



Invicta Arboriculture
Tree and Woodland Consultancy

Pre-development Tree Survey and Report

Linden Cottage
Lenham Heath Road
Sandway
Kent
ME17 2NB

13th December 2023



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- A Tree schedule and explanatory notes**
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Executive Summary

1. **Brief:** Invicta Arboriculture has been appointed to provide arboricultural advice relating to the proposed development. This survey and report has been prepared in accordance with BS5837:2012 “Trees in relation to design, demolition and construction – Recommendations.
2. **Proposal:** The planning application seeks to extend the existing dwelling house.
3. **Survey:** The site was surveyed on 5th December 2023 following the guidance contained within BS5837:2012.
4. **Statutory designations:** The application site is not subject any Tree Preservation Orders. The application site is not located within a Conservation Area.
5. **Arboricultural impact:** The arboricultural impact of the proposed scheme is considered to be low, requiring the loss of ten very small ornamental trees of poor quality comprising one Laburnum and nine Apple trees.

BS5837:2012 compliant protective fencing will be erected around all retained tree.

1 INTRODUCTION

1.1 **Brief:** I am instructed by Kent Design Studio to provide a pre-development arboricultural report in accordance with BS5837:2012 in respect of trees at Linden Cottage, Lenham Heath Road, Sandway, Kent, ME17 2NB to accompany a planning application for the extension of the existing dwelling house.

1.2 **Qualifications and experience:** I have based this report on my site observations and the information provided, and I have come to conclusions in the light of my experience as an arboriculturist.

I am a professional member of the Consulting Arborist Society.
I am a Technician member of the Arboricultural Association.

1.3 **Documents and information provided:** I was provided with the following documents:

- A plan of the site as existing.
- A plan of the site as proposed.

1.4 **Report limitations:** This report is only concerned with the eleven trees as shown on the site plan. It takes no account of any other trees. It includes a detailed assessment based on the site visit and the documents provided, listed in 1.3 above.

This report has been prepared on the basis of the proposed development and should not be interpreted as a report on tree health and safety. Whilst reasonable effort has been made to identify visible structural and physiological defects whilst undertaking the survey, trees and shrubs are living organisms; the health and stability of which can change rapidly; especially in the event of extreme weather conditions, therefore all recommendations given are valid for a period of twelve months from the date of this report.

1.5 **Collection of data:** The survey was carried out using the following inspection aids:

- Digital clinometer- To calculate the height of the trees
- Girthing tape- To measure stem diameter
- Leica Disto D1 laser measurer – To calculate canopy spreads

2 SITE VISIT AND OBSERVATIONS

- 2.1 **Site visit:** I carried out a single, unaccompanied site visit on 5th December 2023. All of my observations were from ground level within the application site. The weather at the time of inspection was overcast and raining but with good visibility.
- 2.2 **Brief site description:** The application site is located on the village of Sandway in rural mid-Kent and comprises the rear domestic garden of the property. The topography of the site is relatively flat and is elevated above that of the existing dwelling house. The site is not exposed.



- 2.3 **Identification and location of the trees:** Ten of the trees subject to this report are located within the rear domestic garden of Linden Cottage with one off-site tree located within the rear garden of the neighbouring property to the east (Rose cottage). I have illustrated the approximate location of the trees on the tree constraints plan included at Appendix B. All of the relevant information and measurements on it are contained within this report and the provided documents.
- 2.4 **Collection of basic data:** I collected information on species, height, diameter, maturity and potential for contribution to amenity in a development context. I have recorded this information in the tree survey schedule included at Appendix A. I stress that my inspection was of a preliminary nature, and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level within the application site.

3 APPRAISAL

3.1 **Relevant references:** This inspection was undertaken in accordance with *B.S.5837:2012 Trees in relation to design, demolition and construction - Recommendations*. The trees were inspected using the Visual Tree Assessment method as documented by Mattheck and Breloer in *'The Body Language of trees'*, ODPM Research for Amenity Trees number 4, 1994.

3.2 **British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations:** This report is set out according to the recommendations within B.S. 5837:2012 and contains the following information relating to the trees within and adjacent to the application site.

