excavation works great care should be taken to protect bark around the roots.
- Any cut root ends or exposed roots will be temporarily covered with damp Hessian until the excavation is backfilled.
- Backfilling should be carefully carried out to avoid direct damage to roots and excessive compaction of the soil around them. The backfill should, where possible, include the placement of an inert granular material mixed with top soil or sharp sand (not builder's sand) around the roots. This should allow the soil to be compacted for resurfacing without damage to the roots securing a local aerated zone enabling the root to survive in the long term.
- Generally areas adjacent to excavations will be protected by "Trakmat" or similar ground protection during excavations. In addition work will be carried out in a methodical manner by a small workforce to reduce the frequency of footfalls across otherwise unprotected ground.

4.9 **Carry out main construction phase**

4.10 **Position permanent decking to the rear of the building and to support the proposed shed**

- Enough temporary ground protection will be removed, under Arboricultural supervision, after all heavy plant has left site and the main construction phase is complete to allow the construction of the deck at the rear of the property and that which will support the shed.
- A permeable 90gram/m² geo-textile membrane such as "Terram Weed-Guard" will be laid and pegged out to prevent future weed growth, existing grass will naturally die beneath the geo-textile membrane.
- A structural engineer should be consulted to ensure supports for the decking will be of the minimum cross sectional area, minimum frequency and require the minimum depth of excavation to reduce the amount of damage to the roots of retained trees.
- Excavations should be carried out by hand. Any roots found during excavation should be cut back with a sharp knife or secateurs.
- Post-holes will be excavated to the minimum depth required for the ground conditions. Holes will be made with a manually operated post-hole digger. Where roots over 25mm in diameter are encountered the post hole will be moved to a different location and the decking cut to fit.
- Support posts will be no closer than 500mm from tree stems or buttress roots.
- An impermeable membrane (dpm) will be used to line the post holes to reduce soil contamination by wet concrete.
- Decking should be treated with a non-toxic to vegetation preservative.

4.11 **Carry out Soft Landscaping**

- Soft landscaping details are to be provided by others.
- Soft landscaping will either be carried out by a reputable landscaping contractor used to working near trees or under Arboricultural supervision.
- Soft landscaping will only be carried out after all external works requiring heavy plant and wet trades that could harm trees have been completed
- Levels will not be re-graded by any more than 100mm within the RPA of retained trees.

4.12 **Erect Permanent fencing within RPA of retained trees**

- 2m high panels or railings will be fitted between posts at 1.8m centres.
- Post-holes will be excavated to the minimum depth required for the ground conditions. Holes will be made with a manually operated post-hole digger. Where roots over 25mm in diameter are encountered the post hole will be moved to a different location and the fence panels cut to fit.
- Fence posts will be no closer than 500mm from tree stems or buttress roots.
- New fence panels will clear stem and buttress roots by 50mm. There will be scope for future adjustment to maintain a 50mm clearance.

4.13 **Fit gutter guards**

- Fit gutter guards to reduce the frequency of gutter clearance due to leaf fall. The following companies supply gutter guards:
- Hedgehog Gutter Brush and drain Leaf Guard, Truly PVC Supplies, 0161 339 4982, www.trulypvc.com
- Poly-net Leaf Guard System, Marley, www.marley-germany.com.

4.14 **Remove protective measures**

- After all external works or works that could cause harm to trees are finished and with permission from the Arboricultural Consultant remove remaining protective fencing.

4.15 **Monitor health of trees.**

- Arboricultural consultant or Landscaping contractor will re-visit site annually for three years to monitor replacement tree and suggest remedial action of necessary.
- In the long term regular inspections would maximize the safe useful life expectancy of the trees and ensure that tree owners discharge their duty of care. The trees on this site or surrounding this site would benefit from inspections on a 3 yearly basis or after severe weather.



Appendix 1

Qualifications and Experience

Qualifications in date order

1. ONC and HNC in Construction Management. Between 1987 and 1992. Although I have not studied this subject recently, I still retain a general knowledge of construction techniques.
2. Royal Forestry Certificate in Arboriculture.
3. Completion of Trees and Mortgage/Insurance reporting module 2002. (Member of AMIUG, 2005)
4. Arboricultural Association Technicians Certificate in Arboriculture.
5. Lantra approved Professional Tree Inspector since 04 July 2006.
Most recent refresher course 19 September 2019
6. Licensed Quantified Tree Risk Assessment (QTRA) user since 04 May 2007.
Most recent QTRA Advanced Training course 24 April 2019



QTRA Quantified Tree Risk Assessment

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Experience

1. Quantity Surveyor for a national builder between 1987 and 1992.
2. Owning and managing a Tree Surgery Company between 1994 and 2006 after working for other tree surgery companies for approximately 2 years.
3. In this time compiling a portfolio of tree ailments and failures.
4. Carrying out various individual tree inspections and surveys for domestic and commercial clients since 2001.
5. Attending courses on tree and woodland surveys, surveys for mortgage purposes, report writing and BS 5837 2005.
6. Attending court as an expert witness.

