



## **Chartwell Tree Consultants Ltd**

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# **Arboricultural Report**

**BS5837 Tree Survey**

**At**

**Tallow Court  
High Street  
Headcorn  
Kent  
TN27 9NE**

**Client**

**Town Centre Parking (Headcorn) Ltd**

**By**

**Sam Bateson**

**Date**

**6<sup>th</sup> September 2022**



<i>Site</i>	Tallow Court
<i>Inspection Date</i>	30.03.2022 & 09.05.2022
<i>Inspected By</i>	Sam Bateson
<i>Reference</i>	CTC/TAL/AR2

## (1) Terms of Reference

- I received instructions from Mr Alex Woodford to carry out a survey of the trees with regards a proposed development at the above address.
- The tree survey, arboricultural impact assessment and draft Tree Protection Plan are to be produced with relevant measurements in line with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction' for all the trees within the boundary of the proposed dwelling.
- An Arboricultural Method Statement (AMS) has not been requested at this stage.
- To make any other observations or recommendations as required based on the survey.
- A planning application (17/502362/FULL) to construct a mixed use, two storey building was approved on the 31<sup>st</sup> August 2017.

## (2) Scope of Report

- This preliminary assessment did not include a detailed examination of tree root systems, aerial access, or the use of internal decay detection equipment. A further supplementary Detailed Report may be advised as a result of the findings herein.
- The inspection was carried out with the aid of the following equipment:
  - Sounding mallet
  - Metal probe
  - 30m measuring tape
  - Rounded down diameter tape (Stem diameter measured at 1.5m)
  - Compass
  - TruPulse 200 Laser Clinometer
- The tree data gathered is for the purposes of a development site survey in accordance with BS5837: 2012 and is **not** a detailed tree safety inspection.
- A tree owner is advised to have all trees in their ownership regularly inspected; trees are to be re-inspected after strong winds.
- The information contained in this report should be considered valid for a period of 12 months from date of issue.
- Average measurements have been taken for trees within groups, hedges or woodland.

- Estimated measurements have been taken for private or inaccessible trees.
- Only trees potentially affected by the proposed development have been included in this survey.
- If noted during the site survey the presence of a visible Invasive Weed will be highlighted, however this report is in no way considered an Ecological or Invasive Weed survey and CTC does not offer any advice in regards identification, 'Duty of Care' and or treatment and in all such cases a recommendation to seek specialist advice will be given.
- The information contained in this report is provided without prejudice and is based upon the authors knowledge, experience, qualifications and public research. The author cannot be held responsible for the consequences of a difference of opinion for example, from the Local Planning Authority or the Planning Inspectorate.

### **(3) Third Party Disclaimer**

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by Chartwell Tree Consultants Ltd at the instruction of, and for the use by, our client named within the report, the architect of the proposed development and the Local Authority Planning Department. This report does not in any way constitute advice to any third party who is able to access it by any means. Chartwell Tree Consultants Ltd excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage arising from reliance on the content of this report.

### **(4) Site Information**

- Consists of a car park with numerous young trees and shrubs (shrubs have not been pruned for some time) with a dry stream bed and wooded area to the north, railway line to the south and some neighbouring mature trees. Some of the trees have been plotted by eye using site features as reference as they were not included on the topographical survey.
- Access can be gained from Tallow Court.
- The DBH (Diameter measured at 1.5m off the ground) for trees within hedgerows or private properties has been estimated.

### **(5) Rooting Zone**

- The soil level has remained the same throughout the area so the root flares on all the trees are exposed.
- There is no evidence of any recent root disturbance or radial trenching having recently taken place.

## (6) Arboricultural Impact Assessment (AIA)

- **Description of the Proposed Development**

It is proposed to construct 5 residential properties with associated hard and soft landscaping. The car park to the West of the site is to be widened and improved as requested by the Local Authority.

