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Arboricultural ASSOCIATION Professional Member

ARBORICULTURAL IMPACT ASSESSMENT AND PRELIMINARY METHOD STATEMENT

For the proposed development of
Land East of Tilletts Lane, Warnham, West Sussex

Prepared For:	The Lucas Broadbridge Heath Trust
Local Authority:	Horsham District Council (HDC)
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EXECUTIVE SUMMARY

S1. This Arboricultural Impact Assessment and Preliminary Method Statement (AIAPMS) has been instructed by The Lucas Broadbridge Heath Trust, the owner of the subject land to the east of Tilletts Lane, Warnham, West Sussex.

S2. This is Revision A of the original document produced in June 2025. It has been produced in response to consultation comments made by the local authority's arboricultural officer, which are addressed directly at Section 6. The principal change to the tree protection plan relates to the inclusion of an updated surface water drainage strategy in proximity to an off-site oak tree (T59), which seeks to minimise impacts. The necessary amendments relating to the construction methodology for this element, and an alternative construction method for the road itself, have been updated throughout the report.

S3. The proposals comprise the construction of 59 residential units, including those of an affordable nature, with associated highway works to provide dedicated entrances from Tilletts Lane on the western boundary and Threestile Road to the east. The site layout also includes provision for parking for community football pitches, a pumping station and attenuation features, and associated landscaping.

S4. This report is intended to be submitted to Horsham District Council as part of the supporting technical information for a planning application and it has been prepared in accordance with British Standard BS5837:2012 *'Trees in relation to design, demolition and construction – Recommendations'*.

S5. I have been provided with an electronic copy of The Cricket Ground, Hollands Way, Warnham Tree Preservation Order 2020 (ref. TPO/1532). The Order was made on 7 February 2020 and provides statutory protection for 31 individual trees. Included within the protected trees are a group of English oaks and field maples along the southern boundary of the site, as detailed in the appended tree survey schedule. None of the trees within the main body of the site are afforded protection by a TPO. The boundary of the Warnham Conservation area extends along the western boundary of the application site. A finger of land leading from Threestile Road to the north-east corner of the application site is within the boundaries of the conservation area.

S6. A total of four individual trees, small sections of groups G4 and G7, and the majority of group G6 will be removed as part of the proposed re-development. The higher-quality category 'A' and 'B' trees, including those with veteran characteristics and defined as the principal arboricultural features of the site, will be retained and protected effectively. The removal of the trees identified will not result in the loss of trees of high amenity value or trees which make an essential contribution to the street scene, and will not result in a significant, long-term or irreversible impact on the arboricultural character of the site or the conservation area, particularly once the proposed landscape scheme has been implemented.

S7. As there will be no requirement for facilitation pruning, there will be no adverse impact to the health or stability of the trees, nor will any negative landscape impacts occur to trees as a result of the proposals.

S8. Assessment of the current physiological condition of the subject trees, their relative tolerance of root pruning and disturbance, existing and proposed finished levels, and the protective measures prescribed at Section 7, suggests that there will be no lasting or irreversible damage to the trees to be retained, subject to full compliance with the TPP at **Appendix 3**.

S9. In light of the assessments set out above, there are no material arboricultural reasons to suggest that the construction of the proposed plots and their associated private gardens will result in an unsustainable relationship with the retained tree stock, despite their relative or perceived proximity.

S10. Based on the above considerations, I conclude that the overall arboricultural magnitude of the scheme is low, as defined at **Table 1**.

1 INTRODUCTION

1.1 INSTRUCTION

1.1.1 This Arboricultural Impact Assessment and Preliminary Method Statement (AIAPMS) has been instructed by The Lucas Broadbridge Heath Trust, the owner of the subject land to the east of Tilletts Lane, Warnham, West Sussex.

1.2 DESCRIPTION OF PROPOSALS

1.2.1 The proposals comprise the construction of 59 residential units, including those of an affordable nature, with associated highway works to provide dedicated entrances from Tilletts Lane on the western boundary and Threestile Road to the east. The site layout also includes provision for parking for community football pitches, a pumping station and attenuation features, and associated landscaping.

1.3 TERMS OF REFERENCE (TOR)

1.3.1 This report is intended to be submitted to Horsham District Council as part of the supporting technical information for a planning application and it has been prepared in accordance with British Standard BS5837:2012 *'Trees in relation to design, demolition and construction – Recommendations'*.

1.3.2 The aim of this report is to identify the impact of the proposed development on the existing site context, identify trees for removal and retention, and to outline suitable protection measures as necessary to minimise lasting adverse impacts to retained trees.

1.3.3 The contents of this report are based on the arboricultural and design information available at the time of writing. Detailed design elements such as foundation designs, underground service routes, hard and soft landscaping and other such information is included where known. If it is not available at present, subsequent submissions with revised arboricultural assessments can be requested through the use of appropriate planning conditions.

1.3.4 The agreed scope of work is outlined below:

1. To undertake a site visit and tree inspection of the trees within influencing distance of the proposals, in accordance with BS5837:2012;
2. To produce a package of documents to enable the design team to produce a site layout that respects the above and below ground constraints associated with the existing tree stock; and
3. To produce this arboricultural impact assessment; identifying the impact of the proposals and what working methodologies or protection measures should be adhered to, to ensure successful integration of the proposals into the existing landscape.

1.3.5 This report should be read in conjunction with the documents and plans listed below for context:

Appendix 1. The tree survey schedule (ref. MDJAC-24.025-TSS-01);
Appendix 2. The tree constraints plan (ref. MDJAC- 24.025-TCP-01); and
Appendix 3. The tree protection plans (ref. MDJAC-24.025-TPP-01A).

1.4 AUTHOR

1.4.1 I am Matthew Jones the Managing Director and Principal Arboriculturist of MDJ Arboricultural Consultancy Limited. I have worked exclusively within the arboriculture industry for 15 years, initially as a climbing arborist.

1.4.2 In 2014, I transitioned into private consultancy, working for a number of established and well-respected companies. During this time, I completed the Bachelor of Science Degree with Honours (RQF Level 6) in Arboriculture and Urban Forestry, awarded by The University of Central Lancashire.

1.4.3 I have been a member of the Arboricultural Association since 2017. I have been a Professional Member (MArborA) since 2020, and in 2025 I was awarded Registered Consultant Status (RCArborA). The Registered Consultant scheme aims to recognise excellence in the field of tree consultancy, and it is promoted by the Arboricultural Association as establishing the highest level of attainment available within the UK.

1.4.4 I am also an Associate Member of The Institute of Chartered Foresters (The ICF). I am therefore bound by the code of ethics and required to uphold the professional standards expected of both professional bodies.

2 PLANNING CONTEXT AND LEGISLATION

2.1 NATIONAL PLANNING GUIDANCE

The National Planning Policy Framework

2.1.1 The National Planning Policy Framework (NPPF) (December 2024) sets out the principles against which LPAs should determine planning applications.

2.1.2 Section 12 'Achieving well-designed places' states at paragraph 136:

> *'136. Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.'*

2.1.3 Section 15 'conserving and enhancing the natural environment' also states at paragraph 187:

> *'187. Planning policies and decisions should contribute to and enhance the natural and local environment by:*
>
> *(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.'*

2.1.4 Furthermore, Paragraph 193 states:

'193. When determining planning applications, local planning authorities should apply the following principles:

(c). Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.'

2.2 LOCAL PLANNING POLICY

Horsham District Planning Framework

2.2.1 Arboricultural-specific policies from the above document are outlined below for context.

2.2.2 Policy 26 'Strategic Policy – Countryside Protection' states:

'Outside built-up area boundaries, the rural character and undeveloped nature of the countryside will be protected against inappropriate development. Any proposal must be essential to its countryside location, and in addition meet one of the following criteria:

1. *Support the needs of agriculture or forestry;*
2. *Enable the extraction of minerals or the disposal of waste;*
3. *Provide for quiet informal recreational use; or*
4. *Enable the sustainable development of rural areas.*

In addition, proposals must be of a scale appropriate to its countryside character and location. Development will be considered acceptable where it does not lead, either individually or cumulatively, to a significant increase in the overall level of activity in the countryside, and protects, and/or conserves, and/or enhances, the key features and characteristics of the landscape character area in which it is located, including;

1. *The development pattern of the area, its historical and ecological qualities, tranquillity and sensitivity to change;*
2. *The pattern of woodlands, fields, hedgerows, trees, waterbodies and other features; and*
3. *The landform of the area.'*

2.2.3 Policy 31 'Green Infrastructure and Biodiversity' states:

'1. Development will be supported where it can demonstrate that it maintains or enhances the existing network of green infrastructure. Proposals that would result in the loss of existing green infrastructure will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss, and ensures that the ecosystem services of the area are retained.

2. Development proposals will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. The Council will support new development which retains and/or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity through the creation of green spaces, and linkages between habitats to create local and regional ecological networks.

3. Where felling of protected trees is necessary, replacement planting with suitable species will be required.

4. a) Particular consideration will be given to the hierarchy of sites and habitats in the district as follows:

i. Special Protection Area (SPA) and Special Areas of Conservation(SAC)

ii. Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)

iii. Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs) and any areas of Ancient woodland, local geodiversity or other irreplaceable habitats not already identified in i & ii above.

b) Where development is anticipated to have a direct or indirect adverse impact on sites or features for biodiversity, development will be refused unless it can be demonstrated that:

i. The reason for the development clearly outweighs the need to protect the value of the site; and,

ii. That appropriate mitigation and compensation measures are provided.

5. Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a HRA to determine the need for an appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan.'

2.2.4 Policy 33 'Development Principles' states:

'In order to conserve and enhance the natural and built environment developments shall be required to:

6. Presume in favour of the retention of existing important landscape and natural features, for example trees, hedges, banks and watercourses. Development must relate sympathetically to the local landscape and justify and mitigate against any losses that may occur through the development.'

Warnham Neighbourhood Development Plan 2017-2031

2.2.5 The site has been allocated for residential development within the above document. As such, Policy W6: North of Freeman Road, is relevant, and states:

'1. Development will be supported on approximately 3.55 hectares of Land to the North of Freeman Road subject to all of the following criteria being met:

a) the provision of a minimum of 50 dwellings;

b) the provision of affordable housing which meets the requirements of Horsham District Planning Framework Policy 16, with the expectation that all affordable housing provision shall be made on-site;

c) the provision of a range of house types in accordance with Policies W3, W4 and W5 of this plan;

d) the provision of accessible public green space within the site commensurate with the scale of development;

e) the provision of space within the road system or by means of a car park to permit occasional parking of up to ten vehicles in proximity to the football pitch;

f) the provision of appropriate access into the site for vehicles, and segregated access to the site by cyclists and pedestrians from Threestile Road and Church Street;

g) the retention and enhancement of trees and hedgerows on the western boundary of the site (except where required to provide access to the site);

h) the provision by landscaping of a buffer on the southern edge of the site adjacent to the housing in Freeman Road to minimise visual intrusion to existing properties;

i) the provision of a buffer zone to the north of the football pitch to accommodate visitors and spectators to football matches;

j) the retention and enhancement of the established hedge along the northern boundary of the site;

k) provision for a footpath link to the existing footpath network: paths 1428 and 1429 and 1430, adjacent to the established hedgerows, and Tilletts Lane;

l) the provision of a footpath link from the south-west corner of the site to Tilletts Lane; and

m) the development shall respect the amenity of neighbouring properties, conserve heritage assets in the Conservation Area and the setting of relevant listed buildings.

2. Proposals for new and improved utilities infrastructure will be encouraged and supported in order to meet the identified needs of the community.'

2.3 Tree Preservation Orders (TPOs)

2.3.1 I have been provided with an electronic copy of The Cricket Ground, Hollands Way, Warnham Tree Preservation Order 2020 (ref. TPO/1532). The Order was made on 7 February 2020 and provides statutory protection for 31 individual trees. Included within the protected trees are a group of English oaks and field maples along the southern boundary of the site, as detailed in the appended tree survey schedule. None of the trees within the main body of the site are afforded protection by a TPO.

