

Arboricultural report

Reference GRS.47.26

Site: Great Frenches Park, Snow Hill, Crawley Down,
Crawley

Client: Mr. Lee & Mrs. Berrin Penlington

Local Planning Authority: Mid Sussex District Council



ARBORICULTURAL CONSULTANT LTD



DATE OF REPORT 8TH APRIL 2026

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1. EXECUTIVE SUMMARY

- 1.1. This report provides an analysis and an evaluation of the proposed residential development comprising an ancillary single story, detached garage to accommodate up to 8 cars will have on the existing tree stock.
- 1.2. Based on this layout two low quality trees and a short section of hedge will be removed, all are low quality specimens, and their removal will not have a noticeable impact on the appearance of the local landscape.
- 1.3. The garage will be located close to two hedgerows Where there are incursions into the Root Protection Area, these have been assessed and the relevant measures to protect the soil are shown on the tree protection plan.

2. INTRODUCTION

- 2.1 I have been instructed by Mr. Lee & Mrs. Berrin Penlington to provide a tree survey undertaken in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations (BS). From the data collected, an arboricultural impact assessment (AIA) has been carried out to assess the impact the proposed development will have on the existing tree stock and wider landscape.
- 2.2 This report, along with the tree protection plan (**TPP - 01**) and the draft arboricultural method statement (**AMS**) will demonstrate that this development can be implemented in its entirety, whilst ensuring the trees showed to be retained can be protected during the development and therefore incorporated into the proposed layout.

3. PURPOSE OF REPORT

- 3.1 To follow the core objectives to prepare a concept design including outline proposals for structural design following the guidance set out in BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations (BS).
- 3.2 By following the principles set out in the BS will ensure there is a sustainable relationship between the built form and the tree stock and therefore allowing the retained trees to continue to grow and contribute to the character of the local landscape.
- 3.3 Feasibility stage - tree survey (**appendix B**). This provides a sequential reference number; species; height; stem diameter branch spread; crown clearance; age of tree, general observations, and estimated remaining contribution to the landscape. Each tree/group of trees will be allocated a grading based on Table 1– Cascade chart for tree quality assessment forming a tree location plan (TLP-01).
- 3.4 A tree constraints plan (TCP) will be prepared to identify the primary and secondary constraints to the development posed by existing trees.
- 3.5 Examples of primary constraints include:
- 3.1 Below ground - extent of the root protection area (RPA). In accordance with guidance set out in the BS the RPA is shown as a circle centred on the base of the trunk. Where there are underground constraints¹ that will change in the shape of the RPA, these are shown on the **TCP** and **TPP**.
- 3.2 Tree Preservation Orders/ Conservation Areas
- 3.3 Above ground - branch framework and space for the canopy to grow without affecting any structures and may have an impact on the future welfare of the retained trees also referred as post development

¹ 4.6.3

3.6 Also identified are secondary constraints such as areas of existing hard standing within the RPA that can be removed if the soil is not disturbed. This information will help to identify any above and below ground constraints which will provide guidance for the design layout of the proposed development..

3.7 **Arboricultural Impact Assessment (AIA)** is based on the findings from the tree survey and the TCP and evaluates any direct or indirect effects the existing trees may have on the proposed design and assesses what impact the proposed removal of the trees would have on the local landscape. At this stage, it may be necessary to remove existing trees to accommodate the proposed design layout, these are shown on the tree removal plan (**TRP - 01**).

3.8 **Tree Protection Plan (TPP)** identifies any issues which must be addressed during the demolition and construction phase. In addition, any pruning works that are necessary to facilitate plant machinery are also identified.

3.9 **Draft Arboricultural Method Statement (AMS)**. This identifies the relevant tree protection measures that must be implemented and maintained during the development to ensure all the trees shown to be retained are incorporated into the final layout. It should be read in conjunction with the TPP which is appended to this report.

4. BASE LINE DATA

- 4.1 The survey was carried out in accordance with section 4.4 – 4.5 of the BS 5837:2012 ‘Trees in relation to design, demolition, and construction – Recommendation’, hereafter to be identified as ‘BS’ Where it was not possible to gain access to record the relevant data, certain fields such as crown spread and diameter at breast height (dbh) were estimated.
- 4.2 If defects were noted and required further inspection the following inspection aids were used: laser distometer was used to measure the crown spread, binoculars to inspect the upper crown, magnifying glass for inspection of pest and diseases, steel probe to test strength of wood/depth of cavities and a mallet to give an audible indication of the extent of cavities.
- 4.3 Trees within the report were inspected from ground level only and any external faults and features were recorded. The following inspections were not carried out: aerial inspection, detailed excavation of the rooting system or the use of internal decay detection equipment. The use of such equipment would require an additional report.
- 4.4 Detailed ecological considerations are beyond the scope of this report. UK and European wildlife legislation may affect the timing and even prohibit the enhancement of works and operations described in this report. Most of the information regarding wildlife can be found in the Wildlife and Countryside Act 1981 (as amended). It is recommended that consideration is given to the requirement for ecological surveys. Bats in particular are afforded particular protection, and a specialist may be required to determine if bats are present or could be affected when carrying out tree works.
- 4.5 Trees are living organisms whose health and condition can change rapidly. Trees should be checked on a regular basis. The conclusions and recommendations of this report are valid for one year. It is recommended that the trees within the site be inspected after adverse weather conditions such as high winds.
- 4.6 Stem diameters are used to calculate Root Protection Areas (RPA) (**see appendix C**); where ivy or dense undergrowth has been noted in the comments section of the tree survey a precise stem diameter measurement may not have been possible. The stem diameter and RPA given in this instance is therefore provisional until such time that the ivy has been removed and the stem recalculated.

4.7 Documents supplied.

- 4.8 The following documents were provided:

Table 1 – Relevant documents supplied, date and format.

Drawing title	Drawing reference	Date	Rev	Format
Existing site and location plan	001	February 2026	P1	CAD/PDF
Proposed site plan	002	February 2026	P1	CAD/PDF

- 4.9 **Local geology.** No soil samples were taken during the site visit; however, a desktop assessment using the British Geological interactive map² interactive map describes the bedrock geology is identified as Upper Tunbridge Wells Sand-Sandstone and siltstone This information will provide guidance for selecting the right tree

² <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/>

species to act as mitigation against those removed to facilitate this development. The depth of foundations and other structures in relation to trees can be found within NHBC Standards Chapter 4.2

4.10 Protecting soil from compaction is essential, failure to do so will affect the physical, chemical and biological properties and functions of soil. It reduces the permeability which inhibits tree growth, increase run - off, erosion and reduces soil biodiversity

4.11 Statutory tree protection

4.12 At the time of preparing this report none of the trees are subject to a Tree Preservation Order (TPO), nor is the site located within a Conservation Area.

