



ARBORICULTURAL PLANNING CONSULTANTS

THE OLD POST OFFICE
DORKING ROAD
TADWORTH
SURREY KT20 5SA

Tel: (01737) 813058
E-mail: sja@sjatrees.co.uk

Directors: Simon R. M. Jones Dip. Arb. (RFS), FArborA.,
RCArborA. (Managing)
Frank P. S. Spooner BSc (Hons), MArborA, TechCert
(ArborA), RCArborA. (Operations)

Arboricultural Implications Report

Proposed development at

Officers' Meadow

Shenfield

Part of allocated site R03: Land North of Shenfield



September 2023

Ref. SJA air 22579-01

SUMMARY

S1. On the basis of our assessment, we conclude that the arboricultural impact of this scheme is of low magnitude, as defined according to the categories set out in **Table 1** of this report.

S2. There are no incursions into the adjacent Ancient Woodland; the incursion into the 15m Ancient Woodland buffer is by a trodden-earth footpath, dressed with woodchip if required, which will maintain a semi-natural habitat, and is situated outside of the RPAs of trees within the woodland. Consequently, the proposals will not result in any loss of Ancient Woodland, will avoid any potentially harmful effects on the woodland, and will comply with current UK Planning and development guidance.

S3. There are no incursions into the adjacent Ancient Woodland; the incursion into the 15m Ancient Woodland buffer is by a trodden-earth footpath, dressed with woodchip if required, which will maintain a semi-natural habitat, and is situated outside of the RPAs of trees within the woodland. Consequently, the proposals will not result in any loss of Ancient Woodland, will avoid any potentially harmful effects on the woodland, and will comply with current UK Planning and development guidance.

S4. Our assessment of the impacts of the proposals on the existing trees concludes that no category 'A' and no trees of high landscape value are to be removed. None of the main arboricultural features of the site, nor any veteran trees are to be removed. The proposed removal of 34 individual trees and 13 groups of trees will represent no alteration to the main arboricultural features of the site, only a minor alteration to the overall arboricultural character of the site and will not have a significant adverse impact on the arboricultural character and appearance of the local landscape.

S5. The proposed pruning is minor in extent, will not detract from the health or appearance of these trees, and complies with current British Standards.

S6. The incursions into the Root Protection Areas of trees to be retained are justifiable, and subject to implementation of the measures recommended on the Tree Protection Plan and set out at **Appendix 1**, no significant or long-term damage to their root systems or rooting environments will occur.

S7. None of the proposed dwellings, apartments, private gardens or amenity space are likely to be shaded by retained trees to the extent that this will interfere with their reasonable use or enjoyment by incoming occupiers, which might otherwise lead to pressure on the Local Planning Authority to permit felling or severe pruning that it could not reasonably resist.

S8. As the proposed development will not result in the removal of trees which make a positive contribution to the local landscape and/or biodiversity or which have significant amenity value, it complies with Policy NE03 of the Brentwood Borough Council Local Plan (2016-2033).

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1. INTRODUCTION AND BACKGROUND INFORMATION

1.1. Instructions

1.1.1. SJAtrees has been instructed by Croudace Homes UK Ltd. to visit Officers' Meadow, Chelmsford Road, Shenfield, Essex and to survey the trees growing on or immediately adjacent to this site.

1.1.2. We are further asked to identify which trees are worthy of retention within a proposed development of the site; to assess the implications of the development proposals on these specimens, and to advise how they should be protected from unacceptable damage during construction.

1.2. Scope of report

1.2.1. This report and its appendices reflect the scope of our instructions, as set out above. It is intended to accompany a full planning application to be submitted to Brentwood Borough Council ("the LPA") and complies with local validation requirements.

1.2.2. It complies also with the recommendations of British Standard BS 5837:2012, *Trees in relation to design, demolition and construction – Recommendations* ('BS 5837'). However, the British Standard is not a Code of Practice that consists of written rules outlining how actions or decision must be taken and it "should not be quoted as if it were a specification¹"; it is a set of recommendations intended to "assist decision-making with regard to existing and proposed trees in the context of design, demolition and construction²". It does not form part of planning policy; and it is neither mentioned nor referenced in Policy NE03 of the Brentwood Local Plan (2016-2033) or the accompanying text, but it is a material consideration to which weight is likely to be given.

1 British Standard BS 5837:2012. *Trees in relation to design, demolition and construction – Recommendations*; Foreword. The British Standards Institution.

2 Ibid., p.1, Introduction.

1.2.3. The proposed development comprises the hybrid planning application for 344 units including 35% affordable housing, safeguarded land for a 2FE primary school and early years facility, public open space and associated landscaping, drainage and highways infrastructure.

1.2.4. This report summarises and sets out the main conclusions of the baseline data collected during the tree survey and identifies those trees or groups of trees whose removal could result in a significant adverse impact on the character or appearance of the local area (Section 3). It then details and assesses the impacts of the proposed development on the adjacent Ancient Woodland (section 4) and on individual trees and groups of trees, including those to be removed (Section 5), those to be pruned (Section 6), those which might incur root damage that might threaten their viability (Section 7) and those that might become under pressure for removal after occupation because of shading (Section 8). A summary and conclusions, with regard to local planning policy, are presented in Section 9.

1.3. Planning history

1.3.1. The site forms part of the Strategic Site R03 ('Land North of Shenfield') as allocated in the Brentwood Local Plan 2016-2033 (adopted March 2022) which is being brought forward by a consortium of developers to provide residential-led mixed-use development.

1.4. Site inspection

1.4.1. A site visit and tree inspection were undertaken by Nigel Kirby and Tom Southgate of SJA trees between Tuesday the 6th and Thursday the 8th of December 2022. Weather conditions at the time were clear, dry and bright. Deciduous trees were in partial leaf.

1.5. Site description

1.5.1. The site is 21.32ha in size and is located to the south-east of Chelmsford Road (A1023). The east boundary abuts an adjacent field that also constitutes part of the Strategic Site R03 allocated in the Brentwood Local Plan. The south-east boundary lies adjacent to, and parallel with, a railway line whilst the south and south-west boundaries are both contiguous with surrounding agricultural fields. Part of the north-

west boundary adjoins the rear gardens and residential curtilages of adjacent dwellings located along Chelmsford Road whilst the remainder adjoins Chelmsford Road directly.



Figure 1: Site location shown on Google aerial image.

1.5.2. The site is on partially undulating ground and comprises tree-lined agricultural fields. A woodland ('Arnold's Wood') is incorporated within and adjacent to the east site boundary.

1.5.3. Historical maps indicate that the site has been undeveloped agricultural land since the time of the earliest Ordnance Survey (OS) map dating from 1871 to 1873. Along with the existing fields, this map also shows the presence of Arnold Wood and comparison with later OS maps indicates that, for the most part, the patterns and boundaries of both the fields and woodland have remained similar, if not the same, up to the present day.

1.5.4. The large, veteran oak tree (no. 151) growing along an internal field boundary appears to be at the same location as that shown on the earliest OS map; and is of sufficient size and age that it could possibly be the same tree. However, it should equally be noted that this individual, along with all other trees growing along the internal field boundaries, are not present on subsequent maps possibly suggesting that these were in fact felled at some point after 1873 or, alternatively, were purposely omitted due to an idiosyncrasy in the way subsequent maps were presented.

1.6. Soil type

1.6.1. The British Geological Survey Solid and Drift Geology map of the area indicates that the south-west half of the site overlies superficial deposits of clay, silt, sand and gravel above a bedrock of London Clay, whilst the north-east half overlies a bedrock of Claygate member-clay, silt and sand.

1.6.2. The class of soil in this area is recorded on the Department for Environment, Food & Rural Affairs ('Defra') Magic website as comprising slowly permeable, seasonally wet, slightly acid but base-rich loam and clay soils.

1.6.3. We are not aware of a site investigation or soil analysis having been undertaken; but the class of soil and the indications of the British Geological Survey map suggest that the soil is unlikely to be particularly susceptible to compaction.

1.7. Statutory controls

1.7.1. Up to 47 of the trees on the site are covered by a tree preservation order (TPO). This is TPO no. 27 of 1996 made by Brentwood Borough Council that protects 13 individual trees, and three groups of trees which contain 43 individuals, within the site. However, since the TPO was made some of the trees protected by it have failed or been removed and thus why only 47 are identified within our tree survey schedule at **Appendix 2** and on the accompanying tree locations and tree protection plans.

1.7.2. The site is not within a conservation area, and therefore there are no constraints relating to existing trees in this regard.

1.7.3. There are no hedgerows on site that are over 30 years in age and have a continuous length of 20m or more that could meet the criteria to be deemed "Important" in the context of the landscape and wildlife criteria of the Hedgerows Regulations, 1997³.

³ The Hedgerows Regulations 1997; STATUTORY INSTRUMENTS 1997 No. 1160.

1.8. Non-statutory designations

1.8.1. As shown at **Figure 2** below, the woodland within and adjacent to the east boundary of the site (Arnold's Wood) is classified as 'Ancient'. Ancient Woodland is defined as "any area that's been wooded continuously since at least 1600 AD" and is considered an important and irreplaceable habitat. The National Planning Policy Framework (see below) states that development resulting in the loss or deterioration of Ancient Woodland should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists.

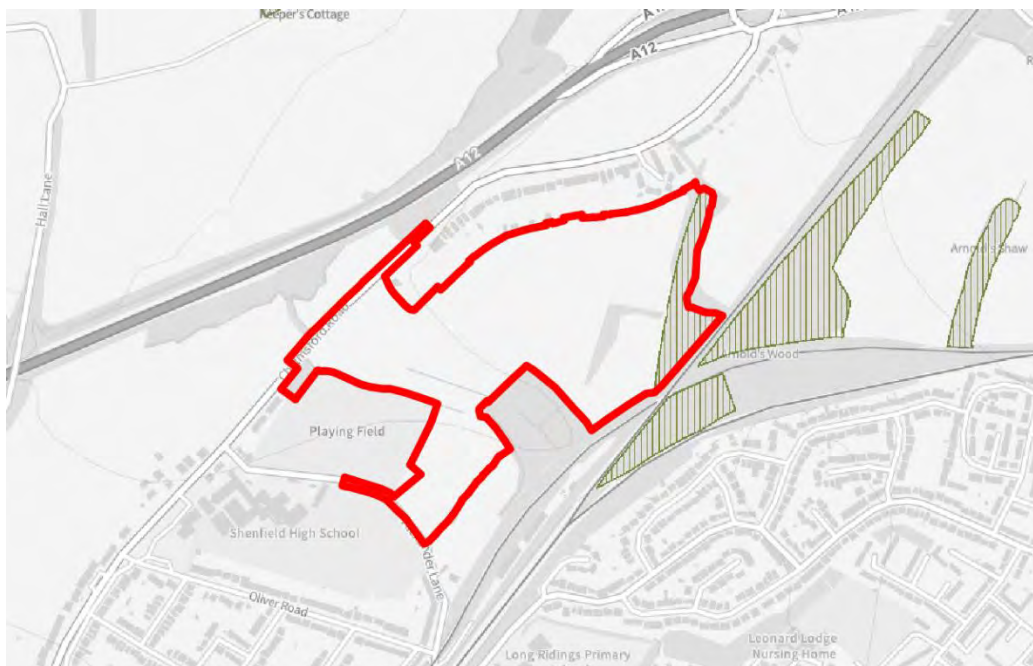


Figure 2: 'Magic' map image showing Ancient Woodland (indicated by the green hatch) within & adjacent to the site.

1.8.2. Current UK planning and development guidance in relation to the development of sites adjacent to Ancient Woodland⁴ is that to avoid negative effects on Ancient Woodland an appropriate buffer zone of semi-natural habitat of at least 15m should be left between the development and the woodland, but if other impacts are likely to extend beyond this distance, a larger buffer may be needed.

⁴ Ancient woodland and veteran trees: protecting them from development (14 January 2022). www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences

1.8.3. There is one oak tree (no. 151) growing close to the north-west boundary of the site which, despite not being included in the Woodland Trust Ancient Tree Inventory⁵, displays attributes consistent with it being 'Veteran'. Ancient and veteran trees are also considered to be irreplaceable habitats, and contribute to a site's biodiversity, cultural and heritage value, and the National Planning Policy Framework (see below) states that development resulting in the loss or deterioration of ancient or veteran trees should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists. Current government guidance states that ancient or veteran trees should be protected from root damage by inclusion of a buffer zone at least 15 times larger than the diameter of the trunk, or 5m from the edge of the tree's canopy if that area is larger.

⁵ <https://ati.woodlandtrust.org.uk/>

2. METHODOLOGY

2.1. National policy context

2.1.1. Under Section 197 of the Town and Country Planning Act 1990, local authorities have a statutory duty to consider the protection and planting of trees when considering planning applications. The effects of proposed development on trees are therefore a material consideration, and this is normally reflected in local planning policies.

2.1.2. The National Planning Policy Framework ('NPPF')⁶ sets out the Government's planning policies for England and how these should be applied in both plan and decision-making. Paragraph 2 makes it clear that the NPPF is itself a material consideration in the determination of planning application. Paragraph 11 states that **"Plans and decisions should apply a presumption in favour of sustainable development."**

2.1.3. In paragraph 130, within Section 12 "Achieving well-designed places" the NPPF states: **"Planning policies and decisions should ensure that developments:**

- a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;**
- b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;**
- c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);**
- d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;**

⁶ The National Planning Policy Framework (NPPF) (July 2021) Ministry of Housing, Communities & Local Government

e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.”

2.1.4. Paragraph 131 in this section states: **“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.”**

2.1.5. The section titled Planning for climate change states at paragraph 153: **“Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.”**

2.1.6. In paragraph 174, within Section 15 “Conserving and enhancing the natural environment” the NPPF states: **“Planning policies and decisions should contribute to and enhance the natural and local environment by:**

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

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and

other benefits of the best and most versatile agricultural land, and of trees and woodland;

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

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

2.1.7. In paragraph 180, under the 'Habitats and biodiversity' section, the NPPF states: **"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 policy context

2.2.1. Local planning policies are contained in the Brentwood Borough Council Local Plan 2016-2033 (adopted March 2022).

2.2.2. The relevant section of Policy NE03: Trees, Woodlands, Hedgerows, of the Local Plan states, *inter alia*:

"NE03. ...proposals should, so far as possible and practicable, seek to retain existing trees, woodlands and hedgerows where they make a positive contribution to the local landscape and/or biodiversity or which have significant amenity value. Wherever possible and appropriate, landscaping schemes should take account of and incorporate these existing features in the scheme and where any loss is unavoidable, incorporate measures to compensate for their loss."

2.2.3. The relevant section of Policy R03 Land North of Shenfield, states:

"R03. ...Development should:

...i. protect and where appropriate enhance the Local Wildlife Site (Arnold's Wood)..."

2.3. Neighbourhood policy context

2.3.1. At the time of writing there is no Neighbourhood Plan covering the area within which the site is found.

2.4. Tree survey and baseline information

2.4.1. We surveyed individual trees with trunk diameters of 75mm and above⁷, trees with trunk diameters of 150mm and above growing in groups or woodlands, and shrub masses, hedges and hedgerows⁸ growing within or immediately adjacent to the site; and recorded their locations, species, dimensions, ages, condition, and visual importance in accordance with BS 5837 recommendations.

2.4.2. The baseline information collected during the site survey was recorded on site using a hand-held digital device. This information was then imported into an Excel spreadsheet and used to produce the tree survey schedule at **Appendix 2**. The numbers assigned to the trees in the tree survey schedule correspond with those shown on the appended tree protection plan.

2.4.3. We surveyed trees as groups where they have grown together to form cohesive arboricultural features, either aerodynamically (trees that provide companion shelter), visually (e.g., avenues or screens) or culturally⁹. However, where it might be necessary to differentiate between specific trees within these groups, we also surveyed these individually.

2.4.4. We inspected the trees from the ground only, aided by binoculars as appropriate, but did not climb them. We took no samples of wood, roots or fungi. We did not undertake a full hazard or risk assessment of the trees, and therefore can give no guarantee, either expressed or implied, of their safety or stability.

⁷ BS 5837, paragraph 4.2.4 b), recommends that all trees over 75mm stem diameter should be included in a pre-planning land and tree survey.

⁸ Ibid., 4.4.2.7

⁹ Ibid., 4.4.2.3

2.4.5. We have categorised the trees in accordance with BS 5837, and details of the criteria used for this process can be found in the notes that accompany the tree survey schedule. We applied this methodology in line with the NPPF's presumption in favour of sustainable development, giving greater weighting to the contribution of a tree to the character and appearance of the local landscape, to amenity, or to biodiversity, where its removal might have a significant adverse impact on these factors.

2.5. Tree constraints

2.5.1. In line with the NPPF's presumption in favour of sustainable development, we assessed whether any trees should be retained in the context of the proposed development. Our assessment of which trees might have to be retained, and which can be removed, is based on:

- whether any trees are classed as 'ancient' or 'veteran', and thereby are designated as 'irreplaceable habitats';¹⁰
- which trees contribute to local character and history, including to the surrounding landscape setting; which trees contribute to biodiversity; and which trees help mitigate and adapt to climate change; and whose removal would thereby be unlikely to comply with national planning policy guidance;
- which trees are significant features of the local landscape, such that their removal would be contrary to local planning policies: specifically, Policy NE03 of the Brentwood Borough Council Local Plan, as set out above; and
- our assessment of the trees' quality, value and remaining life expectancy, in accordance with BS5837:2012, as summarised in the notes that accompany the tree survey schedule.

2.5.2. As trees growing outside the boundaries of the site are in the control of others, we have assumed they will be retained, irrespective of their size, age or condition.

¹⁰ The National Planning Policy Framework (NPPF) (July 2021). Paragraph 180 (c).

2.5.3. Whilst we have categorised trees in accordance with BS 5837, we have not used these categorisations as the main criterion of whether specimens might be removed or should be retained. Trees in categories ‘A’, ‘B’ and ‘C’ are all a material consideration in the development process; but the retention of category ‘C’ trees, being of low quality or of only limited or short-term potential, will not normally be considered necessary should they impose a significant constraint on development.

2.5.4. Furthermore, BS 5837 makes it clear that young trees, even those of good form and vitality, which have the potential to develop into quality specimens when mature **“need not necessarily be a significant constraint on the site’s potential”**¹¹.

2.5.5. Moreover, BS 5837 states that **“... care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal”**¹².

2.5.6. The ‘Root Protection Areas’ (RPAs)¹³ of the trees identified for retention were calculated in accordance with Section 4.6 of BS 5837; and were assessed taking account of factors such as the likely tolerance of a tree to root disturbance or damage, the morphology and disposition of roots as influenced by existing site conditions (including the presence of existing roads or structures), as well as soil type, topography and drainage. Where considered appropriate, the shapes of the RPAs (although not their areas) were modified based on these considerations, so that they reflect more accurately the likely root distribution of the relevant trees.

2.5.7. To assess whether the trees identified for retention would be in a sustainable relationship with the proposed development (without casting excessive shade or otherwise unreasonably interfering with incoming residents’ prospects of enjoying their properties, and thereby leading inevitably to requests for consents to fell), we plotted a segment or “shading arc” from each trunk, with a radius equal to the current height of the tree concerned, from due north-west to due east. This gave an indication of

11 BS 5837, 4.5.10.

12 Ibid., 5.1.1.

13 Ibid., paragraph 3.7. “The minimum area around a retained tree “deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority.”

potential direct obstruction of sunlight and the shadow pattern cast through the main part of the day¹⁴.

2.5.8. Based on these principles and recommendations, the tree survey and assessment of suitability for retention informed the production of a tree constraints plan (TCP) which indicates the most suitable trees for retention, and their associated below-ground and above-ground constraints.

2.5.9. As a design tool, the TCP also indicates how close to those trees selected for retention the proposed development could be positioned, in terms of three key criteria:

- a). avoidance of unacceptable root damage;
- b). avoidance of the necessity for unacceptable pruning works; and
- c). avoidance of future felling or pruning works to prevent unacceptable shading or apprehension on behalf of the occupants.

2.5.10. The TCP was then used to inform the siting of the proposed dwellings and areas of hard surfacing, about both of which we were consulted on several occasions during the design process. In this way, it has been ensured that the existing trees have made a significant contribution to the design of the proposed development, rather than the design having dictated which trees are to be removed.

2.6. Arboricultural impact assessment and tree protection plan

2.6.1. Once finalised, we assessed the arboricultural impacts of the proposed layout, by overlaying it onto the TCP, and produced the tree protection plan (TPP) presented at **Appendix 3**. This is based on the proposed site layout by FINC Architects, drawing no. 1643.100 rev P.

2.6.2. The TPP identifies the trees to be removed to accommodate the proposed development, either because they are situated within the footprints of proposed structures or surfaces, or because in our judgment they are too close to these

¹⁴ Ibid., paragraph 5.2.2 Note 1.

structures or surfaces to enable them to be retained. These are shown by means of **red crosses** on the TPP.

2.6.3. The TPP also shows how trees to be retained will be protected from damage during construction, and the measures identified are set out and described at **Appendix 1** to this report. The implementation of, and adherence to, these measures can readily be secured by the imposition of appropriate planning conditions.

2.6.4. For the trees shown to be retained, all measurements for pruning specifications, percentage estimates of RPA incursions and shading issues have been calculated using AutoCAD software.

2.6.5. Details of the impacts identified within these categories, and our assessment of their respective significance, are analysed in Sections 4 to 7 below.

2.6.6. Based on these findings, we have assessed the magnitude of the overall arboricultural impact of the proposals according to the categories defined in **Table 1** below.

Impact	Description
High	Total loss of or major alteration to main elements/ features/ characteristics of the baseline, post-development situation fundamentally different
Medium	Partial loss of or alteration to main elements/ features/ characteristics of the baseline, post-development situation will be partially changed
Low	Minor loss of or alteration to main elements/ features/ characteristics of the baseline, post-development changes will be discernible but the underlying situation will remain similar to the baseline
Negligible	Very minor loss of or alteration to main elements/ features/ characteristics of the baseline, post-development changes will be barely discernible, approximating to the 'no change' situation

Table 1: Magnitude of impacts¹⁵

¹⁵ Determination of magnitude based on DETR (2000) Guidance on the Methodology for Multi-Modal Studies, as modified and extended.