2.4 Conservation Areas (CAs)

2.4.1 The boundary of the Warnham Conservation area extends along the western boundary of the application site. A finger of land leading from Threestile Road to the north-east corner of the application site is within the boundaries of the conservation area.

3 Impact Assessment Methodology

3.1.1 In order to systematically assess the overall impact of the scheme, I have devised a series of categories which seek to provide a summary of the likely, post-planning site conditions on the presumption that planning consent is gained, and the proposed scheme as detailed within this report is built out.

3.1.2 My conclusions relating to the overall arboricultural impact of the scheme are summarised at **Table 1** below.

Table 1: MDJAC magnitudes of impact summary.

Impact category	Description
High	Total or extensive alteration to the existing arboricultural character of the site, or the principal arboricultural features on or adjacent to it. The post-planning situation is significantly and adversely different.
Medium	Partial alteration to the existing arboricultural character of the site, or the principal arboricultural features on or adjacent to it. The post-planning situation is partially different.
Low	Minor alteration to the existing arboricultural character of the site, or the principal arboricultural features on or adjacent to it. The post-planning changes will be distinguishable, but comparable to the existing context.
Negligible	No or very minor alteration to the existing arboricultural character of the site, or the principal arboricultural features on or adjacent to it. The post-planning situation is not readily distinguishable from the existing context with no material adverse impact.

4 SITE ASSESSMENT

4.1 SITE VISIT AND TREE INSPECTION

4.1.1 I undertook a site inspection and tree survey on 12 and 13 June 2024. Weather conditions at the time were overcast but dry and deciduous trees were in full leaf.

4.1.2 The dimensions and assessments of the trees contained within this document reflect their condition at the time of the survey. I surveyed the trees from within the boundaries of the site only. The presence of additional physiological or structural defects that may only be visible from viewpoints with restricted access cannot be discounted. All trees were surveyed from ground level only, aided by the use of binoculars where considered necessary. Other aids included an acoustic hammer and a steel probe, both of which were used where necessary to assess and evaluate the extent of any dysfunctional wood, cavities or other structural defects. The information contained within this document does not constitute a full hazard or risk assessment, and therefore I (MDJ Arboricultural Consultancy Limited) make no guarantee of their stability of safety.

4.1.3 I collected the baseline data using a handheld tablet, which was then exported to Microsoft Excel to produce the tree survey schedule at **Appendix 1**. The locations of the trees have been plotted using measurements taken on site. This information was exported to produce the Tree Constraints Plan (TCP) at **Appendix 2**, onto which the proposed layout has been overlaid to produce the Tree Protection Plan (TPP) at **Appendix 3**.

4.2 DESCRIPTION OF SITE

4.2.1 The application site comprises two interconnecting agricultural fields, separated by a belt of mature trees and field boundary vegetation. The northern boundary is formed by a hedgerow and mature trees, which separates the application site from the adjacent agricultural land. The eastern boundary of the site is formed be a tree belt that abuts the rear gardens of properties located on the village green, and extends as far southwards as the community football pitches. The southern boundary meets the rear gardens of properties of Freeman Road, whilst the west boundary extends along Tilletts Lane.

4.2.2 Aside from the broadly rectangular principal area, the application site includes two fingers of land. In the north-east corner, a narrow finger of land connects the principal area with Threestile Road, along an existing track, whilst a second finger connects the south-east corner to Caryll Place, via an existing, informal footpath.

4.2.3 The topography of the site slopes down from the northern boundary towards Freeman Road. There are also significant level changes along the west boundary, where the existing Tilletts Lane carriageway is significantly lower than the main body of the site.

Photograph 1: below left, showing an existing right of way from Tilletts Lane in the south-west corner of the site; and

Photograph 2: below right, looking towards the mature trees along the west boundary.

Photograph 3: below left, looking from the west boundary towards the belt of trees along the southern boundary; and

Photograph 4: below right, looking towards the belt of trees that separates the two individual fields that make up the site.

4.3 EXISTING TREE STOCK

4.3.1 Owing to the potential need for associated highway works, including improvements to the junction between Tilletts Lane and Threestiles Road and footpath improvements elsewhere, my original scope of work was to include trees beyond the application site boundaries.

4.3.2 All trees have been categorised in accordance with the cascade chart at Table 1 of British Standard BS5837:2012; justification for the categorisation is provided within the comments for each tree in the tree survey schedule at **Appendix 1**.

4.3.3 Three of the surveyed trees (T2, T16, and T39) have been assessed at category 'U'. These are trees that are unsuitable for retention irrespective of the proposed re-development, as they are in such poor condition and therefore have a remaining life expectancy of less than 10 years.

4.3.4 Eighteen individuals and two groups of trees (G9 and G11) have been assessed as category 'A'. These are trees of high quality and an estimated life expectancy of more than 40 years and either particularly good examples of their species, rare or unusual specimens, essential components of groups, semi-formal or formal arboricultural features, or of particularly visual importance; or a combination of these.

4.3.5 Forty-seven individuals and five groups of trees (G1 – G3, G8 and G10) have been assessed as category 'B', being of moderate quality with a remaining life expectancy of at least 20 years. These include trees that have been downgraded from category 'A' due to impaired condition, including significant but remediable defects such that they are unlikely to be suitable for retention for more than 40 years; those that are present in numbers, groups or woodlands and so attract a higher collective value; and those with material or other cultural value; or a combination of these.

4.3.6 The remaining trees have been assessed as category 'C', being of either low value with a remaining life expectancy of between 10 and 20 years; young trees with trunk diameters below 150mm; those growing in groups of trees without conferring any significance to the collective landscape; or those providing low or temporary landscape benefits.

4.4 Principal Arboricultural Features (PAFs)

4.4.1 The tree survey schedule at **Appendix 1** contains 76 individuals, 11 groups of trees and one hedge. Whilst all of the category 'A' and 'B' trees make a positive contribution to the character of the area, some are of greater quality, arboricultural value and landscape prominence than others. Accordingly, I consider the trees identified below to be the principal arboricultural features (PAFs):

Table 2: Principal Arboricultural Features (PAFs).

Tree no.	Species	Notes	BS5837 category
T30	English oak	Veteran tree located on the western boundary of the site.	**A23**
T32	English oak	Field boundary specimen showing demonstrable secondary veteran features including large trunk diameter and branch failures. Precautionary veteran buffer zone applied.	**A23**
T58	English oak	Field boundary specimen with several secondary veteran features. Precautionary veteran buffer zone applied.	**A123**
T74	English oak	Veteran tree located between The Sussex Oak Public House and Caryll Place.	**A23**

4.4.2 The trees identified above should be treated as the most valuable trees within the context of a proposed re-development of the site. Consequently, all reasonable efforts have been made to ensure their safe retention, protection and integration into the development proposals.

5 ARBORICULTURAL IMPACT ASSESSMENT

5.1 TREES TO BE REMOVED

5.1.1 The proposed re-development will require the removal of four individual trees and sections of three groups of trees, either because they are located within the footprint of the proposed buildings and areas of hard surfacing, or because the proximity of the proposals to the trees is likely to significantly damage them and increase the likelihood of premature failure or mortality. The proposed tree removals are shown at **Table 3** below.

Table 3: trees to be removed.

Tree no.	Species	Trunk diameter [mm]	Age class	Category
T47	Hornbeam	400	Early-mature	B12
T63	Common ash	525	Early-mature	C2
T64	English oak	540	Early-mature	B12
T65	Blackthorn	130	Semi-mature	C1
G4 (PARTIAL)	Various	75-125 (est.)	Young	C1
G6 (PARTIAL)	Various	75-100 (est.)	Young	C1
G7 (PARTIAL)	Various	75-300 (est.)	Semi-mature	C1

5.1.2 All of the category 'A' trees are to be retained and protected effectively throughout construction. Two category 'B' specimens will be removed, but 45 will be retained. Two category 'C' trees are to be removed. None of the trees to be removed are covered by a TPO.

5.1.3 The removal of trees T47 and T63-T65 are required to provide vehicle connectivity between the two fields, and to enable re-profiling of the existing track and to formalise a vehicular entrance to the site from Threestile Road. Whilst the loss of these trees is regrettable, some degree of tree removal to facilitate site access is inevitable on projects of this scale.

5.1.4 The removal of a small section of two groups of trees (T4 and T7) is necessary to provide access from Tilletts Lane to the west, and provide a vehicular connection between the two fields. These elements have been strategically placed so as to minimise the arboricultural impact of the scheme and therefore safeguard the larger and higher-quality specimens nearby.

5.1.5 Group G6 is located close to the 'S-bend' in the proposed access road. Whilst some degree of retention may be possible, as shown on the appended TPP, it is likely that the majority of the group will have to be removed to facilitate construction.

5.1.6 To mitigate the removal of the trees above, a robust landscape scheme has been developed by Terra Firma Landscape Architects. The landscape scheme comprises the planting of individual trees, including those of substantial size to bolster the existing boundary screening, and to provide tree-lined streets with rain gardens. An orchard is also proposed in the south-east corner of the site. Accordingly, my view is that the

integration of the proposed landscape scheme, shown illustratively below, will significantly outweigh the adverse impacts caused by the loss of the trees shown at **Table 3**.

Figure 1: landscape masterplan, showing considerable tree planting and general improvements across the site.

5.1.7 A total of four individual trees, small sections of groups G4 and G7, and the majority of group G6 will be removed as part of the proposed re-development. The higher-quality category 'A' and 'B' trees, including those with veteran characteristics and defined as the principal arboricultural features of the site, will be retained and protected effectively. The removal of the trees identified will not result in the loss of trees of high amenity value or trees which make an essential contribution to the street scene, and will not result in a significant, long-term or irreversible impact on the arboricultural character of the site or the conservation area, particularly once the proposed landscape scheme has been implemented.

5.2 Trees to be Pruned

5.2.1 None of the existing trees will require facilitative pruning as part of the proposals.

5.3 Root Protection Area (RPA) Conflicts

5.3.1 The root protection area of eight individuals and one group of trees identified for retention will be impacted by the proposals, as detailed at below.

Table 4: RPA conflicts, cause and percentage of total RPA affected.

Tree no.	Species	Cause of incursion	% of total RPA
T36	Hornbeam	Proposed access footpath	6.8%
T37	English oak	Proposed access footpath	7.2%
T59	English oak	Proposed access road	8.8%
T60	Sycamore	Proposed access road	3.8%
T61	Common ash	Proposed access road	11.4%
T62	Common ash	Proposed access road	6.9%
T70	English oak	Proposed access footpath	15.7%
T71	English oak	Proposed access footpath	7.2%
G8	Various	Proposed semi-formal footpath	N/A

5.3.2 Section 5.3 of BS5837:2012 recommends that the default position of structures should be outside of the defined RPAs, and further recommends that justification for demolition or construction work abutting or within the RPAs should be provided if the default position cannot be accommodated. The successful retention and protection of retained trees is dependent upon several factors. I have therefore developed a systematic scoring system to aid in the calculation of cumulative impacts within the RPAs of retained trees, based on the following factors:

1. **Distance.** The distance of construction activities from the trunk of the tree;
2. **Biological characteristics.** Consideration of the subject tree's age class, physiology, vigour, and genetic tolerance of disturbance[1];
3. **Extent of impact.** The extent of the RPA affected by construction activities, given as a percentage of the total area;
4. **Construction intensity.** Consideration of the likely depth and nature of any excavations; and
5. **Mitigation.** Consideration of existing root barriers and associated alterations to likely root morphology, and the availability or appropriateness of contiguous areas into which the construction impacts can be mitigated; or the application of improvements.

Table 5: cumulative-factor impact assessment.