- Tree survey schedule (included at Appendix A)
- Tree Constraints Plan (included at Appendix B)
- Arboricultural implications assessment
- Arboricultural method statement
- Tree protection plan (included at Appendix C)

3.3 Table 1: Tree quality assessment

B.S. 5837:2012 Category	Survey Numbers	Total
U	T2, T3, T4, T5, T6, T7, T8, T9	8
A	-----	0
B	-----	0
C	T1, T10, T11	3

3.3 Ten of the eleven trees subject to this report stand within the rear garden of Linden Cottage. The ten trees are all small ornamentals of poor quality comprising one Laburnum and nine Apple trees all of which will be removed to enable the proposed development and associated construction access. The trees are considered to possess no appreciable public visual amenity value and their loss is not considered detrimental to the character of the local landscape.



- 3.4 T11, Hawthorn is an off-site tree located within the rear garden of the neighbouring property to the east (Rose Cottage) on the boundary with the applications site. The tree is to be retained.



4 TREE CONSTRAINTS PLAN

4.1 The tree constraints plan is primarily a design tool which shows the below ground constraints represented by the calculated root protection area and the above ground constraints represented by the current and ultimate heights of the trees and the potential effects of shade on any proposed development. The tree constraints plan is included at Appendix B.

4.2 Below ground constraints:

- The root protection area (RPA) is the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability and where the protection of the roots and soil structure is treated as a priority. The RPA is measured in m². The RPA is shown as a red circle on the tree constraints plan.
- The root protection area relates to the stem diameter of each tree when measured at a height of 1.5m from ground level. For single stem trees the RPA is calculated as an area equivalent to a circle with a radius of twelve times the stem diameter (or the mean diameter of the total number of stems in the case of multi-stemmed trees).
- The proposed development will be constructed outside of the RPA of the retained off-site tree and as such no below ground constraints are considered to exist.

4.3 Above ground constraints:

- There are no above ground constraints.

5 ARBORICULTURAL IMPACT ASSESSMENT

5.1 **Arboricultural impact:** The arboricultural impact of the proposed scheme is considered to be low requiring the loss of ten small ornamental trees of poor quality.

BS5837:2012 compliant protective fencing will be erected around the retained off site tree.

5.2 **Presence of TPOs or conservation area designations:** The application site is not subject any Tree Preservation Orders. The application site is not located within a Conservation Area.

5.3 **Effects of new buildings on amenity value on or near the site:** The effects of the proposed development are not envisaged to have any detrimental effect on the amenity value of the retained trees or surrounding landscape providing all advice given in this report is adhered to.

5.4 **Above and below ground constraints:** The above and below ground constraints are discussed in section four above and shown on the tree constraints plan at Appendix B.

5.5 **Construction processes of the proposed development or demolition needs:** There are no requirements for any demolition operations.

5.6 **Modifications proposed to accommodate trees – Ground protection:** Ground protection measures are not required.

5.7 **Modifications proposed to accommodate development –tree pruning/felling:** T1 to T10 will be removed to enable the proposed extension and construction access.

5.8 **Infrastructure requirements – highway visibility, lighting, CCTV, services etc:** All services will be routed in to the extension from within the existing dwelling.

The trees subject to this report do not obscure highway visibility splays.

5.9 **End use of space:** The application seeks to extend the existing dwelling house.

5.10 **Mitigating tree loss/ new planting:** No new tree planting is proposed.

5.11 **Veteran trees:** None of the trees are considered to be veterans.

5.12 **Impact of trees on buildings and vice versa and allowance for future growth:** The impact of the trees on the proposed development and vice versa and allowance for future growth has been considered. Tree size, future growth, light/shading, leaf and fruit nuisance etc. have received due attention and are not considered to be a significant issue.

6 ARBORICULTURAL METHOD STATEMENT AND TREE PROTECTION PLAN

Arboricultural Method Statement (AMS) includes a Tree Protection Plan (TPP) to identify:

- Protective fence positions therefore the Construction Exclusion Zones (CEZ) shown as a blue line on the TPP at Appendix C.
- Measurements to identify fence positioning in relation to the centre of the tree are recorded in the tree survey schedule at Appendix A.