3. THE TREES

3.1. Survey findings

3.1.1. We surveyed 215 individual trees, 22 groups of trees and three areas of woodland growing within or immediately adjacent to the site. Their details can be found in the tree survey schedule at **Appendix 2**.

3.1.2. The arboricultural character of the site is defined by native broadleaved trees growing in belts along the site perimeter and internal field boundaries, and which together delineate the mosaic of fields that constitute the site at large.

3.1.3. The tree cover possesses an established character consistent with the site's long history as developed agricultural land, and is reflected in the significant presence of mature individuals, including one tree of veteran status (no. 151) and by the Ancient Woodland (Arnold's Wood) located along the east boundary.

3.1.4. The tree belts growing along the boundaries and internal fields are dominated by English oak, which forms the most commonly found species throughout the site. Other native species found growing within the belts include ash and field maple.

3.1.5. The presence of English oak continues into the Ancient Woodland but here becomes confined to individual mature standards scattered throughout significant stands of semi-mature coppiced hornbeam.

3.1.6. Along the north-west site boundary there is the occasional non-native, coniferous species including Norway spruce and Leyland cypress, growing within the rear gardens of the residential dwellings located along Chelmsford Road, but their presence has a negligible impact on the site's overwhelmingly native and broadleaved constitution.

3.1.7. Overall, the arboricultural character of the site is consistent with the trees in the surrounding area and with the surrounding rural landscape.

3.2. Assessment of suitability for retention

3.2.1. As noted above in Section 2.3, local planning policies require the retention of trees that **“make a positive contribution to the local landscape and/or biodiversity or which have significant amenity value.”** The individuals and groups of trees within or adjacent to the site, whose attributes we consider meet these criteria, are as follows:

- the Ancient Woodland (Arnold's Wood) growing adjacent to and within the eastern boundary of the site;
- the significant and essential components of the belt of trees growing along an internal field boundary parallel with the Ancient Woodland, comprising trees nos. 157, 158, 159, 160, 163-165, 167, 169, 171, 173 - 174 and 177;
- the significant and essential components of the belt of trees growing along the internal field boundary within the centre of the site, comprising veteran English oak tree no. 151, and oak trees nos. 153, 154 and 228;
- the significant and essential components of the belt of trees growing along the south boundary of the site, comprising oaks nos. 66, 242, 243, 246, 269 and 271;
- the significant and essential components of the belt of trees growing along the south boundary of the site, comprising trees nos. 247-252, 254-257 and 263;
- the significant and essential components of the belt of trees growing along the south boundary of the site, comprising trees nos. 53, 54, 56, 58, 60, 62, 63, 64;
- the significant and essential components of the belt of trees growing along an internal field boundary perpendicular to the Ancient Woodland, comprising English oak trees nos. 180, 182, 183, 185 and 187;
- the woodland (W2) growing off-site adjacent to the south-east boundary.

3.2.2. Six individual trees (nos. 30, 155, 156, 168, 266 & 287) have been assessed as category 'U'. These are trees that are unsuitable for retention, on the basis of them being 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. On-site trees that need removing solely to accommodate the proposed development are not placed in this

category. Category 'U' trees are indicated on the accompanying tree locations and protection plans by **bracketed red** numbers.

3.2.3. There are seven category 'A' trees and 101 category 'B' specimens. The remaining 101 trees are assessed as category 'C' trees, being either of low quality, very limited merit, only low landscape benefits, no material cultural or conservation value, or only limited or short-term potential; or young trees with trunk diameters below 150mm; or a combination of these.

3.2.4. Of the groups of trees and woodlands, one has been assessed as category 'A' (W1), five as category 'B' (G5, G35, G36, W2 & W3) and the remaining 19 as category 'C'.

4. IMPACTS ON ANCIENT WOODLAND

4.1. Details

4.1.1. As noted above, current planning policy guidance requires that unless there are wholly exceptional reasons and a suitable compensation strategy exists, development resulting in the loss or deterioration of Ancient Woodland should be refused.

4.1.2. The proposed development does not encroach into Arnold's Wood, the Ancient Woodland adjacent to the east boundary.

4.1.3. Part of the proposed footpaths encroach within the minimum 15m Ancient Woodland buffer.

4.2. Assessment

4.2.1. There will be no loss of Ancient Woodland, and no direct damage to it as a result of either construction or occupation.

4.2.2. The incursion into the 15m Ancient Woodland buffer is by a trodden-earth footpath, dressed with woodchip if required, which will maintain a semi-natural habitat, and as this is situated outside of the RPA of trees within the woodland. None of the potentially harmful effects the buffer is designed to avoid will occur, and the scheme will comply with current UK planning and development guidance on Ancient Woodland.

4.2.3. Accordingly, there will be no loss or deterioration of the Ancient Woodland, or the buffer zone and consequently there is no reason why the proposals should be refused on these grounds.

4.2.4. A detailed assessment of the woodland, along with potential impacts and management strategies associated with the proposals, can be found in the woodland management report 'SJA owmr +APPs 23157-01b', submitted with the application as a stand-alone document.

5. TREES TO BE REMOVED

5.1. Details

5.1.1. The veteran tree (no. 151) will not be removed to facilitate the proposed development.

5.1.2. To accommodate the proposed development, as shown on the proposed layout plan, 34 individual trees are to be removed, either because they are situated within the footprints of proposed structures or surfaces, or because they are too close to these to enable them to be retained.

5.1.3. Details of the mature and category 'B' trees to be removed, including their dimensions, age class and British Standard categorisation, are shown and listed on the TPP and at **Table** below.

Tree no.	TPO No.	Species	Height	Trunk diameter	Age class	BS category
1	-	Field maple	15m	500mm est.	Mature	C (1)
2	-	Field maple	16m	475mm	Mature	C (1)
30	-	English oak	19m	875mm ivy	Over-mature	U
70	-	Horse chestnut	16m	875mm ivy	Mature	B (12)
71	-	English oak	15m	700mm est.	Semi-mature	B (12)
72	-	Horse chestnut	20m	805mm	Mature	B (12)
155	G2 27/96	Ash	17.5m	650mm est.	Over-mature	U
168	G2 27/96	English oak	14m	700mm est.	Over-mature	U
172	G2 27/96	Ash	15m	685mm	Mature	C (12)
266	-	English	12m	775mm est.	Over-mature	U

Table 2: Mature & category 'B' trees

5.1.4. An additional two trees (nos. 156 & 287) will be removed as they have been assessed as being are dead or moribund and should be felled for arboricultural management reasons, irrespective of the proposed development.

5.1.5. Thirteen groups of trees are either to be partially or fully removed as part of the proposals as detailed in **Table 3** below.

Tree no.	TPO No.	Species	Height	Trunk diameter	Age class	BS category
G1	-	Various	13m	Max 3 stems at 225mm est.	Semi-mature	C (2)
G2	-	Various – partial	7m	Max 160mm est.	Young	C (1)
G3	-	Various – partial	7m	Max 250mm est.	Semi-mature	C (2)
G5	-	Various – partial	10m	Max 150mm	Semi-mature	B (12)
G21	-	Goat willow	6m	Max 4 stems @ 110mm est.	Semi-mature	C (1)
G22	-	Goat willow	7m	Max 15 stems @35mm est.	Semi-mature	C (1)
G23	-	Goat willow	8m	Max 5 stems @100mm est.	Semi-mature	C (1)
G27	-	Various – partial	11.5m	Max 200mm est.	Semi-mature	C (1)
G28	-	Goat willow – partial	9.5m	Max 8 stems @65mm est.	Semi-mature	C (1)
G33	-	Various	4m	Max 100mm	Young	C (1)
G34	-	Various	6.5m	Max 135mm	Semi-mature	C (1)
G35	-	Various – partial	6.5m	Max 110mm est.	Young	B (2)
G37	-	Various	3m	Max 45mm	Semi-mature	C (1)

Table 3: Groups of trees to be partially or fully removed.

5.2. Assessment

5.2.1. All those trees that constitute the main arboricultural features of the site and which make the greatest contribution to the character and appearance of the local landscape, to amenity or to biodiversity (see paragraph 3.2.1), will be retained.

5.2.2. The veteran tree (no. 151) on the site will be retained as a key feature of the proposed school plaza area.

5.2.3. Only three of the trees (nos. 70, 72 & 172) to be removed are mature specimens of species of large size: all the other trees to be cleared are young, semi-mature or of small ultimate size. The significance of this is threefold. Firstly, for obvious reasons mature trees tend to be larger in size and therefore are likely to be more visible and to make a greater contribution to the landscape. Secondly, mature trees are more likely to have formed associations with wildlife and to support other flora or fauna (for example, young trees infrequently contain splits, cracks or cavities that might provide roosting sites for bats); and thirdly, mature trees have a significantly

greater capacity than smaller trees to actively sequesterate and store carbon¹⁶. Accordingly, the removal of only three or 4.2% of the 71 large mature trees on or adjacent to the site minimises the impacts on the benefits that mature trees provide in relation to smaller ones.

5.2.4. One of the trees (Goat willow no. 25) to be removed is a young specimen, which BS 5837 states “**need not necessarily be a significant constraint on the site’s potential**”.

5.2.5. Five of the individual trees (nos. 155, 156, 166, 168 & 172) to be removed are covered by a TPO (see 1.6.1 above); these are shown on the TPP and identified in **Table 2** above.

5.2.6. However, it should be noted that the presence of a TPO on a tree does not mean that these specimens necessarily meet the criteria for a TPO: the trees may not have fully met the criteria for a TPO at the time it was made, the tree might have deteriorated since the time the TPO was made (this explains why three of these TPO trees are category ‘U’ specimens), or their visibility or impact on the local landscape may have decreased since the time the Order was made. Furthermore, a tree that has been made the subject of a TPO is not, for this reason alone, worthy of protection¹⁷. A tree should be protected by a TPO if it is of amenity value; it does not acquire value or additional value merely because it has been protected.

5.2.7. Current Planning Practice Guidance states (paragraph 007) that TPOs should be used to protect selected trees and woodlands if their removal would have “a significant negative impact on the local environment and its enjoyment by the public.” In this case, the small number of TPO trees to be removed in comparison with the number of mature trees, groups and woodlands to be retained will not result in a significant negative impact on the local environment, and that the fact they are covered by a TPO should not be given any additional weight in considering the magnitude of the arboricultural impacts of this scheme.

16 Stephenson N. L., Das A. J., Zavala M. A. (2014) Rate of tree carbon accumulation increases continuously with tree size. *Nature*, volume 507.

17 *Robinson v East Riding of Yorkshire Council* [2003]

5.2.8. The six category 'U' trees (nos. 30, 155, 156, 168, 266 & 287) to be removed are unsuitable for retention, irrespective of the proposed development, in that they cannot realistically be retained for longer than 10 years. This includes three (nos. 155, 156, and 168) which are covered by the group TPO G2 27/96.

5.2.9. The two other TPO trees (nos. 166 & 172) to be removed are category 'C' trees and discussed below.

5.2.10. English oak no. 172 has grown on a bank between fields with a level difference to the east. The tree demonstrates an asymmetrical canopy to the east as suppressed by adjacent trees with a slightly leaning stem and is readily visible, but only in short to moderate views within the eastern field on lower ground looking west, **Image 3** below.



Image 3: Looking west from internal view from east field; oak no. 166 encircled.

5.2.11. However, when viewed from the west looking east it is screened by retained trees (nos. 164, 165, 168, 169 & 170), **Image 4** below. Whilst it is a moderately significant component of the belt of trees in which it stands, it is not essential, furthermore its relationship with the proposal would have its canopy leaning significantly over a proposed access road and parking.



Image 4: Looking east, screened by retained trees.

5.2.12. As such its removal at this juncture is a reasonable request and its removal would not have a detrimental impact on the belt of trees in which it grows or the collective amenity contribution that the tree belt provides or the character of the site or local area.

5.2.13. Ash no. 172 demonstrates a swept stem with historic hazard beam fracturing within internal heartwood exposed along with partial uprooting which has become stabilised. However, numerous fungal fruiting bodies of *Inonotus hispidus* (shaggy polypore) were identified between 2m and 4m on the north side of its trunk with significant differences in tone when its trunk was sounded with an acoustic mallet indicating internal dysfunction and decay. Use of a penetrometer achieved 400mm of lateral penetration into the 685mm diameter trunk confirming extensive hollowing and decay, **Images 5 and 6** below.



Images 5 & 6: Shaggy polypore bracket at base; 400mm lateral penetration.

5.2.14. The extent of failure, decay and presence of shaggy polypore indicate that the tree is heavily affected and is likely becoming brittle and unstable making it a potential hazard adjacent to the proposed access road of this scheme.

5.2.15. Furthermore, there is no evidence to suggest that trees infected with the fungus can recover, at least not without on-going proactive management and a probable loss of crown shape and amenity value, that might be acceptable only for specimens of particular significance.

5.2.16. Whilst this individual is a significant component of the belt of trees in which it stands, its removal would only create an 11m gap between the canopies of trees nos. 171 & 173 and being set against the belt of retained English oak trees and the Ancient Woodland (nos. 180 – 187 & W1) to the east, its removal would not alter the overall character of the site or local area.



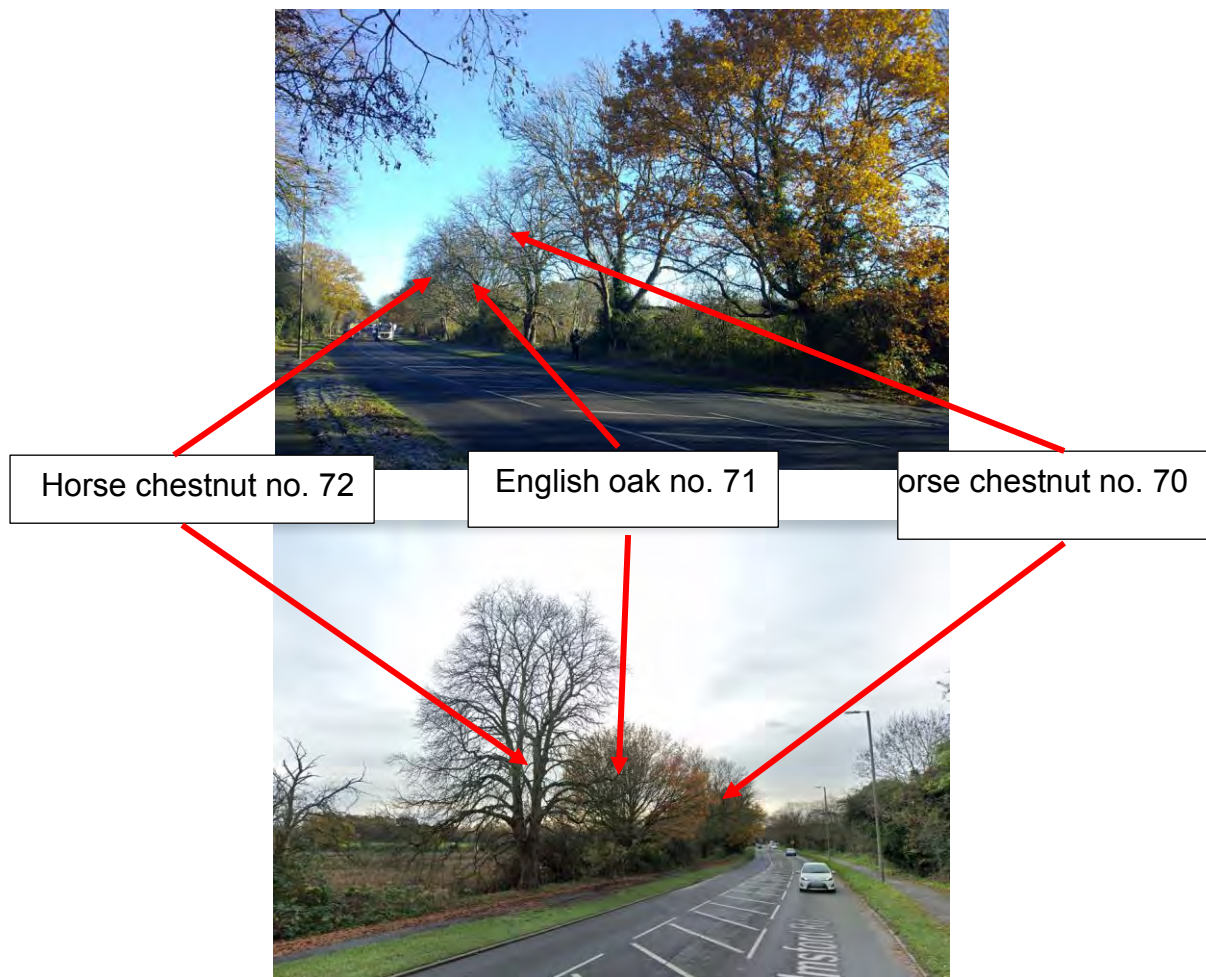
Image 7: Looking east from west, ash no. 172 encircled yellow.

5.2.17. All seven of the category 'A' trees are to be retained, but three category 'B' trees are to be removed, as shown in **Table 2** above. These are the English oak and horse chestnuts (nos. 70 – 71).

5.2.18. All three category 'B' trees require removal to facilitate the proposed new roundabout and access off Chelmsford Road (A1023). This is the primary access into this site and as set out in Policy RO3: Land North of Shenfield within the Brentwood Local Plan 2016 – 2033 specifically point 2 'Development Principles' subpoint c the

development of this site has to “...**provide vehicular access via Chelmsford Road (A1023)**...”.

5.2.19. Whilst the removal of these three established roadside trees is regrettable, the access has been developed in accordance with highway regulations and the site has been allocated for development by the local authority. As such it is considered that the benefits of the scheme outweigh the loss of these trees.



Images 1 & 2: Top: looking north along A1023; Bottom – Google Street view November 2020 looking south along A1023

5.2.20. Twenty-five of the 101 category 'C' trees on site are to be removed: these are either of low quality, low value, or short-term potential. For these reasons, their removal will have no significant impact on the character or appearance of the area.

5.2.21. Of the groups to be fully removed (nos. G1, G21 – G23, G33 – G34 & G37) all are assessed as category 'C' being of only low landscape value and small pioneer species, predominantly goat willow.

5.2.22. Of the groups to be partially removed (G2, G3, G5, G27, G28 & G35) all are assessed as category 'C'. Lengths of the group's removal range between 11% to 46%. However, the removals retain the main structural bodies of the groups and as shown on the TPP at **Appendix 2** will not alter the arboricultural character of the site or local area.

5.2.23. By way of mitigation for these removals the proposals incorporate considerable space for replacement tree planting and landscaping. This will mitigate the proposed removals, improve the age class balance of the trees on site, enhance the local landscape, and re-establish a framework for the ongoing and long-term character of the site.

5.2.24. In the light of these considerations, and taking account of the numbers, sizes and locations of the trees to be retained, including those that are off-site, the felling of the trees and groups identified for removal will represent only a no alteration to the main arboricultural features of the site.

6. TREES TO BE PRUNED

6.1. Details

6.1.1. Twelve trees to be retained are to be pruned to facilitate implementation of the proposals. These are shown at **Table 4** below.

Tree no.	Species	Proposed works
4	English oak	Crown reduce SE lateral extents by 2m towards boundary, leaving extents no less than 5.5m from trunk
28 – 29	Goat willow	Crown reduce NW extents to provide a minimum of 1m clearance from proposed footpath, leaving extents no less than 5m from trunk
68	English oak	Crown lift NW canopy to 2.5m above proposed footpath
164	English oak	Crown lift W canopy to 2.5m above ground adjacent to proposed footpath
212	English oak	Crown reduce asymmetrical W canopy extent by up to 2m leaving it no closer than 9.2m from trunk
213	English oak	Crown reduce asymmetrical W canopy extent by up to 1.5m leaving it no closer than 9m from trunk
215	Hornbeam	Crown reduce asymmetrical W canopy extent by up to 1.5m leaving it no closer than 6.5m from trunk
217	English oak	Crown reduce asymmetrical W canopy extent by up to 2m leaving it no closer than 11.7m from trunk
218	Hornbeam	Crown reduce W canopy extent by up to 2m leaving it no closer than 12.3m from trunk
245	English oak	Crown lift SE canopy quadrant to 2.5m above ground adjacent to proposed footpath
262	Ash	Crown lift E canopy extent to 2.5m above ground adjacent to proposed footpath

Table 4: Trees to be pruned to facilitate development.

6.2. Assessment

6.2.1. The extent of pruning proposed to the trees listed in **Table 4** is minor. Branches to be removed are mostly small in size and will result in a maximum wound size no greater than 100mm in diameter; this will have an insignificant effect on the health and physiological condition of these trees and complies with the recommendations of British Standard BS 3998:2010, *Tree work – Recommendations*.

6.2.2. In terms of impact upon the landscape, the proposed pruning is minor in extent, and will be largely screened in views by either the remainder of the trees' canopies, or by other trees growing within or adjacent to the site. It will have little effect on the appearance of the trees when viewed from outside the site itself, and accordingly will not detract from the character or appearance of the local area.

6.2.3. Following the pruning specified, none of the proposed dwellings will lie within 3.1m of the extents of the canopies of trees to be retained, thereby providing adequate working space for construction, and a reasonable margin of clearance for future growth.

7. ROOT PROTECTION AREA INCURSIONS

7.1. Details

7.1.1. There will be an incursion into the buffer zone of the one veteran English oak tree (no. 151) by proposed a proposed 1:3 soil batter adjacent to the access road.

7.1.2. Parts of the proposed dwellings, areas of hard surfacing and associated 1:3 soil batters will encroach within the RPAs of 34 of the trees to be retained. These are shown in **Table 5** overleaf.