Tree no.	Species	Distance	Biological	Extent	Intensity	Mitigation	Total
T36	Hornbeam	2	3	4	3	3	**15**
T37	English oak	2	3	4	3	3	**15**
T59	English oak	4	2	4	4	3	**17**
T60	Sycamore	2	2	4	3	3	**14**
T61	Common ash	2	4	4	3	3	**16**
T62	Common ash	2	4	4	3	3	**16**
T70	English oak	2	4	3	3	3	**15**
T71	English oak	2	4	4	3	3	**16**
G8	Various	2	4	4	4	3	**17**

[1] (Matheny & Clark, 1998)

Explanatory notes

- **Distance.** Work within the canopy merits 0-2 points; works within 2m of the canopy merits 3 points; works greater than 2m from the canopy merits 4 points.
- **Biological.** Veteran or over-mature trees, or trees in poor physiological condition merit 0-2 points; mature trees with good or fair physiological condition merit 3 points; other age classes with good or fair physiological condition merit 4 points.
- **Extent.** If more than 20% of the total RPA is affected, 0-2 points are awarded; if 10-20% of the total RPA is affected, 3 points are awarded; if less than 10% of the RPA is affected, 4 points is awarded.
- **Intensity.** Extensive excavation to depths beyond 1m from existing ground level or through the entire rooting profile merits 0-2 points; moderate excavation to 500mm, or approximately 50% of the rooting profile merits 3 points; minor excavation to less than 250mm or 'no-dig' solutions merit 4 points.
- **Mitigation.** If up to 50% of the RPA is unaffected and available for mitigatory works but no contiguous soft landscaping exists 0-2 points is awarded; if more than 50% of the RPA is available for improvement and contiguous soft landscaping exists 3 points are awarded; if 100% of the RPA is available for improvement and contiguous soft landscaping exists 4 points are awarded.
- **Total.** Trees cumulating less than 10 points are unlikely to be suitable for retention. Trees cumulating 11-20 points could be retained subject to appropriate protection measures.

5.3.3 The impacts identified at **Tables 4 and 5** above affect eight individuals and one group of trees, resulting in a maximum incursion of 15.7% of the individual tree's RPAs. The cumulative factor impact assessment (**Table 5**) results in a total lowest score of 14 out of a possible 20 points and as such, the trees could likely be retained subject to suitable working methods and protection measures. My suggested methods of protection are therefore set out in Section 7.

5.4 POST-OCCUPATION PRESSURE ON TREES

5.4.1 Whilst the proposed dwellings have been designed to take account of the trees to be retained, Plots 43 and 52-53 along the southern boundary will be within the shadow patterns of the trees to the south: principally, group G2 and trees T41 and T42. The shadow pattern is used to indicate the likely shade a tree will cause during the main part of the day by drawing an arc from north-west to east of the trunk, at a distance equivalent to the current height of the tree[2].

5.4.2 However, as the trees here are exclusively broad-leafed species, and some dappled sunlight will be able to penetrate through the canopy and into the adjacent properties, even during the summer months. Moreover, as these are also deciduous species, they will be dormant for a significant proportion of the year and sunlight will also be able to spill through the branch framework when the sun appears lower in the sky. The combination of these factors is likely to ensure that there will be satisfactory levels of light ingress into these plots throughout the year, and no additional apprehension regarding the proximity of the trees should result.

[2] (The British Standards Institution, 2012)

5.4.3 The sizes and orientations of the proposed private rear gardens are such that none of them will be overhung by retained tree canopies to such an extent that they will become problematic or lead to an increased likelihood of applications being made for their heavy or otherwise unacceptable pruning.

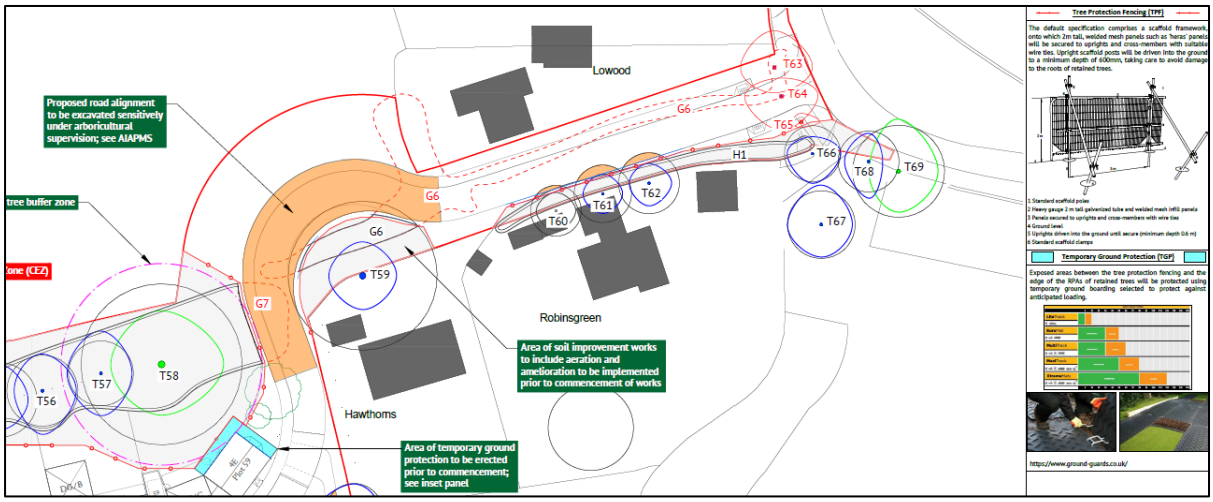
5.4.4 In light of the assessments set out above, there are no material arboricultural reasons to suggest that the construction of the proposed plots and their associated private gardens will result in an unsustainable relationship with the retained tree stock, despite their relative or perceived proximity.

6 RESPONSE TO HORSHAM DISTRICT COUNCIL CONSULTATION COMMENTS

6.1 RPA INCURSIONS

6.1.1 The following comments were made by Mr Andrew Bush, Arboricultural Officer at Horsham District Council, in relation to the previously proposed RPA incursions:

> *'The proposed RPA incursions are, for the most part, below the 20% threshold typically considered acceptable under BS5837. However, it is noted that no overriding justification appears to have been provided to demonstrate why works within RPAs are required. Furthermore, all the RPA incursions all currently propose excavations for the access paths and roads, rather than adopting less invasive above-ground construction methods. This is unsatisfactory; above-ground solutions should be considered wherever feasible, and where they are not, clear justification must be provided.*
>
> *My primary RPA concern is with the proposed access road, which extends into the RPA of T59, a mature Category B2 English Oak located within the curtilage of Hawthorns, Knob Hill, Warnham, and just within a designated Conservation Area. The tree is readily visible to users of the PROW to the north, and despite being subject to fairly robust pruning works, it still makes a positive contribution to the character and amenities of the locality.*
>
> *The area immediately south of T59 is occupied by the property's principal parking area and garage. The tree sits on slightly elevated ground relative to this area, possibly due to excavation works undertaken to create a level surface at the time of property construction. The parking area is predominantly surfaced with shingle, please see below*



Para 4.6.2 of the BS advised – "The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution."

Due to the constraint posed by the change in land levels and the parking area to the south of T59, it would imply that the tree's principal rooting area lies to its north, beneath the compacted trackway/PROW, where the new site access is shown. Whereby, the long-standing parking area to the south has most likely impeded any significant root development in that direction and, in itself, constitutes a significant proportion of hard surfacing within T59's RPA, as indicated on the Tree Protection Plan. When combined with the proposed 8.8% incursion, the cumulative extent of hard surfacing within the RPA would exceed the tolerable limits of 20%, as advised in the BS.

As such, even with the proposed mitigation, the excavation required for the road would almost certainly result in the loss of a significant proportion of T59's key rooting area and rooting volume. This action would be detrimental to the trees health and compromise its long-term retention potential.

Furthermore, the proposed drainage strategy indicates that underground services requiring open trenches would also fall within T59's RPA, as with the building of the road, this action and the root severance that it would entail have the capacity to significantly impact T59's condition and long-term retention potential and is unsatisfactory.'

6.1.2 The proposal previously included incursions into the RPAs of seven individual trees (T36, T37, T59, T60, T61, T62, T70 and T71) in order to facilitate the construction of a formalised footpath from Tilletts Lane to the west of the site (T36 and T37), the principal vehicular access road from Knob Hill (T59-T62), and a new perimeter footpath along the eastern boundary (T70 and T71).

6.1.3 The justification for avoiding the incursions into the RPAs of T36 and T37 relates to existing ground levels, which rise from the road on the western boundary. In order to formalise access on this boundary, which is a planning requirement, an existing informal footpath has been identified as the least impactful location. By re-using the existing location, impacts to the larger, more prominent and higher quality trees further to the north will be avoided. However, the existing ground levels make non-invasive, above-ground solutions

unfeasible and therefore, a sensitive approach using localised manual excavation can be justified in arboricultural terms, subject to compliance with the protection measures prescribed.

6.1.4 The impacts relating to trees T59-T62 relate to the construction of a primary vehicular access from Knob Hill. The extent, construction date and type of the existing hard surfacing within the adjacent property highlighted by Mr Bush, which are within the notionally circular, default RPA, are not sufficiently visible from the application site due to the screening offered by hedgerows and other low-level vegetation, and accordingly, these were not afforded significant weight in my original assessment.

6.1.5 In addition, I had not been provided with the surface water drainage strategy at the time of producing the original report, and therefore, the incursions by underground services were not included in my assessment.

6.1.6 To overcome the ambiguity regarding the likely modifications to the RPA required by the hard surfacing and the drainage strategy, two significant changes have been made to the proposal.

6.1.7 Firstly, the surface water drainage routes will now be installed via trenchless insertion methods prior to construction of the road. Pits will be excavated by hand to a depth of 750mm to the north-east and north-west of T59, outside of the notionally circular RPA of this tree, and those in close proximity. In these locations, significant rooting is unlikely, even if the off-site hard surfacing has influenced root morphology, but small roots of less than 25mm diameter will be pruned using a sharp handsaw. Once root treatment has taken place, the final pit depth of 4m will be excavated using an excavator.

6.1.8 This will allow for a moling machine to be submerged into the pit, which will then create a series of straight lines between the pits, extending to 35m at most. Following moling, pipework will be inserted into the tunnels and manholes will be installed in the locations of the pits to allow for future inspection and maintenance.

6.1.9 By adopting this method, the underground service trenches will be located below the root system of the oak tree and thus, will not have a materially adverse impact to the tree.

6.1.10 Once the drainage elements have been installed, the circular area of road highlighted by **purple hatching** on the TPP will be installed using a suitable cellular confinement system such as CellWeb. Whilst some minor sensitive excavation will be necessary to remove the existing turf layer and organic root masses to form a suitable level on which to construct the road, existing levels will be broadly maintained, and the road built up from this level.

6.1.11 By implementing this approach, the new road will be proud of the soil that is thought to contain significant volumes of roots associated with T59. Accordingly, the impact to the tree will be low, and is unlikely to lead to significant root loss or damage or general soil compaction. The area will also be remediated as discussed in the accompanying method statement.

6.1.12 The incursions into the RPAs of trees T60, T61 and T62 are necessary due to the limited space available in the narrow finger of land extending between the main site and Knob Hill. Suitable working methods have been provided and as such, I consider these small incursions to be justifiable on arboricultural grounds.

7 PRELIMINARY METHOD STATEMENT (PMS)

7.1 ARBORICULTURAL PRE-REQUISITES

7.1.1 An arboriculturist will be retained to provide technical support for the duration of the proposed works, and to carry out the proposed programme of monitoring and supervision set out below. This will ensure that unforeseen issues are effectively overcome, impacts are minimised accordingly, and that the existing tree stock is integrated into the proposed context. The project arboriculturist will oversee the following elements:

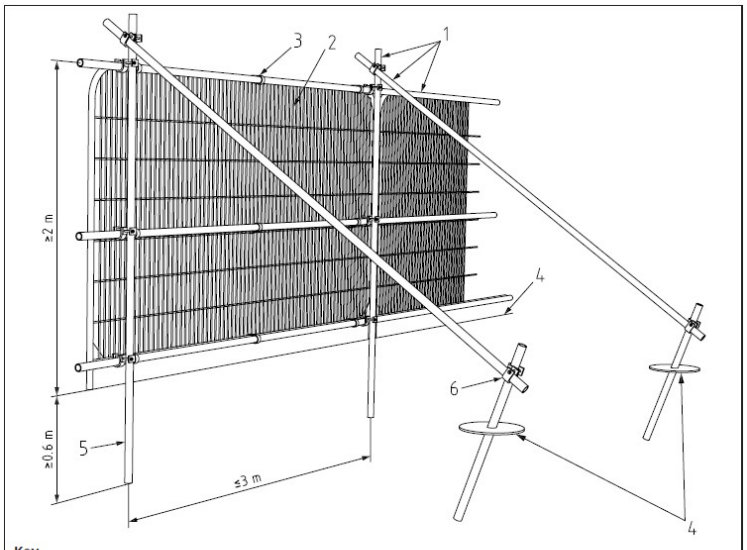
- The holding of a pre-commencement meeting;
- Site-based monitoring of protective measures on a monthly basis or similar; and
- Site-based supervision of technical elements in proximity to retained trees.