4.13 Ancient woodland status

4.14 Ancient woodland is an irreplaceable commodity and of great historical and cultural significance for the local landscape. The revised National Planning Policy Framework³ sets out the government's planning policies for England and identifies the importance of conserving and enhancing the natural environment.

4.15 The most relevant parts of Paragraph 180 state:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

4.16 Using the data provided on the government's website⁴ there are no areas of woodland nearby that are designated as ancient woodland.

5. SITE DESCRIPTION

5.1 The application site comprises a large, detached house set within a generous sized plot of land. Within the garden are a diverse selection of mature trees and shrubs located around the grassed area, outbuildings and a tennis court. The site is flat.

³ updated 7th Marh 2025

⁴ www.magic.gov.uk

6. ARBORICULTURAL IMPACT ASSESSMENT

6.1 In total seventeen individual trees, one group and two hedgerows were surveyed in accordance with section 4.4 of the BS (**see appendix A**), the findings of the survey are shown on the table below.

<u>Tree no.</u>	<u>Category</u>
	U
	A
T6, T17, T18, T20	B
T3, T4, T5, T7, H8, T9-14, T15, T19 G2, H1, H16	C

Table 2 - Results of the tree survey

6.2 **Direct impact** - trees to be removed to facilitate the proposed development be read in conjunction with **TRP- 01**.

Table 3 – Trees to be removed

<u>Trees</u>	<u>Category</u>	<u>Reason</u>	<u>Impact on visual amenity</u>
T9 and T10	C	Facilitate the detached garage	Negligible – Not readily visible, screened by boundary hedge.
c3 metre section of H8	C	Access to the garage	Negligible – Not readily visible.

6.3 All works prescribed in table 3 shall be carried out in accordance with best arboricultural practice as set out BS3998:2010 Tree works – Recommendations.

6.4 The trees to be felled will be done so following guidance set out in section 12.2 which states that if they can be felled in one piece if there is no harm to people or property and will be decided by the approved contractor.

6.5 Removing the stumps shall be carried out using a stump grinder whereby the stump is ground out to an agreed depth i.e., 150 mm/300 mm leaving the lateral roots untouched.

6.6 Prior to carrying out any tree work. Birds: Please note that it is an offence under the Wildlife and Countryside Act of 1981, amended by the Countryside and Rights of Way Act 2000, to kill, injure or take any wild birds, damage or destroy nests that are in use or are being built and take or destroy eggs.

6.7 Bats: Prior to the commencement of any tree works, a visual inspection carried out by a qualified ecologist must be carried out to see whether there are any signs of bat. In the event of bats being found the tree should only be felled if deemed unsafe. Such features have the potential to provide roosting spaces for bats but are not in themselves indicators of presence.

- Woodpecker holes.
- Rot holes.
- Loose bark.
- Cankers.
- Tension cracks and splits.
- Shattered 'snag' ends.
- Signs of internal decay (e.g. fungal fruits, hyphae, exudation).
- Inclusions.
- Elongated tight forks,
- 'Unusual' growth forms
- Bat boxes on or near the tree.
- Evidence of past pruning/coppicing/pollarding/storm damage.

6.8 In the event of bats being found the tree should only be felled if deemed unsafe. If a potential bat roosting site is found during tree works every effort must be taken to preserve the area, for example cuts must be made above the crack or hole.

6.9 **Direct impact** - Assessment of incursions into the RPA and where there is an incursion into the rooting area will be assessed a solution will be provided to ensure there is minimal impact on the rooting environment.

<u>Tree affected</u>	<u>Phase</u>	<u>Impact</u>	<u>Solution/ long term impact on root development</u>
H8 and H16	Construction phase – installation of footpath	Severance of roots	To be supervised by the project arboriculturist

Table 4 - RPA incursions and measures to be used.

6.10 The location of the underground services has not been provided. Prior to the commencement of any works the project arboriculturist will be consulted on the most appropriate location of services ideally, they will be located outside the RPAs of the retained trees. Should they be located within the RPA of any trees, the most appropriate methodology in accordance with NJUG Guidance Notes 2007⁵ and guidance set out in sections 7.7 of the BS will be followed.

7. CONCLUSION

7.1 This report has demonstrated the following:

- Only low-quality trees are to be removed, and this will not result in a change in the character of the local landscape.
- Where there are incursions into RPAs of nearby trees, these have been assessed and the solutions comply with the relevant sections as outlined in the BS.
- Subject to the measures identified on the tree protection plan being implemented and maintained during the course the development the retained trees will be incorporated into the final layout.

⁵ NJUG Guidance Notes 2007 - Acceptable techniques for excavating near trees as stated by NJUG Guidelines for the Planning, Installation and Maintenance of utility Apparatus in Proximity to Trees.

8. DRAFT ARBORICULTURAL METHOD STATEMENT

THIS PART OF THE REPORT MUST BE READ IN CONJUNCTION WITH THE TREE PROTECTION PLAN ATTACHED WITH THIS REPORT. FAILURE TO ADHERE TO THE RECOMMENDATIONS OUTLINED IN THIS SECTION MAY RESULT IN A TEMPORARY STOP NOTICE BEING SERVED.

8.1 To ensure an effective tree protection regime is implemented the following logical sequence of events and arboricultural inspection/supervision must be always adhered to. These stages and the arboricultural input are listed below.

- Pre-commencement meeting
- Tree removal and access facilitation pruning
- Protective fencing installed.
- Installation of underground services
- Excavating within the RPA
- Soft landscaping
- Removal of protective fencing

8.2 A pre-commencement meeting will be held on site before any site clearance or construction work begins and the following parties should be in attendance.

Name of person	Title	Telephone number	Email address
TBC	Tree Officer	TBC	TBC
TBC	Project architect	TBC	TBC
TBC	Site manager	TBC	TBC
Mr. Guy Stephens	Arboricultural	07970675828	guy@grstrees.co.uk

Table 5- List of contacts

8.3 The pre-commencement meeting will be used to clarify and make understood all aspects of the implementation of tree protection and sequencing to all relevant parties. The specific works or events during which the arboricultural consultant will need to visit the site to undertake supervision or inspection will be confirmed, and a suitable length of time between monitoring visits will be agreed. When the project arboriculturist is not on site, a person will be appointed to undertake a daily inspection of the approved tree protection measures are in place. The inspections will be recorded and sent to the project arboriculturist. The LPA tree officer will receive monitoring reports on a regular basis, as agreed during the pre-commencement meeting.