Tree no.	Species	Incursion	Extent of incursion	% of RPA
5 - 6	English oak	Proposed flagstone garden path	56.5m ² 25.5m ²	9.7% 5%
24	Silver birch	Proposed foundations	0.5m ²	<1%
31	English oak	Proposed semi-natural footpath	3.4m ²	1%
60	English oak	Proposed footpath	3.7m ²	<1%
62 – 64	English oak	Proposed access drive and 1:3 soil batter	2.8m ² 67.6m ² 4.6m ²	<1% 12.8% 2%
65	English oak	Proposed footpath	4.3m ²	1.5%
67	Lombardy poplar	Proposed shared path	49.2m ²	21.3%
68	English oak	Proposed footpath	33.9m ²	20.8%
69	Ash	Proposed footpath widening	37.2m ²	14.6%
151	English oak	Proposed 1:3 soil batter into veteran tree buffer	29.4m ²	2.4%
154	English oak	Proposed foundations and footpath	15m ²	4.4%
158	English oak	Proposed cycleway	2.8m ²	<1%
160	English oak	Proposed 1:3 soil batter	12.2m ²	3.1%
163	English oak	Proposed 1:3 soil batter	35.6m ²	6%
165	English oak	Proposed 1:3 soil batter	14.2m ²	13.3%
167	English oak	Proposed 1:3 soil batter	5.6m ²	1.6%
170	Ash	Proposed shared path and 1:3 soil batter	39.4m ²	13.1%
171	English oak	Proposed retaining structure including 1.5m construction off-set	15.4m ²	4.5%
173	English oak	Proposed retaining structure including 1.5m construction off-set	14.4m ²	3.3%
174	English oak	Proposed access drive and parking	4.8m ²	1.3%
177	English oak	Proposed footpath	4.5m ²	1.2%
180 – 183	English oak	Proposed retaining structure including 1.5m construction off-set and 1:3 soil batter	10.8m ² 37.8m ² 1.5m ² 19.5m ²	4.8% 8.6% <1% 5.5%
228	English oak	Proposed 1:3 soil batter	12.3m ²	3%
243	English oak	Proposed 1:3 soil batter	25.6m ²	6.9%
246	English oak	Proposed 1:3 soil batter	4.8m ²	<1%
247	English oak	Proposed foundations and 1:3 soil batter	15.1m ²	5.9%
262	Ash	Proposed footpath	16.9m ²	20.6%
263	English oak	Proposed footpath	8.2m ²	4%
281	Hawthorn	Proposed footpath	4.8m ²	6.3%
282	English oak	Proposed footpath	8m ²	11.7%
291	English oak	Proposed shared path	23.1m ²	37.3%

Table 5: Proposed incursions within RPAs

7.2. Assessment

7.2.1. The incursions into the buffer zone of the veteran tree (no. 151) are by a proposed 1:3 soil batter. This is on the south side of the tree, and at its closest point, will be 17.6m from the trunk. It will encroach within the buffer zone by 29.4m², the equivalent of 2.4% of the total area of the buffer.

7.2.2. Whilst this encroaches within the buffer of this veteran tree this is by a semi-natural material in the form of well-aggregated fill soil with coarser texture than the existing soil onto which it is deposited. The current ground onto which it will be laid has been heavily ploughed and cultivated which may have reduced the extent of the buffer and thus RPA of the veteran tree. The installation of the semi-natural soil for the batter will allow future growth of the RPA of the veteran into this area and as it is to remain as soft landscaping, there is no reason to suggest that the buffer will not be retained, protecting the long-term rooting environment of this veteran tree.

7.2.3. The incursions by parts of the proposed dwellings or other structures into the RPAs of the 37 trees listed at **Table 4** extend no closer than 8.1m to the trunks, and equates to no more than 14.6% of individual RPAs for 33 of the 37 individuals. Any potential adverse impacts can be satisfactorily mitigated as set out below and shown at **Table 6**.

7.2.4. The incursions into the RPAs of four trees nos. 67, 68, 262 & 291 are by areas of new hard surfacing and are detailed in 7.2.10 below.

Tree no.	Species	Incursion	Proposed mitigation
24, 60, 65, 154, 171, 173, 174, 180 & 247	Silver birch, English oak & Ash	Proposed foundations; hard surfacing; and retaining structures	Excavation for foundations to be undertaken under direct on-site supervision of arboricultural consultant
31, 62 – 64, 67 – 69, 151, 154, 160, 163, 165, 167, 170, 177, 180 – 183, 243, 246, 247, 262, 263, 282 & 291	English oak, Lombardy poplar, Ash, Hawthorn	Proposed above soil surfaces and 1:3 soil batters	To be constructed above existing soil surface and to include a cellular confinement system or similar to minimise soil compaction

Table 6: Proposed mitigation of RPA incursions

7.2.5. The incursions into the RPAs of trees nos. 24, 60, 65, 154, 171, 173, 174, 180 & 247 are by proposed foundations, roads, footpaths, retaining structures and subject

to proposed levels, some degree of excavation will be required. To minimise impacts on these specimens, excavation within these RPAs will be undertaken manually, under the direct control and supervision of an appointed arboricultural consultant, so that any over dig into the RPAs is avoided, and any roots encountered can be treated appropriately.

7.2.6. The tree species impacted by incursions into their RPAs have been identified as moderate at tolerating root pruning and disturbance¹⁸, as shown in **Table 7**. As these specimens are of average physiological condition, bar for English oak no. 173 being below average, there is no reason to suggest that they will not be able to tolerate the cutting of roots within these small sections of their RPAs.

Species	Tolerance
Silver birch	Moderate
English oak	Moderate
Ash	Moderate

Table 7: Species tolerance to root pruning and disturbance

7.2.7. The areas lost to encroachment within the RPAs of these trees can be compensated for in the areas to the north, east, south or west of the trees, where there are areas of soft landscaping suitable for root growth, contiguous to the RPAs. There is likely to already be significant rooting within these areas, and as they are to remain as soft landscape, root growth can continue in the future. Therefore, there will be no net loss of suitable rooting area, and no foreseeable risk of future cumulative impacts, so there is no reason to suggest that they will not be able to tolerate the cutting of roots within these small sections of their RPAs or that they will not remain viable.

7.2.8. Furthermore, within the site boundary the opportunity exists for the soil used by these trees for root growth to be improved. Subject to proposed landscaping, the soil and rooting environments within the RPAs of these specimens could be enhanced to promote improved root growth by de-compaction, aeration fertilisation or mulching, as appropriate, and this can be ensured by condition. As these trees can remain viable by being able to root in other areas, contiguous to their RPAs, and the soil environment

18 MATHENY, N. P. and CLARK, J. R. (1998). Trees and Development. International Society of Arboriculture.

in which they are rooting can be improved, these incursions comply with paragraph 5.3.1 of BS5837.

7.2.9. The incursions into the RPAs of trees nos. 31, 62 – 64, 67 – 69, 151, 154, 160, 163, 165, 167, 170, 177, 180 – 183, 243, 246, 247, 262, 263, 282 & 291 are by areas of proposed hard surfacing or 1:3 soil batters. These areas extend to no more than 14.6% of individual RPAs, and do not exceed the 20% maximum incursion into currently unsurfaced ground recommended in BS 5837¹⁹.

7.2.10. The incursions into trees nos. 67, 68, 262 & 291 are by new shared use paths, widening of an existing tarmac footpath adjacent to Chelmsford Road (A1023) and in one case (English oak no. 291) some excavation for the proposed roundabout.

7.2.11. Whilst the incursions for trees nos. 67 & 68 exceed the 20% limit as recommended within the British Standard this includes the area within the RPAs of these trees covered by the existing tarmac footpath adjacent to the A1023. As such, subject to this surface being replaced no deeper than its existing sub-base, the total RPA incursion into these trees will be less than 20% and will comply with the British Standard.

7.2.12. The incursions into the off-site trees nos. 262 & 291 are by proposed shared use paths and some excavation providing accessibility pedestrian and cycle connections through the site and crossings over the Chelmsford Road (A1023). Whilst these incursions exceed the recommended limit, both trees are of average physiological condition and have soft landscaping contiguous to their RPAs into which they can root and there is no reason not to try to retain these individuals subject to the mitigation set out below.

7.2.13. Taking account of existing ground levels and likely proposed levels of these areas these will allow for design and construction of the new or replacement surfaces and the soil batters to be entirely above existing soil level, and accordingly no excavation will be required. Furthermore, where appropriate, new or replacement surfaces could incorporate an appropriate cellular confinement system, filled and

¹⁹ BS 5837, paragraph 7.4.2.3.

finished with suitable porous materials, to minimise soil compaction. To ensure no damage occurs to the roots or rooting environments of the relevant trees, installation will be undertaken under the control and supervision of the arboricultural consultant.

7.2.14. Where 1:3 soil batters are proposed, the material that forms the batter will be deposited and the edge of the RPAs and will be of a well-aggregated fill soil with a coarser texture than the existing soil onto which it is deposited and will be spread and feathered and allowed to naturally settle and will not be compacted, which will allow natural colonisation and continued permeability to roots within the RPAs where the soil batter encroaches.

7.2.15. In our experience, English oak, Lombardy poplar, ash and hawthorn have all demonstrated a tolerance of soil compaction than other tree species, based on their effectiveness in reacting to mechanical damage, in surviving anaerobic soil conditions, and in adjusting their root systems to new conditions. Coupled with the relatively small areas of the RPAs to be surfaced, the semi-mature ages of the trees and their average physiological conditions there is no evidence to suggest that they will not be able to tolerate any soil compaction caused by the installation or use of these areas of surfacing.

7.2.16. Implementation of measures to prevent other incursions into the RPAs of retained trees and to protect them during construction can be assured by the erection of appropriate protective fencing and the installation of ground protection, as shown on the TPP at **Appendix 3**.

7.2.17. Accordingly, subject to implementation of the above measures, and considering the ages, current physiological condition and tolerance of disturbance of these retained trees, no significant or long-term damage to their root systems or environments will occur as a result of the proposed development.

8. RELATIONSHIP OF RETAINED TREES TO NEW DWELLINGS

8.1. Details

8.1.1. In none of the proposed new dwellings or apartments does the fenestration of their main habitable rooms (living rooms, kitchens) exclusively and directly face trees within the shadow patterns²⁰ of which they are situated; that is, where proposed dwellings or apartments are sited in an arc between the north-west and the east of retained trees and are closer to them than the current heights of these specimens.

8.2. Assessment

8.2.1. As none of the proposed dwellings, apartments, private gardens or amenity space lie within the shadow patterns of any retained trees, they will not be shaded by retained trees to the extent that this will interfere with their reasonable use or enjoyment by incoming occupiers, which might otherwise lead to pressure to permit felling or severe pruning that the LPA could not reasonably resist.

8.2.2. The sizes and dispositions of the proposed private gardens are such that in our assessment they will not be unduly shaded and will receive reasonable sunlight and daylight. Their use is thus unlikely to lead to demands for felling or severe pruning of trees that the LPA would find difficult to resist.

8.2.3. As this scheme also comprises apartment blocks rather than houses, areas of communal amenity space rather than individual gardens are proposed; and therefore, incoming occupiers will not be restricted in finding areas of sunlight or shade when they require them. Use of these areas is thus unlikely to lead to demands for felling or severe pruning of trees that the LPA would find difficult to resist.

20 BS 5837, 5.2.2, Note 1: "An indication of potential direct obstruction of sunlight can be illustrated by plotting a segment, with a radius from the centre of the stem equal to the height of the tree, drawn from due north-west to due east, indicating the shadow pattern through the main part of the day."

9. CONCLUSIONS

9.1. Summary

9.1.1. There are no incursions into the adjacent Ancient Woodland; the incursion into the 15m Ancient Woodland buffer is by a trodden-earth footpath, dressed with woodchip if required, which will maintain a semi-natural habitat, and is situated outside of the RPAs of trees within the woodland. Consequently, the proposals will not result in any loss of Ancient Woodland, will avoid any potentially harmful effects on the woodland, and will comply with current UK Planning and development guidance.

9.1.2. Our assessment of the impacts of the proposals on the existing trees concludes that no category 'A' and no trees of high landscape value are to be removed. None of the main arboricultural features of the site, nor any veteran trees are to be removed. The proposed removal of 34 individual trees and 13 groups of trees will represent no alteration to the main arboricultural features of the site, only a minor alteration to the overall arboricultural character of the site and will not have a significant adverse impact on the arboricultural character and appearance of the local landscape.

9.1.3. The proposed pruning is minor in extent, will not detract from the health or appearance of these trees, and complies with current British Standards.

9.1.4. The incursions into the Root Protection Areas of trees to be retained are justifiable, and subject to implementation of the measures recommended on the Tree Protection Plan and set out at **Appendix 1**, no significant or long-term damage to their root systems or rooting environments will occur.

9.1.5. None of the proposed dwellings, apartments, private gardens or amenity space are likely to be shaded by retained trees to the extent that this will interfere with their reasonable use or enjoyment by incoming occupiers, which might otherwise lead to pressure on the Local Planning Authority to permit felling or severe pruning that it could not reasonably resist.

9.1.6. The sizes and dispositions of the proposed private gardens, amenity space are such that in our assessment they will not be unduly shaded and will receive

reasonable sunlight and daylight. Their use is thus unlikely to lead to future demands for felling or severe pruning of trees.

9.2. Compliance with national planning policy

9.2.1. As the proposals will retain all the main arboricultural features of the site, its arboricultural attractiveness, history and landscape character and setting will be maintained, thereby complying with Paragraph 130 of the National Planning Policy Framework.

9.2.2. Whilst 34 trees are to be removed, there is no duty in planning policy to retain all existing trees in all circumstances. Paragraph 131 of the NPPF states (*italics added for emphasis*): “**Planning policies and decisions should ensure... that existing trees are retained *wherever possible***”; and thereby recognises circumstances in which it might not be possible to retain every tree. Accordingly, the proposed removal of trees does not mean that this application must thereby be refused; and does not mean it conflicts with Paragraph 131 of the NPPF.

9.2.3. As the proposals will not result in the loss or deterioration of any Ancient Woodland or any ancient or veteran trees, they comply with paragraph 180 (c) of the NPPF.

9.3. Compliance with local planning policy

9.3.1. As the proposed development will not result in the removal of trees which make a positive contribution to the local landscape and/or biodiversity or which have significant amenity value, it complies with Policy NE03 of the Brentwood Borough Council Local Plan (2016-2033).

9.4. Conclusion

9.4.1. On the basis of our assessment, we conclude that the arboricultural impact of this scheme is of low magnitude, as defined according to the categories set out in **Table 1** of this report.

APPENDIX 1

Outline Arboricultural Method Statement

Outline arboricultural method statement

A1.1. Tree Protection Plan

A1.1.1. The TPP at **Appendix 3** shows the general and specific provisions to be taken during construction of the proposed development, to ensure that no unacceptable damage is caused to the root systems, trunks or crowns of the trees identified for retention. These measures are indicated by coloured notations in areas where construction activities are to occur either within, or in proximity to, retained trees, as described in the relevant panels on the drawing.

A1.2. Pre-start meeting

A1.2.1. Prior to the commencement of any site clearance, ground preparation or construction works the developer will convene a pre-start site meeting. This shall be attended by the developer's contract manager or site manager, the fencing/boarding contractor, the groundwork contractor(s) and the arboricultural consultant. The LPA tree officer will be invited to attend. If appropriate, the tree earthworks contractor should also attend. At that meeting contact numbers will be exchanged, and the methods of tree protection shall be fully discussed, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or modifications to the TPP required as a result of the meeting shall be circulated to all attendees.

A1.3. Site clearance

A1.3.1. No clearance of trees or other vegetation shall be undertaken until after the pre-start meeting and after the erection of the tree protection fencing (see below). If any vegetation clearance is required behind the line of the protection fencing this will be made clear at the pre-start meeting and arrangements will be made to do this prior to the fencing's erection, under the supervision of the arboricultural consultant, who will ensure it doesn't cause any soil compaction or damage to the roots of trees to be retained.

A1.3.2. Except where within the RPAs of trees to be retained, all trees and other vegetation to be removed may be cut down or grubbed out as appropriate; but within

the RPAs of trees to be retained, trees and vegetation will be cut by hand to ground level and stumps will be either left in place or ground out with a lightweight self-powered stump grinding machine. No excavators, tractors or other vehicles will enter the RPAs.

A1.4. Ground preparation

A1.4.1. No ground preparation or excavation of any kind, including topsoil stripping or ground levelling, shall be undertaken until after the pre-start meeting and after the erection of the tree protection fencing (see below).

A1.5. Tree protection fencing

A1.5.1. Construction exclusion zones (CEZs) will be formed by erecting protective fencing around the RPAs of all on-site trees to the specification recommended in BS 5837, Section 6.2, prior to the commencement of construction. This will consist of a scaffold framework comprising a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at maximum intervals of 3.5m. Onto this, welded mesh panels should be securely fixed with wire or scaffold clamps, as shown in **Figure 2** of that document. "**TREE PROTECTION ZONE - KEEP OUT**" or similar notices will be attached with cable ties to every third panel.

A1.5.2. The RPAs of the off-site trees will also be enforced by the erection of protective fencing to the same specification, prior to the commencement of construction, thereby safeguarding them from incursions by plant or machinery, storage and mixing of materials, or other construction-related activities which could have a detrimental effect on their root systems.

A1.5.3. The recommended positions of the protective fencing are shown by **bold blue lines** on the TPP. The precise positioning of the fencing around the trees will be considered in conjunction with any other protective hoarding/fencing which may be required around the site boundary.

A1.5.4. Within the CEZs safeguarded by the protective fencing, there will be no changes in ground levels, **no soil stripping**, and no plant, equipment, or materials will be stored. Oil, bitumen, diesel, and cement will not be stored or discharged within 10m of any trees. Areas for the storage or mixing of such materials will be agreed in

advance and be clearly marked. No notice boards, or power or telephone cables, will be attached to any of the trees. No fires will be lit within 10m of any part of any tree.

A1.6. Ground protection

A1.6.1. To allow space for construction and protection from soil compaction where proposed structures are in close proximity to RPAs of trees to be retained, the ground between the protective fencing and the footprints of the proposed structures will be covered by appropriate ground boarding, in accordance with the guidelines of Section 6.2.3.3 of BS 5837. The locations where these measures will be required are marked by **pink hatching** on the TPP.

A1.6.2. For purely pedestrian traffic, scaffold boards (or similar) will be used. Scaffold boards will comply with British Standard BS 2482: 2009 *Specification for timber scaffold boards* and be at least 225mm in width and 38mm thickness; they will be butted up and attached to each other with wooden battens or metal tie straps, and laid either on an above-ground scaffold framework, or secured to the ground with steel pins above a compressible material (a 75mm deep layer of woodchips may be appropriate) laid on top of a geotextile membrane of an appropriate specification.

A1.6.3. For wheeled or tracked traffic, ground boarding will be designed by a structural engineer, to take account of the type of soil and the likely loadings. Temporary aluminium roadway ('Trakway' or similar), interlocking plastic tread boards ("Ground-Guards" or similar) or reinforced concrete slabs may be appropriate. These will also be laid on top of a compressible material above a geotextile membrane.

A1.7. Manual excavation within RPAs

A1.7.1. The first 750mm depth of excavations required within the RPAs of the trees to be retained (as shown by **bold orange lines** on the TPP) will be dug by hand, using a compressed air soil pick if appropriate, and under on-site arboricultural supervision, to safeguard against the possibility of unacceptable root damage being caused to these specimens. Any roots encountered of over 25mm diameter will be cut back cleanly to the face of the dig nearest to the tree, using a sharp hand saw or secateurs, and their cut ends covered with hessian to prevent desiccation.

A1.8. Proposed hard surfaces / soil batters within RPAs

A1.8.1. Unacceptable damage to the roots and rooting environments of the trees to be retained during the construction of proposed hard surfaces that encroach within RPAs will be avoided by building them above existing soil level, to avoid digging and thus severing of roots; and an appropriate ground covering will be used beneath the sub-base, to prevent or minimise compaction of the soil. This will be done in accordance with Section 7.4 of BS 5837.

A1.8.2. Where 1:3 soil batters are proposed, the material that forms the batter will be deposited and the edge of the RPAs and will be of a well-aggregated fill soil with a coarser texture than the existing soil onto which it is deposited and will be spread and feathered and allowed to naturally settle and will not be compacted, which will allow natural colonisation and continued permeability to roots within the RPAs where the soil batter encroaches.

A1.8.3. The locations where these measures are both required are marked by dark orange **hexagonal-hatching** on the TPP and the works will be controlled and supervised by a suitably qualified arboricultural consultant to ensure no additional impacts occur during installation.

APPENDIX 2

Tree survey schedule



ARBORICULTURAL PLANNING CONSULTANTS

THE OLD POST OFFICE
DORKING ROAD
TADWORTH
SURREY KT20 5SA

Tel: (01737) 813058
E-mail: sja@sjatrees.co.uk

Directors: Simon R. M. Jones Dip. Arb. (RFS), FArborA.,
RCArborA. (Managing)
Frank P. S. Spooner BSc (Hons), MArborA, TechCert (ArborA)
(Operations)

Preliminary Tree Survey Schedule

Officers Meadows, Chelmsford Road, Brentwood

SJA tss 22579-01

December 2022

Tree Survey Schedule: Explanatory Notes

Officers Meadows, Chelmsford Road, Brentwood

This schedule is based on a tree inspection undertaken by Nigel Kirby and Tom Southgate of SJAtrees (the trading name of Simon Jones Associates Ltd.), between Tuesday the 6th and Thursday the 8th December 2022. Weather conditions at the time were clear, dry and bright. Deciduous trees were in partial leaf.

The information contained in this schedule covers only those trees that were examined, and reflects the condition of these specimens at the time of inspection. We did not have access to the trees from any adjacent properties; observations are thus confined to what was visible from within the site and from surrounding public areas.

The trees were inspected from the ground only and were not climbed, and no samples of wood, roots or fungi were taken. A full hazard or risk assessment of the trees was not undertaken, and therefore no guarantee, either expressed or implied, of their safety or stability can be given.

Trees are dynamic organisms and are subject to continual growth and change; therefore the dimensions and assessments presented in this schedule should not be relied upon in relation to any development of the site for more than twelve months from the survey date.

1. Tree no.

Given in sequential order, commencing at "1".

2. TPO no.

Number assigned to tree in the Brentwood Borough Council Tree Preservation Order no. 27/96, as shown in the TPO schedule and plan.

3. Species.

'Common names' are given, taken from MITCHELL, A. (1978) A Field Guide to the Trees of Britain and Northern Europe.

4. Height.

Estimated with the aid of a hypsometer, given in metres.

5. Trunk diameter.

Trunk diameter measured at approx. 1.5m above ground level; or where the trunk forks into separate stems between ground level and 1.5m, measured at the narrowest point beneath the fork. Given in millimetres.

6. Radial crown spread.

The linear extent of branches from the base of the trunk to the main cardinal points, rounded up to the closest half metre, unless shown otherwise. For small trees with reasonably symmetrical crowns, a single averaged figure is quoted.