Appendix 2

Tree Survey and Methodology Information

Tree Survey

1.0 Scope of the survey

Carry out a tree survey in accordance with BS 5837:2012 Trees in relation to Construction. This involves the following:

- Make a visual, “from the ground” inspection of all trees with a stem diameter greater than 75mm at a height of 1.5 that may be affected by the design or construction processes of the proposed development.
- Complete a schedule of information for each tree.
- Indicate preliminary recommendations for works to maximise the likelihood of retained trees having a Safe Useful Life Expectancy (SULE) of at least ten years.
- Categorise the trees.
- Plot the trees on drawing L845TCP and indicate the Root Protection Area (RPA), crown spread, tag number and BS5837 category.

The survey is based upon information that was available at the time of the inspection. Further inspections are necessary over time to give a fuller picture of the health of trees.

1.1 Brief instruction

I have been instructed by Lucy McCloskey on behalf of Hill-Wood & Co. (Kent) Limited to carry out a BS5837 tree survey in relation to a planning application for development at St. Pauls Vicarage, Boxley Road, Maidstone, Kent. ME14 2AH

1.2 Qualifications and experience

I have based this report on my site observations. I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture and construction and list the details in Appendix 1.

1.3 Documents and information provided

I was provided with the following information:

- CDE Limited Existing site Plan Drawing No. 20-015/01

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1.4 Tree Protection Order (TPO) /Conservation Area status of the site

At the date of the survey status of the site is as follows:-

- Maidstone Borough Councils website indicates that the site is not within a conservation area.
- Maidstone Borough Councils website indicates that there is a TPO within the site boundaries (TPO No 11 of 2008 covering the individual tree T28)
- Natural England's Website and the "Magic Map Viewer" indicates that trees within (or adjacent to the site) are not within an area classified as Ancient Woodland

2. Site Visit and Observations

2.1 Site visit

I surveyed the trees on the 8th September, 2022. The weather was overcast with heavy rain

2.2 Brief site description

The site is currently occupied by a vacant vicarage with residential property to the south east and south west. There is a narrow access drive to neighbouring properties running adjacent to the north east boundary and the north-west boundary abuts Boxley Road. An "in and out" drive allows vehicular access to Boxley Road.

The site is generally level to the front (except where the existing "in-out" drive slopes down to Boxley Road) and gently slopes down from the north-west to the south-east to the rear.

The front garden is approximately 500mm above Boxley road with the front garden being retained with an apparently insubstantial stone wall.

2.3 The Trees

40 No individual trees or stumps of trees (S34, S35, S14 and S36) and 6 No groups of trees or stumps of trees (G8, G22, G23, G27, G37 and G41) were surveyed.

5 No. individual trees (T26, T43, T44, T45 and T46) are in neighbouring property and I was therefore not able to carry out a full 360 degree survey of these trees.

T4, T5, T6, T7, G8, T9, T10, T11, S13, S14, S15, T16, T17, T18, T19, T20, T21, G22, G23, T25, T26, G27, T29-G41 and T45 were missed from the topographical survey. Their position was found with a tape measure or hand held laser range finder from known points. There were more tree centres missing from the topographical survey at the bottom of the rear garden however outline proposals and early indications of T28's large RPA made it possible to group these trees as G27 and G37 using the edge tree positions and datum points for the RPA of the groups.

Specific details of each tree surveyed are recorded in the tree survey schedule included as Appendix 3 and on the Tree Constraints Plan L845TCP included as Appendix 6.

2.4 The Soils

Detailed soil investigations were not carried out. However British Geological Survey Sheet 288 indicates that the area is on the boundary of "River Gravels: 4th Terrace" and Folkestone Beds 46-55m Sand". This suggests there maybe be a significant effect on the load bearing capacity of soils by the retention, replacement or removal of trees. A Structural Engineer could advise further on this using the species and proximity information from this report.

This may also have a bearing on the compactability of the soil within the RPA of retained trees.

Survey maps only indicate a general trend in an area. They do not take account of pockets of different types of soil that may be present.

2.5 Services

There did not appear to be any conflict between overhead services and trees. Below ground services were not considered.

2.6 Shade

Due to the current use and orientation of the site, trees are unlikely to cast prohibitive shade at present.

2.7 Identification and location of trees

The trees surveyed are identified by referring to drawing L845TCP.

3.0 Tree Categorisation

3.1 Retention and Removal

The category for each tree is ascertained by following the guidelines in the cascade chart for tree quality assessment included with the TCP tree schedule in Appendix 3.

It should be noted that the categories given to the trees in this survey assume the tree work specified in the schedule included as Appendix 3 is going to be carried out in the short term as part of the development or by the tree owners independent of the development. If this work is not carried out as recommended the category of the trees would be reduced to reflect a shorter Safe Useful Life Expectancy (SULE).

A brief summary of each category is outlined as follows:

3.2 Category A trees

This category signifies trees that are of a high quality and value. Occasionally a veteran tree, although not in the best condition may warrant this category because of its wildlife and cultural value. It is essential to retain these trees. The design of the proposed development should take into account the retention of category A trees.

A category trees are coloured green on drawing L845TCP.