1.0 Construction Exclusion Zone

1.1 The Construction Exclusion Zone (CEZ) as required by the current edition (2012) BS 5837 relates to the stem diameter of each retained tree when measured at a height of 1.5m from ground level or the mean diameter of the total number of stems in the case of multi-stemmed trees.

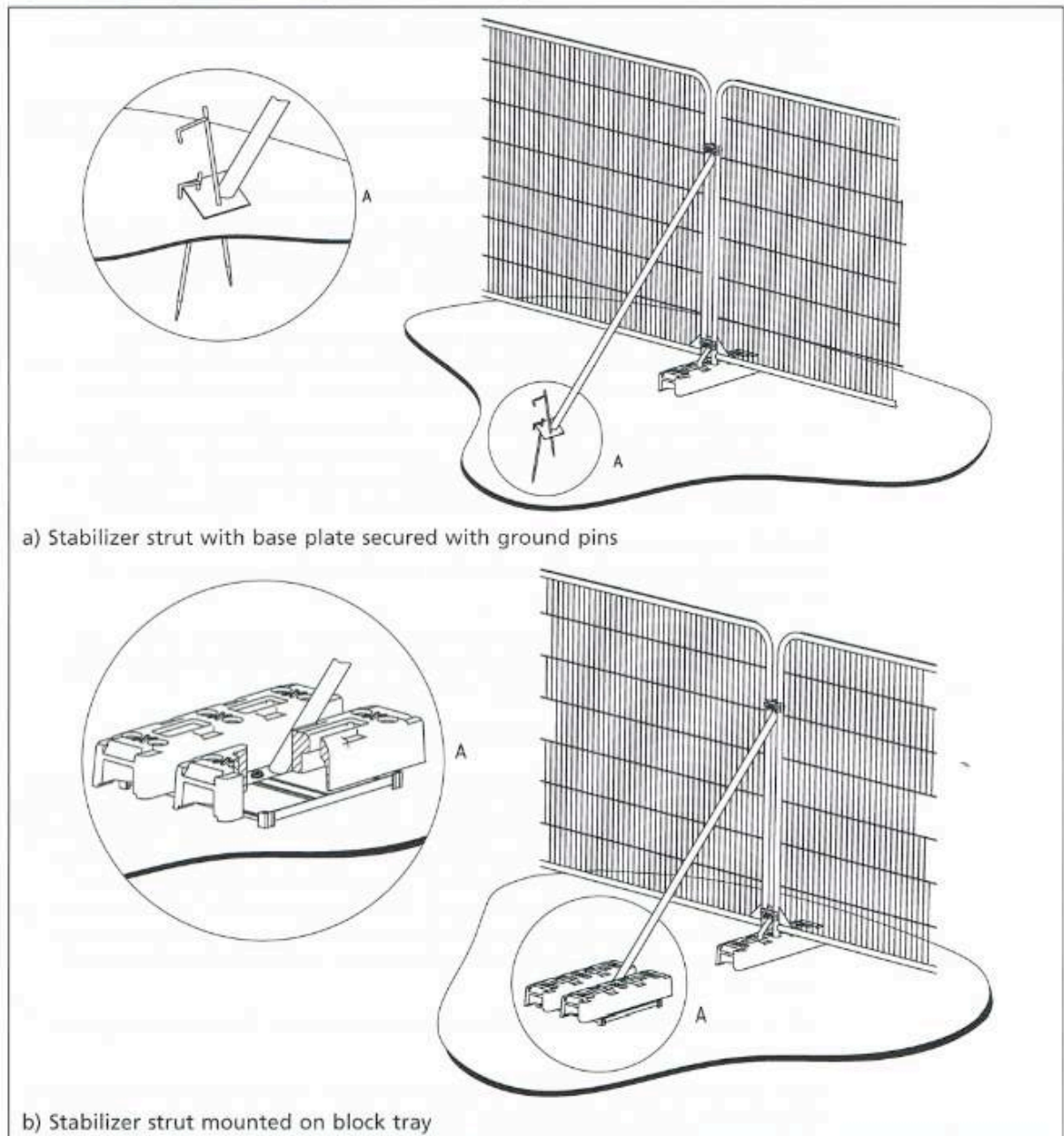
2.0 Protective Fencing

2.1 Protective fencing will be erected around the retained off-site tree prior to the commencement of any site works e.g. before any materials or machinery are brought on site, development or the stripping of soil commences. The fence should have signs attached to it stating that this is a Construction Exclusion Zone and that **NO WORKS are Permitted** within the fence. The protective fencing may only be removed following completion of all construction works.