7. Crown break.

Height above ground and direction of growth of first significant

8. Crown clearance.

Distance from adjacent ground level to lowest part of lowest branch, in metres.

9. Age class.

Young: Seedling, sapling or recently planted tree; not yet producing flowers or seeds; strong apical dominance.

Semi-mature: Trunk often still smooth-barked; producing flowers and/or seeds; strong apical dominance, not yet achieved ultimate height.

Mature: Apical dominance lost, tree close to ultimate height.

Over-mature: Mature, but in decline, no crown retrenchment

Veteran: Mature, with a large trunk diameter for species; but showing signs of veteranisation, irrespective of actual age, with decay or hollowing, a crown showing retrenchment and a structure characteristic of the latter stages of life.

Ancient: Beyond typical age range and with a very large trunk diameter for species; with extensive decay or hollowing, a crown that has undergone retrenchment and a structure characteristic of the latter stages of life.

10. Physiology.

Health, condition and function of the tree, in comparison to a normal specimen of its species and age.

11. Structure.

Structural condition of the tree – based on both the structure of its roots, trunk and major stems and branches, and on the presence of any structural defects or decay.

Good: No significant morphological or structural defects, and an upright and reasonably symmetrical structure.

Moderate: No significant pathological defects, but a slightly impaired morphological structure; however, not to the extent that the tree is at immediate or early risk of collapse.

Indifferent: Significant morphological or pathological defects; but these are either remediable or do not put the tree at immediate or early risk of collapse.

Poor: Significant and irreparable morphological or pathological defects, such that there may be a risk of failure or collapse.

Hazardous: Significant and irreparable morphological or pathological defects, with a risk of imminent collapse.

12. Comments.

Where appropriate comments have been made relating to:

- Health and condition
- Safety, particularly close to areas of public access
- Structure and form
- Estimated life expectancy or potential
- Visibility and impact in the local landscape

13. Category.

Based on the British Standard "Trees in relation to design, demolition and construction - Recommendations", BS 5837: 2012; adjusted to give a greater weighting to trees that contribute to the character and appearance of the local landscape, to amenity, or to arboricultural biodiversity.

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

- (1) Trees that have a serious, irreparable, 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).
- (2) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.
- (3) 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.

Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.

- (1) Trees that are particularly good examples of their species, especially if rare or unusual.
- (2) Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.
- (3) Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

- (1) 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 minor storm damage) such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category 'A' designation.
- (2) Trees present in numbers, usually growing as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals; or trees present in numbers but situated so as to make little visual contribution to the wider locality.
- (3) Trees with material conservation or other cultural value.

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.

- (1) Unremarkable trees of very limited merit or of such impaired condition that they do not qualify in higher categories.
- (2) Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary landscape benefits.
- (3) Trees with no material limited conservation or other cultural value.