- **Legal Constraints**

Preliminary checks show the site is not within a Conservation Area and there are no Tree Preservation Orders (MBC website maps checked 09.05.2022).

### (6.1) Impact of the Proposed Development on the Amenity Value of the Trees

- **Direct Loss of Trees**

I would recommend the removal of the Oaks (T8 & T9), Field Maples (T7 & T12) and a section of the mixed broadleaves and shrubs (G1) in order to incorporate the new design and as a **Category C** trees they should not therefore be considered as a constraint to the development. These are young specimens that can be easily replaced.

- Three **Category B** trees (Hornbeam T19, T20 and Oak T23) require removal due to their proximity to the proposed new car park and in order to facilitate the design. Due to the nature of the proposal, required location for new access road and the intensity of the build program in my professional opinion it is not feasible or practicable to retain some moderate value individual trees within the proposed build area. In terms of the removed species characteristics and growth potential their retention would not be in keeping with the overall scale and layout of the proposed development.

#### **Direct Loss of Trees**

BS5837 Category	Number of Trees	% of total tree stock
A	0	0
B	3	11
C	5	18.5
U	0	0

- Their loss is to be mitigated by the planting of new native and non-native trees with an appropriate size and stature (can be subject to a detailed planning condition) that will result in no net loss of canopy cover and ensure biodiversity gain in the future.

- Container grown, native species should be sourced (Majestic Trees, Hilliers, Barchams for example) so that the rooting system is kept complete which aids establishment. Heavy standard trees with a girth of 12-14cm, 2-3m in height should be sourced as these will offer an immediate visual impact for the site. The above nurseries will offer a delivery, planting and care package service which is advisable.

**Recommended Species:**

Oak	Field Maple	Yew	Hornbeam
Beech	Hawthorn	Holly	Alder
Wild Service Tree	Scot's Pine	Sorbus	Silver Birch

- It is my opinion that the loss of these trees will not have a significant detrimental impact on visual amenity of the site as the screening trees are to be retained and additional planting will improve area greening and biodiversity.

**Retained Trees**

- Providing that adequate tree protection is implemented, the amenity value of the trees on the site will be preserved. Retained trees will be protected from soil compaction and impact damage where necessary by protective barriers and / or systems and methods of ground protection. Protective barriers will be fit for purpose, complying with BS5837: 2012 unless otherwise agreed with the Local Planning Authority (LPA). Such alternatives may include the use of temporary buildings or existing hard surfaces as part of tree protection or alternative fencing specification for areas of lower risk e.g. areas for future planting.

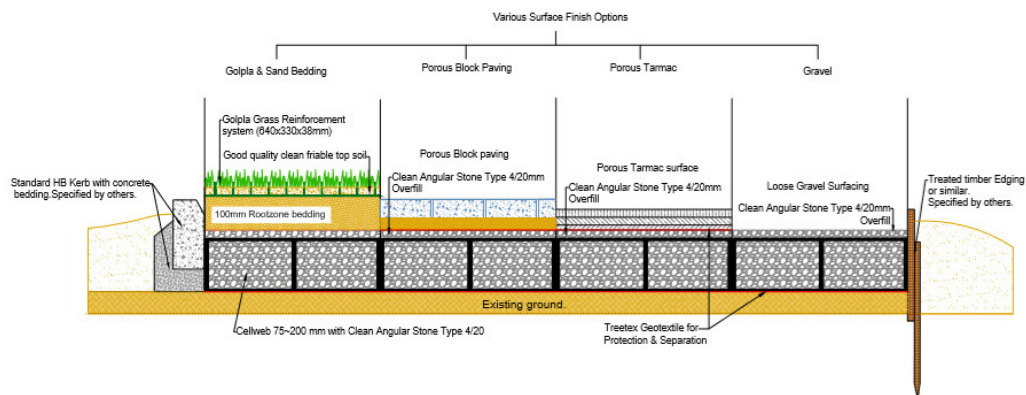
**Above and Below Ground Constraints**

- The British Geological Survey Map Sheet 304 (Solid & Drift Edition) indicates the underlying geology to be Weald Clay Formation which is generally considered to contain shrinkable soils. It is recommended that a geotechnical specialist / structural engineer undertake a detailed soil investigation to determine the actual underlying geology and Plasticity Index which may then inform the foundation design.