8.4 A copy of the AMS and TPP will be always kept on site and be made available to all those who are to undertake works directly adjacent to the trees that are to be retained. It is the developer's responsibility to ensure that details of this AMS and any agreed amendments are known and understood by all site personnel.

8.5 If there is a change in site manager then the arboricultural consultant must be informed and a meeting must take place within 5 days of such a change, so that the important aspects of the AMS and TPP can be discussed and made clear to the site manager.

8.6 The table below identifies the phases of the project arboriculturist will be on site to oversee works which have the potential to harm the retained trees. A monitoring form will be sent to the LPA confirming they have been completed satisfactorily.

Phase	Works to take place	of	Tree Protection measures to be installed	Project arboriculturist attend	Site monitoring to report to be sent to LPA
Pre-start meeting	Sequence of monitoring regime to be agreed.	N		Y	Y
Tree work	Trees to be removed to facilitate the approve scheme	N		N	N
Construction phase	Erection of approved scheme		Tree protection fencing to be retained.	N	Y
			Supervised excavation	Y	Y

Table 6 - Site monitoring phases

8.7 Tree works. All works prescribed in shall be carried out in accordance with best arboricultural practice as set out BS3998:2010 Tree works – Recommendations.

8.8 Stages of the erection and removal tree protective fencing and signs.

8.9 Protective fencing must be erected in accordance with either figure 2,3a or 3b BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendation', prior to the commencement of any site clearance, demolition or construction is carried out. The location and extent of the fencing is shown as a continuous blue line on TPP- 01. Notices stating, "Tree Protection Zone, Keep Out!" will be attached with cable ties to every third panel.

8.10

- Delivery of all plant machinery
- Soft landscaping including the removal of soil.
- Installation of underground services
- Construction of the approved development

8.11 Installing and maintaining the TPF.

1. Existing vegetation that prevents the TPF from being installed in its entirety is to be removed using hand tools only.
2. Mark out the fencing points
3. Fencing contractors erect the fencing and attach tree protection signs.
4. Site meeting with the project arboriculturist and site foreman to inspect and sign it off.

8.12 As soon as the construction works start the fencing must remain in place, in the event of it having to be removed or relocated the project arboriculturist must be contacted immediately who will inform the local planning authority. Any alternative fencing to be used must be approved by the project arboriculturist and a revised TPP will be issued and sent to the local planning authority for approval.

8.13 Examples of protective fencing.

8.14 In the first instance the tree protective fencing will be the default specification as shown as figure 2 of BS5837:2012 Trees in relation to design, demolition and construction and will comprise the following elements; standard scaffold poles, heavy gauge 2 m tall galvanised tube and welded mesh infill panels, panels secured to uprights and cross members with wire ties, ground level, Upright driven into the ground until secure (minimum depth 0.6 m) and standard scaffold clamps.

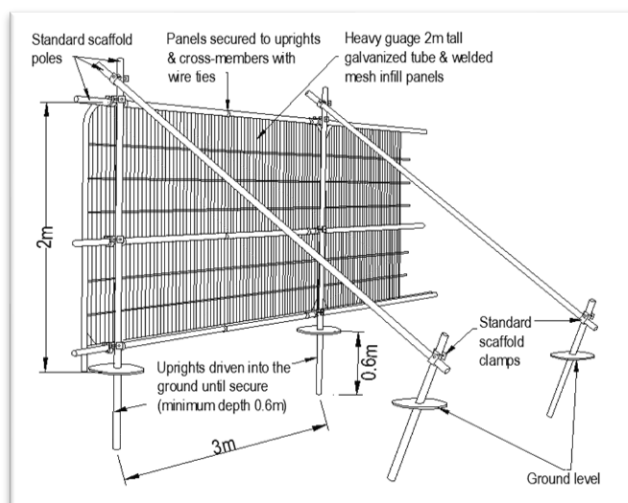


Figure 1 – Figure 2 of the British Standard.

8.15 The protective fencing shall consist of a vertical and horizontal framework, well braced to resist impacts. Scaffolding equipment should conform to current recommendations; galvanised scaffold tubes shall be used to make the framework; vertical poles shall be spaced at a maximum interval of 3m and driven securely into the ground to a minimum depth of 600mm. Welded mesh panels shall be securely fixed and secured to the uprights and cross members with wire ties. Care shall be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. Notices stating, "Tree Protection Zone, Keep Out!" will be attached with cable ties to every third panel.

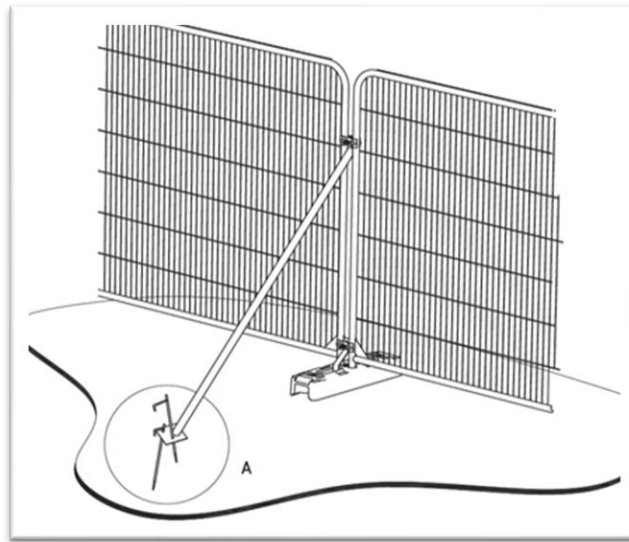


Figure 2 - Figure 3a of the British Standard.

8.16 Protective fencing shall consist of a scaffold framework in accordance with figure 3a of British Standard 5837 (2012), comprising 2m tall, welded mesh panels on rubber or concrete feet. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers shall be at least 1m and shall be uniform throughout the fence. The panels shall be supported on the inner side by stabilizer struts, attached to a base plate secured with ground pins.