TREE SURVEY SCHEDULE

Officers Meadows, Chelmsford Road, Brentwood

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
1		Field maple	15m	500mm est.	N 4m E 4m S 4m W 3m	1.5m	1.5m	Mature	Average	Indifferent	Single trunk; acute union with bark to bark contact; obscured from public view; inessential component of group in which it stands.	C (1)
2		Field maple	16m	475mm	N 4m E 4m S 3m W 4m	1.5m	1m	Mature	Average	Indifferent	Single trunk; tensile unions present throughout crown; obscured from public view; inessential component of group in which it stands.	C (1)
3		Norway spruce	18m	300mm est.	N 4m E 3m S 4.1m W 5m	3m	2m	Semi-mature	Average	Moderate	Off-site tree; obscured from public view; inessential component of group in which it stands.	C (1)
4		English oak	18m	300mm est.	N 7m E 5m S 8m W 4m	3m	S 2m	Semi-mature	Average	Indifferent	Off-site tree; single trunk; leaning to SW; tensile unions present throughout crown; obscured from public view; inessential component of group in which it stands.	C (1)
5	G1 27/96	English oak	20m	2 stems @ 800mm est.	N 7m E 6m S 9m W 8m	0m	S 6m	Mature	Average	Indifferent	Off-site tree; twin-stemmed from base; main union at ground level obscured by dense vegetation; tensile unions present throughout crown; visible in long distance views from public footpath to E; essential component of group in which it stands.	B (12)
6	G1 27/96	English oak	20m	2 stems @ 750mm est.	N 9m E 9m S 9m W 7m	0m	S 4m	Mature	Average	Indifferent	Off-site tree; twin-stemmed from base; view of main union obscured by vegetation; tensile unions present throughout crown; visible in long distance views from public footpath to E; significant component of group in which it stands.	B (1)
7	G1 27/96	English oak	19m	2 stems @ 300mm est. 700mm est.	N 8m E 7m S 8m W 7m	1m	S 4m	Mature	Average	Indifferent	Off-site tree; tri-stemmed from base, featuring acute unions with bark to bark contact; tensile unions present throughout crown; visible in long distance views from public footpath to E; significant component of group in which it stands.	B (1)
8	G1 27/96	English oak	19m	500mm est.	N 8m E 9m S 7m W 7m	4m	S 4m	Mature	Average	Indifferent	Off-site tree; union and basal inspections prevented by dense vegetation; single trunk; upper canopy visible in long distance glimpses from public footpath to E; significant component of group in which it stands.	B (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
9		English oak	19m	800mm ivy est.	N 9m E 10m S 10m W 10m	1m	S 4m	Mature	Average	Indifferent	Off-site tree; trunk and main scaffolds covered in dead ivy; tensile unions present throughout crown; deadwood up to 100mm in diameter, present in crown; providing screening for private garden; visible in long distance views from public footpath to E; significant component of group in which it stands.	B (1)
10		English oak	19m	700mm est.	N 8m E 8m S 8m W 7m	3m	S 2m	Mature	Average	Indifferent	Off-site tree; single trunk; trunk bifurcation at 3m featuring tensile union; tensile unions present throughout crown; visible in long distance views from public footpath to E; significant component of group in which it stands.	B (1)
11		English oak	19m	700mm est.	N 9m E 6m S 9m W 10m	3m	S 4m	Mature	Average	Indifferent	Off-site tree; single trunk; tensile unions present throughout crown; asymmetrical crown as suppressed by adjacent specimens; high crown as a result of heavy pruning of lower branches back to trunk; visible in long distance views from public footpath to E; significant component of group in which it stands.	C (1)
12		English oak	5m	300mm	N 6m E 7m S 6.7m W 6m	2m	SE 2m	Semi-mature	Average	Moderate	Small self-seeded specimen; single ivy covered trunk; tensile unions present throughout crown; visible in distant views from public footpath to E; inessential component of group in which it stands.	C (1)
13		English oak	5m	200mm est.	N 2m E 3m S 3m W 3m	2.5m	SE 1m	Semi-mature	Average	Moderate	Single trunk; tensile unions present throughout crown; visible in distant views from public footpath to E; inessential component of group in which it stands; small self-seeded specimen.	C (12)
14		English oak	20m	950mm est.	N 7m E 8m S 8m W 8m	2m	SE 2.5m	Mature	Average	Indifferent	Off-site tree; single trunk; tensile unions present throughout crown; essential component of group in which it stands; visible in distant views, from public footpath to E.	B (12)
15		White willow	15m	3 stems @ 210mm est.	N 2m E 8m S 7m W 4m	0m	S 2.5m	Semi-mature	Average	Indifferent	Off-site tree; tri-stemmed from base; union inspections prevented by dense vegetation; providing screening for private garden; upper crown visible in long distance glimpse from public footpath to E; inessential component of group in which it stands.	C (1)
16		Ash	19m	290mm est. 100mm est. 300mm est.	7.5m	0m	SE 4m S 4m	Semi-mature	Average	Indifferent	Off-site tree; tri-stemmed from base; main unions obscured from view; no sign of ash dieback disease; upper crown visible in distant glimpses from public footpath to NE; inessential component of group in which it stands.	C (1)
17		English oak	16m	700mm est.	N 8m E 9m SE 9m S 8m W 8m	3m	SE 3m	Mature	Below average	Indifferent	Off-site tree; single trunk; tensile unions present throughout crown; minor dieback on W side; upper canopy visible from public footpath to E; significant component of group in which it stands.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
18-20		English oak	9m	#T18 265mm #T19 265mm #T20 300mm	N 4m E 3m S 4m W 3m	1.5m	S 1m	Semi-mature	Average	Moderate	Small self-seeded specimens; #20 trunk bifurcation, featuring acute union with bark to bark contact; visible in distant views from public footpath to E; inessential components of group in which they stand.	C (1)
21		English oak	7m	550mm est.	2.5m	2m	1m	Mature	Below average	Indifferent	Off-site tree; single trunk; heavily pruned to form pollard; foliage affected by powdery mildew fungus (<i>Erysiphe alphitoides</i>); unions obscured by dense epicormic growth, preventing detailed inspection.	C (2)
22		Weeping willow	7m	900mm est.	3m	3m	S 1.8m	Mature	Average	Indifferent	Off-site tree; heavily pruned to form pollard.	C (1)
23		English oak	17m	600mm ivy est.	9m	3m	2m	Mature	Average	Indifferent	Off-site tree; single trunk; heavily ivy covered trunk and main scaffolds; visible from public footpath to E.	B (12)
24		Silver birch	9m	280mm est. 300mm est.	N 4m E 3m S 4m W 3m	0m	S 2.5m	Semi-mature	Average	Indifferent	Off-site tree; twin-stemmed from base; main union obscured from view; visible from public footpath to E.	B (12)
25		Goat willow	4m	15 stems @ 50mm est.	3m	0m	0m	Young	Average	Indifferent	Small self-seeded specimen; multi-stemmed from base.	C (12)
26		English oak	13m	310mm	N 3m E 2m S 7m W 4m	1m	S 3m	Semi-mature	Average	Indifferent	Single trunk; acute union with bark to bark contact present at 2m; asymmetrical crown as suppressed by adjacent specimens; visible from adjacent public footpath; inessential component of group in which it stands.	C (12)
27		English oak	14m	410mm ivy	N 7m E 7.5m S 7.4m W 7m	2m	S 3.5m	Semi-mature	Average	Moderate	Ivy covered trunk and main scaffolds; tensile unions present throughout crown; visible from adjacent public footpath; inessential component of group in which it stands.	C (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
28-29		Goat willow	#T28 13m #T29 12m	#T28 180mm #T28 200mm #T29 195mm #T29 170mm #T29 295mm #T29 270mm	N 7.2m E 6m S 5.5m W 6m	0.8m	W 2m	Semi-mature	Average	Indifferent	Multi-stemmed from 0.8m, featuring acute unions with bark to bark contact; small self-seeded specimens; aerodynamic group with meshing crowns providing companion shelter; visible from adjacent public footpath.	C (12)
30		English oak	19m	875mm ivy	N 7m E 10m S 8m W 9m	3m	SE 6m	Over-mature	Below average	Poor	Heavily ivy covered trunk and main scaffolds; dieback in upper crown; area of missing bark reaching from ground level to 1.8m, max width, 360mm.	U
31		English oak	21m	865mm	N 8.5m E 6m S 8m W 11m	4m	3m	Mature	Average	Moderate	No significant defects observed at base; single trunk; tensile unions present throughout crown; 3 x historic tear out points on main scaffolds, largest leaving area of exposed sapwood, approx. 900mm in height x 200mm wide; visible from adjacent public footpath; significant component of group in which it stands.	B (12)
32		English oak	25m	935mm	N 7.5m E 7.1m S 7.8m W 8.4m	3.5m	W 4.5m	Mature	Below average	Indifferent	No significant defects observed at base; tensile unions present throughout crown; deadwood up to 150mm present in crown; visible from adjacent public footpath; significant component of group in which it stands.	B (12)
33		English oak	16m	450mm	N 6.3m E 4.3m S 5.6m W 4.5m	2.5m	W 3m	Semi-mature	Average	Moderate	No significant defects observed at base; tensile unions present throughout crown; asymmetrical crown as suppressed by adjacent specimens; visible from adjacent public footpath; significant component of woodland edge.	B (12)
34		English oak	14m	395mm	N 1m E 1m S 5.2m W 6m	8m	8m	Semi-mature	Average	Indifferent	Decay cavity at base, 80mm x 110mm entrance diameter, depth 130mm; slender stem, likely vulnerable to changes in wind exposure; tensile unions present throughout crown; visible from adjacent public footpath; inessential component of group in which it stands.	B (12)
35		English oak	18m	555mm	N 5.8m E 6m S 6.3m W 6.6m	5m	W 4.5m	Mature	Average	Indifferent	No significant defects observed at base; historic limb tear out present at 4m, exposing area of solid sapwood, approx. 500mm x 200mm entrance diameter; tensile unions present throughout crown; visible from adjacent public footpath; significant component of woodland edge.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
36		Hornbeam	15m	2 stems @ 250mm est. 300mm est. 150mm est. 400mm est.	N 8.4m E 8m S 7m W 8m NW 10m	0m	N 1m NW 1m	Semi-mature	Average	Indifferent	Off-site tree; multi-stemmed from base; asymmetrical crown as suppressed by adjacent specimens.	C (12)
37		English oak	13m	510mm	N 3m E 2m S 5.8m W 10.7m	3m	W 0.5m	Semi-mature	Average	Indifferent	Prominent buttress roots to NW; no significant defects observed at base; deadwood up to 100mm present in crown; tensile unions present throughout crown; over topped by adjacent specimen; asymmetrical crown as suppressed by adjacent specimens; visible from adjacent public footpath; significant component of woodland edge.	C (12)
38		Hornbeam	17m	370mm 170mm 350mm 3 stems @ 100mm est. 315mm	N 6.5m E 5.3m S 5m W 9.7m	0m	W 0.5m	Semi-mature	Average	Indifferent	No significant defects visible at base; multi-stemmed from base; asymmetrical crown as suppressed by adjacent specimens; visible from adjacent public footpath; significant component of group in which it stands.	B (12)
39		English oak	22m	810mm	N 5.6m E 5.3m S 6.7m W 10.9m	3m	W 1m	Mature	Average	Indifferent	No significant defects observed at base; area of missing bark at 4m above ground, exposed solid sapwood extending below dead branch stub, 500mm est. in height, max width 100mm est.; black exudate issuing from lower section; deadwood up to 150mm est. present in crown; tensile unions present throughout crown; woodpecker hole at 4.5m, 50mm wide est.; visible from adjacent public footpath; essential component of group in which it stands.	B (12)
40		English oak	20m	665mm	N 6.8m E 7.9m S 6.4m W 11.2m	2.5m	W 0.8m	Mature	Average	Moderate	No significant defects observed at base; deadwood up to 110mm est. present in crown; tensile unions present throughout crown; visible from adjacent public footpath; significant component of woodland edge.	B (12)
41		Hawthorn	10m	235mm 425mm	N 6m E 4m S 6m W 6.6m	0m	W 3.5m	Mature	Average	Indifferent	Small self-seeded specimen; multi-stemmed from base; asymmetrical crown as suppressed by adjacent specimens; inessential component of group in which it stands.	C (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
42		English oak	21m	530mm	N 3.5m E 3.5m S 3m SW 10.25m W 9.5m NW 9.25m	3.5m	W 6m	Semi-mature	Average	Indifferent	Woodland edge tree; significant component of group in which it stands.	B (12)
43		English oak	10m	605mm	N 4.3m E 4.8m S 5.6m W 6m	2.5m	E 2m SE 2m	Mature	Average	Indifferent	Prominent buttress roots to SW, featuring area of exposed solid sapwood 500mm in height x 200mm wide, emanating from ground level; further area of exposed solid sapwood, starting at 1m above ground, 750mm in height x 150mm wide; deadwood up to 150mm diameter est. present in crown; tensile unions present throughout crown; area of exposed solid sapwood on limb at 3.5m above ground, 600mm long est. x 150mm wide est; cavity entrance present on trunk at 3.5m above ground, 70mm diameter est.; visible from public footpath; significant component of woodland edge.	C (12)
44		English oak	12m	345mm	N 7.2m E 4.5m S 6.5m W 4.5m	2.5m	NE 2.5m	Semi-mature	Average	Moderate	No significant defects observed at base; tensile unions present throughout crown; upper crown visible in distant views from public footpath; significant component of woodland edge.	B (12)
45		English oak	16m	805mm ivy	N 10m E 8.3m S 10.1m W 8.3m	2m	NE 4m	Mature	Average	Moderate	No significant defects observed at base; deadwood up to 150mm diameter est. present in crown; tensile unions present throughout crown; ivy covered trunk and main scaffolds; visible in distant views from public footpath; essential component of group in which it stands.	B (12)
46		English oak	11m	395mm	N 6.4m E 5.8m S 3.4m W 6.5m	1m	W 1m	Semi-mature	Average	Moderate	Small self-seeded specimen; tensile unions present throughout crown; visible in distant views from Chelmsford Road A1023; significant component of woodland edge.	B (12)
47		English oak	11m	325mm	N 1m E 4m SE 6.5m S 3m W 1m	1.8m	NW 0.6m	Semi-mature	Average	Indifferent	Small self-seeded specimen; inessential component of woodland edge; obscured from public view; oak processionary moth nests present.	C (1)
48		English oak	12m	295mm 265mm 150mm 320mm	N 4m E 4.6m S 5.5m W 5m	0.8m	W 0.5m	Semi-mature	Average	Indifferent	Multi stemmed from 1m, featuring tensile unions; oak processionary moth nests present; visible in distant views from Chelmsford Road A1023; significant component of woodland edge.	B (12)
49		English oak	11m	330mm	N 1m E 1m S 3.5m W 6m	2m	S 1m	Semi-mature	Average	Indifferent	Trunk bifurcation at 2m, featuring acute union without bark to bark contact; asymmetrical crown as suppressed by adjacent specimens; upper crown visible in distant views from Chelmsford Road A1023; inessential component of group in which it stands.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
50		Ash	16m	480mm	N 5.9m E 8.4m S 8m W 5.1m	1m	S 0.5m	Semi-mature	Average	Indifferent	Significant curve and lean to trunk; multi-stemmed from 2.5m, featuring acute union with bark to bark contact; much epicormic growth on major structural branches within inner canopy, suggestive of reduced physiological function; obscured from public view; significant component of group in which it stands.	C (1)
51		English oak	3m	65mm	2m	0.5m	0.5m	Young	Average	Moderate	Small self-seeded specimen.	C (1)
52		English oak	4m	75mm	2m	0.5m	0.5m	Young	Average	Moderate	Small self-seeded specimen.	C (1)
53		English oak	20m	910mm	N 10m E 8.5m S 8.5m W 8.5m	2.5m	W 1.8m	Mature	Average	Poor	No significant defects observed at base; trunk bifurcation at 2.5m above ground, featuring acute union with bark to bark contact; co-dominant stems; deadwood up to 100mm present in crown; tensile unions present throughout crown; obscured from public view; significant component of group in which it stands.	B (1)
54		English oak	19m	540mm	N 4.5m E 5m S 5m W 7m	2m	W 0m	Mature	Average	Moderate	Located SE side of fence; no significant defects observed at base; tensile unions present throughout crown; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands.	B (12)
55		English oak	20m	300mm	N 6.7m E 5m S 2m W 4.5m	2.5m	W 1m	Semi-mature	Average	Indifferent	No significant defects observed at base; black bacterial bleeds present, consistent with acute oak decline; tensile unions present throughout crown; asymmetrical crown as suppressed by adjacent specimens; inessential component of group in which it stands.	C (12)
56		Ash	21m	2 stems @ 500mm est. 3 stems @ 350mm est.	N 7.6m W 8.3m	0.5m	W 1m	Mature	Average	Indifferent	Prominent buttress roots to N; multi-stemmed from base; featuring acute unions with bark to bark contact; tensile unions present throughout upper crown; deadwood up to 100mm diameter present in crown; dominant crown; visible from public footpath to NW; significant component of group in which it stands.	B (12)
57		Field maple	6m	250mm est.	N 5.5m E 4.5m S 1m W 4.5m	2m	W 1m NW 2.5m	Semi-mature	Average	Indifferent	Small self-seeded specimen.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
58		Field maple	15m	300mm est. 310mm est. 400mm est. 2 stems @ 150mm est. 330mm	N 7m E 6m S 6m W 7.2m	0m	N 1m	Mature	Average	Indifferent	Multi-stemmed from base, featuring acute unions with bark to bark contact; natural bracing between stems, present at 2m above ground; tensile unions present throughout crown; visible from public footpath to NW; significant component of group in which it stands.	B (12)
59		English oak	2.5m	190mm	N 6.1m E 1m S 1m W 5.5m	0.5m	N 1m W 0m	Semi-mature	Average	Indifferent	Small self-seeded specimen; asymmetrical crown as suppressed by adjacent specimens.	C (1)
60		English oak	19m	945mm	N 8.9m E 8m S 10m W 10m NW 8.7m	1.9m	W 1.5m	Mature	Average	Indifferent	No significant defects observed at base; tri-stemmed from 3m, featuring acute unions with bark to bark contact; tensile unions present throughout crown; deadwood up to 150mm est. in diameter present in crown; minor dieback in N crown; area of exposed sapwood present, featuring incipient decay on N stem, 1.5m in height x 200mm wide est.; significant component of group in which it stands.	B (12)
61		English oak	10m	245mm	N 2m E 1m S 1m W 6m NW 3.8m	2.5m	W 2m	Semi-mature	Average	Indifferent	Small self-seeded specimen; asymmetrical crown as suppressed by adjacent specimens.	C (1)
62		English oak	16m	505mm 710mm	N 10.5m E 10m S 10m W 11.1m	1.2m	N 2m W 1.8m	Mature	Average	Indifferent	No significant defects observed at base; trunk bifurcation at 2m featuring acute union with bark to bark contact; tensile unions present throughout crown; deadwood up to 100mm diameter present in crown; co-dominant stems; significant component of group in which it stands.	B (12)
63		English oak	20m	1080mm ivy	N 8.5m E 8.5m S 8.5m W 9m NW 8.6m	2m	W 1.9m	Mature	Average	Indifferent	Heavily ivy covered trunk and main scaffolds; no significant defects observed at base; dense ivy prevented inspection of main unions; decayed fungal brackets on ground beneath canopy, consistent with Dryads Saddle fungus (<i>Polyporus squamosus</i>); significant component of group in which it stands.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
64		English oak	15.5m	715mm	N 10m E 9m S 10.25m W 9.8m NW 10m	2.5m	W 1.9m	Semi-mature	Average	Moderate	No significant defects observed at base; prominent buttress roots; multi-stemmed from 2.5m, featuring tensile unions; dominant crown; significant component of group in which it stands; in character with local area.	B (12)
65		English oak	13m	805mm	N 9m E 9.5m S 10m W 10m	2m	0.5m	Mature	Average	Indifferent	Trunk leaning to S; tri-stemmed from 2m, featuring tensile unions; of squat domed form; glimpsed from footpath beside Chelmsford Road A1023 to W; inessential component of group in which it stands.	B (12)
66		English oak	15m	720mm ivy	N 8m E 8.5m S 8m W 8m	2m	2m	Mature	Average	Indifferent	Prominent buttress roots; cavity present at ground level, 200mm x 210mm entrance diameter, vertical height leading up inside trunk, at least 600mm, horizontal cavity depth 150mm; hollow trunk; area of exposed solid sapwood with incipient decay present, reaching from ground level to 0.9m high, max width 225mm; ivy covered trunk and main scaffolds; tensile unions present in crown, full canopy union inspection prevented by ivy cover; deadwood up to 120mm diameter, present in crown; visible from Chelmsford Road A1023; significant component of group in which it stands.	B (12)
67		Lombardy poplar	20m	300mm est. 450mm est. 465mm	N 3m E 3.5m S 3.9m W 2.7m	0m	2.5m	Semi-mature	Average	Indifferent	Tri - stemmed from base; main unions obscured by dense brambles; ivy-covered stem; readily visible from Chelmsford Road A1023; inessential component of group in which it stands.	B (2)
68		English oak	14m	600mm ivy	N 8.6m E 9m S 6.3m W 8.5m	1m	S 1m W 0.5m	Semi-mature	Average	Indifferent	No significant defects observed at base; tensile unions present throughout crown; ivy covered main scaffolds; visible from Chelmsford Road A1023; significant component of group in which it stands.	B (12)
69		Ash	18m	750mm est.	N 7.8m E 9m S 10m W 8.6m	1.9m	SE 0m	Mature	Average	Indifferent	Full basal inspection prevented by dense bramble and ivy; tensile unions present throughout crown; ivy covered trunk and main scaffolds; no evidence of ash dieback disease colonisation observed; visible from Chelmsford Road A1023; significant component of group in which it stands.	B (12)
70		Horse chestnut	16m	875mm ivy	N 8.7m E 10m S 8m W 8.4m	2m	S 0m	Mature	Average	Indifferent	Single ivy covered trunk; no significant defects observed at base; ivy impeded full basal inspection; trunk bifurcating at 3m featuring acute union with bark to bark contact; no evidence of increased risk of failure; readily visible from Chelmsford Road A1023; significant component of group in which it stands.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
71		English oak	15m	700mm est.	N 10.2m E 8m S 8m W 7.3m	2m	SE 2m	Semi-mature	Average	Indifferent	Single ivy covered trunk; full basal inspection prevented by dense brambles; tensile unions present throughout crown; dominant crown; readily visible from Chelmsford Road A1023, for approx. 40m sections either way; significant component of group in which it stands.	B (12)
72		Horse chestnut	20m	805mm	N 8.3m E 7.5m S 8m W 7.8m	2m	SE 0m	Mature	Average	Indifferent	No significant defects observed at base; single ivy covered trunk; tensile unions present throughout crown; trunk bifurcation at 2m, tensile unions present throughout crown; dominant crown; readily visible from Chelmsford Road A1023; significant component of group in which it stands.	B (12)
73		Ash	13m	345mm	N 4.7m E 4m S 4.5m W 4.2m	2.5m	SE 1.5m	Semi-mature	Average	Moderate	No significant defects observed at base; small self-seeded specimen; tensile unions present throughout crown; dominant crown; readily visible from Chelmsford Road A1023; inessential component of group in which it stands.	C (12)
151	T7 27/96	English oak	14m	1320mm	N 7.25m NE 4.75m E 8m S 11.5m SW 9m W 8m	3m	2.5m	Veteran	Average	Indifferent	Located on S side of historic ditch; visual access to S side of trunk impeded by dense bramble; evidence of basal wound on N side of trunk; internal heartwood exposed; lack of prominent buttress rooting on N side; prominent buttress roots on E and S side of trunk; cavity between buttress roots on NE side at ground level; wounding on N side of trunk at ground level; internal heartwood exposed; no significant differences in tone when lower trunk sounded with acoustic mallet; single trunk; forks into multiple codominant stems at approximately 3m; evidence of large dia. low level scaffold limbs, historically failed, storm damaged and torn off; onset of lower canopy formation from retrenchment at main crown break; remaining canopy limbs, tall and draw-up; stag heading present; notably asymmetrical to SE; readily visible across open fields to N and S; in keeping with the character of the site and local area.	A (23)
152		Goat willow	9.5m	3 stems @ 120mm est. 6 stems @ 100mm	4.25m	1m	0.5m	Semi-mature	Average	Poor	Multi-stemmed from base; tight compression forks with evidence of included bark.	C (1)
153	T8 27/96	English oak	13m	695mm	N 6.5m NE 7m E 7.5m S 8.5m W 7.5m	2m	1m	Semi-mature	Average	Moderate	Prominent buttress roots; single trunk; slight asymmetrical crown S; field boundary tree; readily visible between fields; wide spreading canopy ; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
154	T9 27/96	English oak	11.25m	870mm	N 6.75m NE 6.25m E 6m SE 6.75m S 7.5m SW 7.5m W 7.75m	2m	1.75m	Mature	Average	Indifferent	Prominent lateral buttress roots running E and W; adjacent to historic field ditch directly to N of trunk; single trunk; forks into multiple codominant stems at approx. 2.5m; wide spreading squat canopy; notable dieback and stag heading in S canopy half; no evidence of dysfunction decay or fungal fruiting activity at base; no evidence of lower canopy formation consistent with retrenchment; readily visible across open fields; field boundary tree; in keeping with the character of the site and local area.	A (2)
155	G2 27/96	Ash	17.5m	650mm est.	N 3.5m E 7.5m S 8.75m W 8.25m	3m	4m	Over-mature	Below average	Poor	Abnormal swelling or 'Bottle-butt' at base; much epicormic growth on major structural branches within inner canopy, suggestive of reduced physiological function; fungal fruiting bodies of <i>Inonotus hispidus</i> on trunk; inessential component of group in which it stands.	U (1)
156	G2 27/96	English oak	13m	260mm est. 420mm est.	3m	3m	2m	Semi-mature	Dead	Poor	Dead tree.	U (1)
157	G2 27/96	English oak	20m	700mm	N 7m E 9.5m SE 10.75m S 4.5m W 8.25m NW 8.5m	2.5m	2m	Semi-mature	Below average	Indifferent	Prominent buttress roots; single trunk; mechanical wounding on E side at base, fully occluded; no differences in tone when sounded with acoustic mallet; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; notably reduced shoot extension growths in apical extents; slightly sparsely foliated.	B (2)
158	G2 27/96	English oak	20m	905mm	N 7m NE 12m E 12.25m SE 11.25m S 9.5m W 10.5m NW 12.25m	3m	W 0.5m	Mature	Below average	Indifferent	Prominent buttress roots; slightly leaning trunk E; no differences in tone when sounded with acoustic mallet; no evidence of dysfunction or decay at base; single trunk; wide spreading canopy; asymmetrical crown as suppressed by adjacent specimens; slightly sparsely foliated; significant component of group in which it stands; readily visible from field to E; in keeping with character of the area.	B (2)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
159	G2 27/96	English oak	15.5m	315mm 440mm	N 4.25m E 10m S 5.5m W 8.5m	4m	3m	Semi-mature	Average	Indifferent	Twin-stemmed from base, showing acute, yet tensile union; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; readily visible between fields; significant component of group in which it stands.	C (12)
160	G2 27/96	English oak	18m	720mm 585mm	N 9.25m NE 9m E 10.75m SE 11.75m S 4.5m SW 8.25m W 9.5m NW 10.25m	3.5m	0.2m	Mature	Average	Indifferent	Prominent buttress roots; twin-stemmed from base; tight compression fork with evidence of included bark on W side; however, no pronounced rib of reaction wood and of currently no greater risk or concern; wide spreading canopy; essential component of group in which it stands; readily visible between fields; in keeping with character of the area.	B (12)
161	G2 27/96	English oak	14m	365mm	N 4.5m E 7m S 1m W 6.75m	2.5m	W 2.5m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical one-sided crown as suppressed by adjacent specimens; inessential component of group in which it stands; tree with group of moderate visual importance; field boundary tree.	C (12)
162	G2 27/96	English oak	14m	395mm	N 4.25m E 1m S 4m W 5.75m	2m	1.75m	Semi-mature	Average	Indifferent	Small self-seeded specimen; asymmetrical one-sided crown as suppressed by adjacent specimens; inessential component of group in which it stands; tree with group of moderate visual importance.	C (12)
163	G2 27/96	English oak	15m	1145mm	N 8.25m E 10.5m S 12.5m W 9.5m NW 9.75m	2m	0.5m	Mature	Average	Indifferent	Prominent buttress roots on all sides; single trunk; evidence of cavities and animal activity on S side between buttress roots; wound on NE side of trunk at 0.5m above ground with evident reaction wood; however, 300mm of lateral penetration achieved into soft material; evidence of brown cubical decay; forks into multiple codominant stems at 3m; historic small dia. central stem failure on S quadrant of trunk; evidence of decay and cavity present; slight, muted differences in tone when lower trunk sounded from ground level up to 3m with acoustic mallet suggesting internal decay and hollowing; though no additional evidence to demonstrate increased risk of instability or failure; wide spreading dominant canopy; no evidence of lower canopy retrenchment of fungal fruiting body activity; significant component of group in which it stands; field boundary tree; member of a group of trees of moderate visual importance; in keeping with the character of the site and local area.	A (23)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
164	G2 27/96	English oak	13m	540mm	N 7.5m NE 5m E 7m SE 8m S 7.25m W 7.75m	2m	W 0.3m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; readily visible between fields; significant component of group in which it stands; field boundary tree; in keeping with character of the area.	B (12)
165	G2 27/96	English oak	15m	485mm	N 3.75m E 2m S 6.5m W 4.5m	2m	1.5m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; one-sided crown as suppressed by adjacent specimens; canopy almost entirely offset from base; field boundary tree; tree within group of moderate visual importance.	C (12)
166	G2 27/96	English oak	17m	605mm	N 2m E 9.5m SE 11.25m S 11.5m W 3m	3.5m	E 1.5m	Semi-mature	Average	Indifferent	Prominent buttress root W; E trunk descends into pond/bog directly to E; single trunk; asymmetrical one-sided crown as suppressed by adjacent specimens; significant component of group in which it stands; tree within group of moderate visual importance; in keeping with character of the area; readily visible between fields.	C (12)
167	G2 27/96	English oak	19.5m	885mm	N 6.5m NE 11m E 11.5m SE 11m S 9.75m SW 6.25m W 9.75m NW 8.75m	3m	1.5m	Semi-mature	Average	Good	Prominent buttress roots; single trunk; crown break at 3m; large dia. lateral limbs; asymmetrical canopy to E as suppressed by adjacent individuals; bark to bark contact between two lower E canopy lateral limbs; notable fibre bucking on lower supporting limb, suggesting adaption to feature; no evidence of branch subsidence; wide spreading dominant canopy; essential component of group in which it stands; field boundary indicator; in keeping with the character of the site and local area.	A (2)
168	G2 27/96	English oak	14m	700mm est.	N 7m E 6.5m S 4.5m W 3m	3.5m	3m	Over-mature	Dead	Poor	Dead tree; potentially of ecological value.	U (2)
169	G2 27/96	English oak	14m	625mm	N 4.5m E 6.5m S 5m SW 8m W 8.75m NW 9m	3.25m	1.5m	Semi-mature	Average	Indifferent	Prominent buttress roots; no evidence of dysfunction or decay at base; single trunk; asymmetric aerodynamic meshing crown providing companion shelter; significant component of group in which it stands; field boundary tree; readily visible between fields; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
170	G2 27/96	Ash	16.5m	440mm 390mm 320mm 465mm	N 3.5m E 6.75m S 8.75m SW 7m W 8.5m	3.5m	W 2m	Mature	Below average	Poor	Multi-stemmed from base; tight compression fork with evidence of included bark; decay at base; fungal fruiting bodies of <i>Inonotus hispidus</i> on upper stems; significant component of group in which it stands.	C (12)
171	G2 27/96	English oak	14m	675mm 550mm	N 8m E 7.75m S 8.5m W 8.25m NW 7.75m	3m	W 1.5m	Mature	Average	Indifferent	Prominent buttress roots W; twin-stemmed from 1m, showing a tensile union; wide spreading canopy; significant component of group in which it stands; field boundary tree; readily visible between fields.	B (12)
172	G2 27/96	Ash	15m	685mm	N 8.75m E 7.75m S 8.25m SW 7.5m W 8.5m	3m	3m	Mature	Below average	Poor	Prominent buttress root to S; demonstrated evidence of historic failure with hazard beam fracturing and fibre delamination; internal heartwood exposed; evidence of trunk lean and historic partial uprooting; now stabilised; lack of buttressing on N side of trunk; fungal fruiting bodies of <i>Inonotus hispidus</i> located on ground between 2m - 4m from N side of trunk; wide spreading asymmetrical canopy as suppressed by adjacent trees; significant differences in tone when lower 2m of trunk sounded with acoustic mallet indicative of internal dysfunction and decay; mechanical wound on N side of trunk at 1.5m; 400mm lateral penetration achieved; significant component of group in which it stands; field boundary tree; readily visible across fields to W.	C (12)
173	G2 27/96	English oak	13m	985mm	N 8.5m E 9.5m S 8.25m SW 10m W 9m	2.5m	1m	Mature	Below average	Indifferent	Prominent buttress roots; single trunk; heavily ivy-covered; wide spreading canopy; recent storm damage in N and NW canopy quadrants with snapped and hung-up canopy limbs; early onset of reduced internodal growth in upper N apical extents; field boundary tree; significant component of group in which it stands; readily visible between fields; in keeping with the character of the site and the local area.	B (12)
174	G2 27/96	Ash	18.5m	2 stems @ 190mm 2 stems @ 360mm 345mm 380mm 440mm 340mm	N 5m E 7.5m S 7.5m W 8.5m	3m	E 1.5m	Mature	Average	Indifferent	Located adjacent to historic ditch on W side; prominent buttress roots; multi-stemmed from ground level; all unions are either U shaped or acute yet tensile; no evidence of tight compression forks with bark to bark contact; bole forks into multiple codominant stems at approx. 1m; stems tall, drawn-up and mutually suppressed; asymmetrical canopy as suppressed by adjacent individuals; significant component of group in which it stands; readily visible in long views across existing fields to N and W/SW; field boundary indicator; in keeping with the character of the site and local area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
175	G2 27/96	Field maple	16m	3 stems @ 160mm 6 stems @ 100mm 180mm 4 stems @ 300mm	N 6m E 6.25m S 4.5m W 5.75m	1m	0.75m	Mature	Average	Poor	Prominent buttress roots; multi-stemmed from base; tight compression forks with evidence of included bark; tear-out wounds on stems; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; inessential component of group in which it stands; in keeping with character of the area.	C (12)
176	G2 27/96	Field maple	10m	2 stems @ 300mm	N 3.5m E 5.5m S 3.75m W 4.5m	1.5m	1m	Mature	Average	Indifferent	Small self-seeded specimen; suppressed crown as overtopped by adjacent specimens; inessential component of group in which it stands; unremarkable tree of very limited merit.	C (1)
177	G2 27/96	English oak	17.5m	600mm est. 685mm est.	N 10.5m NE 5m E 10m SE 11m S 8m W 10m	2.5m	0.2m	Mature	Average	Poor	Twin-stemmed from base, showing acute helical union with prominent reaction ribs at base; tight compression fork with evidence of included bark; storm damage in NE crown; significant tear-out wound in upper NW crown; significant component of group in which it stands; readily visible between fields; in keeping with character of the area.	B (2)
178-179		Silver birch	#T178 13.5m #T179 12.5m	#T178 260mm #T179 180mm est.	3m	2m	2m	Semi-mature	Average	Moderate	Small self-seeded specimens; inessential components of wider landscape; unremarkable trees of very limited merit.	C (1)
180	G3 27/96	English oak	15m	740mm	N 6.75m E 4.5m W 7m NW 7m	3m	N 3m S 1.5m	Mature	Average	Indifferent	Prominent buttress roots; single trunk located on bank; asymmetrical crown as suppressed by adjacent specimens; significant tear-out wound in upper N canopy; adaptive growth present; significant component of group in which it stands; field boundary tree; tree within group of moderate visual importance; readily visible across open fields; in keeping with character of the area.	B (12)
181	G3 27/96	English oak	16.5m	985mm	N 11m NE 6.75m E 3.75m S 11m SW 10m W 11m NW 10m	3m	N 4m S 2m	Mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; twin-stemmed from 1.5m with acute yet tensile union; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands; tree within group of moderate visual importance; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
182	G3 27/96	English oak	16.5m	745mm	N 8.5m NE 8.75m E 5.75m S 11.75m SW 11.75m W 7.5m NW 6.75m	3m	N 1m S 3m	Mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; asymmetrical crown as suppressed by adjacent specimens; meshing crown providing companion shelter; significant component of group in which it stands; field boundary tree; tree within group of moderate visual importance; in keeping with character of the area.	B (12)
183	G3 27/96	English oak	17.5m	880mm	N 9m NE 8.5m E 4m S 9.5m SW 10.75m W 10m NW 8.25m	2m	N 2.5m S 1.5m	Mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; wounding on E trunk fully occluded but evidence of weeping exudate; no differences in tone when sounded with acoustic mallet; twin-stemmed from 1.5m, showing a acute, but tensile union; wide spreading canopy; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands; in keeping with character of the area.	B (12)
184	G3 27/96	English oak	20m	510mm	N 7.5m NE 6.75m E 2.5m S 3m SW 6m W 5.25m NW 6.75m	6m	N 4m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; asymmetrical one-sided crown as suppressed by adjacent specimens; aerodynamic meshing crown providing companion shelter; inessential component of group in which it stands; in keeping with character of the area.	B (2)
185	G3 27/96	English oak	20.5m	730mm	N 4m E 4.75m S 11.75m W 5.25m	3m	N 4m S 2m	Mature	Average	Indifferent	Prominent buttress roots; single trunk; aerodynamic meshing crown providing companion shelter; significant component of group in which it stands; tree within group of moderate visual importance; field boundary tree; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
186	G3 27/96	English oak	17.5m	500mm	N 7.25m NE 6.25m E 3m S 9m W 2.25m	5m	N 2.5m S 6m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; drawn-up and suppressed; asymmetrical crown N and S as suppressed by adjacent specimens; inessential component of group in which it stands.	C (12)
187	G3 27/96	English oak	16.5m	810mm	N 6m NE 5.5m E 5.5m S 9.75m W 6m	2.5m	N 5m S 6m	Mature	Below average	Indifferent	Abnormal swelling or 'bottle-butt' at base; significant differences in tone when N base of trunk sounded with acoustic mallet; extends for approx. 1/3 circumference of base; decay of bark from 0.75m on N side evident; internal heartwood exposed; lateral penetration of 600mm achieved; wide spreading drawn up crown; notably reduced shoot extension lengths; above average deadwood throughout mid to upper canopy; significant component of group in which it stands; in keeping with the character of the site and local area.	C (12)
188	G3 27/96	English oak	8m	295mm	N 1m E 1m S 2m SW 4m W 3.25m	2m	4m	Semi-mature	Average	Indifferent	Suppressed crown as overtopped by adjacent specimens; unremarkable tree of very limited merit; inessential component of group in which it stands.	C (1)
189	G3 27/96	English oak	17.5m	515mm	N 9.25m E 4.5m S 4.5m W 4.25m	3m	N 3m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; asymmetrical crown as suppressed by adjacent specimens; inessential component of group in which it stands as set against E woodland; in keeping with character of the area.	B (12)
190		English oak	22m	895mm	N 9m E 4.25m S 5.25m SW 10.25m W 9.5m NW 9.5m	4m	4m	Mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; woodland edge tree; oak standard; significant component of group in which it stands; in keeping with the character of the site and local area.	B (123)
191		Ash	17.5m	2 stems @ 295mm	N 3.25m E 2.5m S 3m W 5.25m	2m	W 4m	Semi-mature	Average	Poor	Decay at base; twin-stemmed from 1m, showing a tensile union; asymmetrical one-sided crown as suppressed by adjacent specimens; woodland edge tree.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
192		English oak	18.5m	495mm	N 2.5m E 1.5m S 4m W 9.5m	3.25m	W 4m	Semi-mature	Average	Indifferent	Single trunk; drawn-up and suppressed; asymmetrical one-sided crown as suppressed by adjacent specimens; woodland edge tree; inessential component of group in which it stands.	B (2)
193		Ash	21m	625mm	N 5m E 4m S 6.25m W 11m	3m	W 5m	Mature	Average	Moderate	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands; woodland edge tree; in keeping with character of the area.	B (12)
194		Hornbeam	18m	495mm	N 7.5m E 3.5m S 4m W 9.25m NW 9.5m	2m	2.5m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; woodland edge tree; in keeping with character of the area.	B (12)
195		English oak	18m	160mm 200mm 440mm	N 2m E 0.5m S 2m SW 7m W 10m NW 8m	0.5m	W 2m	Semi-mature	Average	Indifferent	Multi-stemmed from base with tensile unions; canopy entirely offset from base; woodland edge tree; in keeping with character of the area.	C (12)
196		English oak	21m	580mm	N 6.5m E 6m S 5.25m W 7m NW 6.5m	3m	W 6m	Semi-mature	Average	Moderate	Prominent buttress roots; single trunk; aerodynamic meshing crown providing companion shelter; significant component of group in which it stands; woodland edge tree.	B (12)
197		English oak	20m	845mm	N 5.5m E 5m S 5m W 6m	4m	W 4m	Mature	Below average	Indifferent	Prominent buttress roots; single trunk; small cavities on trunk; oak standard; woodland edge tree.	B (23)
198		English oak	20m	690mm	N 7.5m E 3m S 6.25m W 8m NW 7.5m	4m	W 6m	Semi-mature	Average	Moderate	Asymmetrical one-sided crown as suppressed by adjacent specimens; prominent buttress roots; single trunk; oak standard; woodland edge tree.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
199		English oak	20m	510mm	N 7m E 1m S 7m W 8.25m	2.5m	W 2m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; canopy entirely offset from base; woodland edge tree; oak standard; in keeping with character of the area.	B (2)
200		Aspen	20m	370mm	3.5m	4m	4m	Semi-mature	Average	Indifferent	Self-seeded specimen; inessential component of wider landscape; out of keeping with character of the area.	C (12)
201		English oak	18m	630mm	N 5m E 3m S 4m W 5.5m	4m	4m	Mature	Below average	Indifferent	Single trunk; asymmetrical crown as suppressed by adjacent specimens; above average dead wood in crown; notably reduced shoot extension growths; woodland edge tree; oak standard.	B (13)
202-204		Aspen	#T202 19m #T203 19m #T204 19m	#T202 360mm #T203 350mm #T204 350mm	N 2.75m E 1.5m S 2m W 3.5m	4m	W 6m	Semi-mature	Average	Indifferent	Self-seeded specimens; drawn-up and mutually suppressed; aerodynamic group with meshing crowns providing companion shelter; woodland edge trees; out of keeping with character of the area.	C (12)
205		English oak	19m	510mm	N 4.25m E 3.75m S 4.5m W 6m NW 6m	3.5m	W 5m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; woodland edge tree; in keeping with character of the area.	B (12)
206		English oak	19m	365mm	N 3.75m E 2m S 2m W 6.5m NW 7m	3m	W 4m	Semi-mature	Average	Indifferent	Single trunk; asymmetrical crown as suppressed by adjacent specimens; woodland edge tree; high crown; inessential component of group in which it stands.	C (12)
207		Hornbeam	19m	375mm 2 stems @ 380mm 360mm 290mm 490mm	N 8.75m E 7m S 6.75m W 7.25m	1.5m	W 2m	Mature	Average	Indifferent	Multi-stemmed from base with tensile unions; asymmetrical crown as suppressed by adjacent specimens; woodland edge tree; significant component of the group in which it stands; in keeping with character of the area.	B (12)
208		English oak	21m	680mm	N 7.25m E 3.5m S 3.5m W 10m	2m	W 1.5m	Mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; asymmetrical one-sided crown as suppressed by adjacent specimens; oak standard; woodland edge tree; in keeping with character of the area.	B (2)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
209		English oak	17m	405mm	N 1m E 0.5m S 1m SW 8m W 8.25m NW 9.5m	3m	W 1.5m	Semi-mature	Average	Indifferent	Single trunk on bank; canopy entirely offset from base; woodland edge tree; inessential component of group in which it stands.	C (12)
210		English oak	19m	445mm	N 1.25m E 1m S 1m W 7.25m	4m	W 6m	Semi-mature	Average	Indifferent	Single trunk on bank; canopy entirely offset from base; woodland edge tree; inessential component of group in which it stands.	C (12)
211		English oak	21m	665mm	N 4.75m E 6.25m S 5m W 5.75m	5m	W 10m	Mature	Average	Moderate	Prominent buttress roots; single trunk on bank; oak standard; woodland edge tree; significant component of group in which it stands.	B (12)
212		English oak	18m	425mm	N 1m E 0.5m S 1m SW 7.75m W 9.75m NW 8.5m	5m	W 3m	Semi-mature	Average	Indifferent	Single trunk on bank; canopy entirely offset from base; woodland edge tree; inessential component of group in which it stands.	C (12)
213		English oak	18m	325mm 330mm	N 1m E 0.5m S 1m W 8.5m NW 9m	3m	W 4m	Semi-mature	Average	Indifferent	Twin-stemmed from 1m, showing acute yet tensile union; canopy entirely offset from base; woodland edge tree.	C (12)
214		Hornbeam	20m	445mm	N 5.25m E 4m S 3.5m W 6.5m NW 9.5m	2m	NW 1.5m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; asymmetrical crown as suppressed by adjacent specimens; woodland edge tree; significant component of group in which it stands.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
215		Hornbeam	10m	265mm	N 0.5m E 0m S 0.5m W 11.75m	2m	W 0.5m	Semi-mature	Average	Indifferent	Canopy entirely offset from base; inessential component of group in which it stands.	C (1)
216		English oak	21m	570mm	N 4m E 4m S 5m W 11.5m	4m	W 4m	Semi-mature	Average	Moderate	Prominent buttress roots; single trunk on bank; dominant crown; oak standard; woodland edge tree; significant component of group in which it stands.	B (12)
217		English oak	10m	210mm est.	N 0.5m S 0.5m W 12.75m NW 10m	3m	W 3m	Semi-mature	Average	Indifferent	Canopy entirely offset from base; unremarkable tree of very limited merit.	C (1)
218		Hornbeam	14.5m	300mm 360mm	N 2m E 5m S 4m SW 11.5m W 12.5m NW 12.25m	1.5m	W 1.5m	Semi-mature	Average	Indifferent	Single trunk on bank; notable asymmetrical crown as suppressed by adjacent specimens; suppressed crown as overtopped by adjacent specimens; woodland edge tree.	C (1)
219		English oak	20m	495mm	N 4m E 4.5m S 5.25m W 7m	5m	W 6m	Semi-mature	Average	Indifferent	Single trunk on bank; dominant crown; oak standard; woodland edge tree; in keeping with character of the area.	B (12)
220		English oak	20m	510mm	N 4m E 3m S 4m SW 8m W 8.25m NW 7.25m	3.5m	W 2m	Semi-mature	Average	Indifferent	Single trunk on bank; asymmetrical crown as suppressed by adjacent specimens; dominant crown; woodland edge tree; significant component of group in which it stands.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
221		English oak	16.5m	550mm	N 1.5m E 0.5m S 0.5m SW 9m W 10.5m NW 9.5m	3m	W 1m	Semi-mature	Average	Indifferent	Single trunk on bank; asymmetrical one-sided crown as suppressed by adjacent specimens; canopy entirely offset from base; woodland edge tree; in keeping with character of the area.	C (12)
222		Field maple	9m	180mm est.	N 1m E 1m S 1.75m W 4m	1m	W 1m	Semi-mature	Average	Indifferent	Small self-seeded specimen; suppressed crown as overtopped by adjacent specimens.	C (1)
223		English oak	20.5m	665mm	N 12m E 3m S 11.25m SW 12m W 10.75m NW 12m	3.5m	W 8m	Mature	Average	Moderate	Prominent buttress roots; single trunk on bank; dominant crown; oak standard; woodland edge tree; significant component of group in which it stands; in keeping with character of the area.	B (12)
224		Hornbeam	16m	405mm	N 10m E 3m S 8m W 9.5m	2m	W 1m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk on bank; notably asymmetrical crown as suppressed by adjacent specimens; suppressed crown as overtopped by adjacent specimens; woodland edge tree; in keeping with character of the area.	C (12)
225		English oak	20m	920mm	N 5m E 7m S 7.5m W 11.25m	3m	W 3.5m	Mature	Below average	Moderate	Prominent buttress roots; single trunk; dominant crown; above average dead wood in crown; oak standard; woodland edge tree; significant component of group in which it stands; in keeping with character of the area.	B (123)
226		Hornbeam	10m	290mm 340mm	N 0.75m E 8.5m SE 6.5m S 0.5m W 9.5m NW 12.25m	1.5m	W 0.5m	Semi-mature	Average	Poor	Twin-stemmed from base into two distinct E W stems; W stem cracking and decay on upper side; internal heartwood exposed; no significant differences in tone when sounded with acoustic mallet; canopies entirely offset from base; suppressed crowns as overtopped by adjacent specimens; woodland edge tree.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
227		Hornbeam	20m	395mm	N 4.5m E 6.5m S 4m W 10.75m	2m	W 5m	Semi-mature	Average	Indifferent	Single trunk on bank; tight compression fork with evidence of included bark; woodland edge tree; significant component of group in which it stands.	B (2)
228	T10 27/96	English oak	15.5m	980mm	N 8.5m E 10.5m S 10.25m SW 10m W 8.25m	2.5m	1m	Mature	Average	Moderate	Prominent buttress roots; single trunk; forks into multiple codominant stems at 3m; wide spreading dominant canopy; squat form; field boundary indicator; readily visible in moderate to long views across fields to N, anticlockwise to SW; in keeping with the character of the site and local area.	A (12)
229-230		English oak	#T229 12m #T230 12m	#T229 460mm #T230 300mm	N 7m E 4.5m S 3.5m W 5.5m	2m	N 2m	Semi-mature	Average	Indifferent	Off-site trees; small self-seeded specimens; woodland edge trees; small area of recent secondary woodland; significant components of group in which they stand.	C (12)
231		English oak	14.5m	530mm	N 7m E 6.25m S 5.5m W 5.5m	1.75m	N 4m	Semi-mature	Average	Poor	Off-site tree; prominent buttress roots; tight compression fork with evidence of included bark; significant component of group in which it stands; woodland edge tree.	C (12)
232		English oak	14m	280mm 200mm 300mm	N 6m E 3m S 6m W 4.5m	1m	N 4m	Semi-mature	Average	Indifferent	Off-site tree; woodland edge tree; significant component of group in which it stands.	B (2)
233		English oak	11.5m	220mm 285mm	N 3.75m E 4.5m S 4m W 4.5m	3m	N 4m	Semi-mature	Average	Poor	Twin-stemmed from base; tight compression fork with evidence of included bark; woodland edge tree.	C (12)
234		English oak	11m	385mm	N 5m E 3.25m S 4.5m W 5m	3m	N 3.5m	Semi-mature	Average	Indifferent	Off-site tree; single trunk; woodland edge tree.	B (2)
235		English oak	12m	380mm	N 6m E 6.25m S 5m W 4.5m	2.5m	N 1.5m	Semi-mature	Average	Moderate	Prominent buttress roots on ditch edge; single trunk; woodland edge tree; significant component of group in which it stands.	B (12)
236		English oak	11m	340mm	N 4.5m E 5m S 5m W 4.5m	3m	N 3m	Semi-mature	Average	Moderate	Small self-seeded specimen; woodland edge tree; in keeping with character of the area.	B (2)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
237		English oak	7m	285mm	N 5m E 3m S 3m W 5m	1.5m	1m	Semi-mature	Average	Indifferent	Small self-seeded specimen; inessential component of wider landscape; unremarkable tree of very limited merit.	C (1)
238		English oak	13.5m	2 stems @ 325mm	N 6.5m E 7m S 6.5m W 5.5m	1.5m	1m	Semi-mature	Average	Indifferent	Off-site tree; twin-stemmed from base; tight compression forks with evidence of included bark, although cambium fused at 1.5m; inessential component of wider landscape.	C (12)
239		English oak	13m	280mm	N 4m E 3.75m S 4.5m W 2.75m	1m	2m	Semi-mature	Average	Moderate	Off-site tree; small self-seeded specimen; of moderate quality, but currently of low value due to small size.	C (12)
240		English oak	14m	295mm	N 3.75m E 3.5m S 4m W 4m	2m	2.75m	Semi-mature	Average	Moderate	Off-site tree; small self-seeded specimen; of moderate quality, but currently of low value due to small size.	C (1)
241		English oak	6m	145mm	N 1m E 2.5m S 2.5m W 1.75m	1m	S 1.5m	Semi-mature	Average	Indifferent	Small self-seeded specimen; unremarkable tree of very limited merit.	C (1)
242	T6 27/96	English oak	14.5m	655mm	N 9m E 7.25m S 7.25m SW 10.25m W 9.75m NW 9.5m	3m	N 1m	Mature	Average	Moderate	Prominent buttress roots; twin-stemmed from 1.5m, showing tensile union; squat; dominant crown; significant component of group in which it stands; field boundary tree; in keeping with the character of the area.	B (12)
243	T5 27/96	English oak	17m	905mm	N 11m NE 11.25m E 7.25m S 8m SW 8.5m W 10m NW 9m	2m	1.5m	Mature	Average	Moderate	Prominent buttress roots; historic tear-out wound on S trunk from codominant stem failure; internal heartwood exposed; no progressive decay present; no differences in tone when sounded with acoustic mallet; asymmetrical crown as suppressed by adjacent specimens; readily visible between fields; wide spreading canopy; field boundary tree; in keeping with character of the area.	A (2)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
244		English oak	5m	335mm	N 0.5m E 0.5m S 6m SW 8m W 9m	1m	S 1.5m	Semi-mature	Average	Indifferent	Canopy entirely offset from base; suppressed crown as overtopped by adjacent specimen; inessential component of wider landscape.	C (1)
245	T4 27/96	English oak	9m	320mm est.	N 2m E 4.75m SE 9.5m S 8.25m SW 7.25m W 4m	3m	S 1m	Semi-mature	Average	Indifferent	Single trunk; canopy entirely offset from base; of low quality, and low value due to small size; inessential component of wider landscape.	C (1)
246	T3 27/96	English oak	20m	1115mm ivy	N 10.5m NE 5m E 3.25m S 5.5m SW 10.25m W 9.25m NW 9m	4m	N 1.75m	Mature	Average	Indifferent	Prominent buttress roots N; trunk 1.75m N of stream; heavily ivy-covered; twin-stemmed from 2m, showing acute yet tensile union; reaction wood more pronounced on E side; asymmetrical one-sided crown as historically suppressed by adjacent failed specimen to E; readily visible between fields, most notably in E/SE facing directions predominantly from road to E; in keeping with character of the area.	B (2)
247		English oak	13m	825mm	N 9m E 5m SE 7m S 7.25m W 9.5m	1.5m	E 3m	Mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; tree within group of moderate visual importance; in keeping with character of the area.	B (12)
248		English oak	15m	785mm	N 6.25m E 8m SE 9.5m S 7m W 7.75m	2m	E 1.5m	Mature	Average	Indifferent	Historic tear-out wound on NE trunk from codominant stem; internal heartwood exposed; notable reaction wood and gate posts present; no significant differences in tone when lower trunk tapped with acoustic hammer; dominant crown; field boundary tree; significant component of group in which it stands; in keeping with character of the area.	B (12)
249		English oak	17m	770mm	N 11.25m E 10m SE 9.25m S 7.75m W 11.5m	3m	E 1m	Mature	Average	Moderate	Prominent buttress roots N and W; asymmetrical crown as suppressed by adjacent specimens; dominant crown; significant component of group in which it stands; field boundary tree; contributes to boundary screening; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
250		English oak	17m	1070mm	N 9.75m NE 11.75m E 11.25m SE 9.5m S 10.5m W 10.75m	2.5m	E 1.75m	Mature	Average	Moderate	Prominent buttress roots on all but W sides; single trunk; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; significant component of group in which it stands; contributes to boundary screening with school; in keeping with character of the area.	B (12)
251		English oak	12m	550mm	N 6.75m E 5.75m SE 6m S 5.5m W 7.25m	2m	E 1.75m	Semi-mature	Average	Indifferent	Prominent buttress roots; single trunk; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; contributes to boundary screening; significant component of group in which it stands; in keeping with character of the area.	B (12)
252		English oak	13m	455mm	N 4.5m E 5.75m SE 6m S 7.25m W 5m NW 7.5m	2.75m	E 1.75m	Semi-mature	Average	Indifferent	Single trunk; asymmetrical crown as suppressed by adjacent specimens; meshing crown providing companion shelter; field boundary tree; significant component of group in which it stands; in keeping with character of the area.	B (12)
253		Ash	13.5m	335mm 345mm 285mm	N 4m E 4m S 7.5m SW 8m W 7m NW 7m	4m	E 3m	Semi-mature	Average	Indifferent	Three-stemmed from base with tensile unions; stems drawn-up and mutually suppressed; asymmetrical crown as suppressed by adjacent specimens; contributes to boundary screening; field boundary tree; inessential component of group in which it stands; in keeping with character of the area.	C (12)
254		English oak	16m	770mm	N 8m E 6.75m SE 8.5m S 9m SW 9.5m W 8.5m	2.25m	E 3m	Mature	Average	Moderate	Prominent buttress roots E; single trunk; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands; field boundary tree; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
255		Ash	16.5m	150mm 155mm 200mm 215mm 280mm 165mm 325mm 310mm 320mm	N 7m E 7.5m SE 8.25m S 8m W 8m	3m	E 1.75m	Mature	Average	Indifferent	Multi-stemmed from base with tensile unions; stems drawn-up and mutually suppressed; asymmetrical crown as suppressed by adjacent specimens; field boundary tree; contributes to boundary screening; significant component of group in which it stands; in keeping with character of the area.	B (2)
256		English oak	19.5m	1240mm	N 8.25m NE 8.5m E 9.25m SE 16.25m S 11.5m W 10.5m	3m	E 2.5m	Mature	Average	Indifferent	Prominent buttress roots; no evidence of dysfunction, decay or fungal fruiting bodies evident at base; single trunk; forks into multiple large diameter scaffold stems at 3m; historic lateral branch failure S side at 2.5m, est. dia. 350mm; internal heartwood exposed; brown cubical decay visible; secondary lateral limb, growing to S demonstrates upper surface wounding with internal heartwood and decay present for length of approx. 3.5m, before limb doglegs to S, forming S canopy apical extents; some adaptive compression growth evident on underside of limb; further apical codominant stems with deadwood and wounds with internal heartwood exposed and decay evident; no evidence of lower canopy retrenchment; field boundary tree; contributes with boundary screening with adjacent school fields; essential component of group in which it stands; in keeping with the character of the site and local area.	A (123)
257		English oak	15.5m	725mm	N 7.75m NE 10m E 11.25m S 10.5m W 7.5m	2.5m	NE 0.75m	Mature	Average	Indifferent	Prominent buttress root N; single partially swept trunk; asymmetrical crown as suppressed by adjacent specimens; roadside tree; significant component of group in which it stands; contributes to boundary screening; in keeping with character of the area.	B (12)
258		English oak	13m	305mm est.	N 5m E 2.5m S 2.5m W 3.5m	2.5m	N 3m	Semi-mature	Average	Indifferent	Off-site tree; small self-seeded specimen; decay at base; tight compression fork with evidence of included bark; contributes to boundary screening; inessential component of wider landscape.	C (12)
259		English oak	14m	300mm 410mm	N 6m E 3.25m S 4m W 5.75m	2m	N 1.75m	Semi-mature	Average	Indifferent	Off-site tree; twin-stemmed from base with tensile union; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands; contributes to boundary screening; inessential component of wider landscape.	C (12)
260		English oak	13.5m	275mm	N 4.25m E 4.75m S 2.25m W 1m	2.5m	N 2m	Semi-mature	Average	Indifferent	Off-site tree; small suppressed specimen; inessential component of group in which it stands; unremarkable tree of very limited merit.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
261		English oak	13.5m	340mm 325mm	N 4m NE 6.25m E 6.25m S 5.5m W 3.25m	1m	E 1.75m	Semi-mature	Below average	Indifferent	Off-site tree; single trunk; multi-stemmed from 1.5m with tensile unions; asymmetrical one-sided crown as suppressed by adjacent specimens; contributes to boundary screening; inessential component of wider landscape.	C (12)
262		Ash	10.5m	230mm 200mm 175mm 240mm	N 6m NE 8m E 8m S 5.5m W 4.5m	2m	NE 1.75m	Semi-mature	Average	Indifferent	Off-site tree; multi-stemmed from base; stems drawn-up and mutually suppressed; asymmetrical crown as suppressed by adjacent specimens; contributes to boundary screening; inessential component of wider landscape.	C (12)
263		English oak	13.5m	675mm	N 7m NE 8.25m E 8.5m S 9.75m W 8m	2m	N 3.5m	Mature	Average	Moderate	Off-site tree; roadside tree; in keeping with character of the area.	B (12)
264-265		English oak	#T264 13m #T265 13m	#T264 425mm est. #T265 350mm est.	N 3.5m E 4m S 6m W 5m	1m	W 1.5m	Semi-mature	Average	Indifferent	Off-site trees; aerodynamic meshing crowns providing companion shelter; of only low-level screening value; inessential components of wider landscape.	C (1)
266		English oak	12m	775mm est.	4.75m	3m	4m	Over-mature	Low	Poor	Moribund; cavity on trunk; decay at base; may be of ecological value; inessential component of wider landscape.	U (1)
267		Hawthorn	6.5m	8 stems @ 110mm est.	N 6.25m E 4.75m S 5m W 5.75m NW 6m	1m	W 1.5m	Semi-mature	Average	Poor	Multi-stemmed from base; contributes to boundary screening; inessential component of wider landscape.	C (1)
268		English oak	8m	180mm	N 2.5m E 2m S 2m W 3.5m	1.5m	W 0.5m	Semi-mature	Average	Indifferent	Small self-seeded specimen; unremarkable tree of very limited merit.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
269	T2 27/96	English oak	14m	600mm 805mm	N 7m NE 7.5m E 8m S 9m W 8.5m	2m	N 1m	Mature	Average	Moderate	Prominent buttress roots N; twin-stemmed from 2m, showing acute, yet tensile union; dominant crown; field boundary tree; readily visible between fields; contributes to boundary screening; in keeping with character of the area.	B (12)
270		Ash	12m	350mm est.	N 5.5m NE 5m E 4m S 5.5m W 6m	2m	N 3m	Semi-mature	Average	Indifferent	Off-site tree; located on S side of bank; single trunk; asymmetrical crown as suppressed by adjacent specimens; contributes to boundary screening; in keeping with character of the area.	B (2)
271	T1 27/96	English oak	17.5m	430mm 850mm 680mm ivy	N 8m NE 8.25m E 9m S 10m W 10m NW 10.25m	2.5m	NW 1.75m	Mature	Average	Indifferent	Prominent buttress roots; three-stemmed from base, with acute yet tensile unions; wide spreading dominant canopy; slight dieback at apical branch tips; field boundary tree; readily visible between fields; contributes to boundary screening; in keeping with character of the area.	B (12)
272		English oak	7.5m	230mm	3.75m	1m	N 3m	Semi-mature	Average	Moderate	Off-site tree; small self-seeded specimen; of moderate quality, but currently of low value due to small size; field boundary tree; of future landscape potential and contribution to field boundary indication, in keeping with the character of the site and local area.	C (12)
273		Hawthorn	9m	3 stems @ 210mm est.	N 5m NE 5.75m E 6m S 5m W 4m	1m	N 2m	Semi-mature	Average	Indifferent	Off-site tree; located on S side of stream; multi-stemmed from base; asymmetrical crown as suppressed by adjacent specimens; contributes to boundary screening with school; in keeping with character of the area.	C (12)
274		Hawthorn	7m	4 stems @ 100mm est.	N 4.5m NE 5m E 4.75m S 3.5m W 3.75m	1m	N 1m	Semi-mature	Average	Indifferent	Off-site tree; multi-stemmed from base; contributes to boundary screening.	C (12)
275		English oak	10m	300mm est.	N 4m E 5m S 5m W 3m	1.5m	N 4m	Semi-mature	Average	Moderate	Off-site tree; field boundary tree; contributes to boundary screening; in keeping with character of the area.	B (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
276		Ash	13.5m	240mm est.	N 6m NE 6m E 6m S 3m W 3m	2.5m	N 2m	Semi-mature	Average	Indifferent	Small self-seeded specimen; located directly on bank edge of stream; asymmetrical crown as suppressed by adjacent specimens; inessential component of group in which it stands.	C (12)
277		Ash	13m	230mm est.	N 3.75m E 3m S 3.25m W 3.5m	4m	N 4m	Semi-mature	Average	Moderate	Small self-seeded specimen; drawn-up and suppressed; woodland edge tree; contributes to boundary screening with road; inessential component of group in which it stands.	C (12)
278		Ash	13.5m	415mm	N 7m E 7.5m S 5.75m W 6m	1.5m	E 6m	Semi-mature	Average	Indifferent	Roadside tree; forks into three codominant stems at 2m with acute yet tensile unions; asymmetrical crown as suppressed by adjacent specimens; significant component of group in which it stands; readily visible from road.	B (12)
279		English oak	12m	560mm ivy	N 3.25m E 4m S 5m W 4.5m	2m	N 3m	Semi-mature	Below average	Indifferent	Single trunk; small self-seeded specimen; heavily ivy-covered; notably reduced shoot extension growths; readily visible for a short distance along road; hidden in all other long direct public views.	C (12)
280		English oak	13.5m	670mm ivy	N 8m E 6m S 7m W 6.5m NW 7.5m	3m	3.5m	Mature	Average	Indifferent	Prominent buttress roots E; single trunk; wide spreading dominant canopy; woodland edge tree; significant component of group in which it stands; readily visible from road; in keeping with character of the area.	B (12)
281		Hawthorn	6m	3 stems @ 200mm est. 220mm	N 5.5m E 4m S 4.5m W 3m	1m	N 2m	Semi-mature	Average	Poor	Multi-stemmed from base; heavily ivy-covered; suppressed crown as overtopped by adjacent specimens; unremarkable tree of very limited merit.	C (1)
282		English oak	15m	385mm	N 4.5m E 4m S 3.25m W 3.25m	3m	3m	Semi-mature	Average	Moderate	Prominent buttress roots E; single trunk; roadside tree; readily visible from road; drainage feature adjacent to base; upper NW canopy quadrant beginning to envelope street light.	B (1)
283		English oak	12m	490mm ivy	N 4.25m E 3m S 2.75m W 5m	3m	W 1.75m	Semi-mature	Average	Indifferent	Prominent buttress roots; saprophytic fungal bodies at base; no differences in tone when sounded with acoustic mallet; swept stem; small self-seeded specimen; readily visible from road; inessential component of wider landscape.	C (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
284		Sweet chestnut	5m	235mm	N 1.5m E 3m S 1m W 1.75m	2m	N 2m	Semi-mature	Below average	Indifferent	Small self-seeded specimen; unremarkable tree of very limited merit; inessential components of wider landscape.	C (1)
285		English oak	12m	200mm 140mm 160mm 220mm	N 6m E 5.25m S 4.5m W 5.75m	2m	2.25m	Semi-mature	Average	Poor	Multi-stemmed from base; tight compression forks with evidence of included bark; inessential component of wider landscape.	C (12)
286		Cockspur thorn	8.5m	260mm	N 3.5m E 3m S 2.75m W 3.5m	2m	1.75m	Semi-mature	Average	Poor	Multi-stemmed from 1m; tight compression forks with evidence of included bark; inessential component of wider landscape.	C (1)
287		Cockspur thorn	5.5m	6 stems @ 100mm est.	N 2m E 3.25m S 3.5m W 3m	0.5m	1m	Semi-mature	Low	Poor	Moribund; tight compression forks beginning to split apart; inessential component of wider landscape.	U (1)
288		Unidentifiable	7.5m	340mm	N 4m E 2m S 2.75m W 4.5m	2m	N 2m	Semi-mature	Average	Poor	Decay at base; inessential component of wider landscape; unremarkable tree of very limited merit.	C (1)
289		Cockspur thorn	5m	220mm est.	N 1.75m E 3m S 3m W 2m	1m	E 1.5m	Semi-mature	Average	Indifferent	Tight compression forks with evidence of included bark; suppressed crown as overtopped by adjacent specimens; inessential component of wider landscape.	C (1)
290		English oak	11m	435mm	N 7m E 6m S 6.5m W 7m	2m	N 3m	Semi-mature	Average	Moderate	Small self-seeded specimen; readily visible for a short distance along road; hidden in all other long direct public views; inessential component of wider landscape; unremarkable tree of very limited merit; contributes to boundary screening.	C (12)
291		English oak	10.5m	370mm	N 6m E 4.5m S 5.75m W 5.75m	2m	2.5m	Semi-mature	Average	Indifferent	Off-site tree; roadside tree; significant tear-out wound in upper crown.	C (1)
292		English oak	18m	480mm 615mm	N 8m E 10.75m S 8.75m W 9m	2.5m	E 4m	Mature	Average	Indifferent	Roadside tree; twin-stemmed from base with tensile union; wide spreading dominant canopy; readily visible from road; in keeping with character of the area.	B (12)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
G1		Various	13m	Max 3 stems @ 225mm est.	N 2m E 2m S 3m W 2m	0m	0m	Semi-mature	Average	Indifferent	Row of closely growing specimens, forming a boundary of scrub and screening; small self-seeded specimens; species include oak, goat willow, ash, hawthorn and silver birch; providing screening for private garden.	C (2)
G2		Various	7m	Max 160mm est.	N 3m E 3m S 4m W 3m	0m	0m	Young	Average	Indifferent	Row of closely growing specimens, forming a boundary of scrub and screening for private gardens; species including oak, ash, hawthorn and bramble.	C (1)
G3		Various	7m	Max 250mm est.	4m	0m	0m	Semi-mature	Average	Indifferent	Row of scrub acting as screening for gardens; species include goat willow, silver birch, hawthorn and bramble; visible from public footpath to E; inessential component of group in which it stands.	C (2)
G4		Leyland cypress	7m	Max 300mm	S 3.5m	0.5m	S 0m	Semi-mature	Average	Indifferent	Off-site group of trees; of screening value for garden.	C (1)
G5		Various	10m	Max 150mm	N 5m E 5m S 5m W 5m	0m	0m	Semi-mature	Average	Indifferent	Group growing along waterlogged ditch line; species include goat willow, oak, blackthorn and bramble.	B (12)
G21		Goat willow	6m	Max 4 stems @ 110mm est.	5m	0.5m	0.5m	Semi-mature	Average	Poor	Predominantly clusters of self seeded specimens, including x1 English oak max dbh 85mm; growing along filed ditch; multi-stemmed from base; tight compression forks with evidence of included bark; unremarkable trees of very limited merit.	C (1)
G22		Goat willow	7m	Max 15 stems @ 35mm est.	5m	0.2m	0.2m	Semi-mature	Average	Poor	Small self-seeded specimens; multi-stemmed from base; unremarkable trees of very limited merit.	C (1)
G23		Goat willow	8m	Max 5 stems @ 100mm est.	4.5m	0.2m	0.2m	Semi-mature	Average	Poor	Multi-stemmed from base; small self-seeded specimens; unremarkable trees of very limited merit.	C (1)
G24		Various	10m	Max 240mm	4m	1.5m	1.75m	Semi-mature	Average	Indifferent	Collection of small self seeded specimens, located within ancient woodland buffer; suppressed crowns as overtopped by adjacent specimens; inessential components of wider landscape; unremarkable trees of very limited merit; spp. Inc hazel, hawthorn, ash, English oak, hornbeam.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio - logy	Structure	Comments	Category
G25		Various	16m	Max 235mm	3.25m	1m	W 1.5m	Semi-mature	Average	Indifferent	Small self-seeded specimens; drawn-up and mutually suppressed; asymmetrical crowns as suppressed by adjacent specimens; inessential components of wider landscape; unremarkable trees of very limited merit; spp. Inc hornbeam and aspen.	C (12)
G26		Aspen	19m	Max 350mm	4.25m	4m	3m	Semi-mature	Average	Indifferent	Self-seeded specimens; asymmetrical crown as suppressed by adjacent specimens; inessential components of wider landscape; unremarkable trees of very limited merit.	C (12)
G27		Various	11.5m	Max 200mm est.	4m	0.5m	0.75m	Semi-mature	Average	Poor	Low level woodland edge scrub; group of small self-seeded specimens; spp. Inc sycamore, goat willow, bramble, English oak, hawthorn, field maple; inessential components of wider landscape; unremarkable trees of very limited merit; tight compression forks with evidence of included bark; located within and along drainage ditch.	C (1)
G28		Goat willow	9.5m	Max 8 stems @ 65mm est.	3.25m	0.2m	0.1m	Semi-mature	Average	Poor	Multi-stemmed from base; tight compression forks with evidence of included bark; unremarkable trees of very limited merit.	C (1)
G29		Various	4m	Max 50mm	2m	0.1m	0.1m	Young	Average	Indifferent	Area of scrub including English oak saplings, elder, hazel and bramble; inessential component of wider landscape.	C (1)
G30		Hawthorn	6m	Max 3 stems @ 110mm est.	3m	1m	1m	Semi-mature	Average	Indifferent	Collection of closely growing specimens; Spp. inc. hawthorn, hazel, dogrose; drawn-up and mutually suppressed; tight compression forks with evidence of included bark; inessential components of wider landscape.	C (1)
G31		Various	8m	Max 2 stems @ 130mm	5m	0.1m	0.1m	Semi-mature	Average	Indifferent	Row of closely growing specimens, forming a hedge or screen; spp. Inc hazel, blackthorn, dogrose, myrobalan plum and hawthorn; contributes to boundary screening with school; inessential components of wider landscape.	C (1)
G32		Field maple	11.5m	Max 120mm	2.25m	2m	2m	Semi-mature	Average	Poor	Small self-seeded specimens; drawn-up and mutually suppressed; contributes to boundary screening with road; inessential components of wider landscape.	C (12)
G33		Various	4m	Max 100mm	1.5m	0.1m	0.1m	Young	Average	Indifferent	Low level hedgerow; predominantly bramble with occasional self seeded elm showing notable dieback; of only low-level screening value; unremarkable specimens of very limited merit.	C (1)
G34		Various	6.5m	Max 135mm	3m	0.2m	0.1m	Semi-mature	Average	Indifferent	Small self-seeded specimens; row of closely growing specimens, forming a hedge or screen; spp. Inc buckthorn, hawthorn, bramble, myrobalan plum, elder; contributes to boundary screening; of only low-level screening value; inessential components of wider landscape.	C (1)