2.2 The fencing is required to be sited in accordance with the Tree Protection Plan enclosed within this method statement at Appendix C. The fencing shall be constructed as per figure 3 - B.S.5837: 2012 and be fit for the purpose of excluding any construction activity.

2.3 An example of protective fencing: Figure 3 - B.S.5837: 2012, is shown below...

Figure 3 Examples of above-ground stabilizing systems



3.0 Precautions in respect of temporary works

3.1 There are no requirements in respect of temporary works.

4.0 Access Details

4.1 Construction traffic will access the site via Headcorn Road and Lenham Heath Road via the existing vehicular access.

5.0 Contractors car parking

5.1 Limited parking provision is available off-site away from the retained tree.

6.0 Site Huts and Toilets

6.1 Limited space is available on-site and away from the retained trees for all site huts and portable toilets if required.

7.0 Storage Space

7.1 Limited space is available on site and away from all retained trees for the storage of all plant, machinery and materials.

8.0 Additional Precautions

8.1 The installation of services near any tree will be undertaken in accordance with the National Joint Utilities Group Guidance Note 4 (NJUG 4): Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees. A copy of this document can be provided on request.

8.2 No storage of materials or lighting of fires will take place within the CEZ. No mixing or storage of materials will take place up a slope where they may leak into a CEZ.

8.3 No fires should be lit within 20 metres of any tree stem and will take into account fire size and wind direction so that, no flames come within 5m of any foliage.

8.4 High-sided vehicles will have access to the site. Their movements around the site will be in no way detrimental to the health or stability of the retained trees.

8.5 No notice boards, cables or other services will be attached to any tree.

8.6 Materials that may contaminate the soil should not be discharged within 10m of any tree stem. When undertaking the mixing of materials it is essential that any slope of the ground is taken in to consideration so that it does not allow contaminates to run towards a tree root area.

9.0 Site Gradients

9.1 Extensive excavations will be required to enable the construction of the proposed extension due to the levels of the garden above the existing dwelling. The excavation will take place outside the RPA of the retained off-site tree.

10.0 Demolition

10.1 There are no requirements for any demolition operations.

11.0 **Hard Surfaces**

11.1 No new hard surfacing is proposed.

12.0 **Soft landscaping**

12.1 Soft landscaping details are outside the scope of this report.

13.0 **Use of Herbicides**

13.1 I am not aware of the need to use herbicides on the site.

14.0 **On site Monitoring Regime**

14.1 All operations will be monitored by the main contractor.

15.0 **Use of subcontractors**

15.1 The main contractor will be responsible for ensuring sub-contractors do not carry out any process or operation that is likely to adversely impact upon any trees adjacent to the application site.

16.0 **Contingency Plan**

16.1 Water should be made readily available on site and should be used to flush spilt materials through the soil and avoid contamination to tree roots. At the time of any spillage the main contractor will contact the project arboriculturist for advice.

17.0 **Remedial Tree Works**

17.1 There are no requirements for any remedial tree works.

18.0 **Responsibilities**

18.1 It is the responsibility of the main contractor to ensure that the planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site if required.

18.2 The main contractor will be responsible for contacting the project arboriculturist or Local Planning Authority (Maidstone Borough Council) at any time issues are raised in relation to the trees adjacent to the site.

7 RECOMMENDATIONS

- 7.1 **Implementation of works:** All tree works should be carried out in accordance with the 2010 revision of BS 3998 *Recommendations for Tree Work*, or as modified by more recent research. It is advisable to select a contractor from the local authority list and preferably one approved by the Arboricultural Association. Their Register of Contractors is available free from The Malthouse, Stroud Green, Standish, Stonehouse, Gloucestershire GL10 3DL; Telephone 01242 577766; Website. <http://www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons>.
- 7.2 **Statutory wildlife obligations:** The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All tree work operations are covered by these provisions and advice from an ecologist must be obtained before undertaking any works that might constitute an offence.
- 7.3 **Future considerations:** The remaining trees should be inspected on a regular basis by a qualified arboriculturist.