3.3 Category B trees

This category signifies trees that are of a moderate quality and value. It is important to retain these trees. The design of the proposed development, where feasibly possible, should take into account the retention of category B trees. A design layout that suggests the removal or impingement of category B trees has an increased risk of planning refusal. If affecting B category trees is unavoidable it may be possible to negotiate their replacement with similar size specimens providing adequate consideration is given to supplying sufficient future growing conditions.

B category trees are coloured blue on drawing L845TCP.

3.4 Category C trees

This category signifies trees that are of low quality and value. They could generally remain and be expected to have a safe useful life expectancy of between 10 and 20 years if no development were to occur. However, because of their low quality it should not be prejudicial to remove them if they are likely to be a significant constraint to the design or construction process. Particular attention is drawn to the phrase "significant constraint". Although it should not be necessary, I would suggest that replacement of removed category C trees, where possible, would assist in obtaining planning permission

C Category trees are coloured grey on drawing L845TCP.

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3.5 **Category U trees**

This category signifies trees that are in such a condition that any existing value would be lost within 10 years and which may, in the current context, generally be removed for reasons of sound Arboricultural management.

U category trees are coloured red on drawing L845TCP.

4.0 **Root Protection Areas (RPA)**

4.1 Approximately eighty percent of a tree's roots are in the top 600 mm of soil. Therefore any changes in this vital environment including: ground level, soil compaction, physical damage to roots, moisture or levels of contaminants can have a dramatic effect on the health of a tree. At deeper strata alterations in water table and routing of services can cause detrimental, long term, effects.

4.2 The area of roots that a tree generally needs to survive is called the Root Protection Area (RPA). The RPA is calculated using a formula based upon the diameter of the tree or tree stems at 1.5 metres high.

At this stage it is generally represented by a circle centred on the trees stem. However the RPA of T3, T7, T10 and T21 has been maintained but offset to account for the likely constraint to root spread by the retaining structure between the site and Boxley Road footpath.

The RPA of groups of trees has been defined by the largest edge tree or in the case of hedges by the average size of individual trees stems.

5.0 **Survey Conclusion**

The schedule included as Appendix 3 and the Tree Constraints Plan included as Appendix 5 indicates the position and quality of each tree on or adjacent to the site. Section 3 of this Appendix further indicates the implications that the BS5837 category of individual trees will have on the proposed site layout.

Trees that are of particular importance or worthy of comment are as follows:

5.1 To ensure planning permission is granted, in relation to trees, it would be necessary to design the layout to avoid impingement on all A, B and C category trees. U category trees do not normally need to be considered because they are likely to require removal within the next ten years irrespective of development.

5.2 If this cannot be achieved without making the site non-viable for development it should be appreciated that the likelihood of gaining planning permission will be reduced if retainable trees are encroached upon.

5.3 Notwithstanding this there is often room for negotiation depending on the category of the trees on site, the degree of encroachment and whether it is possible to mitigate damage by using engineering solutions or even replacement planting if removal of high category trees is unavoidable.

- 5.4 From a planning perspective I would suggest that, where possible, neighbour's trees are for the purpose of design layout considered to be important to retain and impingement upon their RPA or crown spread avoided. The exception to this may be where the survey considers a neighbour's tree to be unsafe. In this situation it may be necessary to negotiate with the tree owner over its removal or consult the Local Authority concerning the Miscellaneous Provisions Act 1976 that can be used to ensure that the tree is made safe at the tree landowners eventual cost. There are no neighbour's trees that fall into this category at present
- 5.5 As T28 is covered by a tree preservation order it will be necessary to consult the local authority before any pruning works other than certain exemptions can be carried out to this tree. The works specified in the "preliminary management recommendations to ensure SULE is at least 10 years irrespective of development" column of the tree survey schedule included as Appendix 3 are necessary for reasonable management and should be acceptable to the local authority. However, applicants should appreciate that the local authority may take an alternative point of view and have the option to refuse consent.
- 5.6 An Arboricultural Implication Assessment, Tree Protection Plan and Arboricultural Method Statement will consider proposed design layouts and clarify further whether there is a significant conflict between trees and proposed development.

6. References

BS5837:2012. Trees in Relation to Construction.
SULE. Jeremy Barrell.
BS3998: (2010) Recommendations for tree work

Appendix 3

BS5837 Tree Survey Schedule

Tree schedule explanatory notes

Evaluating the information gathered in the attached schedules

1. Tree no.

The Tree number (T), Shrub (B) or Group number (G).

2. Species

A visual assessment of tree species. Where species is questionable samples can be taken and sent off for laboratory analysis if necessary. The common name is usually indicated with the scientific name in brackets where necessary.

3. Height

Height in metres from the base of the tree. Visually estimated unless indicated otherwise.

4. Stem diameter

The diameter of the stem in millimetres at 1.5 m 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. This is accurately measured using a girthing tape.

MS = Multi stemmed

5. Branch spread in metres taken at the four cardinal points to derive an accurate representation of the crown and recorded on the attached drawing included as Appendix 3. This is generally paced out unless otherwise indicated.

6. Height of crown clearance

Height in metres of crown clearance above adjacent ground level at the base of the tree (to inform on ground clearance, crown stem ratio and shading).