No.	TPO no.	Species	Height	Trunk diameter	Radial crown spread	Crown break	Crown clearance	Age class	Physio -logy	Structure	Comments	Category
G35		Various	6.5m	Max 110mm est.	3m	1m	0.1m	Young	Average	Indifferent	Row of closely growing specimens, forming a hedge or screen; small self-seeded specimens; spp. Inc English oak, field maple, dogwood, dogrose, hawthorn, bramble; of only low-level screening value; contributes to boundary screening with school; in keeping with character of the area.	B (2)
G36		English oak	12m	Max 325mm est.	4.5m	1m	1m	Semi-mature	Average	Indifferent	Off-site group of trees; row of closely planted specimens, designed to form a hedge or screen within school grounds.	B (2)
G37		Various	3m	Max 45mm	2m	0.1m	0.1m	Semi-mature	Average	Indifferent	Row of closely growing specimens, forming a hedge or screen; of only low-level screening value; spp. Inc cockspur thorn, bramble, ash, hawthorn; inessential components of wider landscape.	C (1)
W1		Various	Min 8m Max 21m	Max 650mm	6.5m	2m	1m	Mature	Average	Moderate	Located adjacent to NE edge of site; predominantly comprised of multi-stemmed hornbeam; with English oak standards scattered throughout; understorey of hazel along W bund boundary; recent colonisation of aspen on W woodland edge at N extent; drawn-up meshing canopies providing companion shelter; many oak standards forming a cohesive woodland edge; readily visible in in long views across open fields to W; significant component of wider landscape; in keeping with the character of the site and local area.	A (23)
W2		Various	Min 4m Max 14m	Max 350mm	6.6m	0.5m	0.5m	Semi-mature	Average	Indifferent	Off-site woodland; species include goat willow, blackthorn, oak, hawthorn, elder, field maple, dog rose and white willow; understorey mainly comprised of multi-stemmed hawthorn and elder with semi-mature oak and field maple specimens scattered throughout; dense pockets of willow, blackthorn and brambles also present; significant component of wider landscape.	B (2)
W3		Various	14m	Max 295mm	3.25m	2m	2m	Semi-mature	Average	Indifferent	Small area of recent secondary woodland; spp. Inc predominantly ash with English oak; understorey of dogrose and blackthorn; drawn-up and mutually suppressed; aerodynamic group with meshing crowns providing companion shelter; specimens individually of low quality; contributes to boundary screening; readily visible from road; inessential component of wider landscape.	B (2)