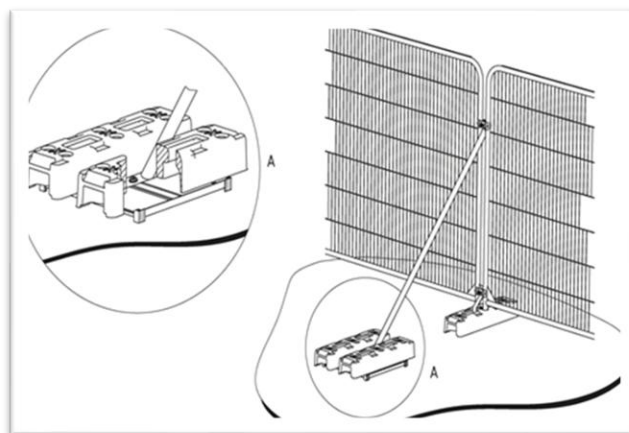


Figure 3 Figure 3b of the British Standard

8.17 Protective fencing shall consist of a scaffold framework in accordance with figure 3b of British Standard 5837 (2012), comprising 2m tall welded mesh panels on rubber or concrete feet. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers shall be at least 1m and shall be uniform throughout the fence. The panels shall be supported on the inner side by stabilizer struts mounted on a block tray.

8.18 **Examples of tree protection warning signs**

8.19 Notices stating, “Tree Protection Zone, Keep Out!” will be attached with cable ties to every third panel



Figure 4 Example of warning signs

8.20 Assessing and treating roots

8.21 Roots encountered of less than 25mm diameter may be cut cleanly by the arboricultural consultant with secateurs or a sharp pruning saw (except where they occur in clumps of 25mm diameter or larger). If roots (or clumps of roots) of 25mm in diameter or larger are encountered, they shall be retained and protected.

8.22 If roots of 25mm diameter and above are found, they will be covered with Hessian sacking and a minimum depth of 50mm of topsoil and sharp sand. Exposed roots will be covered with sand or hessian sacking and be always kept moist; they will not be left exposed to frost, wind or direct sunlight.

8.23 Construction Exclusion Zones.

8.24 The protective fencing shall form the Construction Exclusion Zones ("CEZ's") and will restrict any access by people or machinery into these areas. These areas are based on the RPA's of the trees and the protective measures are designed to protect the soil within RPAs and the trees from damage or harm.

8.25 Where construction activity cannot be fully excluded from within the RPA's of trees to be retained the parts of the RPA's that are outside of the protective fencing shall be protected by appropriate ground protection.

8.26 The protected areas shall be regarded as sacrosanct, and once installed, the protective fencing and the ground protection shall not be removed or altered without prior recommendation by the appointed arboricultural consultant.

8.27 No activity shall occur within the CEZ's; this means:

- No storage of equipment or materials.
- No access to people, plant or vehicles.
- The actions to be carried out within or directly adjacent to the CEZ's shall only be carried out in accordance with this method statement. Where specified these works shall only be carried out under the direct supervision of the arboricultural consultant.
- Provision shall be made to avoid the spillage of chemicals that are toxic to roots into the RPA. It is now standard practice to have emergency spillage kits made available. Liquid chemicals such as oil, bitumen, diesel, and cement shall not be stored, mixed or discharged onto the ground within 10 m of the trees.
- No notice boards, or above ground services, shall be attached to any of the trees. No fires shall be lit within the RPAs of the trees or near enough to the extent of the canopy that branches might be damaged.
- Planning of site operations shall take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees. Such contact can result in serious damage to the trees and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity to trees shall be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times.
- Unwanted vegetation shall be removed by hand or by using chemicals that do not damage the roots of the trees that are to be retained

9. REFERENCES

AL Shigo (1991) 'Modern Arboriculture', Shigo and Trees Associates

BS 3998:2010 'Recommendations for Tree Work', British Standards Institution, London.

BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendation', British Standards Institution, London.

D. Lonsdale (1999) 'Principles of Tree Assessment and Management' HMSO

Mattheck and Broeler (1994) 'The Body Language of Trees' HMSO

Strouts and Winter (1994) 'Diagnosis of Ill Health in Trees' HMSO

National Joint Utilities Group. Volume 4, GUIDELINES FOR THE PLANNING, INSTALLATION AND MAINTENANCE OF UTILITY APPARATUS IN PROXIMITY TO TREES", Issue 2: 16th November 2007

**Appendix A –Tree survey information - undertaken in accordance with section 4,
BS5837:2012 ‘Trees in relation to design, demolition and construction – Recommendations**

Tree no:	Sequential reference number of trees or groups of trees commencing at "1". Prefixed with a letter indicating type: T: Tree. G: Group. H: Hedge. W: Woodland. A: Area
Tree Preservation Order/ (TPO) conservation area (CA)	Served on individual, groups, woodland or as an area when the local planning authorities (LPA) consider it necessary to protect the visual amenity of the local area. Consent from the LPA must be sought prior to undertaking any works, failure to do so may lead to unlimited fines. Conservation area is an area designated under 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990. Works to trees located within a CA require six weeks notification (S211 notice) to be submitted to the LPA. If the works are considered excessive and will have an impact on the visual amenity of the CA a TPO can be served.
Name	Species listed by common name/ latin name
Height	Estimated height of tree shown in metres.
Trunk Dbh:	Diameter at breast height measured at approximately 1.5 m above ground level given in millimetres and to the nearest 100 mm. Where there are more than 1 stem the average diameter is provided.
Radial crown spread (M)	Given as a radial measurement in metres from the centre of the stem to the furthest point of the canopy at the four main compass points N, E, S, W
Crown clearance (M)	First branch above ground level
Height to first branch	Height and orientation of first significant branch.
Age Class	Y: Young: Age less than 1/4 life expectancy SM: Semi Mature: 1/4 to 1/2 life expectancy EM: Early Mature: 1/2 to 3/4 life expectancy M: Mature: Over 3/4 life expectancy OV: Over-mature: Mature, and in a state of decline V: Veteran: tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
Physiology At the time of inspection the general health of the tree based upon its general appearance, vigour and the presence or absence of symptoms associated with poor health and physiological stress	• Good: Typical for species and age • Fair: Signs of physiological stress or dysfunction; but not significant enough that the tree may not recover. • Poor: Signs of physiological stress or dysfunction; significant enough that the tree might not recover. • Dead: Dead specimen.