7.1.2 On completion of the above elements, the arboriculturist will provide a short summary report that will be sent to the local planning authority within five days of the visit.

7.2 TREE PROTECTION FENCING (TPF)

7.2.1 The rooting environments of trees identified for retention will be safeguarded by the erection of temporary tree protection fencing to the default specification provided in BS5837:2012[3] and set out below. These locations are denoted by bold red lines on the appended TPP.

Figure 2: default fencing specification for protective barrier (The British Standards Institution, 2012).



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

[3] (The British Standards Institution, 2012)

7.2.2 The default specification comprises a scaffold framework onto which 2m tall, welded mesh panels such as 'heras' panels will be secured to uprights and crossmembers with suitable anti-tamper couplers. The scaffold framework will be driven into the ground to a minimum depth of 600mm below existing ground levels, ensuring that care is taken to avoid damage to existing roots.

7.2.3 The anti-tamper couplers will be secured in place in such a way as to ensure that they cannot be easily removed from outside the construction exclusion zone; such as by them facing the trees they are designed to protect.

7.2.4 Existing vegetation will be removed by hand to enable the location of the TPF to be accurately set out by an appropriately qualified engineer.

7.2.5 The TPF will remain in place to serve as physical protection for retained trees for the duration of the demolition and construction activities and will only be removed immediately prior to the landscaping phase once all large plant and machinery have been removed from site.

7.2.6 Temporary signage will be secured to the fencing at appropriate intervals to inform site operatives of the purpose of the fencing. Signage will read **'TREE PROTECTION FENCING – KEEP OUT'** or similar, as shown below.

Figure 3: example protective fencing signage.

7.3 Temporary Ground Protection (TGP)

7.3.1 Where the TPF cannot be located outside of the RPAs of retained trees due to the requirement for adequate working space, such as around Plot 59 and the garages for Plots 6 and 7, existing soil levels will be retained and protected from compaction by the placement of suitable temporary ground protection, as shown by **cyan hatching** on the TPP.

7.3.2 It is anticipated that the small areas of ground protection need only protect the rooting environments from pedestrian and operative footfall, and potentially that of small plant with a maximum weight of 2.5 tonnes. Such ground protection is readily available from various suppliers to suit the required load bearing capacity and should be placed upon a geotextile membrane and compressible layer of woodchip or similar. In this instance, a basic example is included below.

Figure 4: examples of temporary ground protection boards to protect against footfall and light plant[4].

7.3.3 Ground protection is to be laid following erection of the TPF but prior to the commencement of any soil stripping, and will remain in place for the duration of the project. It will be removed immediately prior to the landscaping phase once all heavy plant has been removed from site.

[4] (Ground Guards, 2022)

7.4 Pre-Commencement Meeting (PCM)

7.4.1 Upon initial installation, and if required, a contractor-only pre-commencement meeting will be held on site when the project arboriculturist will review the protection measures. Alterations, where necessary, will be made.

7.4.2 Once the final protection measures have been installed, the arboriculturist will attend a formal pre-commencement meeting with all personnel with control and influence over works in proximity to the retained trees, and the local authority tree officer will be invited to attend.

7.5 Soil Improvement Works (T59)

7.5.1 This tree, shown below, has been heavily reduced in the past, but showed a positive response during my inspection; this is evidenced by the production of new shoots at the large pruning wounds of the principal branches.

Photograph 5: looking eastwards along the existing footpath towards the heavily pruned canopy of T59.

7.5.2 Due to the energy requirements of sustaining such a large canopy, mature trees can adapt to heavy pruning such as this by producing new roots closer to the base of the tree. By producing new roots and reducing the distance at which the absorption of water and nutrients from the soil solution takes places, energy requirements can be significantly reduced. This will in turn allow the tree to re-distribute energy reserves for other purposes, such as shoot growth to replenish the depleted canopy. Therefore, the impact of the proposed disturbance at the periphery of the RPA may not be as impactful as would ordinarily be the case if the canopy was unpruned.

7.5.3 However, in order to promote healthy root and canopy growth, an area of soil improvement works will be implemented. Prior to the commencement of works, including soil stripping, the area of soil between the boundary fencing and the proposed road will be de-compacted by a specialist arboricultural or landscape contractor using a high-pressure compressed air soil lance that will rupture the soil vertically and horizontally at 1m spacings to form a grid pattern. This will increase pore space and provide a more energy-efficient rooting environment for the tree, and the simultaneous application of ameliorants will improve soil biology to promote the tree's recovery.

7.5.4 Once de-compacted, it would also be possible for a minimum 75mm deep layer of well-rotted hardwood mulch to be added, to form a visible deterrent to future footfall whilst simultaneously improving the soil quality by regulating soil temperature and evaporation, and by leeching essential macronutrients back into the soil.

7.6 Excavation for underground services in the RPA of T59

7.6.1 As discussed above, the surface water drainage strategy in the RPA of T59 will be installed using trenchless techniques. An outline method for the installation of these elements is provided below.

i. Initial pit locations to be highlighted by an engineer, and sprayed using biodegradable spray paint or similar;
ii. Initial hand-dig excavation using hand tools only, under the direct control and supervision of the appointed arboriculturist to a depth of 750mm, to identify and significant root masses;
iii. All roots of 25mm or less will be cut back to the face of the excavation using a sharp handsaw;
iv. Once clear of roots, excavation will continue to a depth of 4m to facilitate moling;
v. Moling between pits to be carried out by a specialist contractor, yet to be appointed;
vi. Installation of pipework as required;
vii. Once the pipework is in place, the pits will be formalised to manholes to facilitate future inspection and maintenance; and
viii. Manholes will be capped at the height of the finalised road for the duration of the remaining works.

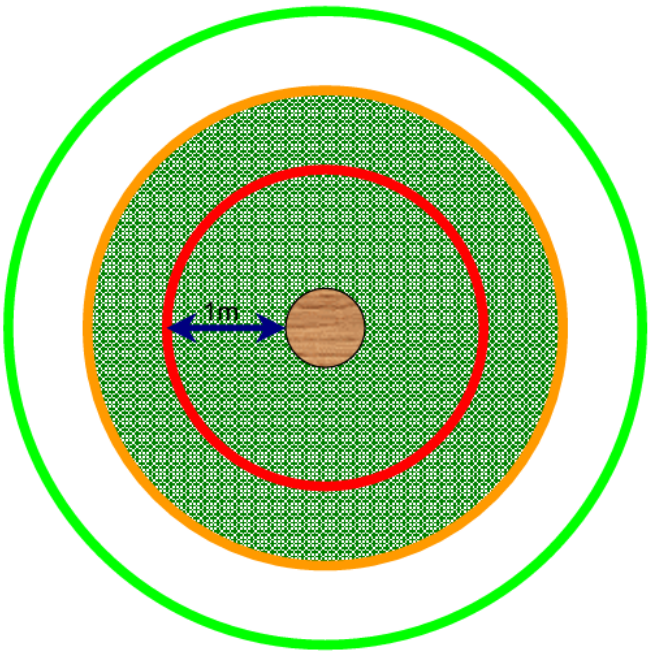
7.6.2 Elsewhere, underground services will be installed in accordance with The National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Volume 4)[5] during the detailed design stage, should planning consent be granted, as summarised below.

[5] (The National Joint Utilities Group, 2007)

Figure 5: excerpt of NJUG guidelines, showing general principles for works close to trees.

The National Joint Utilities Group

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2



TREE PROTECTION ZONE

Key to Diagram

Trunk of Tree

Spread of canopy or branches

PROHIBITED ZONE – 1m from trunk. Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.

PRECAUTIONARY ZONE – 4 x tree circumference. Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with Local Authority Tree Officer if in any doubt.

PERMITTED ZONE – outside of precautionary zone. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.

Figure 6: additional guidance on working close to trees.

The National Joint Utilities Group

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2

DAMAGE TO TREES
Tree roots keep a tree healthy and upright. Most roots are found in the top 600mm of soil and often grow out further than the tree's height. The majority of these roots are very fine; even close to a tree few will be thicker than a pencil. Most street tree roots grow under the footway but may also extend under the carriageway. If roots are damaged the tree may suffer irreversible harm and eventually die.

PROTECTING ROOTS - DO'S and DON'TS
There are three designated zones around a tree each of which has its own criteria for working practices.

THE PROHIBITED ZONE

Don't excavate within this zone.

Don't use any form of mechanical plant within this zone

Don't store materials, plant or equipment within this zone.

Don't move plant or vehicles within this zone.

Don't lean materials against, or chain plant to, the trunk.

Do contact the local authority tree officer or owner of the tree if excavation within this zone is unavoidable.

Do protect any exposed roots uncovered within this zone with dry sacking.

Do backfill with a suitable inert granular and top soil material mix as soon as possible on completion of works.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PRECAUTIONARY ZONE

Don't excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques.

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Don't repeatedly move / use heavy mechanical plant except on hard standing.

Don't store spoil or building material, including chemicals and fuels, within this zone.

Do prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.

Do backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non highway sites backfill only with excavated soil.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PERMITTED ZONE

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Do use caution if it is absolutely necessary to operate mechanical plant within this zone.

Do prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

7.7 SENSITIVE EXCAVATION FOR HARD SURFACING

7.7.1 The small sections of new hard surfacing shown by **orange hatching** on the TPP, whether for the primary access roads or for pedestrian footpaths, will be implemented using the below methodology.

i. All excavation is to be supervised by the project arboriculturist;
ii. Extent of excavation to be accurately marked out prior to commencement by an engineer using biodegradable spray paint;
iii. The upper 750mm of excavation will be carried out manually, using hand tools only, including with compressed air if necessary;
iv. All roots encountered will be cut back to the face of the excavation using a handsaw, irrespective of the number and distribution. The cut ends will be protected from direct sunlight by wrapping them in hessian sacking; during periods of prolonged dry weather, the hessian sacking will be irrigated periodically to prevent the roots from drying out; and
v. Upon completion, the project arboriculturist will prepare a short supervision record to be forwarded to the LPA.

7.8 INSTALLATION OF CELLULAR CONFINEMENT SYSTEMS

7.8.1 A section of the proposed access road within the RPA of T59 seeks to retain the existing soil levels. Accordingly, it is proposed that the new area hard surfacing will be constructed above or very close to existing ground levels using a cellular confinement system such as The CellWeb® TRP system. The need for significant excavation will therefore be avoided.

Figure 7: examples of CellWeb on construction projects[6].

Figure 8: CellWeb® TRP depth variations and applications[7].

Depth of Cellweb®TRP	Unit	Gross Vehicle Weight (GVW)	Application
200 mm	Kg	< 60,000	HGV & Construction Traffic
150 mm	Kg	< 30,000	Emergency Access & Refuse Vehicles
100mm	Kg	< 6,000	Cars up to a Transit Van
75mm	Kg	< 1,000	Pedestrians & Cycleways

[6] (Geosynthetics Engineered Solutions, 2024)
[7] (Geosynthetics Engineered Solutions, 2022)

7.8.2 Implementation of these systems has a minimal effect on the rooting environment of the surrounding trees, requiring only the upper 50mm (or any existing ground vegetation) to be removed. A geotextile membrane is laid onto the existing soil, and a matrix of porous cells is laid over the required area and filled with angular stone; a final porous wearing course is then added above this for functionality and aesthetics as appropriate.