The design of any new planting and landscape proposals should be based upon a soil analysis which considers the pH and any nutrient deficiencies or imbalances.

- The proposed buildings will **not** require an incursion into the root protection areas of the trees to be retained and therefore conventional foundations are deemed acceptable. Areas of new parking will require a low invasive solution and the existing parking will need to be lifted by hand at end of the build process (Shown in **CYAN** on the TPP). It is my professional opinion this will not result in the significant loss of rooting area and will not result in any significant root damage. This is based upon:
  - Precautions (e.g. manual excavation) and site supervision to ensure that any roots encountered are dealt with appropriately. Roots over 2.5cm diameter are only to be severed after consultation with an arboriculturist.
  - Leaf fall in the autumn months can be mitigated by the use of non-slip paving areas and guards/grilles on the gutters and gullies.

- Tree protection fencing is installed during the duration of the development.
- The majority of the trees in the car parking areas to the South are young to middle aged trees – as long as the construction is undertaken to recommendations as per BS5837 they will adapt to the new environment – a detailed Arboricultural Method Statement is recommended (can be subject to a detailed planning condition).
- Sufficient distances (in accordance with BS5837: 2005 Table 3) should be allowed between young trees / new planting and built structures to minimize the impact of future growth.
- It is important that the foundation design of the new building gives consideration where relevant to the underlying soil type, retained and removed trees and new planting. Further information can be obtained from NHBC Chapter 4.2 ‘Building Near Trees’.
- Shading areas have only been shown for trees that are to be retained. As these are deciduous trees the canopy will be more permeable in the winter months when solar gain is more valuable (BRE Document 209).
- As mature trees are an intended part of the design concept it is anticipated that post development pressure to prune (other than occasional light pruning to clear the property) will be within reasonable limits.
- Excavations within the RPA’s are to be carried out by hand. The hard surfacing within the root protection areas (shown in **CYAN** on the draft TPP) is to be installed with low invasive techniques using hand tools and the utilization of a cellular confinement system as part of the sub-base. This surface must be fit-for-purpose with specialist advice obtained from an engineer to meet the above performance specification. Proprietary products such as ‘Cellweb, CORE, Terram etc’ are available that can help deliver the performance specification e.g. [www.geosyn.co.uk](http://www.geosyn.co.uk) or telephone 0870 850 1018 (Geosynthetics Ltd). **Example Below**



**Diagram 2:** Example of low-invasive surfacing with alternative surface treatments and no-dig edging

- In order to minimise the impact on the rooting area and tree root function within the RPA’s the design of any new surface should adequately consider and allow for the following factors:

- Allows gaseous exchange (horizontally and vertically)
- Water permeable while preventing contaminants entering the soil
- Preserves the soil structure at a suitable bulk density
- Prevents contaminants entering the rooting area
- Prevents damage to the roots during demolition or construction
- Recognises the fact that the majority of roots are found in the top 600mm of soil

Practical measures that can achieve this include:

- No significant changes in ground level
  - No soil capping
  - No excavation / minimal excavation e.g. removal of turf layer or organic material
  - Avoiding soil compaction methods e.g. when constructing a sub base
- As long as the above is followed then the overall rooting environment will not be significantly altered from that already encountered.

- **Conclusion**

The adoption of a detailed Arboricultural Method Statement should ensure there are no adverse effects as the result of any excavations and construction operations.

## **Arboricultural Method Statement (AMS)**

- **Purpose**

An Arboricultural Method Statement (AMS) will be required where any demolition or construction operations, including access, are proposed within the RPA (or crown spread where this is greater) of any retained trees. This applies to trees within the scope of the proposed development.