Structure Structural condition of the tree based on the structure of its roots, trunk and major stems and branches in relation to the presence of any physiological, pathological or mechanical defects.	• Good: No significant structural defects. • Fair: Significant structural defects; but these are either remediable or do not put the tree at immediate or early risk of collapse. • Poor: Significant and irremediable structural defects, such that there may be a risk of early or premature collapse. • Hazardous: Significant and irremediable structural defects, such that there is a risk of imminent collapse.
Landscape value	• High: Individuals specimens considered to be of visual importance • Moderate: trees growing in a group no individual tree/s of significance: • Low; located within woodland, or provide little landscape value
Estimated Years	Estimated life expectancy based on current condition. • 0 Dead trees. • <10 Less than ten years. • 10+ more than ten years. • 20+ more than twenty years. • 40+ more than forty years
Comments:	General comments relating to identified structural defects or hazards, vitality, pathogens or observational notes.
Recommendation of work	Arboricultural – Remedial tree works that involves pruning to a specification in accordance with the arboricultural best practice BS3998: 2010 Tree work – Recommendations. Examples include crown reduction, crown thinning, reducing specific branches and crown lifting. Safety works- nature of the works is to ensure the trees are kept in a safe manner. Facilitative – one off pruning works associated with development works whereby branches are removed to allow the movement of plant machinery within the grounds of the site without harming the trees visual appearance.
Category	A-Trees of high quality; B- Trees of moderate quality; C- Trees of low quality; U – Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years 1- Mainly arboricultural qualities 2- Mainly landscape qualities 3 – Mainly cultural values , including conservation values
Root Protection Area: (RPA)	• The RPA represents the minimum area of soil that the tree requires supporting a healthy and effective root system. The amount shown is based on the calculations set out in section 4.6 of the BS see attached appendices for the method of calculation.
Root Protection Area m2	• Root Protection Area (RPA) as radius (m) from the centre of the trunk

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Recommendation	Category	RPA Radius	RPA m ²
T3	Yew	15m	2 stems @ 300mm est	N3m E6m S5m W5.5m	N12m E5m S0m W2m	4m NW	SM	Good	Good	Moderate	20+	Hedgerow tree; twin stemmed from base. Lower part of the crown trimmed to become part of the hedge.		C (12)	5.1m	81.4m ²
T4	Lawson cypress	17m	400mm est	N3m E3m S2m W3m	N5m E6m S8m W4m	6m N	SM	Good	Fair	Moderate	20+	Off site tree. No access. Remote inspection only; hedgerow tree.		C (12)	4.8m	72.4m ²
T5	Holly	8m	250mm est	N2m E4m S2m W1m	3m	3m E	SM	Good	Good	Low	10+	Hedgerow tree; suppressed as overtopped by adjacent tree.		C (12)	3.0m	28.3m ²
T6	Beech	17m	500mm est	N6m E6m S6m W6.5m	N5m E6m S6m W5.5m	5m W	SM	Good	Good	Moderate	20+	Hedgerow tree stands out because it is surrounded by laurel hedging.		B (1)	6.0m	113.1m ²
T7	Flowering cherry	10m	200mm est	N4.5m E4.5m S4.5m W4.5m	2m	3m N	Y	Good	Good	Low	10+	Rear garden tree; off site tree. No access. Remote inspection only.		C (1)	2.4m	18.1m ²
H8	Privet	2m	150mm est	1m	0m	0m E	SM	Good	Good	Low	10+	Well maintained hedge.	Remove 3 metre section	C (1)	1.8m	10.2m ²
T9-14	Apple (x5), #14 Hawthorn and #11 Mountain Ash	#T9 8m #T10 6m #T11 12m #T12 10m #T13 6m #T14 11m	#T9 480mm #T10 300mm #T11 270mm ivy #T12 340mm ivy #T13 360mm ivy	N2m E2m S2m W3m	2m	1m N	SM	Good	Fair	Low	10+	#9 crown has been previously topped; #10 crown has been previously heavily reduced; #11 unbalanced crown biased to the N; #12 crown has been previously heavily reduced; #13 crown has; #14 dominant canopy.	Fell T9 and T10	C (12)	5.8m 3.6m 3.2m 4.1m 4.3m	104.2m ² 40.7m ² 33.0m ² 52.3m ² 58.6m ²
T15	Sycamore	15m	400mm ivy estN 200mm ivy estS	N5m E5.5m S6m W5m	N4m E5m S4m W5m	3m S	SM	Good	Good	Low	10+	Hedgerow tree; off site tree. No access. Remote inspection only; twin stemmed from base; crown has been previously topped.		C (1)	5.4m	90.5m ²
T17	Common Oak	24m	970mm ivy	N7m E7m S12m W13m	N3m E3m S2.5m W5m	4m S	EM	Fair	Good	Moderate	20+	Dominant canopy; slightly sparse bud density; minor deadwood present throughout the crown.		B (1)	11.6m	425.7m ²
T18	Common Oak	22m	870mm	N9m E8m S8m W11m	N5m E5m S7m W6m	4m W	EM	Fair	Good	Moderate	20+	Broad dominant crown; slightly sparse bud density.		B (1)	10.4m	342.4m ²

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Recommendation	Category	RPA Radius	RPA m ²
T19	White mulberry	15m	470mm	N4m E3.5m S3.5m W5m	N4m E4m S3m W3m	1m W	SM	Good	Good	Low	20+	Rear garden tree; previously reduced in spread.		C (1)	5.6m	99.9m ²
T20	Common Oak	26m	940mm	N12m E7m S7m W6m	N6m E6m S10m W9m	5m N	EM	Fair	Good	Moderate	20+	Rear garden tree; broad dominant crown; partial girdle root; lower branch over the tennis court have been reduced; slightly sparse bud density; minor and medium		B (1)	11.3m	399.7m ²
G2	Laurel, Hazel, White poplar and Common lime	Min 8m Max 20m	Min 100mm Max 400mm	N6m E5m S6m W6m	0m	0m N	SM	Good	Good	Low	10+	Mixed species hedge including individual deciduous trees not plotted.		C (2)	4.8m	72.4m ²
H1	Laurel, Holly and Yew	Min 9m Max 12m	Min 100mm est Max 300mm est	N3m E3m S3m W3m	0m	0m N	SM	Good	Good	Moderate	10+	Mixed species hedge laurel the main component, interspersed with yew and holly.		C (2)	3.6m	40.7m ²
H16	Privet, Holly and Sycamore	3m	Avg 20 stems @ 100mm ivy est	0.5m	0.5m	0.5m N	SM	Good	Fair	Low	10+	Mixed species hedge.		C (1)	1.2m	4.5m ²

APPENDIX C - Calculation of the Root Protection Area (RPA)

The RPA for single stem trees is an area equivalent to a circle with a radius 12 times the stem diameter.