7.8.3 An illustrative installation method for such systems is provided below.

i. Removal of turf layer (circa. 50mm) using hand tools only;
ii. Setting out of suitable geotextile membrane (e.g. Treetex™ Pollution Control Geotextile) as required. To be held in place temporarily using road pins or similar;
iii. Setting out of CellWeb® TRP Cellular Confinement System. To be secured in place using road pins or similar;
iv. Staple any adjacent sections of TRP together;
v. Infill grid with clean angular stone (Type 4/20mm), working towards the tree to provide a temporary working platform;
vi. Install edge constraints as desired; and
vii. Apply porous upper wearing course as desired.

7.8.4 The final depth of the system to be used will be confirmed at the detailed design stage, following the granting of planning consent and therefore, only limited information is available at this stage.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

8.1.1 A total of four individual trees, small sections of groups G4 and G7, and the majority of group G6 will be removed as part of the proposed re-development. The higher-quality category 'A' and 'B' trees, including those with veteran characteristics and defined as the principal arboricultural features of the site, will be retained and protected effectively. The removal of the trees identified will not result in the loss of trees of high amenity value or trees which make an essential contribution to the street scene, and will not result in a significant, long-term or irreversible impact on the arboricultural character of the site or the conservation area, particularly once the proposed landscape scheme has been implemented.

8.1.2 As there will be no requirement for facilitation pruning, there will be no adverse impact to the health or stability of the trees, nor will any negative landscape impacts occur to trees as a result of the proposals.

8.1.3 Assessment of the current physiological condition of the subject trees, their relative tolerance of root pruning and disturbance, existing and proposed finished levels, and the protective measures prescribed at Section 5.3, suggests that there will be no lasting or irreversible damage to the trees to be retained, subject to full compliance with the TPP at **Appendix 3**.

8.1.4 In light of the assessments set out above, there are no material arboricultural reasons to suggest that the construction of the proposed plots and their associated private gardens will result in an unsustainable relationship with the retained tree stock, despite their relative or perceived proximity.

8.1.5 Based on the above considerations, I conclude that the overall arboricultural magnitude of the scheme is low, as defined at **Table 1**.

8.2 RECOMMENDATIONS

1. Ensure that the protective measures set out within this report and shown on the appended tree protection plan are erected prior to the commencement of works and followed stringently throughout construction.

Matthew Jones

Matthew Jones, BSc (Hons), RCArborA, MArborA
Arboricultural Association Registered Consultant

Licence No. RC207 | No. PR5437 | No. 782057

23 January 2026

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MDJ ARBORICULTURAL CONSULTANCY LIMITED

AA Registered CONSULTANT trees.org.uk

Arboricultural ASSOCIATION Professional Member

APPENDIX 1:
TREE SURVEY SCHEDULE

Brambles End
30 Blakes Farm Road
Southwater
West Sussex
RH13 9GJ

www.mdjac.co.uk | info@mdjac.co.uk

Company Registration No.
(England & Wales): 13900533

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Arboricultural ASSOCIATION
Professional Member

TREE SURVEY SCHEDULE

Site Address: Land at Tilletts Lane, Warnham, Horsham

Prepared For: The Lucas Broadbridge Heath Trust

Reference: MDJAC-24.025-TSS-01

Survey date: 14/06/2024

15 Windsor Close
Southwater
West Sussex
RH13 9XH

www.mdjac.co.uk | info@mdjac.co.uk

Company Registration No.
(England & Wales): 13900533

BS5837:2012 Tree Survey Schedule - Explanatory Notes

This document is based on a site visit and inspection undertaken by Matt Jones of MDJ Arboricultural Consultancy Ltd on 12 and 13 June 2024; deciduous trees were in full leaf.

The dimensions and assessments of the trees contained within this document reflect their condition at the time of the survey. I surveyed the trees from within the boundaries of the site only. The presence of additional physiological or structural defects that are only visible from restricted-access viewpoints cannot be discounted.

All trees were surveyed from ground level only, aided by the use of binoculars where considered necessary. The information contained within this document does not constitute a full hazard or risk assessment, and therefore MDJ Arboricultural Consultancy Ltd makes no guarantee of their stability of safety.

1. Tree no.
Individual number assigned to the tree for identification, commencing at 1.

2. TPO no.
Name/number of the TPO document providing statutory protection, where relevant.

3. Species
Common and botanical names are provided. Botanical names are shown in italics.

4. Height
Measured using a clinometer or laser rangefinder, given in metres.

5. Trunk diameter
Trunk diameter measured at 1.5m, unless stated otherwise, in accordance with Figure C.1 of British Standard BS 5837:2012 *"Trees in relation to design, demolition and construction - Recommendations"*.

6. Radial crown spread
Extent of branches from the centre of the trunk to the tips in the principal cardinal directions, rounded up to the closest half metre. For trees with symmetrical canopies, an average measurement is provided.

7. Crown clearance
Height above ground level of the lowest live branch, in metres.

8. Height to first branch
Height above ground level of the origin of the lowest branch, in metres.

9. Age class
Young: recently planted, or yet-to-be established specimen, usually below 10m in height, subject to species characteristics;
Semi-mature: a recently established specimen, usually with excurrent morphology, and yet-to-reach its ultimate proportions, subject to species characteristics;
Mature: fully established, complex, decurrent or broad branching structure, and has achieved or is nearing its ultimate proportions, subject to environmental conditions and species characteristics;
Over-mature: has reached maturity, but is showing symptoms of minor decline within its canopy;
Veteran: has a large trunk diameter for its species, but displays evidence of veteranisation such as fungal colonisation, decay, hollowing, and has commenced retrenchment within its canopy;
Ancient: exceeds the typical size and age of the species, with a very large trunk diameter; with extensive fungal

10. Physiology
General health and biological function, taking into account a healthy specimen of its size, age, species and location.

11. Structure
Structural condition of the tree, based on root (visible portions only), basal, trunk, stem and branch morphology.
Good: No morphological defects and no fungal or bacterial colonisation;
Fair: only minor morphological defects and a very low likelihood of failure; no pathological colonisation;
Poor: irremediable and significant morphological defects, leading to an increased likelihood of failure.

12. Comments
Comments have been made where appropriate.

13. BS5837:2012 Category
Category assigned to the tree, based on its arboricultural quality, arboricultural landscape value and potential, in accordance with Table 1 of British Standard BS 5837:2012 *"Trees in relation to design, demolition and construction -*

14. RPA radius
Radius of the root protection area, based on the trunk diameter of the tree, in accordance with Section 4.6 of British Standard BS 5837:2012 *"Trees in relation to design, demolition and construction - Recommendations"*.

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Table 1: Cascade chart for tree quality assessment

Category and definition	Criteria			Identification on plan
Trees unsuitable for retention				
Category 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	Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U 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			**Red**
Trees to be considered for retention				
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural values, including conservation**	
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)	**Green**
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and 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 higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	**Blue**
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	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 conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**Grey**

Client name: The Lucas Broadbridge Heath Trust
Site: Land at Tilletts Lane, Warnham
Reference: MDJAC-24.025-TSS-01
Survey date: 14/06/2024

Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T1	N/A	Common ash	14	500	N4.25m E4.25m S4.25m W4.25m	2.5	2.5	Mature	Poor	Fair	Field boundary tree. Heavily infected with Ash Dieback Disease. Of limited potential.	**C (2)**	6
T2	N/A	Common ash	14	600	N5m E4.25m S3.75m W5.25m	2.5	2.5	Mature	Poor	Poor	Field boundary tree. Heavily infected with Ash Dieback Disease. Moribund.	**U**	7.2
T3	N/A	Common ash	17	570	N5.5m E4.5m S4m W4.5m	6	4	Mature	Fair	Fair	Terminal component of tree line. Minor Ash Dieback Disease symptoms. Currently of moderate quality and landscape value.	**B (2)**	6.84
T4	N/A	English oak	14	420	N5.25m E3.5m S2m W2m	4	4	Early-mature	Good	Fair	Suppressed field boundary tree. Historical storm damage. Of moderate quality and landscape value.	**B (2)**	5.04
T5	N/A	English oak	18	870	N6m E8.5m S8m W7.5m	3	1.5	Mature	Good	Good	Field boundary specimen. Usual deadwood. Of high quality and landscape value. Essential component of boundary tree belt.	**A (12)**	10.44
T6	N/A	English oak	18	1070	N6.5m E9.5m S8.5m W6m	3	1.5	Late-mature	Fair	Good	Field boundary specimen. Secondary veteran features: storm damage, large deadwood, habitat spaces. Precautionary Veteran Tree Buffer Zone recommended. Of high quality and landscape value. Essential component of boundary tree belt.	**A (123)**	12.84
T7	N/A	English oak	18	990	N4.5m E11m S13m W7m	3	2	Mature	Good	Good	Field boundary specimen. Usual deadwood. Of high quality and landscape value. Essential component of boundary tree belt.	**A (12)**	11.88
T8	N/A	English oak	15	730	N3m E6.75m S9m W5m	3	2	Mature	Good	Fair	Suppressed by adjacent oak. Of moderate quality but of high landscape value.	**B (2)**	8.76
T9	N/A	English oak	19	1170	N9m E8m S6.5m W9.5m	4	2.5	Late-mature	Poor	Fair	Moderate dieback. Currently of moderate quality and of high landscape value, but of questionable long-term potential.	**C (2)**	14.04

(est.) denotes estimated dimensions

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Reference: MDJAC-24.025-TSS-01
Survey date: 14/06/2024

Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T10	N/A	English oak	13	765	N3m E4.5m S7m W8m	3	3	Mature	Good	Fair	Field boundary specimen. Suppressed by adjacent oak, but of greater potential. Of moderate quality and landscape value.	**B (1)**	9.18
T11	N/A	Hornbeam	16	590	N5.75m E7m S6.5m W6.75m	3.5	1.5	Mature	Good	Good	Mature field boundary specimen. Of moderate quality and landscape value.	**B (1)**	7.08
T12	N/A	English oak	16	750	N5.5m E10.5m S4m W5m	4	3	Mature	Good	Fair	Twin-stemmed from 2.5m. Ivy-covered. Typical field boundary specimen. Of moderate quality and landscape value.	**B (1)**	9
T13	N/A	English oak	18	770	N6m E11m S11m W8m	5	3	Mature	Good	Good	Field boundary specimen. Broad canopy, overtopping overs. Of moderate quality and landscape value.	**B (1)**	9.24
T14	N/A	English oak	13	590	N2.5m E7.75m S6.5m W2m	3	3	Mature	Good	Fair	Field boundary specimen. Suppressed. Of moderate quality and landscape value.	**B (2)**	7.08
T15	N/A	English oak	17	1000	N6.5m E8.5m S3.5m W8m	3	4	Mature	Poor	Fair	Fruiting body at base on E aspect: *Pseudoinonotus dryadeus*. Moderate dieback in canopy. Of moderate quality at present, but of reduced potential. Of high landscape value. Located opposite PRoW.	**C (2)**	12
T16	N/A	English oak	13	675	N2.5m E4m S6m W3m	4	4	Mature	Dead	Poor	Standing dead tree.	**U**	8.1
T17	N/A	English oak	13	600	N4m E5m S3m W5m	3	3	Mature	Good	Good	Within 1m of road edge, growing from embankment. Of moderate quality and landscape value.	**B (1)**	7.2
T18	N/A	Hornbeam	16	420	N5.25m E7.5m S6.5m W5.5m	3	2.5	Early-mature	Fair	Fair	Field boundary specimen. Slightly sparse canopy. Suppressed by surrounding oaks. Of moderate quality and landscape value.	**B (1)**	5.04