7. Age class

N Newly planted or self-seeded sapling.
Y Young trees (less than 1/3 of normal life expectancy).
M Middle age trees (1/3 to 2/3 of normal life expectancy).
Ma Mature trees
OM Over mature (in decline or veteran)

8. Physiological condition

Good, fair, poor or dead.

9. Structural condition

This notes specific areas of the tree's condition that might require attention e.g. collapsing, the presence of any decay and physical defect.

10. Preliminary management recommendations to ensure SULE of at least ten years

Includes further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.

11. Estimated remaining contribution

Estimated remaining contribution in years e.g. less than 10, 10-20, 20-40, more than 40. This is based upon Jeremy Barrells' system of SULE (Safe Useful Life Expectancy).

12. Cat.

R or A to C category grading recorded on the attached drawing included as Appendix 3. Trees are categorised in accordance with the following cascade chart. (Extract from BS 5837: 2005):-

Cascade chart for tree quality assessment (extract from BS 5837: 2012)

TREES UNSUITABLE FOR RETENTION				
Category and definition	Criteria			Identification on plan
<p>Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use longer than 10 years.</p>	<ul style="list-style-type: none"> • 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 U category 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. <p>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve;</p>			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria — Subcategories			Identification on plan
	1 Mainly Arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
<p>Category A Those of high quality with an estimated remaining life expectancy of at least 40 years.</p>	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)	LIGHT GREEN
<p>Category B Those of moderate quality and value with an estimated remaining life expectancy of at least 20 years.</p>	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant 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.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a high collective rating than they might as individuals; or trees occurring as collectives but situated so to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	MID BLUE
<p>Category C 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>	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	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.	Trees with no material conservation or other cultural value.	GREY

Tree Survey Schedule- Also see drawing L845TCP

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m)			Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)	
					N	E	S,W									
T1	Holm Oak	8	185	3	4	1	2.5	1	3	Y	Fair. Suppressed.	Fair. Contributing to screen large growth potential next to retaining wall.	None at present.	10 – 20	C	2.2
T2	Holm Oak	8	226	2	4	1	2.5	2	3	Y	Fair. Suppressed.	Fair. Contributing to screen large growth potential next to retaining wall.	None at present.	10 – 20	C	2.7
T3	Holm Oak	8	100	1	0	1	2	1	3	Y	Fair. Suppressed.	Fair. Contributing to screen large growth potential next to retaining wall.	None at present.	10 – 20	C	1.2
T4	Sycamore	8	100	1	2	1	0	1	8	Y	Fair.	Poor. Very close to retaining wall.	Remove tree and treat stump.	<10	U	1.2
T5	Holly	5	75	1	1	0	1	1	0.5	Y	Fair. Suppressed.	Fair.	None at present.	10 – 20	C	0.9
T6	Yew	9	239	2	3	2	2	3	3	Y	Fair. Some ivy.	Fair. Close to retaining wall but relatively slow growth.	Cut ivy and monitor wall.	20+	B	2.9
T7	Laburnum	8	75	1	1	1	1	0	4	Y	Fair. Suppressed.	Fair.	None at present.	10 – 20	C	0.9
G8	Virburnum	3	100	1	1	1	1	1	0	Y	Fair.	Fair. Low level hedge.	None at present.	10 – 20	C	1.2

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Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W				Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)
T9	Birch	8	180	1	2	1	3	2.5	4	Y	Fair. Extensive ivy.	Fair. Close to retaining wall.	Cut ivy.	10 – 20	C	2.16
T10	Holm Oak	5	130	1	0	1	3	2	3	Y	Fair. Suppressed.	Fair.	None at present.	10 – 20	C	1.56
T11	Laburnum	5	122	6	1.5	0	1.5	2	2	Y	Fair. Extensive ivy.	Fair. Topped at 3 metres and allowed to re-grow. Likely to require re-topping every 10 – 20 years. Growing close to fence and leaning into garden.	Cut ivy.	10 – 20	C	1.5
T12	Holm Oak	1.5	200	1	0	0	0	0	0	Y	Fair.	Fair. Recently felled to ground level. Stump does not appear to have been treated. Likely to require re-coppicing every 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	2.0
T13	Sycamore	1.5	150	1	0	0	0	0	0	Y	Fair.	Fair. Recently felled to ground level. Stump does not appear to have been treated. Likely to require re-coppicing every 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.0
T14	Holm Oak	1.5	80	1	0	0	0	0	0	Y	Fair.	Fair. Recently felled to ground level. Stump does not appear to have been treated. Likely to require re-coppicing every 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	0.96