For trees with more than one stem the following calculation methods should be used. Guidance is provided within the BS (Annex C) which provides details on how to measure the stem diameters. The calculated RPA for each tree should be capped to 707m²

- a) Trees with two to five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{stem diameter1})^2 + (\text{stem diameter2})^2 \dots + (\text{stem diameter 5})^2}$$

- b) Trees with more than five stems (not shown in Annex C), the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

Legend:



Root Protection Area (RPA)

The RPA is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. The default position is that no part of the development should be located within the RPA unless it can be demonstrated the tree will not be structurally affected and there is sufficient rooting areas that will allow the development of roots to continue. If it can be justified measures to mitigate against the incursion must be provided, this includes soil ameloration, use of above ground soil surfacing and temporary ground protection.

Notes	Position of all trees are approximate
Revisions	

Trunk of a category U tree ●
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

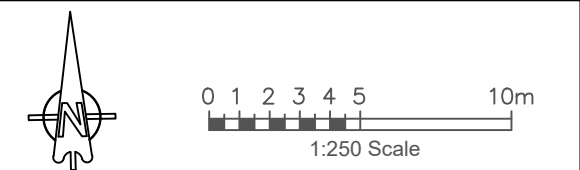
Trunk of a category A tree ●
Trees of high quality with an estimated remaining life expectancy of at least 40 years

Trunk of a category B tree ●
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

Trunk of a category C tree ●
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

Canopy edge

1 — Tree no.
Ash — Tree species



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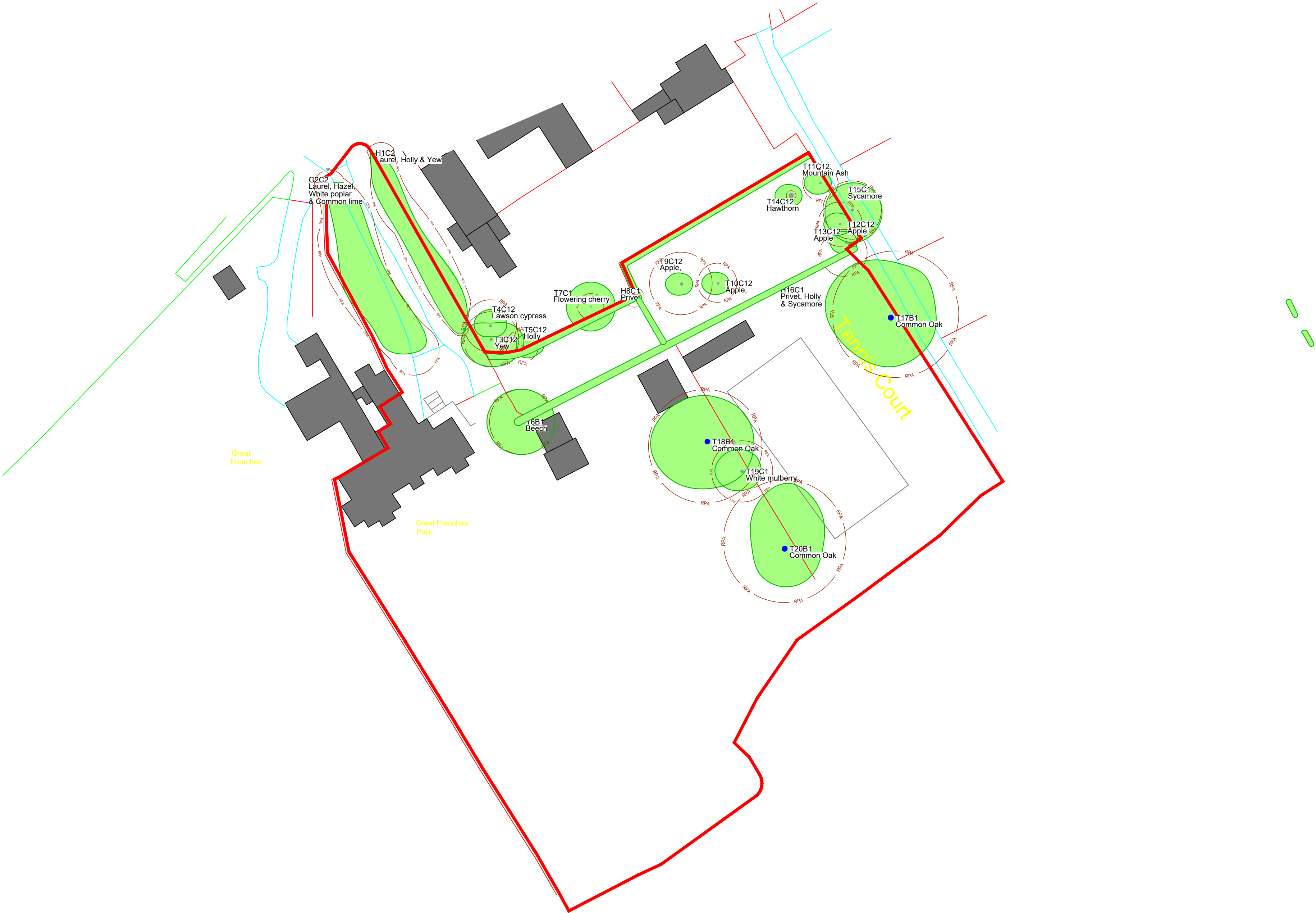
GRS Arboricultural Consultant Ltd
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Tel: 01622 817516
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Please ensure all dimensions on site and any if there are any discrepancies please notify us.

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Client	Mr Lee and Mrs Berrin Penlington
Title	Tree constraints plan - TCP-01
Site	Great Frenches Park, Snowhill Road, Crawley Down, Crawley
Date	01/03/2026
Drawn	GRS
Job ref	GRS.47.26
Scale	1:250
Paper size	A2
Drawing reference	Existing site and location plan



Legend:

Root Protection Area (RPA):

C grade tree to be removed

Root Protection Area (RPA)

The RPA is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. The default position is that no part of the development should be located within the RPA unless it can be demonstrated the tree will not be structurally affected and there is sufficient rooting areas that will allow the development of roots to continue. If it can be justified measures to mitigate against the incursion must be provided, this includes soil ameloration, use of above ground soil surfacing and temporary ground protection.