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Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T19	N/A	Common holly	7	165	N2m E2m S2m W2m	1.5	1.5	Semi-mature	Fair	Fair	Heavily suppressed. Of moderate quality but of low landscape value.	**C (1)**	1.98
T20	N/A	Hornbeam	11	550	N10.5m E7.25m S9.5m W7m	2.5	1	Mature	Good	Good	Broad, low canopy affording boundary screening. Of moderate quality and landscape value.	**B (1)**	6.6
T21	N/A	English oak	17	800	N7m E7m S7m W7.5m	4	3	Mature	Good	Fair	Mature field boundary tree. Usual deadwood. One of a number of similar specimens along the W boundary. Of high and landscape value.	**A (1)**	9.6
T22	N/A	English oak	17	780	N5.5m E5.75m S4.5m W8.5m	4	3	Mature	Good	Fair	Mature field boundary tree. Usual deadwood. Past branch failures evident. One of a number of similar specimens along the W boundary. Of high quality and landscape value.	**A (1)**	9.36
T23	N/A	English oak	18	850	N7m E8m S7.5m W7m	3	2.5	Mature	Good	Good	Field boundary tree. Dominant canopy. Of high quality and landscape value.	**A (1)**	10.2
T24	N/A	Hornbeam	13	580	N5m E6.75m S6m W5.5m	2.5	2.5	Mature	Good	Good	Ivy-covered. Of moderate quality and landscape value.	**B (1)**	6.96
T25	N/A	English oak	18	785	N6m E7.5m S3.75m W5m	4	4	Mature	Good	Fair	Suppressed by larger and more prominent trees. Significant component of field boundary. Of moderate quality and landscape value.	**B (12)**	9.42
T26	N/A	English oak	19	895	N7m E10m S8.75m W7.75m	3	3	Mature	Good	Good	Dominant constituent of boundary screening. Spreading canopy. Of high quality and landscape value.	**A (1)**	10.74
T27	N/A	English oak	16	825	N6.5m E9.75m S11m W12m	4	4	Mature	Good	Fair	Heavily ivy-covered. Dominant canopy. Appears to be of high quality and landscape value.	**A (12)**	9.9

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Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T28	N/A	English oak	16	710	N1.5m E8.75m S7.25m W6.75m	4	2	Mature	Good	Fair	Terminal component of the belt it stands in. Suppressed by adjacent oak; asymmetrical canopy results. Heavily ivy-covered. Of moderate quality and landscape value.	**B (1)**	8.52
T29	N/A	Common holly	9	300	N3.25m E3.25m S3.25m W3.25m	2	1.5	Mature	Good	Fair	Mature, self-seeded tree. Typical of size, age, species and location. Of moderate quality but of low landscape value due to small size.	**C (1)**	3.6
T30	N/A	English oak	16	1310	N7.25m E8.5m S8.5m W8.5m	1.5	1	Veteran	Veteran	Fair	Trunk measured over dense ivy. Unable to quantify potential veteran features throughout canopy. Crown senescence and retrenchment evident. Precautionary Veteran Tree Buffer Zone recommended. Appears to be of at least moderate quality and of high landscape value.	**A (23)**	19.65
T31	N/A	English oak	17	850	N9m E9.5m S4.5m W8.5m	3	2	Mature	Good	Good	Heavily ivy-covered. Dominant canopy. Appears to be of high quality and landscape value.	**A (1)**	10.2
T32	N/A	English oak	18	1450	N9m E13m S9m W10m	5	3	Late-mature	Good	Fair	Heavily ivy-covered. Demonstrable secondary veteran features, including large diameter and significant branch failures. Precautionary Veteran Tree Buffer Zone recommended. Appears to be of high quality and landscape value.	**A (23)**	15
T33	N/A	English oak	16	735	N5.5m E5m S3.75m W6.5m	3	3	Mature	Good	Fair	Mature field boundary tree. Heavily ivy-covered. Of moderate quality and landscape value.	**B (1)**	8.82
T34	N/A	English oak	18	880	N8.25m E8m S3.5m W6m	6	3	Late-mature	Poor	Fair	Large and mature field boundary tree. Basal assessment restricted by undergrowth, steep bank and ivy. Moderate dieback in upper canopy. No suggestion of fungal fruiting at time of survey. Currently of moderate quality and high landscape value, but likely of limited potential.	**B (2)**	10.56
T35	N/A	English oak	18	825	N3.5m E9m S9m W8.5m	6	3	Mature	Fair	Fair	Large and mature field boundary tree. Dominant canopy. Of moderate quality but of high landscape value.	**A (12)**	9.9

(est.) denotes estimated dimensions

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Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T36	N/A	Hornbeam	17	745	N9m E10.5m S11m W9.5m	3.5	3	Mature	Good	Good	Mature tree of similar size and stature as some of the notable oak trees along the same boundary. Of high quality and landscape value.	**A (2)**	8.94
T37	N/A	English oak	18	1040	N6m E8m S7.25m W7.5m	7	4	Mature	Fair	Fair	Terminal component of tree line. Ivy-covered trunk, obscures assessment. Sparse canopy. Historical branch failures. Currently of moderate quality but of high landscape value. Questionable long-term prognosis.	**B (2)**	12.48
T38	N/A	Common ash	18	440	N3.5m E3.5m S3.5m W3.5m	9	9	Early-mature	Fair	Fair	Off-site tree. Minor Ash Dieback Disease symptoms. Of moderate quality and landscape value.	**B (2)**	5.28
T39	N/A	Hornbeam	12	500	N8m E6m S7m W7m	5	5	Mature	Poor	Poor	Off-site tree. Assessed from distance. Measurements estimated. Sparse canopy. Of limited potential.	**U**	6
T40	N/A	English oak	9	450	N6m E6m S6m W3m	5	1.5	Mature	Good	Fair	Off-site tree. Assessed from distance. Measurements estimated. Truncated appearance. Stunted.	**B (2)**	5.4
T41	N/A	English oak	17	625	N7m E6m S7m W7m	5	2.5	Mature	Good	Good	Off-site tree. Assessed from distance. Measurements estimated. Appears to be of moderate quality and landscape value.	**B (1)**	7.5
T42	N/A	English oak	18	1050	N7m E12m S10m W12m	3	1	Late-mature	Good	Fair	Off-site tree. Assessed from distance. Measurements estimated. Of high quality and landscape value.	**A (12)**	12.6
T43	N/A	Field maple	11	6x 200 (est.)	N6m E5.5m S5.5m W5.75m	2	2.5	Mature	Good	Good	Multi-stemmed. Prominent in hedgerow separating fields. Of moderate quality and landscape value.	**B (2)**	5.88
T44	N/A	Hornbeam	12	630	N7m E7m S3m W7.25m	2	3	Mature	Good	Good	Cut back from utility lines on south aspect. Prominent in hedgerow separating fields. Of moderate quality and landscape value.	**B (1)**	7.56

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Tree Survey Schedule

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No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T45	N/A	Hornbeam	13	560	N7m E6.75m S7m W4.5m	2.5	2	Mature	Good	Good	Mature example of species. Of moderate quality and landscape value.	**B (1)**	6.72
T46	N/A	English oak	19	2x 450	N6m E6.25m S5.5m W5.5m	2	0.5	Mature	Good	Fair	Field boundary specimen. No access to base. Twin stemmed from ground. Heavily ivy-covered. Upright canopy form. Of moderate quality but of high landscape value.	**B (2)**	7.63
T47	N/A	Hornbeam	9	400	N6m E6m S2.5m W4m	3	2.5	Early-mature	Fair	Poor	Suppressed and overtopped by larger trees. Trunk defects. Squirrel damage. Minor dieback in canopy. Of moderate quality, but low relative to similar trees across the site. Of moderate landscape value.	**C (2)**	4.8
T48	N/A	Hornbeam	12	525	N7m E7.25m S6m W5.5m	2	2	Early-mature	Good	Fair	Of moderate quality and landscape value.	**B (2)**	6.3
T49	N/A	Hornbeam	11	520	N6m E6.25m S6m W6.25m	2.5	2.5	Early-mature	Good	Fair	Many prominent surface roots across existing machinery access point. Of moderate quality and landscape value.	**B (12)**	6.24
T50	N/A	English oak	16	950	N6.5m E6.5m S9m W7.5m	4	2	Mature	Poor	Fair	Inaccessible. Measurements estimated. Circa. 40% of canopy is dead on E aspect, likely root damage caused by ploughing. Remaining 60% appears slightly sparse. Currently of moderate quality but with questionable long-term retainability.	**B (2)**	11.4
T51	N/A	Hornbeam	11	700	N8m E9m S7.5m W8.5m	2.5	1.5	Mature	Good	Fair	Evidence of historical grazing and animal damage on lower trunk and root flare. Of moderate quality and landscape value.	**B (1)**	8.4
T52	N/A	English oak	13	990	N9.75m E7.5m S8m W7m	4	2	Mature	Poor	Fair	Field boundary specimen. Dieback in upper canopy and notably on north side. Agricultural machinery and land use likely a factor in decline. Currently of moderate quality but of high landscape value; of reduced potential.	**B (2)**	11.88
T53	N/A	Hornbeam	11	505	N7.75m E6m S6m W6m	3	2	Early-mature	Good	Good	Field boundary specimen. No actionable defects noted. Of moderate quality and landscape value.	**B (1)**	6.06

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Tree Survey Schedule

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No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T54	N/A	English oak	14	900	N7.5m E6m S8m W8.5m	4	2	Mature	Good	Good	Field boundary specimen. Dense blackthorn prevents basal assessment. Appears to be of high and landscape value.	**A (1)**	10.8
T55	N/A	Hornbeam	11	550	N6.25m E5m S5.25m W6m	2	2	Mature	Good	Fair	Field boundary specimen. Base inaccessible. Of moderate quality and landscape value.	**B (1)**	6.6
T56	N/A	English oak	12	525	N6.5m E6m S7.75m W5m	1.5	1	Early-mature	Fair	Fair	Hedgerow specimen. Base inaccessible. Slightly sparse internal canopy. Appears to be of moderate quality and landscape value.	**B (2)**	6.3
T57	N/A	Hornbeam	10	480	N7.5m E5.5m S7.5m W6m	1.5	1	Mature	Good	Good	Hedgerow specimen. Of moderate quality and landscape value.	**B (1)**	5.76
T58	N/A	English oak	21	1190	N9.5m E11m S9m W9m	2.5	0	Late-mature	Good	Fair	Animal burrowing at base. Historical basal wound now beginning to form a cavity. Large diameter storm damage in canopy. Patches of lichen on buttress roots. Dominant specimen along field boundary. Numerous secondary veteran features all suggestive of significant age. Readily visible in long-range views from all directions. Precautionary Veteran Tree Buffer Zone recommended. Of high quality and landscape value.	**A (123)**	14.28
T59	N/A	English oak	13	1100	N6m E6m S6m W6m	2	2	Late-mature	Good	Fair	Off-site tree. No access to base. Recently heavily 'topped'. Vigorous re-growth noted. Appears to be of moderate quality and landscape value.	**B (2)**	13.2
T60	N/A	Sycamore	10	375	N3.25m E3.5m S3.5m W3.5m	3	2.5	Semi-mature	Poor	Poor	Off-site. No basal assessment completed. Considerable dieback on central leading shoot. Of low quality but of moderate landscape value.	**C (1)**	4.5
T61	N/A	Common ash	10	425	N3.5m E3.5m S3.5m W3.5m	2.5	2	Early-mature	Good	Fair	Off-site tree. Measurements estimated. Canopy appears regularly pruned. Vigorous. Of moderate quality and landscape value.	**B (1)**	5.1