8 BIBLIOGRAPHY

- 8.1 Claus Mattheck and Helge Breloer, *The Body Language of Trees*. Office of the Deputy Prime Minister, Research for Amenity Trees No 4, 1994.

David Lonsdale, *Principles of Tree Hazard Assessment and Management*. Department for Transport, Local Government and the Regions, 1999.

British Standard 3998:2010 Recommendations for tree work

British Standard 5837:2012 Trees in relation to design, demolition and construction-Recommendations.

Mr David Sephton Tech Cert (Arbor. A)

Appendix A:

Tree Schedule and Explanatory Notes

- **Number:** Number of tree as shown on site plan.
- **Species:** Tree name is given using its commonly known English name.
- **Hgt:** Height is estimated using a clinometer and given to the nearest metre.
- **St Dia:** Stem Diameter. Estimated stem diameter, measured 1.5 metres above ground level and given in millimetres.
- **N-E-S-W:** Crown Spread, estimated by pacing and given in metres.
- **Cr Cl:** Crown Clearance above ground level, given in metres.
- **AC:** Age Class. young (Y), semi mature (SM), mature (M), over mature (OM), veteran(V).
- **PC:** Physiological Condition. Good (G), fair (F), poor (P), dead (D).
- **SC:** Structural Condition. Good (G), fair (F), poor (P).
- **Recommendations:** Preliminary management recommendations/ general comments.
- **ERCY:** Estimated remaining contribution in years (0-10, 10-20, 20-40, 40+).
- **Cat:** Retention Category. See table 2 below.
- **RPA Radius:** Root Protection Area Radius, given in meters.

Table 2: Retention Category's (as per cascade chart, Table 1, B.S. 5837:2012)

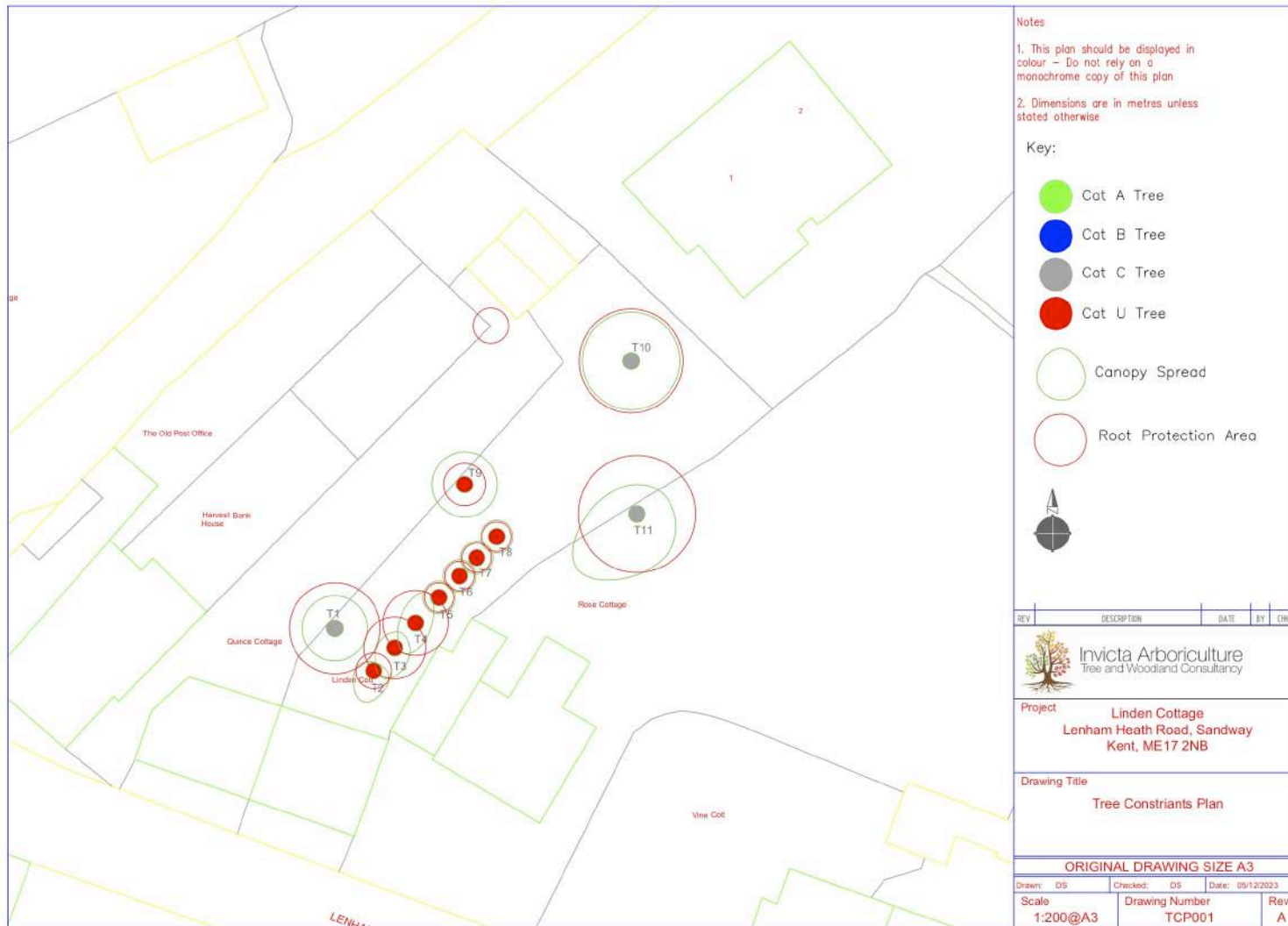
U	Those trees in such a condition that they cannot be realistically be retained as living trees in the context of the current land use for longer than ten years. Shaded Red on site plan.
A	High quality and value (40yrs +) 1: Mainly arboricultural values, 2: Mainly landscape values, 3: Mainly cultural values i.e. conservation. Shaded Green on site plan.
B	Moderate quality and value (20yrs +) 1: Mainly arboricultural values, 2: Mainly landscape values, 3: Mainly cultural values i.e. conservation. Shaded Blue on site plan.
C	Low quality and value (10yrs +) 1: Mainly arboricultural values, 2: Mainly landscape values, 3: Mainly cultural values i.e. conservation. Although category C trees would not be retained where they would pose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation. Shaded Grey on site plan.