The intention of the method statement is to minimise the risk of any adverse impact on the trees to be retained (especially damage caused by excavation and soil compaction) and to clearly demonstrate how relevant operations will be undertaken. It should also specify appropriate tree and ground protection measures in accordance with BS5837 which will be detailed on a Tree Protection Plan (TPP).

- **Heads of Terms**

Areas of relevance to the proposed development to be addressed in the detailed Arboricultural Method Statement include:

### **Pre-development tree works**

All works will be carried out in accordance with BS3998: 2010 'Recommendations for Tree Work' and in line with a schedule of works agreed by the Local Planning Authority as part of any approved planning permission.

### **Tree protective barriers and ground protection measures (specification, location and dimensions)**

Protective fencing will be fit for purpose, complying with Figures 2-4 in BS5837:2012 or any other specification agreed in writing with the Local Planning Authority. For

example, site huts or temporary buildings may be used as part of the protective barriers (BS5837 section 6.2.2.3). They shall be erected prior to any demolition or construction (excluding pre-development tree works) taking place at distances specified within the approved plans and remain in place until completion of the construction phase. Removal is only to take place following the approval of the Local Planning Authority / Local Authority Tree Officer.

#### **Site access, parking and site facilities**

To be in accordance with the plans agreed by the Local Planning Authority and outside of the Root Protection Areas of any retained trees unless appropriate ground protection measures are in place and approved by the LPA.

#### **Works programme / phasing**

The phasing and timing of any works likely to impact on the Root Protection Area of any retained trees is to be clearly identified to ensure that adequate protection, precautions and supervision are in place.

#### **Storage of spoil and building materials**

No spoil or building materials are to be stored within the Root Protection Areas of any retained tree unless specifically agreed by the Local Planning Authority. Details of the Construction Exclusion Zones can be seen on the Tree Protection Plan.

#### **Demolition of the existing building(s) and removal of hard surfacing**

In accordance with detailed method statement to avoid unauthorised incursions into the Root Protection Areas of any retained trees.

#### **Changes to ground levels**

Changes to ground levels are only to be made in accordance with the approved plans and where a detailed method statement has been produced to minimise the impact on the rooting systems of the retained trees. Where this necessitates the lowering of existing ground levels then this should only be undertaken with the use of hand tools and care taken not to damage any structural roots. Treatment of any exposed roots is to be in accordance with BS5837:2012.

#### **Details of construction works within the Root Protection Areas**

As per 'Changes to ground levels'.

#### **Details of 'Special Engineering' methods**

Where relevant, specifications relating to special engineering methods will be included as an annex to the Arboricultural Method Statement.

#### **Location and installation method for drainage and other utilities**

The use of overhead utilities is not anticipated for this development. Where possible, existing underground utility runs will be re-used. Where new services runs are required, these will be routed outside of the Root Protection Area of any retained trees unless specifically agreed by the Local Planning Authority and subject to a detailed method statement.

#### **Upgrade or installation of new hard surfacing within Root Protection Areas**

In order to minimise the impact on the rooting area and tree root function the design and construction of a new surface should adequately consider and allow for the following factors:

- Allow gaseous exchange (horizontally and vertically)
- Water permeable



- Preserves the soil structure at a suitable bulk density
- Prevention of contaminants entering the rooting area
- Allows for future growth of the root system
- Prevents damage to the roots during demolition or construction
- Recognises that the majority of roots are found in the top 600mm of soil

New surfaces should be installed with 'low invasive' techniques using hand tools and the utilization of a cellular confinement system as part of the sub-base.

**Removal of boundary / retaining walls and installation of new fencing within Root Protection Areas**

To be accompanied by a detailed method statement to ensure minimal damage to existing roots.