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No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T62	N/A	Common ash	12	450	N3.5m E4m S4m W3.5m	3.5	4	Early-mature	Good	Fair	Off-site tree. Measurements estimated. Canopy appears regularly pruned. Vigorous. Of moderate quality and landscape value.	**B (1)**	5.4
T63	N/A	Common ash	15	525	N6.5m E6.75m S4.5m W6m	3	2.5	Early-mature	Fair	Fair	Ivy-covered. Restricts assessment. Generally vigorous with only minor suggestions of Ash Dieback Disease. Of moderate quality and landscape value.	**B (12)**	6.3
T64	N/A	English oak	15	540	N3.25m E6.5m S6m W6.5m	3	3	Early-mature	Fair	Fair	Ivy-covered. Restricts assessment. Of moderate quality and landscape value.	**B (12)**	6.48
T65	N/A	Blackthorn	6	130	N1.5m E3.25m S1m W1.5m	1	1	Semi-mature	Fair	Fair	Small tree. Provides screening. Of moderate quality but of low landscape value.	**C (1)**	1.56
T66	N/A	English oak	12	415	N3m E5m S5.25m W4.5m	4	2	Early-mature	Good	Fair	No actionable defects. Of moderate quality but of high landscape value due to proximity to village green.	**B (12)**	4.98
T67	N/A	Common ash	15	500	N7m E5.5m S5.75m W6m	2	1.5	Early-mature	Fair	Fair	Slightly etiolated appearance. Sparse inner canopy. Of moderate quality but of high landscape value due to location on village green.	**B (12)**	6
T68	N/A	Sycamore	13	450	N5m E2.5m S6.5m W4.25m	2	2	Early-mature	Fair	Fair	Previously crown lifted. Deadwood. Of moderate quality but of high landscape value due to location on village green.	**B (2)**	5.4
T69	N/A	White poplar	19	680	N9.25m E7m S7.25m W5.25m	2.5	0.5	Mature	Good	Good	Prominent tree on village green. Of high quality but of a generally unfavourable species, particularly in old age, due to mechanical characteristics and wood properties. Of high quality and landscape value.	**A (2)**	8.16
T70	N/A	English oak	13	425	N5m E4.5m S7m W6.5m	3	2.5	Early-mature	Good	Good	Member of a linear group of boundary trees. Base inaccessible. Of moderate quality and landscape value.	**B (1)**	5.1

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No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
T71	N/A	English oak	17	525	N8m E5.5m S6.5m W7.75m	3	2.5	Early-mature	Good	Good	Member of a linear group of boundary trees. Base inaccessible. Of moderate quality and landscape value.	**B (1)**	6.3
T72	N/A	English oak	13	400	N4m E4m S7m W7.5m	3	2.5	Early-mature	Good	Good	Member of a linear group of boundary trees. Base inaccessible. Of moderate quality and landscape value.	**B (1)**	4.8
T73	N/A	Sycamore	17	370 250 340 370 300	N5m E6.25m S7.25m W6.5m	3	2	Mature	Good	Fair	Multi-stemmed. Of moderate quality and landscape value.	**B (1)**	8.83
T74	N/A	English oak	17	1185	N8m E7.75m S7m W6m	2.5	2.5	Veteran	Veteran	Fair	Fungal fruiting bodies at base: *Armillaria spp.* Prominent buttress root formation. Twin-stemmed. Historical branch failures and associated decay now forming cavities and habitat spaces. Minor crown dieback and natural retrenchment. Of high quality and landscape value.	**A (23)**	17.77
T75	N/A	Red oak	12	400	N6m E5.75m S6.5m W5.5m	2.5	2	Early-mature	Good	Good	Off-site tree. Of moderate quality and landscape value.	**B (1)**	4.8
T76	N/A	Field maple	11	540	N7.5m E7.25m S7m W5.5m	2.5	1.5	Mature	Good	Good	Off-site tree. Of moderate quality and landscape value.	**B (1)**	6.48
Groups of trees													
G1	N/A	Field maple and Hornbeam	10-12 (est.)	350-400 (est.)	See Plans	2 (est.)	2 (est.)	Mature	Good	Fair	Off-site group of trees. Inaccessible due to site conditions. Significant boundary trees. Of moderate quality and landscape value.	**B (2)**	4.8
G2	N/A	Various	8-12 (est.)	250-500 (est.)	See Plans	2	0	Early-mature	Good	Fair	Group of boundary trees. Species include field maple, bay laurel and English oak. Not included on topographical survey. Inaccessible. Collectively forming effective screening.	**B (2)**	6
G3	N/A	Field maple	8-10 (est.)	250-325 (est.)	See Plans	2	1	Early-mature	Good	Fair	Group of boundary trees. Not included on topographical survey. Inaccessible. Collectively forming effective screening.	**B (2)**	3.9

(est.) denotes estimated dimensions

Client name: The Lucas Broadbridge Heath Trust
Site: Land at Tilletts Lane, Warnham
Reference: MDJAC-24.025-TSS-01
Survey date: 14/06/2024

Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
G4	N/A	Various	2-5 (est.)	75-125 (est.)	See Plans	0.5	0	Young	Good	Fair	Field boundary group of trees forming hedgerow. Species include field maple, hawthorn, blackthorn, dog rose and English elm. Predominantly blackthorn and field maple. Effective boundary screening.	**C (1)**	1.5
G5	N/A	Various	2-5 (est.)	75-125 (est.)	See Plans	0.25	0	Young	Good	Fair	Field boundary group of trees forming hedgerow. Species include blackthorn, field maple, haze, hawthorn, English oak and goat willow. Predominantly blackthorn. Effective screening between fields.	**C (1)**	1.5
G6	N/A	Various	3-5 (est.)	75-100 (est.)	See Plans	1	1	Young	Good	Fair	Mixed-species group of trees. Supplemented by additional planting. Species include field maple, sycamore, hawthorn, ash, wild cherry, plum, cherry laurel and blackthorn. Forms partial boundary screening. Readily replicable.	**C (1)**	1.2
G7	N/A	Various	3-8 (est.)	75-300 (est.)	See Plans	1	1	Semi-mature	Good	Fair	Mixed-species group of young and semi-mature trees forming a field boundary. Species include field maple, ash, blackthorn and English oak. Of moderate quality but of low landscape value.	**C (1)**	3.6
G8	N/A	Various	6-18 (est.)	150-425 (est.)	See Plans	1.5	1.5	Early-mature	Mixed	Good	Mixed-species belt of trees. Species include field maple, sycamore, hazel, hawthorn, cherry laurel, blackthorn, English oak and English elm. Predominantly low-level vegetation with sporadic larger tree. Primarily comprises elm and blackthorn at northern end, before reverting to predominantly field maple towards south. Generally larger trees are to the south of the group. Dead elms throughout, caused by Dutch Elm Disease. Collectively of moderate quality but of high landscape value.	**B (2)**	5.1
G9	**TPO 1532**	Field maple and English oak	15-20 (est.)	400-1410	See Plans	3	3	Late-mature	Good	Good	Off-site group of mature and late-mature oaks. Understorey comprises hawthorn, field maple, yew and holly. Of high quality and landscape value.	**A (123)**	15
G10	N/A	Field maple and Sycamore	11-12 (est.)	300-375 (est.)	See Plans	1.5	1.5	Early-mature	Good	Fair	Pair of former self-seeded trees denoting historical field boundary. Of moderate quality and landscape value.	**B (2)**	6.3
G11	N/A	English oak	16-19 (est.)	550 (est., avg.)	See Plans	3	3	Mature	Fair	Fair	Off-site group of oak trees at northern end of Tilletts Lane. West side of road. Belt of similarly sized trees forming a continuous screen and contributing to the verdant character of the area. Of high quality and landscape value.	**A (2)**	6.6
Hedges													

(est.) denotes estimated dimensions

Client name: The Lucas Broadbridge Heath Trust
Site: Land at Tilletts Lane, Warnham
Reference: MDJAC-24.025-TSS-01
Survey date: 14/06/2024

Tree Survey Schedule

MDJ ARBORICULTURAL CONSULTANCY LIMITED

No.	TPO no.	Common name	Height [m]	Trunk diameter [mm]	Radial Crown Spread [m]	Height to 1st Branch [m]	Crown Clear-ance [m]	Age class	Physi-ology	Structure	Comments	Cate-gory	RPA Radius [m]
H1	N/A	Field maple, Common hazel, Common hawthorn, Blackthorn	2.5	75-100 (est.)	3	0	0	Young	Good	Fair	Mixed-species hedge. Species include field maple, hazel, hawthorn and blackthorn. Appears to be regularly maintained.	**C (1)**	1.2

(est.) denotes estimated dimensions

MDJ ARBORICULTURAL CONSULTANCY LIMITED

AA Registered CONSULTANT trees.org.uk

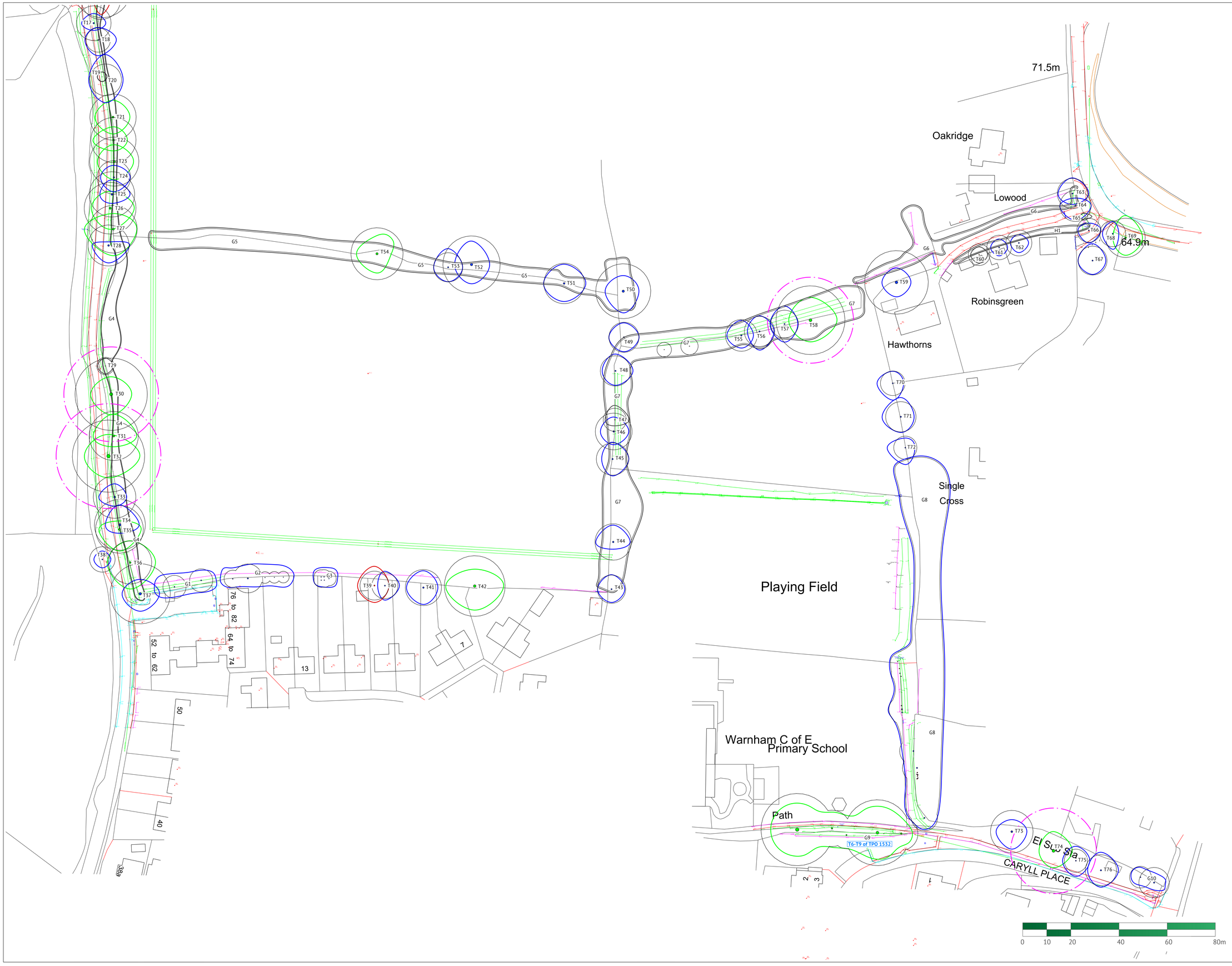
Arboricultural ASSOCIATION Professional Member

APPENDIX 2:
TREE CONSTRAINTS PLAN (TCP)

Brambles End
30 Blakes Farm Road
Southwater
West Sussex
RH13 9GJ

www.mdjac.co.uk | info@mdjac.co.uk

Company Registration No.
(England & Wales): 13900533



BS5837:2012 Categorisation

Trees are categorised in line with Table 1 of the British Standard *'Trees in relation to design, demolition and construction - Recommendations'*, according to their health, condition, quality, value and potential.