Notes	Position of all trees are approximate
Revisions	

Trunk of a category U tree

Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Trunk of a category A tree

Trees of high quality with an estimated remaining life expectancy of at least 40 years

Trunk of a category B tree

Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

Trunk of a category C tree

Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

Canopy edge

1 — Tree no.
Ash — Tree species

0 1 2 3 4 5 10m

1:250 Scale

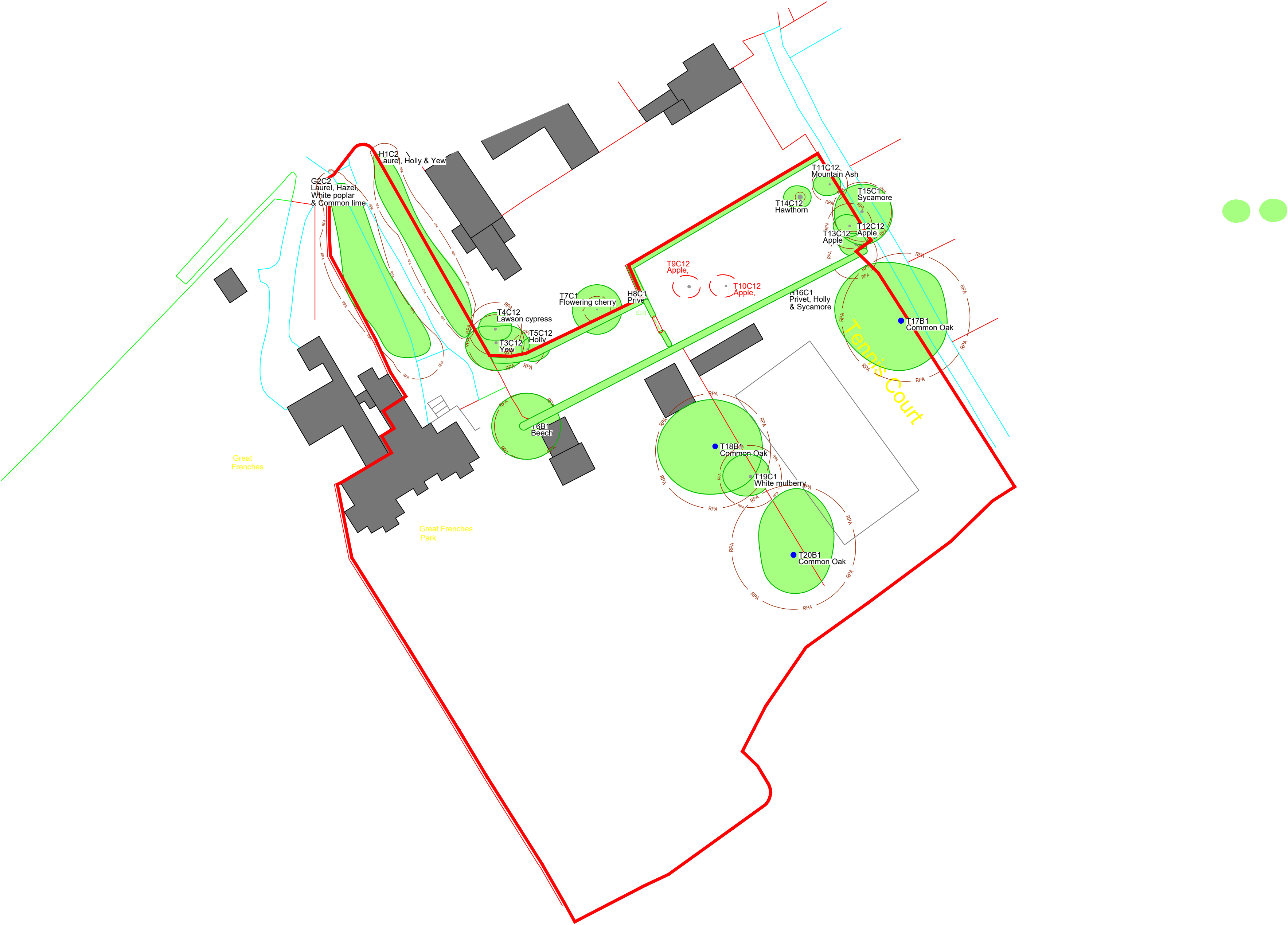
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Client	Mr Lee and Mrs Berrin Penlington
Title	Tree removal plan - TRP-01
Site	Great Frenches Park, Snowhill Road, Crawley Down, Crawley
Date	01/03/2026
Drawn	GRS
Job ref	GRS.47.26
Scale	1:250
Paper size	A2
Drawing reference	Existing site and location plan



CHRONOLOGICAL ORDER OF EVENTS*

*See the accompanying Arboricultural Method Statement (AMS) for full details of the order of events and specifications for tree protection.

1. Pre-start meeting
2. Tree removals
3. Protective fencing installed
4. Installation of service and drainage routes
5. Construction of building
6. Removal protective fencing

Legend:

Storage and mixing area:		Supervised manual excavation:	
Root Protection Area (RPA):		Protective fencing:	

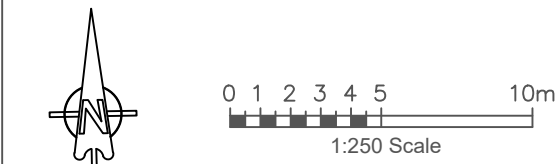
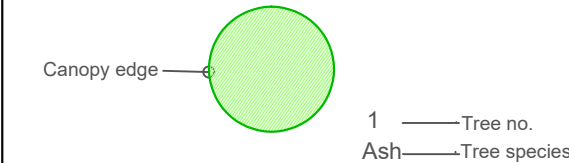
Notes	Position of all trees are approximate
Revisions	

Trunk of a category U tree Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Trunk of a category A tree Trees of high quality with an estimated remaining life expectancy of at least 40 years