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W				Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)
T15	Holm Oak	1.5	113	2	1	1	1	1.5	0.5	Y	Fair.	Fair. Recently felled to ground level. Stump does not appear to have been treated. Likely to require re-coppicing every 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.4
T16	Hazel	4	92	8	1	2	2	2	2	Y	Fair.	Fair. Close to retaining wall. Large growth potential.	None at present.	10 – 20	C	1.1
T17	Laburnum	5	200	4	2	2	2	2	1	M	Fair. Extensive ivy.	Fair. Recently topped at 3 metres and allowed to re-grow. Likely to require re-topping every 10 – 20 years.	Cut ivy.	10 – 20	C	2.4
T18	Lilac	4	116	15	2	3	3	3	0.5	Y	Fair.	Fair.	None at present.	10 – 20	C	1.4
T19	Laburnum	5	80	5	1	2	2	3	2	Y	Fair.	Fair. Recently topped at 3 metres and allowed to re-grow. Likely to require re-topping every 10 – 20 years.	None at present.	10 – 20	C	0.96
T20	Ash	6	166	2	2	2	2	2	2	Y	Fair.	Poor. Tight union at 1.3 metres. Recently topped at 4 metres and allowed to re-grow. Large growth potential very close to retaining wall.	Remove and treat stump.	<10	U	2.0
T21	Yew	4	100	1	1	1	1	1	1	Y	Fair.	Fair. Small tree relatively simple to replace if necessary.	None at present.	20+	C	1.2
G22	Viburnum	4	100	1	1	1	1	1.5	0	Y	Fair.	Fair. Low level screen.	None at present.	10 – 20	C	1.2

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Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W			Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)	
G23	Various	6	200	1	1	1	1	0	M	Fair.	Fair. Established hedge including Viburnum, Forsythia, Camelia, Beech, Laurel and Yew.	None at present.	10 – 20	C	2.4	
T24	Holly	8	120	1	1.5	1	1.5	1.5	4	Y	Fair. Suppressed.	Fair.	None at present.	10 – 20	C	1.44
T25	Ash	9	134	2	2	2	2	2	4	Y	Fair.	Fair. Close to boundary treatment.	Monitor for signs of Ash Dieback disease every 15 months.	10 – 20	C	1.6
T26	Fig	10	454	7	3	6	2	2	1.5	M	Fair. Extensive ivy.	Fair. Neighbour's tree. In direct contact with boundary wall.	Monitor wall. Consider informing tree owner of benefits of cutting ivy.	10 – 20	C	5.4
G27	Various	300	1	1	1	1	1	1	0	Y	Fair.	Fair. Hazel, Ash, Holm Oak, Yew and Euonymus. Contributing to screen with neighbours	None at present.	20+	B	3.6
T28	Giant Redwood	25	1500	1	5	5	5	5	1	M	Fair.	Fair.	None at present.	40+	A	18.0
T29	Holly	3	140	4	1	1	1	1	0.5	Y	Fair.	Fair. Recently topped at 3 metres. Likely to require re-topping within 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.7
T30	Euonymus	3	139	3	1	1	0	0	1.5	Y	Fair.	Fair. Recently topped at 3 metres. Likely to require re-topping within 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.7

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m)			Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)
					N	E	S,W								
T31	Holly	0.5	114	2	0	0	0	0	Y	Fair.	Fair. Recently cut down to near ground level. Likely to require re-topping within 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.4
T32	Holm Oak	0	200	1	0	0	0	0	Y	Fair.	Fair. Recently cut down to near ground level. Likely to require re-topping within 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	2.4
T33	Cherry	1	200	1	0	0	0	0	Y	Fair.	Fair. Recently cut down to near ground level. Likely to require re-topping within 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	2.4
S34	Holly	0	150	1	0	0	0	0	Y	Dead. Appears to have been treated to prevent re-growth.	Fair. Recently cut down to ground level.	None at present.	>10	U	1.8
S35	Holly	0	150	1	0	0	0	0	Y	Dead. Appears to have been treated to prevent re-growth.	Fair. Recently cut down to ground level.	None at present.	>10	U	1.8
S36	Sycamore	0	200	1	0	0	0	0	Y	Dead. Appears to have been treated to prevent re-growth.	Fair. Recently cut down to ground level.	None at present.	>10	U	2.4
G37	Yew & Holly	8	300	1	1	1	1	0	Y	Fair. Some ivy.	Fair. Dense planting but contributing to screen	None at present.	20+	B	3.6

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W				Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)
T38	Apple	3	158	10	2	2	2	2	0	M	Fair.	Fair. Cut down to ground level in past and allowed to re-grow. Likely to require re-topping within 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.9
T39	Holm Oak	8	158	2	2	2	2	2	5	Y	Fair.	Fair. Twin stem and close to boundary treatment	None at present.	10 – 20	C	1.9
T40	Sycamore	8	100	1	0	1	4	1	2	Y	Fair. Small deadwood from shade.	Poor. Suppressed. Poor form and close to boundary treatment.	Remove tree.	<10	U	1.2
G41	Holm Oak	1.5	150	1	1	1	3.5	1	0	Y	Fair.	Fair. Hedge recently felled to ground level. Stumps do not appear to have been treated. Likely to require re-coppicing every 10 – 20 years to reduce the risk of failure at potentially weak unions.	None at present.	10 – 20	C	1.2
T42	Sycamore	0	600	1	0	0	0	0	0	M	Majority of stump ground out or treated to prevent re-growth.	Fair.	None at present.	<10	U	7.2
T43	Sycamore	16	300	1	2	2	3	3	16	M	Fair.	Fair. Neighbour's tree.	None at present.	20+	B	3.6
T44	Cedar	22	900	1	8	5	8	5	8	M	Fair.	Fair. Neighbour's tree.	None at present.	20+	B	10.8
T45	Holm Oak	17	700	1	7	6	8	3	7	M	Fair.	Fair. Neighbour's tree.	None at present.	20+	B	8.4