Root Protection Areas (RPAs)

Root Protection Areas have been calculated in accordance with paragraph 4.6.1 of the British Standard 'Trees in relation to design, demolition and construction – Recommendations', BS 5837:2012. This is the minimum area which should be left undisturbed around each retained tree. RPAs are portrayed initially as a circle of a fixed radius from the centre of the trunk; but where there appear to be restrictions to root growth the circle is modified to reflect more accurately the likely distribution of roots.

Tree No.	Species	RPA	RPA Radius
1	Field maple	113.1m ²	6.0m
2	Field maple	102.1m ²	5.7m
3	Norway spruce	40.7m ²	3.6m
4	English oak	40.7m ²	3.6m
5	English oak	579.1m ²	13.6m
6	English oak	508.9m ²	12.7m
7	English oak	303.1m ²	9.8m
8	English oak	113.1m ²	6.0m
9	English oak	289.5m ²	9.6m
10	English oak	221.7m ²	8.4m
11	English oak	221.7m ²	8.4m
12	English oak	40.7m ²	3.6m
13	English oak	18.1m ²	2.4m
14	English oak	408.3m ²	11.4m
15	White willow	59.9m ²	4.4m
16	Ash	83.3m ²	5.1m
17	English oak	221.7m ²	8.4m
18-20	English oak	31.8m ²	3.2m
		31.8m ²	3.2m
		40.7m ²	3.6m
21	English oak	136.8m ²	6.6m
22	Weeping willow	366.4m ²	10.8m
23	English oak	162.9m ²	7.2m
24	Silver birch	76.2m ²	4.9m
25	Goat willow	17.0m ²	2.3m
26	English oak	43.5m ²	3.7m
27	English oak	76.0m ²	4.9m
28-29	Goat willow	32.8m ²	3.2m
		102.6m ²	5.7m
30	English oak	346.4m ²	10.5m
31	English oak	338.5m ²	10.4m
32	English oak	395.5m ²	11.2m
33	English oak	91.6m ²	5.4m
34	English oak	70.6m ²	4.7m
35	English oak	139.3m ²	6.7m
36	Hornbeam	179.8m ²	7.6m
37	English oak	117.7m ²	6.1m
38	Hornbeam	146.4m ²	6.8m
39	English oak	296.8m ²	9.7m
40	English oak	200.1m ²	8.0m
41	Hawthorn	106.7m ²	5.8m
42	English oak	127.1m ²	6.4m
43	English oak	165.6m ²	7.3m
44	English oak	53.8m ²	4.1m

45	English oak	293.2m ²	9.7m
46	English oak	70.6m ²	4.7m
47	English oak	47.8m ²	3.9m
48	English oak	127.6m ²	6.4m
49	English oak	49.3m ²	4.0m
50	Ash	104.2m ²	5.8m
51	English oak	2.5m ²	0.9m
52	English oak	2.5m ²	0.9m
53	English oak	374.6m ²	10.9m
54	English oak	131.9m ²	6.5m
55	English oak	40.7m ²	3.6m
56	Ash	392.4m ²	11.2m
57	Field maple	28.3m ²	3.0m
58	Field maple	202.8m ²	8.0m
59	English oak	16.3m ²	2.3m
60	English oak	404.0m ²	11.3m
61	English oak	27.2m ²	2.9m
62	English oak	343.4m ²	10.5m
63	English oak	527.7m ²	13.0m
64	English oak	231.3m ²	8.6m
65	English oak	293.2m ²	9.7m
66	English oak	234.5m ²	8.6m
67	Lombardy poplar	230.1m ²	8.6m
68	English oak	162.9m ²	7.2m
69	Ash	254.5m ²	9.0m
70	Horse chestnut	346.4m ²	10.5m
71	English oak	221.7m ²	8.4m
72	Horse chestnut	293.2m ²	9.7m
73	Ash	53.8m ²	4.1m
151	English oak	706.9m ²	15.0m
152	Goat willow	46.3m ²	3.8m
153	English oak	218.5m ²	8.3m
154	English oak	342.4m ²	10.4m
155	Ash	191.1m ²	7.8m
156	English oak	110.4m ²	5.9m
157	English oak	221.7m ²	8.4m
158	English oak	370.5m ²	10.9m
159	English oak	132.5m ²	6.5m
160	English oak	389.3m ²	11.1m
161	English oak	60.3m ²	4.4m
162	English oak	70.6m ²	4.7m
163	English oak	593.1m ²	13.7m
164	English oak	131.9m ²	6.5m
165	English oak	106.4m ²	5.8m
166	English oak	165.6m ²	7.3m
167	English oak	354.3m ²	10.6m
168	English oak	221.7m ²	8.4m
169	English oak	176.7m ²	7.5m
170	Ash	300.5m ²	9.8m
171	English oak	343.0m ²	10.4m
172	Ash	212.3m ²	8.2m
173	English oak	438.9m ²	11.8m
174	Ash	383.7m ²	11.1m
175	Field maple	195.5m ²	7.9m
176	Field maple	81.4m ²	5.1m
177	English oak	375.1m ²	10.9m

178-179	Silver birch	30.6m ² 14.7m ²	3.1m 2.2m
180	English oak	247.7m ²	8.9m
181	English oak	438.9m ²	11.8m
182	English oak	251.1m ²	8.9m
183	English oak	350.3m ²	10.6m
184	English oak	117.7m ²	6.1m
185	English oak	241.1m ²	8.8m
186	English oak	113.1m ²	6.0m
187	English oak	296.8m ²	9.7m
188	English oak	39.4m ²	3.5m
189	English oak	120.0m ²	6.2m
190	English oak	362.4m ²	10.7m
191	Ash	78.7m ²	5.0m
192	English oak	110.8m ²	5.9m
193	Ash	176.7m ²	7.5m
194	Hornbeam	110.8m ²	5.9m
195	English oak	117.3m ²	6.1m
196	English oak	152.2m ²	7.0m
197	English oak	323.0m ²	10.1m
198	English oak	215.4m ²	8.3m
199	English oak	117.7m ²	6.1m
200	Aspen	61.9m ²	4.4m
201	English oak	179.6m ²	7.6m
202-204	Aspen	58.6m ² 55.4m ² 55.4m ²	4.3m 4.2m 4.2m
205	English oak	117.7m ²	6.1m
206	English oak	60.3m ²	4.4m
207	Hornbeam	390.2m ²	11.1m
208	English oak	209.2m ²	8.2m
209	English oak	74.2m ²	4.9m
210	English oak	89.6m ²	5.3m
211	English oak	200.1m ²	8.0m
212	English oak	81.7m ²	5.1m
213	English oak	97.0m ²	5.6m
214	Hornbeam	89.6m ²	5.3m
215	Hornbeam	31.8m ²	3.2m
216	English oak	147.0m ²	6.8m
217	English oak	20.0m ²	2.5m
218	Hornbeam	99.3m ²	5.6m
219	English oak	110.8m ²	5.9m
220	English oak	117.7m ²	6.1m
221	English oak	136.8m ²	6.6m
222	Field maple	14.7m ²	2.2m
223	English oak	200.1m ²	8.0m
224	Hornbeam	74.2m ²	4.9m
225	English oak	382.9m ²	11.0m
226	Hornbeam	90.3m ²	5.4m
227	Hornbeam	70.6m ²	4.7m
228	English oak	434.5m ²	11.8m
229-230	English oak	95.7m ² 40.7m ²	5.5m 3.6m
231	English oak	127.1m ²	6.4m
232	English oak	94.3m ²	5.5m
233	English oak	58.6m ²	4.3m
234	English oak	67.1m ²	4.6m

235	English oak	65.3m ²	4.6m
236	English oak	52.3m ²	4.1m
237	English oak	36.7m ²	3.4m
238	English oak	95.6m ²	5.5m
239	English oak	35.5m ²	3.4m
240	English oak	39.4m ²	3.5m
241	English oak	9.5m ²	1.7m
242	English oak	194.1m ²	7.9m
243	English oak	370.5m ²	10.9m
244	English oak	50.8m ²	4.0m
245	English oak	46.3m ²	3.8m
246	English oak	562.4m ²	13.4m
247	English oak	307.9m ²	9.9m
248	English oak	278.8m ²	9.4m
249	English oak	268.2m ²	9.2m
250	English oak	517.9m ²	12.8m
251	English oak	136.8m ²	6.6m
252	English oak	93.7m ²	5.5m
253	Ash	141.4m ²	6.7m
254	English oak	268.2m ²	9.2m
255	Ash	225.9m ²	8.5m
256	English oak	695.6m ²	14.9m
257	English oak	237.8m ²	8.7m
258	English oak	42.1m ²	3.7m
259	English oak	116.8m ²	6.1m
260	English oak	34.2m ²	3.3m
261	English oak	100.1m ²	5.6m
262	Ash	81.9m ²	5.1m
263	English oak	206.1m ²	8.1m
264-265	English oak	81.7m ²	5.1m
		55.4m ²	4.2m
266	English oak	271.7m ²	9.3m
267	Hawthorn	43.8m ²	3.7m
268	English oak	14.7m ²	2.2m
269	English oak	456.0m ²	12.0m
270	Ash	55.4m ²	4.2m
271	English oak	619.7m ²	14.0m
272	English oak	23.9m ²	2.8m
273	Hawthorn	59.9m ²	4.4m
274	Hawthorn	18.1m ²	2.4m
275	English oak	40.7m ²	3.6m
276	Ash	26.1m ²	2.9m
277	Ash	23.9m ²	2.8m
278	Ash	77.9m ²	5.0m
279	English oak	141.9m ²	6.7m
280	English oak	203.1m ²	8.0m
281	Hawthorn	76.2m ²	4.9m
282	English oak	67.1m ²	4.6m
283	English oak	108.6m ²	5.9m
284	Sweet chestnut	25.0m ²	2.8m
285	English oak	60.4m ²	4.4m
286	Cockspur thorn	30.6m ²	3.1m
287	Cockspur thorn	27.1m ²	2.9m
288	Unidentifiable	52.3m ²	4.1m
289	Cockspur thorn	21.9m ²	2.6m
290	English oak	85.6m ²	5.2m