Trunk of a category B tree Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

Trunk of a category C tree Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

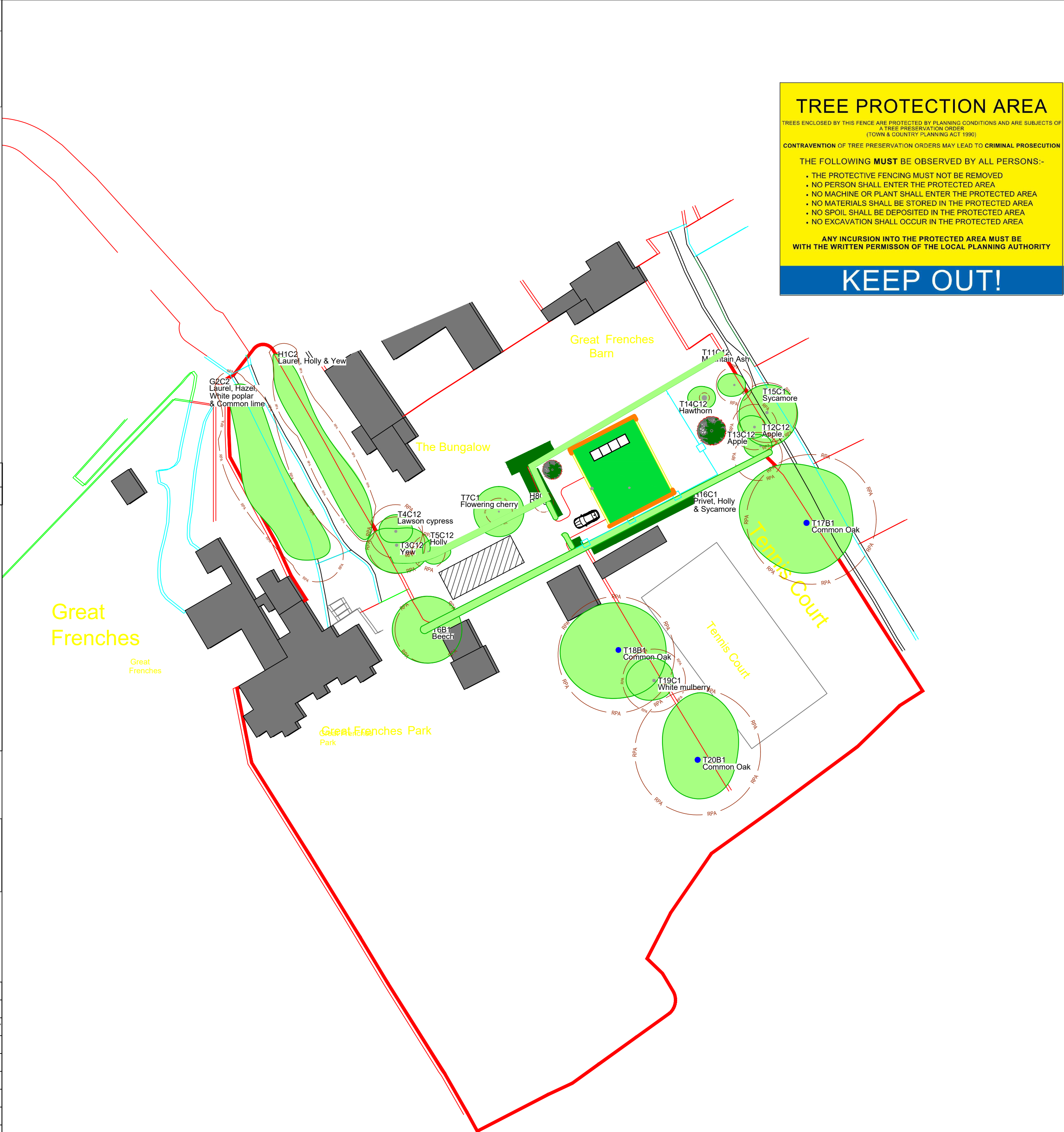


Please ensure all dimensions on site and any if there are any discrepancies please notify us.

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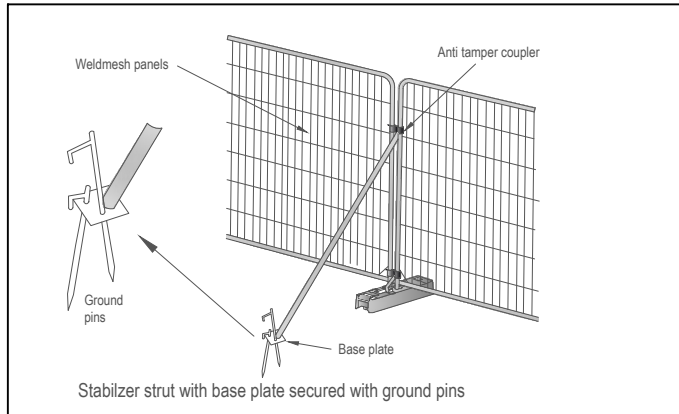
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Client	Mr Lee and Mrs Berrin Penlington
Title	Tree protection plan - TPP-01
Site	Great Frenches Park, Snowhill Road, Crawley Down, Crawley
Date	01/03/2026
Drawn	GRS
Job ref	GRS.47.26
Scale	1:250
Paper size	A2
Drawing reference	Proposed site plan



Tree protective fencing

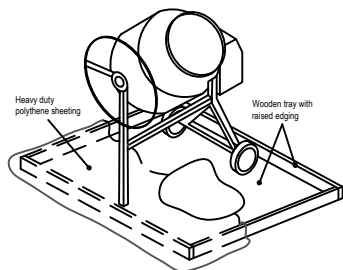
Protective fencing shall consist of a scaffold framework in accordance with *figure 3* of British Standard 5837 (2012); comprising 2m tall welded mesh panels on rubber or concrete feet. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers shall be at least 1m and shall be uniform throughout the fence. The panels shall be supported on the inner side by stabilizer struts, attached to a base plate secured with ground pins.



Excavations with RPA

All excavations to be undertaken within root protection areas (RPAs) shall be carried out carefully by hand, under direct supervision of the arboricultural consultant. Exposed roots that are to be retained shall immediately be wrapped or covered by hessian to prevent desiccation and to protect them from rapid temperature changes. Any wrapping shall be removed prior to backfilling, which will take place as soon as possible. Prior to backfilling, retained roots shall be surrounded with topsoil or un-compacted sharp sand (builders' sand will not be used because its high salt content is toxic to tree roots), or other loose inert granular fill, before soil or other suitable material is replaced. This material shall be free of contaminants and other foreign objects potentially injurious to tree roots. Roots occurring in clumps or of 25mm diameter and over; shall only be severed by the arboricultural consultant after careful consideration. All roots to be cut shall be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw). Roots less than 25mm in diameter cut shall be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw). If any roots greater than 25mm in diameter are found during this stage they shall be retained & the mini pile will be relocated.

The mixing of cement based materials shall take place outside the Construction Exclusion Zones. In small confined areas provision will be made to prevent run-off from entering the RPA see diagram for a suitable example. All mixers and barrows shall be cleaned so the run-off does not enter the RPA. If there is sufficient space for mixing of cement to occur away from nearby trees then no precautions are necessary. All other chemicals hazardous to tree health, including petrol and diesel, shall be stored in suitable containers as specified by current COSHH Regulations, and kept away from Root Protection Areas.



CONSTRUCTION EXCLUSION ZONES (CEZs)
Area which access is prohibited during development (based on the RPAs).

Construction Exclusion Zones shall be safeguarded during development by the installation of protective fencing and / or fit for purpose ground protection before any development works occur.

There shall be no development within CEZs including*:

- No soil disturbance
- No trenches for foundations, services or drainage
- No soil level changes
- No new hard surfaces

*If any such works are later proposed within any RPAs of trees to be retained these shall be supervised by the arboricultural consultant.