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Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W				Height of crown clearance (m)	Age class	Physiological condition	Structural condition And comments.	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development.	Estimated remaining contribution (years)	Cat.	RPA Radius (m)
T46	Holm Oak	12	800	1	5	6	8	4	7	M	Fair.	Fair. Neighbour's tree.	None at present.	20+	B	9.6

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Appendix 4

Tree Surgery Schedule- Also see drawing L845TPP

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m)				Height of crown clearance (m)	Age class	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development	Tree Surgery required to allow development	Tree surgery contractor's notes
					N	E	S	W					
T1	Holm Oak	8	185	3	4	1	2.5	1	3	Y	None at present.	As previous column	
T2	Holm Oak	8	226	2	4	1	2.5	2	3	Y	None at present.	As previous column	
T3	Holm Oak	8	100	1	0	1	2	1	3	Y	None at present.	As previous column	
T4	Sycamore	8	100	1	2	1	0	1	8	Y	Remove tree and treat stump.	Remove tree and treat stump as previous column	
T5	Holly	5	75	1	1	0	1	1	0.5	Y	None at present.	As previous column	
T6	Yew	9	239	2	3	2	2	3	3	Y	Cut ivy and monitor wall.	As previous column	
T7	Laburnum	8	75	1	1	1	1	0	4	Y	None at present.	As previous column	
G8	Virburnum	3	100	1	1	1	1	1	0	Y	None at present.	As previous column	
T9	Birch	8	180	1	2	1	3	2.5	4	Y	Cut ivy.	As previous column	

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Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W			Height of crown clearance (m)	Age class	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development	Tree Surgery required to allow development	Tree surgery contractor's notes
T10	Holm Oak	5	130	1	0	1	3	2	3	Y	None at present.	Reduce crown spread back to edge of drive to allow access for construction traffic.
T11	Laburnum	5	122	6	1.5	0	1.5	2	2	Y	Cut ivy.	As previous column
T12	Holm Oak	1.5	200	1	0	0	0	0	0	Y	None at present.	Remove tree and stump to allow development
T13	Sycamore	1.5	150	1	0	0	0	0	0	Y	None at present.	Remove tree and stump to allow development
T14	Holm Oak	1.5	80	1	0	0	0	0	0	Y	None at present.	Remove tree and stump to allow development
T15	Holm Oak	1.5	113	2	1	1	1	1.5	0.5	Y	None at present.	Remove tree and stump to allow development
T16	Hazel	4	92	8	1	2	2	2	2	Y	None at present.	Remove tree and stump to allow development
T17	Laburnum	5	200	4	2	2	2	2	1	M	Cut ivy.	As previous column
T18	Lilac	4	116	15	2	3	3	3	0.5	Y	None at present.	As previous column
T19	Laburnum	5	80	5	1	2	2	3	2	Y	None at present.	As previous column

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W				Height of crown clearance (m)	Age class	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development	Tree Surgery required to allow development	Tree surgery contractor's notes
T20	Ash	6	166	2	2	2	2	2	2	Y	Remove and treat stump.	Remove tree and treat stump as previous column	
T21	Yew	4	100	1	1	1	1	1	1	Y	None at present.	As previous column	
G22	Viburnum	4	100	1	1	1	1	1.5	0	Y	None at present.	As previous column	
G23	Various	6	200	1	1	1	1	1	0	M	None at present.	As previous column	
T24	Holly	8	120	1	1.5	1	1.5	1.5	4	Y	None at present.	As previous column	
T25	Ash	9	134	2	2	2	2	2	4	Y	Monitor for signs of Ash Dieback disease every 15 months.	As previous column	
T26	Fig	10	454	7	3	6	2	2	1.5	M	Monitor wall. Consider informing tree owner of benefits of cutting ivy.	As previous column	
G27	8	300	1	1	1	1	1	1	0	Y	None at present.	As previous column	
T28	Giant Redwood	25	1500	1	5	5	5	5	1	M	None at present.	As previous column	
T29	Holly	3	140	4	1	1	1	1	0.5	Y	None at present.	As previous column	

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m) N,E,S,W				Height of crown clearance (m)	Age class	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development	Tree Surgery required to allow development	Tree surgery contractor's notes
T30	Euonymus	3	139	3	1	1	0	0	1.5	Y	None at present.	As previous column	
T31	Holly	0.5	114	2	0	0	0	0	0	Y	None at present.	As previous column	
T32	Holm Oak	0	200	1	0	0	0	0	0	Y	None at present.	As previous column	
T33	Cherry	1	200	1	0	0	0	0	0	Y	None at present.	As previous column	
S34	Holly	0	150	1	0	0	0	0	0	Y	None at present.	As previous column	
S35	Holly	0	150	1	0	0	0	0	0	Y	None at present.	As previous column	
S36	Sycamore	0	200	1	0	0	0	0	0	Y	None at present.	As previous column	
G37	Yew & Holly	8	300	1	1	1	1	1	0	Y	None at present.	As previous column	
T38	Apple	3	158	10	2	2	2	2	0	M	None at present.	As previous column	
T39	Holm Oak	8	158	2	2	2	2	2	5	Y	None at present.	As previous column	