**Site responsibilities and the role of the pre-commencement meeting**

Unless otherwise agreed in writing, it will be the responsibility of the Site Manager to ensure that the content of the Arboricultural Method Statement is adhered to. The main contractor and any sub-contractors are to be briefed by the Site Manager on the relevant sections of this prior to commencing any work. The Site Manager is responsible for contacting the LPA at any time issues relating to the trees on site are raised.

**Prohibited activities and general precautions**

In line with BS5837:2012.

**Arboricultural Supervision, reporting and audit process**

Day-to-day supervision will be the responsibility of the Site Manager. Supervision by a qualified arboriculturist at key stages of the development is to be coordinated by the Site Manager and comments forwarded to the Local Planning Authority.

**Emergency procedures**

Clearly defined emergency procedures e.g. for fuel spillages or unauthorised incursions into Construction Exclusion Zones to be prepared and communicated to all site personnel.

## TREE SURVEY SCHEDULE

Client: Starnes (Headcorn) Ltd  
 Site: Tallow Court Car Park  
 Date of Survey: 23.06.2022  
 Arboricultural Consultant / Surveyor: S Bateson  
 Weather: Clear  
 Tagged: No

Notes:  
 See attached KEY

Tree ID #	Species	Height (m)	Branch spread (m)				Diameter at breast height (mm)	Root Protection Area Radius (m)	Root Protection Area (m2)	Age class	Physiological Condition	Structural Condition	Preliminary Management Recommendations	Remaining Contribution (Years)	Category Grading
			N	S	E	W									
T1	Quercus robur (Common Oak)	18	9	8	8	8	900	10.8	366.5	M	Good	No significant defects visible. Epicormics on stem. Previously canopy raised with large pruning wounds. Previously crown reduced.	No works required.	20+	B
T2	Acer pseudoplatanus (Sycamore)	12	3	5	5	5	200,200,250	4.52	64.2	SM	Good	No significant defects visible. Multiple stems at ground level.	No works required.	10+	C
T3	Acer campestre (Field Maple)	9	4	2	3	3	150	1.8	10.2	Y	Good	No significant defects visible. Unbalanced crown shape.	No works required.	10+	C
T4	Acer campestre (Field Maple)	6	3	2	3	3	175	2.1	13.9	Y	Good	No significant defects visible.	Remove tree.	10+	C
T7	Acer campestre (Field Maple)	8	3	3	3	3	150	1.8	10.2	Y	Good	No significant defects visible. Suckers around stem base.	Remove tree.	10+	C
T8	Quercus robur (Common Oak)	11	4	4	4	4	250	3	28.3	Y	Good	No significant defects visible. Minor trunk wounds. Previously canopy raised with large pruning wounds.	Remove tree.	10+	C
T9	Quercus robur (Common Oak)	13	6	4	4	4	260	3.12	30.6	Y	Good	No significant defects visible. Included bark present in fork - large crack/opening at union point. Minor trunk wounds. Previously canopy raised.	Remove tree.	10+	C
T10	Quercus robur (Common Oak)	13	6	4	5	5	300,250,175	5.14	83.0	EM	Good	No significant defects visible. Multiple stems at ground level. Co-dominant stems. Previously canopy raised.	Crown lift to 5m over car park.	10+	C
T11	Acer pseudoplatanus (Sycamore)	13	5	4	5	5	250,250	4.25	56.8	SM	Good	No significant defects visible. Co-dominant stems.	No works required.	10+	C
T12	Acer campestre (Field Maple)	5	2	2	2	2	100	1.2	4.5	Y	Good	No significant defects visible.	Remove tree.	10+	C
T13	Quercus robur (Common Oak)	11	3	4	3	5	250	3	28.3	Y	Good	No significant defects visible. Minor trunk wounds. Previously canopy raised with large pruning wounds.	No works required.	20+	B