Category 'U': **Trees unlikely to survive 10 years; unsuitable for retention**

Category 'A': **Trees of high quality and value and of long-term potential**

Category 'B': **Trees of moderate quality and value and of medium-term potential**

Category 'C':- **Trees of low quality and value and of short-term potential**

The default position should be to 'design-out' any impacts to Category 'A' and 'B' trees.

Category 'C' trees will not normally be retained where they impose a significant constraint on development, but their retention can be beneficial in certain circumstances.

Category 'U' trees are not suitable for retention, irrespective of potential re-development.

Root Protection Areas (RPAs)

The RPA is a formulaic design tool included within BS5837:2012. It is based on the diameter of the trunk(s) at 1.5m above ground level and is the suggested minimum soil volume required to sustain the tree.

The model provides a starting point for the assessment of likely root spread and morphology, and allows an assessment of likely impacts to be made in a consistent manner. Where significant rooting barriers are observed or suspected, the shape of the RPA may be modified to reflect likely root distribution, but the total area (m^2) is not amended.

BS5837:2012 recommends that the RPAs of retained trees should be protected from disturbance throughout development.

- Category 'A' tree
- Category 'B' tree
- Category 'C' tree
- Category 'U' tree
- Root Protection Areas (RPAs)
- Veteran Tree Buffer Zone

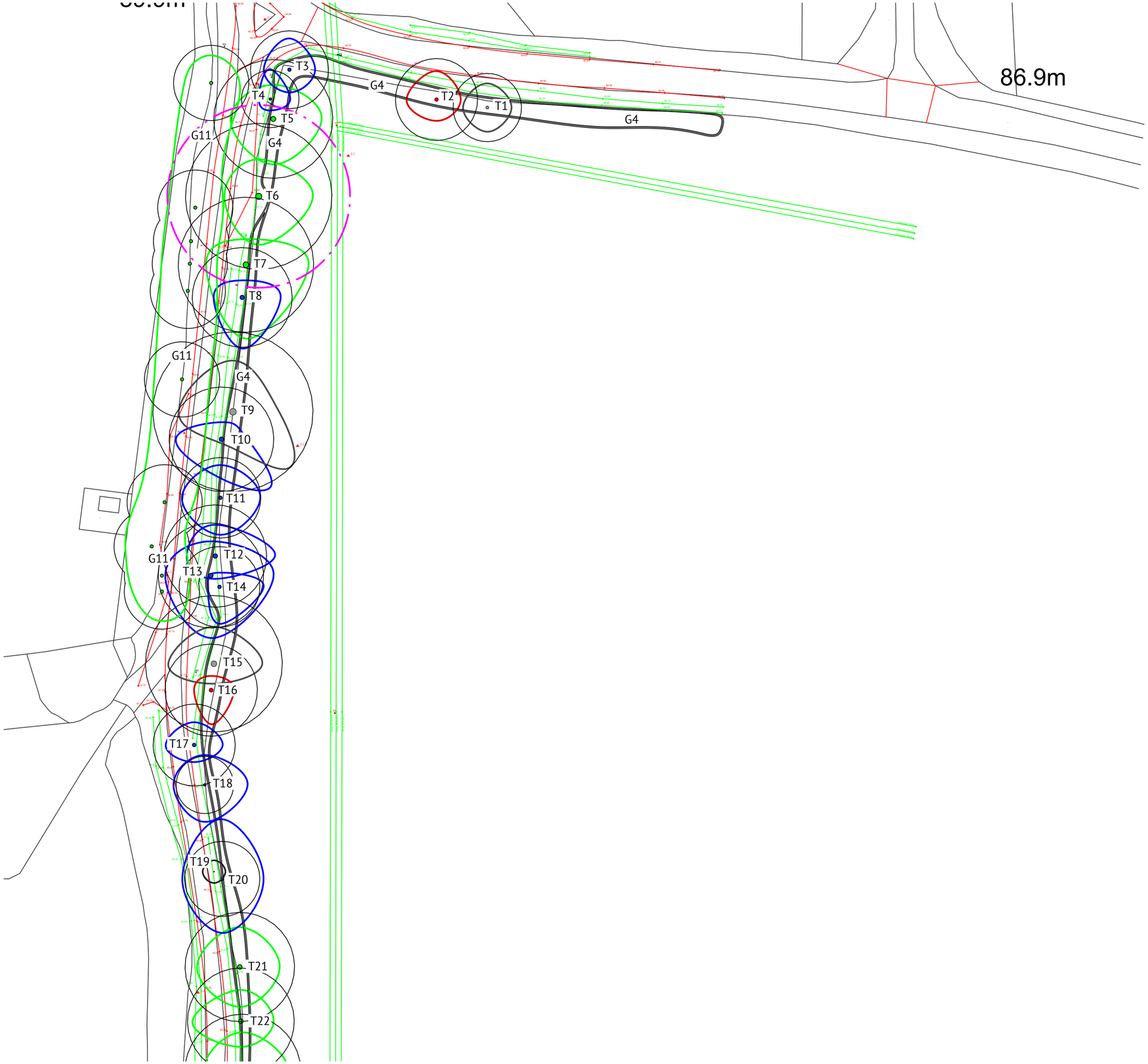
N

Drawing History

Rev	Date	Comments

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Site:	Land at Tilletts Lane, Warnham, Horsham
Client:	The Lucas Broadbridge Heath Trust
Title:	Tree Constraints Plan (TCP)
Sheet:	**1 of 2 (South)**
Date:	June 2024
Dwg No:	MDJAC-24.025-TCP-01.1
Scale:	1:500 @ A0



0 5 10 20 30 40m

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BS5837:2012 recommends that the RPAs of retained trees should be protected from disturbance throughout development.

Category 'A' tree

Category 'B' tree

Category 'C' tree

Category 'U' tree

Root Protection Areas (RPAs)

Veteran Tree Buffer Zone

N

Drawing History

Rev	Date	Comments

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Site:	Land at Tilletts Lane, Warnham, Horsham
Client:	The Lucas Broadbridge Heath Trust
Title:	Tree Constraints Plan (TCP)
Sheet:	**2 of 2 (North)**
Date:	June 2024
Dwg No:	MDJAC-24.025-TCP-01.2
Scale:	1:500 @ A2

MDJ ARBORICULTURAL CONSULTANCY LIMITED

AA Registered CONSULTANT trees.org.uk

Arboricultural ASSOCIATION Professional Member

APPENDIX 3:
TREE PROTECTION PLAN (TPP)

Brambles End
30 Blakes Farm Road
Southwater
West Sussex
RH13 9GJ

www.mdjac.co.uk | info@mdjac.co.uk

Company Registration No.
(England & Wales): 13900533

Construction Exclusion Zone (CEZ)

(10m buffer)

Area of G4 to be removed to facilitate principal vehicular entrance

Indicative tree planting. See proposed landscape masterplan submitted separately for full details

Veteran tree buffer zones

Existing Ordinary Watercourse maintained by Broadbridge Heath Trust
Levels: 67.19 / 66.62 m AOD
Level: 66.34 m AOD

Easement buffer from top of bank less than 3m in this location to avoid impeding on the wildlife corridor

Construction Exclusion Zone (CEZ)

Excavation for new pedestrial link to be undertaken sensitively, under arboricultural supervision. Details to be finalised at detailed design stage

Flow Control Chamber [Orifice] Design Flow: 6 l/s Design Head: 1.3m Orifice Size: Ø50mm

Basin 1 CL: 68.60 IL: 67.40 Basin 1 Cut: 432m³ Fill: 3m³ Attenuation Volume: 360m³ Invert: 67.40m Depth: 1.2m

Flow Control Chamber [Orifice] Design Flow: 10.5 l/s Design Head: 1.2m Orifice size: Ø69mm

Basin 2 Cut: 356m³ Fill: 34m³ Volume: 424m³ Invert: 66.40m Depth: 1.2m

LAP

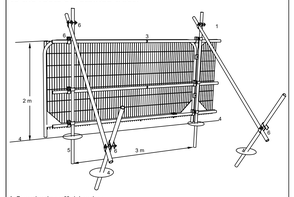
LEAP

Pumping Station

0 5 10 20 30 40m

Tree Protection Fencing (TPF)

The default specification comprises a scaffold framework, onto which 2m tall, welded mesh panels such as 'heras' panels will be secured to uprights and cross-members with suitable wire ties. Upright scaffold posts will be driven into the ground to a minimum depth of 600mm, taking care to avoid damage to the roots of retained trees.



1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Temporary Ground Protection (TGP)

Exposed areas between the tree protection fencing and the edge of the RPAs of retained trees will be protected using temporary ground boarding selected to protect against anticipated loading.

https://www.ground-guards.co.uk/

Category 'A' tree
Category 'B' tree
Category 'C' tree
Category 'U' tree
Root Protection Areas (RPAs)
Veteran Tree Buffer Zone
Tree Protection Fencing (TPF)
Const. Excl. Zone (CEZ)
Temp. Ground Protection
Sensitive Excavation

Drawing History

Rev	Date	Comments
A	23/01/2026	Updated drainage strategy added

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Site:	Land at Tilletts Lane, Warnham, Horsham
Client:	The Lucas Broadbridge Heath Trust
Title:	Tree Protection Plan (TPP)
Sheet:	**1 of 2 (West)**
1st Issued:	June 2025
Dwg No:	MDJAC-24.025-TPP-01.1A
Scale:	1:250 @ A0

Dashed dark blue line highlights sections of new drainage strategy to be implemented by pit-to-to 'moling' at circa. 4m below existing ground levels, to minimise disruption to the RPA of T59.

First 750mm of each pit to be excavated manually under arboricultural supervision

Proposed road alignment to be founded above existing ground levels using a cellular confinement system to avoid extensive excavation; see AIAPMS

Veteran tree buffer zone

Construction Exclusion Zone (CEZ)

Area of soil improvement works to include aeration and amelioration to be implemented prior to commencement of works

Area of temporary ground protection to be erected prior to commencement; see inset panel

Excavation for footpath (limited in depth) to be undertaken sensitively under arboricultural supervision

Section of existing footpath to be formalised. To be installed no deeper than existing sub base.

Lowood

Robinsgreen

Hawthorns

Village Green

Single Cross

Apple Garth

The Cottage

Playing Field

Orchard

Pumping Station

Parking for Football Pitches

LEAP

Attenuation Basin 3
Cut: 598m³
Fill: 43m³
Volume: 802m³
Invert: 64.50m
Depth: 1.2m

Flow Control Chamber [Hydrobrake]
Design Flow: 8.6 l/s
Design Head: 1.2m

Flow Control Chamber [Orifice]
Design Flow: 10.5 l/s
Design Head: 1.2m
Orifice size: Ø69mm

Ex SW Manhole (Replace with 1500D S35)
CL: 63.96
IL: 62.96

0 5 10 20 30 40m

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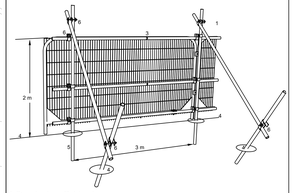

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4 Ground level
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https://www.ground-guards.co.uk/

- Category 'A' tree
- Category 'B' tree
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- Root Protection Areas (RPAs)
- Veteran Tree Buffer Zone
- Tree Protection Fencing (TPF)
- Const. Excl. Zone (CEZ)
- Temp. Ground Protection
- Sensitive Excavation

Drawing History

Rev	Date	Comments
A	23/01/2026	Updated drainage strategy added

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Site:	Land at Tilletts Lane, Warnham, Horsham
Client:	The Lucas Broadbridge Heath Trust
Title:	Tree Protection Plan (TPP)
Sheet:	**2 of 2 (East)**
1st Issued:	June 2025
Dwg No:	MDJAC-24.025-TPP-01.2A
Scale:	1:250 @ A0