Tree No.	Species	Height (m)	Stem Dia. (mm)	No. of stems	Branch Spread (m)			Height of crown clearance (m)	Age class	Preliminary management recommendations to ensure SULE is at least 10 years irrespective of development	Tree Surgery required to allow development	Tree surgery contractor's notes
					N	E	S,W					
T40	Sycamore	8	100	1	0	1	4	1	2	Y	Remove tree.	Remove tree as previous column
G41	Holm Oak	1.5	150	1	1	1	3.5	1	0	Y	None at present.	Remove hedge to allow development
S42	Sycamore	0	600	1	0	0	0	0	0	M	None at present.	Remove remains of stump
T43	Sycamore	16	300	1	2	2	3	3	16	M	None at present.	As previous column
T44	Cedar	22	900	1	8	5	8	5	8	M	None at present.	As previous column
T45	Holm Oak	17	700	1	7	6	8	3	7	M	None at present.	As previous column
T46	Holm Oak	12	800	1	5	6	8	4	7	M	None at present.	As previous column

Appendix 5

Photographs

No Photographs

Appendix 6
Tree Constraints Plan L845TCP

Please see attached drawing L845TCP.

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Appendix 7
Tree Protection Plan L845TPP

Please see attached drawing L845TPP.

BS 5837 Tree Report at St. Pauls Vicarage Boxley Road ME14 2AH
Author John Gillbert, ref: L845AIA



Blue dashed line indicates 600mm deep trench excavated by hand, under Arboricultural supervision, to cut back roots to edge of excavation for parking spaces. The percentage of RPA affected at the distance from tree stems is unlikely to have a significant long term effect on retained trees.

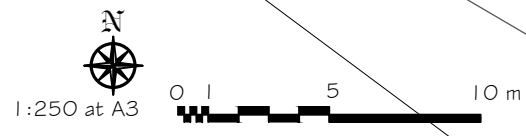
Reduce T10 crown spread back to edge of drive to allow access for construction traffic.

Blue dashed line indicates 600mm deep trench excavated by hand, under Arboricultural supervision, to cut back roots to edge of excavation for retaining wall. The percentage of RPA affected at the distance from tree stems is unlikely to have a significant long term effect on retained trees.

62.9m

Black dashed line indicates protective fencing erected before demolition, construction or access to site by heavy plant.

Yellow hatching indicates Construction Exclusion Zone (CEZ) only to be crossed under Arboricultural supervision.



Temporary ground protection (blue hatching) laid before demolition, construction or access to site by heavy plant. Only reduced in size to allow the construction of decking at the end of the main construction phase.

Decking to be supported on minimum diameter posts at maximum centres and constructed under Arboricultural supervision. See Arboricultural Method Statement for more details.

The comments on this drawing indicate mitigating measures that will be taken to reduce the impact of development on trees and vice versa. More details of how to achieve the mitigating measures are included within the Arboricultural Method Statement in Tree Report No. LB45AIA.

All Boundary treatments within the RPA of retained trees to consist of fencing with fence posts at 1.8m centres. Post holes will be excavated by hand and moved if roots over 25mm in diameter are encountered. Crown lift retained tree to 2.5m to allow the erection of fencing if necessary.

Ideally any new services entering the site will be outside the RPA of retained trees. Any excavations required for new services within the RPA of retained trees will be carried out in accordance with NJUG regulations and under Arboricultural supervision. Soakaways or attenuation tanks will not be within the RPA of retained trees.

Soft landscaping within the RPA of retained trees will either be carried out under Arboricultural supervision or by a landscape contractor experienced in working near trees.

Temporary ground protection (blue hatching) laid before demolition, construction or access to site by heavy plant. Only reduced in size to allow the construction of the suspended shed deck at the end of the main construction phase.

Shed deck to be supported on minimum diameter posts at maximum centres and constructed under Arboricultural supervision.

- Legend**
- Root Protection Area
 - Category A tree
Those of High quality and value.
 - Category B tree
Those of moderate quality and value
 - Category C tree
Those of low quality and value
 - Category U tree. Likely to have a Safe Useful Life Expectancy of less than 10 years irrespective of development.
 - Not inspected
 - Trees to be retained
 - Construction Exclusion Zone (CEZ). Only to be crossed under Arboricultural supervision.

Notes

Based upon CDE Limited Existing Site Plan 20-015/01 and Urban and Rural Design layout drawing No. A1581-10 P6. The position of trees T4, T5, T6, T7, G8, T9, T10, T11, S13, S14, S15, T16, T17, T18, T19, T20, T21, G22, G23, T25, T26, G27, T29-G41 and T45 added by Treeventures Ltd.