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			N	S	E	W									
T14	Quercus robur (Common Oak)	11	3	5	4	4	270	3.24	33.0	Y	Good	No significant defects visible. Previously canopy raised.	To reduce in height by 2m and lateral spread by 1m (20%) back to suitable growth points to leave a balanced shape.	20+	B
T15	Quercus robur (Common Oak)	13	5	4	5	6	575	6.9	149.6	EM	Fair	No significant defects visible. Unable to inspect stem due to Ivy. Minor deadwood <2.5cm. Co-dominant stems.	Remove Ivy. Crown lift to 5m.	20+	B
G1	Acer campestre (Field Maple), Crataegus monogyna (Hawthorn), Salix caprea (Goat Willow)	6	2	2	2	2	100	1.2	4.5	Y	Good	No significant defects visible.	To cut back and remove as required to allow for installation of new road. Trees along boundary to be retained for screening.	10+	C
T16	Aesculus hippocastanum (Horse Chestnut)	12	2	4	4	4	300	3.6	40.7	Y	Good	No significant defects visible. Unable to inspect stem due to Ivy. Previously canopy raised.	Remove Ivy.	20+	B
T17	Quercus robur (Common Oak)	16	6	6	6	6	550	6.6	136.9	EM	Good	No significant defects visible. Ivy on tree. Minor deadwood <2.5cm.	No works required.	20+	B
T18	Quercus robur (Common Oak)	13	4	5	4	4	200,150	3	28.3	EM	Good	No significant defects visible. Multiple stems at ground level. Co-dominant stems. Previously canopy raised.	No works required.	20+	B
T19	Carpinus betulus (Hornbeam)	13	7	4	5	5	275	3.3	34.2	EM	Good	No significant defects visible. Co-dominant stems.	Remove tree.	20+	B
T20	Carpinus betulus (Hornbeam)	11	6	4	5	5	250	3	28.3	EM	Good	No significant defects visible. Co-dominant stems.	Remove tree.	20+	B
T21	Quercus robur (Common Oak)	9	2	4	2	4	150	1.8	10.2	Y	Fair	No significant defects visible. Major bark wounding on stem. Low bud/leaf density.	No works required.	10+	C
T22	Fraxinus excelsior (Ash)	13	7	7	7	5	250,250,150	4.61	66.8	EM	Good	No significant defects visible. Moderate deadwood.	Remove major deadwood.	10+	C
T23	Quercus robur (Common Oak)	10	4	5	4	4	310	3.72	43.5	EM	Good	No significant defects visible. Major bark wounding on stem. Co-dominant stems.	Remove tree.	20+	B

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**Tagged:** No

**Notes:**  
 See attached KEY

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			N	S	E	W									
T24	<i>Carpinus betulus</i> (Hornbeam)	9	4	4	4	4	250,200	3.84	46.3	EM	Good	No significant defects visible. Minor trunk wounds. Co-dominant stems.	No works required.	20+	B
T25	<i>Prunus avium</i> (Wild Cherry)	9	4	4	4	3	200	2.4	18.1	EM	Good	No significant defects visible. Minor trunk wounds. Co-dominant stems.	No works required.	20+	B
T26	<i>Quercus robur</i> (Common Oak)	14	5	6	6	6	440	5.28	87.6	EM	Good	No significant defects visible.	Crown lift to 5m over car park.	20+	B
T27	<i>Pinus sylvestris</i> (Scots Pine)	14	4	4	4	4	400	4.8	72.4	EM	Good	No significant defects visible. Unable to inspect stem due to undergrowth.	No works required.	20+	B



Notes:  
Do not scale from this drawing  
All dimensions to be checked on site

**TREE SURVEY & CONSTRAINTS PLAN**

- T1 Tree Number
- A Category
- B Category
- C Category
- U Category
- Group Boundary
- Boundary and Category
- and Category
- Root protection area
- Branch spread
- Shade arc
- Existing property & hard standing footprint
- Proposed replacement trees



Title **Tree Survey & Constraints Plan**

Job **Tallow Court**

Scale **1:150 @ A1**

Date **06.09.2022**

Drn **SB**

Dwg No **001**

  
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