Appendix A:

B.S. 5837:2012- Tree Survey Schedule: Linden Cottage, Lenham Heath Road, Sandway, Kent, ME17 2NB.

Number	Species	HGT	St Dia	N-E-S-W	CC	Age	PC	SC	Recommendations	E.R.C.Y	Cat	RPA Radius	RPA M ²
1	Laburnum	5	230	2-2-2-2	1.5	S/M	G	G	Remove to enable proposed development	10+	C1	2.8	23.9
2	Apple	3	90	0-2-1-1	1	S/M	F	F	Remove to enable proposed development	0-10	U	1.1	3.7
3	Apple	3	160	1-2-1-1	0.5	S/M	F	F	Remove to enable proposed development	0-10	U	1.9	11.6
4	Apple	3	170	2-2-1-1	1	Y	F	F	Remove to enable proposed development	0-10	U	2.0	13.1
5	Apple	1.5	75	1-1-1-1	0.5	Y	F	F	Remove to enable proposed development	0-10	U	0.9	2.5
6	Apple	1.2	75	1-1-1-1	0.5	Y	F	F	Remove to enable proposed development	0-10	U	0.9	2.5
7	Apple	2	75	1-1-1-1	0.5	Y	F	F	Remove to enable proposed development	0-10	U	0.9	2.5
8	Apple	2	75	1-1-1-1	0.5	Y	F	F	Remove to enable proposed development	0-10	U	0.9	2.5
9	Apple	3	110	2-2-2-2	1	S/M	F	F	Remove to enable proposed development	0-10	U	1.3	5.5
10	Apple	4	270	3-3-3-3	0.5	M	F	F	Remove to enable proposed development	10+	C1	3.2	33.0
11	Hawthorn	7	300	2-5-3-2	1.5	M	G	G	Off-site tree with prominent lean to the south west - None - Retain	10+	C1	3.6	40.7

Appendix B: Tree Constraints Plan.



Appendix C: Tree Protection Plan.