Also Please refer to Treeventures report ref: LB45AIA

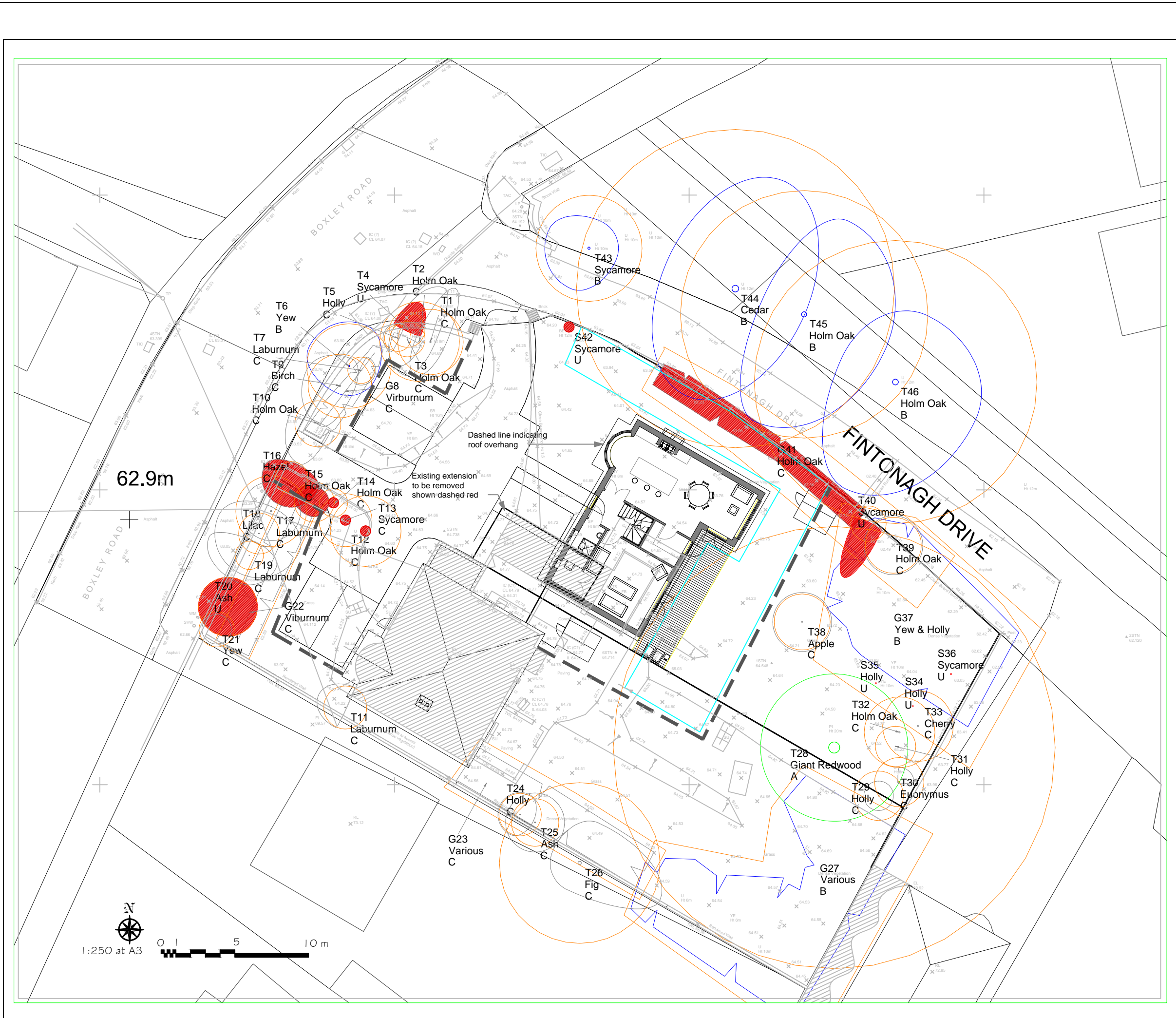
Rev:	Date:	Description:
Project: St Paul's Vicarage Boxley Road Maidstone Kent, ME14 2AH		
Title: Tree Protection Plan		
Survey Date:	Scale:	
08-09-22	1:250 at A3	
Drawing No:	Revision:	
LB45TPP	-	



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Appendix 8
Tree Removal Plan L845TRP

Please see attached drawing L845TRP.



- Legend**
- Root Protection Area
 - Category A tree
Those of High quality and value.
 - Category B tree
Those of moderate quality and value
 - Category C tree
Those of low quality and value
 - Category U tree. Likely to have a Safe Useful Life Expectancy of less than 10 years irrespective of development.
 - Not inspected
 - ▨ Trees to be removed

Notes

Based upon CDE Limited Existing Site Plan 20-015/01 and Urban and Rural Design layout drawing No. A1581-10 P6. The position of trees T4, T5, T6, T7, G8, T9, T10, T11, S13, S14, S15, T16, T17, T18, T19, T20, T21, G22, G23, T25, T26, G27, T29-G41 and T45 added by Treeventures Ltd.

Also Please refer to Treeventures report ref: LB45AIA

Rev	Date	Description

Project:
**St Paul's Vicarage
 Boxley Road
 Maidstone
 Kent, ME14 2AH**

Title:
Tree Removal Plan

Survey Date: 08-09-22 Scale: 1:250 at A3
 Drawing No: LB45TRP Revision: -



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