291	English oak	61.9m ²	4.4m
292	English oak	275.3m ²	9.4m
G1	Various	22.9m ²	2.7m
G2	Various	11.6m ²	1.9m
G3	Various	28.3m ²	3.0m
G4	Leyland cypress	40.7m ²	3.6m
G5	Various	10.2m ²	1.8m
G21	Goat willow	5.5m ²	1.3m
G22	Goat willow	2.5m ²	0.9m
G23	Goat willow	4.5m ²	1.2m
G24	Various	26.1m ²	2.9m
G25	Various	25.0m ²	2.8m
G26	Aspen	55.4m ²	4.2m
G27	Various	18.1m ²	2.4m
G28	Goat willow	2.5m ²	0.9m
G29	Various	2.5m ²	0.9m
G30	Hawthorn	5.5m ²	1.3m
G31	Various	7.6m ²	1.6m
		4.5m ²	1.2m
G32	Field maple	6.5m ²	1.4m
G33	Various	4.5m ²	1.2m
G34	Various	8.2m ²	1.6m
G35	Various	5.5m ²	1.3m
G36	English oak	47.8m ²	3.9m
G37	Various	2.5m ²	0.9m
W1	Various	191.1m ²	7.8m
W2	Various	55.4m ²	4.2m
W3	Various	39.4m ²	3.5m

APPENDIX 3

Tree Protection Plans

Arboricultural Impacts: Summary			
(For details, see below)			
Impact		No. of Trees	
Trees to be removed		34	
Groups of trees to be fully or partially removed		13	
TPO trees to be removed		5	
Trees to be pruned		12	
Trees where manual excavation needed within RPAs		10	
Trees where above soil surfacing needed within RPAs		28	
Trees to be Removed			
No	Species	Category	
1	Field maple	C (1)	
2	Field maple	C (1)	
18 - 20	English oak	C (1)	
25	Goat willow	C (12)	
26	English oak	C (12)	
27	English oak	C (12)	
30	English oak	U	
36	Hornbeam	C (12)	
70	Horse chestnut	B (12)	
71	English oak	B (12)	
72	Horse chestnut	B (12)	
73	Ash	C (12)	
152	Goat willow	C (1)	
155	Ash	U	
156	English oak	U	
166	English oak	C (12)	
168	English oak	U	
172	Ash	C (12)	
178 - 179	Silver birch	C (1)	
233	English oak	C (12)	
266	English oak	U	
267	Hawthorn	C (1)	
268	English oak	C (1)	
283	English oak	C (12)	
284	Sweet chestnut	C (1)	
285	English oak	C (12)	
286	Cockspur thorn	C (1)	
287	Cockspur thorn	U	
288	Undenifiafale	C (1)	
289	Cockspur thorn	C (1)	
290	English oak	C (12)	
Total numbers of trees to be removed			
Category	No. of trees	Category	No. of trees
A	0	B	4
C	25	U	6
Trees to be pruned			
No.	Species	Works (Outline only)	
4	English oak	Crown reduce SE lateral extents by 2m towards boundary, leaving extents no less than 5.5m from trunk	
28 - 29	Goat willow	Crown reduce NW extents to provide a minimum of 1m clearance from proposed FP, leaving extents no less than 5m from trunk	
68	English oak	Crown lift NW canopy to 2.5m above footpath	
164	English oak	Crown lift W canopy to 2.5m above ground adjacent to proposed footpath	
212	English oak	Crown reduce W canopy extent by up to 2m leaving it no closer than 9.2m from trunk	
213	English oak	Crown reduce W canopy extent by up to 1.5m leaving it no closer than 9m from trunk	
215	Hornbeam	Crown reduce W canopy extent by up to 1.5m leaving it no closer than 6.5m from trunk	
217	English oak	Crown reduce W canopy extent by up to 2m leaving it no closer than 11.7m from trunk	
218	Hornbeam	Crown reduce W canopy extent by up to 2m leaving it no closer than 12.3m from trunk	
245	English oak	Crown lift SE canopy quadrant to 2.5m above ground adjacent to proposed footpath	
262	Ash	Crown lift E canopy extent to 2.5m above ground adjacent to proposed footpath	
Pruning is to be undertaken in accordance with the British Standard Recommendations for Tree work, BS3998: 2010. Climbing irons or spikes are not to be used whilst pruning trees.			
Trees that require manual excavation within RPAs			
No.	Species	Type of structure	
24	Silver birch	Proposed foundations and hard surfacing	
60	English oak	Proposed hard surfacing	
85	English oak	Proposed hard surfacing	
154	English oak	Proposed foundations and hard surfacing	
171	English oak	Proposed retaining structure and 1.5m construction offset	
173	English oak	Proposed retaining structure and 1.5m construction offset	
174	Ash	Proposed access road and vehicle parking	
180	English oak	Proposed retaining structure; 1.5m construction offset	
247	English oak	Proposed foundations	
291	English oak	Proposed roundabout	
Trees that require above soil surfacing within RPAs			
No.	Species	Type of structure	
31	English oak	Proposed semi-natural footpath	
62 - 64	English oak	Proposed access drive	
67	Lombardy poplar	Proposed shared path	
68 - 69	English oak	Proposed footpath widening	
151	English oak	Proposed 1:3 soil batter into VTB	
154	English oak	Proposed footpath	
160	English oak	Proposed 1:3 soil batter	
163	English oak	Proposed 1:3 soil batter	
165	English oak	Proposed 1:3 soil batter	
167	English oak	Proposed 1:3 soil batter	
170	Ash	Proposed shared path and 1:3 soil batter	
177	English oak	Proposed footpath	
180 - 183	English oak	Proposed 1:3 soil batter	
228	English oak	Proposed 1:3 soil batter	
243	English oak	Proposed 1:3 soil batter	
246	English oak	Proposed 1:3 soil batter	
247	English oak	Proposed 1:3 soil batter	
262	Ash	Proposed footpath	
263	English oak	Proposed footpath	
281	Hawthorn	Proposed footpath	
282	English oak	Proposed footpath	
291	English oak	Proposed footpath	



Protective Fencing

To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise either 2.4m wooden site hoarding, or a 2m high scaffolding framework, with uprights at maximum 3m spacings, every other one braced to the ground with 45 degree struts, supporting standard anti-climb 'Heras' welded mesh fence panels secured with anti-lift devices to concrete or plastic bases pinned to the ground by scaffold uprights sunk to a minimum depth of 600mm; individual panels fixed to each other with at least 2 clamps and to scaffolding with heavy-duty cable ties. *TREE PROTECTION ZONE - KEEP OUT* or similar notices to be attached to every fifth panel.

TREE PROTECTION FENCING as shown in BS 5837: 2012, Section 6.2.2 & Figure 2.

Ground Protection

To be installed prior to commencement of demolition or construction works, at same time as erection of protective fencing. For purely pedestrian traffic: scaffold boards or similar, of at least 35mm thickness, butted together and attached to each other with wooden battens or steel tie straps, laid either on an above ground scaffold framework, or on a compressible material (a 75mm deep layer of woodchips may be appropriate) above a biaxial geotextile grid ('geogrid' - 'Tensar' or similar) and pinned to the ground with steel pins to prevent movement.
For wheeled or tracked traffic: temporary aluminium roadway ('Trakway' or similar), interlocking polyethylene treated boards ('Ground-Guards' or similar), or reinforced concrete slabs laid on an appropriate compressible layer above a biaxial geotextile grid - to be designed by a structural engineer to accommodate likely loadings.

Manual Excavation

Within root protection areas the first 750mm depth of any excavation, whether for proposed foundations, hard surfacing, or underground services shall be undertaken by hand under arboricultural supervision. The soil will be loosened with a pick or fork, and then will be cleared from roots with a compressed air soil pick. All roots will be cut cleanly with a hand saw or secateurs. The edge of the excavation closest to the trees will be covered with hessian sacking to prevent drying out, and if necessary be shuttered with an appropriate material to prevent soil collapse. Where appropriate, the soil beneath this depth may be sheet piled; and deeper excavation may be undertaken by a machine provided it works from outside the root protection areas.

Above Soil Surfacing

Proposed hard surfacing for footpaths, cycle surfaces or similar within root protection areas (RPAs) of retained trees to be constructed in accordance with section 7.4 of BS 5837: 2012. Trees in relation to design, demolition and construction - Recommendations. Other than the careful removal, using hand tools, of any turf layer, surfaces will be installed above existing soil level, or no deeper than the base of any existing surfacing it is replacing, so that the soil is not disturbed and no roots are severed; and an appropriate ground covering, possibly using a geogrid, a geoweb, or a combination of the two will be placed beneath the sub-base to minimise compaction of the soil in which tree roots are growing. Edge supports will also be installed above existing soil level.

Where 1:3 soil batters are to be created adjacent to proposed access road, drives and plots, the material to be deposited within RPAs will be well-aggregated fill soil with coarser texture than the existing soil onto which it is deposited. These works will be carried out under the direct control and supervision of the arboricultural consultant to ensure any plant/machinery involved in the works do not traverse RPAs and that material is not stored or allowed to spill beyond the proposed footprint.

Arboricultural Supervision

The arboricultural consultant will directly supervise all construction works that have to be undertaken within root protection areas. These include:

1. Location of protective fencing and ground protection.
2. Construction of above-ground hard surfacing.
3. All excavations, whether for proposed foundations, hard surfacing, or underground services.

SJA trees

ARBORICULTURAL PLANNING CONSULTANTS

Project:

Officers Meadows, Shenfield

Client:

Croudaee Homes

Drawing:

TREE PROTECTION PLAN

Drawing no:

SJA TPP 22579-041 Entire

Based on:

x_Layout_400P_Shenfield Proposed Site Layout

Drawn by:

TES/NHK

Date of issue:

September 2023

Scale:

1: 1500@ A1

Checked by:

FPS

Tel: (01737) 813058

sja@sjatrees.co.uk

Tree nos.:

● 45

Category 'U' trees:

● [155]

Canopies of trees to be retained:

Category 'A' RPA:

Category 'B' RPA:

Category 'C' RPA:

Trees to be removed:

■ 172

Protective fencing:

Ground protection:

Above soil surfacing:

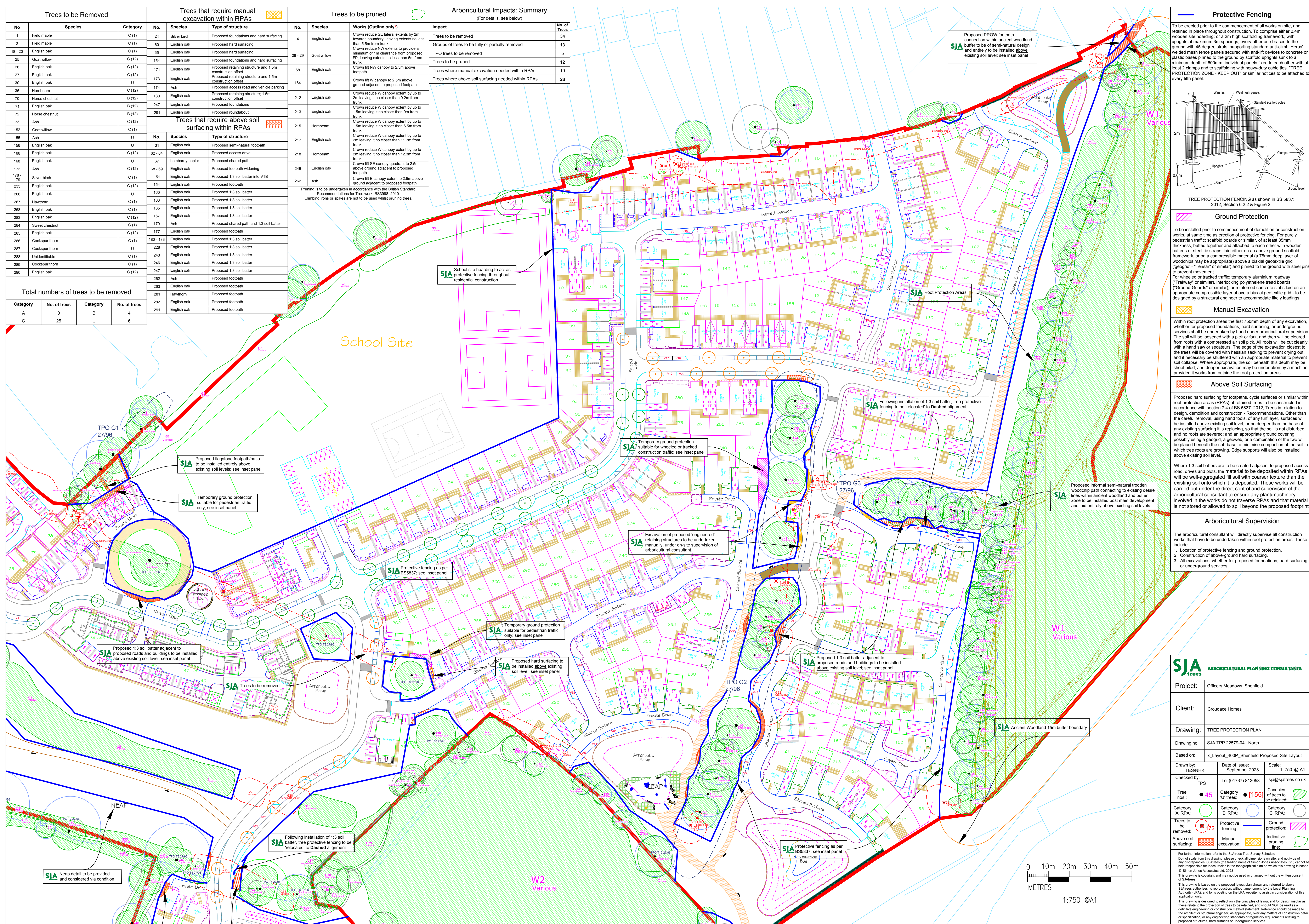
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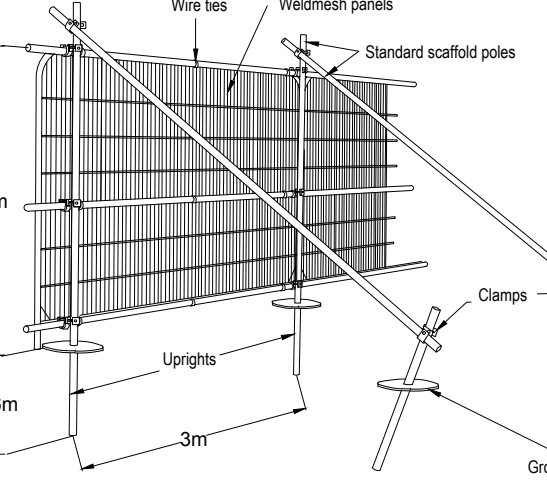
Indicative pruning line:

For further information refer to the SJAtrees Tree Survey Schedule.
Do not scale from this drawing; please check all dimensions on site, and notify us of any discrepancies. SJAtrees (the trading name of Simon Jones Associates Ltd.) cannot be held responsible for inaccuracies in the topographical plan on which this drawing is based.
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This drawing is copyright and may not be used or changed without the written consent of SJAtrees.

This drawing is designed to reflect only the principles of layout and/or design insofar as these relate to the protection of trees to be retained, and should NOT be read as a definitive engineering or construction method statement. Reference should be made to the architect or structural engineer, as appropriate, over any matters of construction detail or specification, or any engineering standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.

Trees to be Removed			Trees that require manual excavation within RPAs			Trees to be pruned			Arboricultural Impacts: Summary		
No	Species	Category	No.	Species	Type of structure	No.	Species	Works (Outline only)	Impact	No. of Trees	
1	Field maple	C (1)	24	Silver birch	Proposed foundations and hard surfacing	4	English oak	Crown reduce SE lateral extents by 2m towards boundary, leaving extents no less than 5.5m from trunk	Trees to be removed	34	
2	Field maple	C (1)	60	English oak	Proposed hard surfacing	28 - 29	Goat willow	Crown reduce NW extents to provide a minimum of 1m clearance from proposed FP, leaving extents no less than 5m from trunk	Groups of trees to be fully or partially removed	13	
18 - 20	English oak	C (1)	65	English oak	Proposed hard surfacing		68	English oak	Crown lift NW canopy to 2.5m above footpath	TPO trees to be removed	5
25	Goat willow	C (12)	154	English oak	Proposed foundations and hard surfacing	164	English oak	Crown lift W canopy to 2.5m above ground adjacent to proposed footpath	Trees to be pruned	12	
26	English oak	C (12)	171	English oak	Proposed retaining structure and 1.5m construction offset		212	English oak	Crown reduce W canopy extent by up to 2m leaving it no closer than 9.2m from trunk	Trees where manual excavation needed within RPAs	10
27	English oak	C (12)	173	English oak	Proposed retaining structure and 1.5m construction offset	213	English oak	Crown reduce W canopy extent by up to 1.5m leaving it no closer than 9m from trunk	Trees where above soil surfacing needed within RPAs	28	
30	English oak	U	174	Ash	Proposed access road and vehicle parking		215	Hornbeam	Crown reduce W canopy extent by up to 1.5m leaving it no closer than 6.5m from trunk		
36	Hornbeam	C (12)	180	English oak	Proposed retaining structure; 1.5m construction offset	217	English oak	Crown reduce W canopy extent by up to 2m leaving it no closer than 11.7m from trunk			
70	Horse chestnut	B (12)	247	English oak	Proposed foundations		218	Hornbeam	Crown reduce W canopy extent by up to 2m leaving it no closer than 12.5m from trunk		
71	English oak	B (12)	291	English oak	Proposed roundabout	245	English oak	Crown lift SE canopy quadrant to 2.5m above ground adjacent to proposed footpath			
72	Horse chestnut	B (12)					262	Ash	Crown lift E canopy extent to 2.5m above ground adjacent to proposed footpath		
73	Ash	C (12)	Trees that require above soil surfacing within RPAs			Pruning is to be undertaken in accordance with the British Standard Recommendations for Tree work. BS3998: 2010. Climbing irons or spikes are not to be used whilst pruning trees.					
152	Goat willow	C (1)	No.	Species	Type of structure						
155	Ash	U	31	English oak	Proposed semi-natural footpath						
156	English oak	U	62 - 64	English oak	Proposed access drive						
166	English oak	C (12)	67	Lombardy poplar	Proposed shared path						
168	English oak	U	68 - 69	English oak	Proposed footpath widening						
172	Ash	C (12)	151	English oak	Proposed 1.3 soil batter into VTB						
178 - 179	Silver birch	C (1)	154	English oak	Proposed footpath						
233	English oak	C (12)	160	English oak	Proposed 1.3 soil batter						
266	English oak	U	163	English oak	Proposed 1.3 soil batter						
267	Hawthorn	C (1)	165	English oak	Proposed 1.3 soil batter						
268	English oak	C (1)	167	English oak	Proposed 1.3 soil batter						
283	English oak	C (12)	170	Ash	Proposed shared path and 1.3 soil batter						
284	Sweet chestnut	C (1)	177	English oak	Proposed footpath						
285	English oak	C (12)	180 - 183	English oak	Proposed 1.3 soil batter						
286	Cockspur thorn	C (1)	228	English oak	Proposed 1.3 soil batter						
287	Cockspur thorn	U	243	English oak	Proposed 1.3 soil batter						
288	Unidentifiable	C (1)	246	English oak	Proposed 1.3 soil batter						
289	Cockspur thorn	C (1)	247	English oak	Proposed 1.3 soil batter						
290	English oak	C (12)	262	Ash	Proposed footpath						
Total numbers of trees to be removed			263	English oak	Proposed footpath						
			281	Hawthorn	Proposed footpath						
			282	English oak	Proposed footpath						
			291	English oak	Proposed footpath						
			Category	No. of trees	Category	No. of trees					
A	0	B	4								
C	25	U	6								



Protective Fencing	
To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise either 2.4m wooden site hoarding, or a 2m high scaffolding framework, with uprights at maximum 3m spacings, every other one braced to the ground with 45 degree struts; supporting standard anti-climb 'Heras' welded mesh fence panels secured with anti-lift devices to concrete or plastic bases pinned to the ground by scaffolded uprights skunk to a minimum depth of 600mm; individual panels fixed to each other with at least 2 clamps and to scaffolding with heavy-duty cable ties. 'TREE PROTECTION ZONE - KEEP OUT' or similar notices to be attached to every fifth panel.	
	
TREE PROTECTION FENCING as shown in BS 5837: 2012, Section 6.2.2 & Figure 2	
	Ground Protection
To be installed prior to commencement of demolition or construction works, at same time as erection of protective fencing. For purely pedestrian traffic: scaffold boards or similar, of at least 55mm thickness, butted together and attached to each other with wooden battens or steel tie straps, laid either on an above ground scaffold framework, or on a compressible material (a 75mm deep layer of woodchips may be appropriate) above a biaxial geotextile grid ('geogrid' - 'Tensar' or similar) and pinned to the ground with steel pins to prevent movement. For wheeled or tracked traffic: temporary aluminium roadway ('Trakway' or similar), interlocking polyethylene tread boards ('Ground-Guards' or similar), or reinforced concrete slabs laid on an appropriate compressible layer above a biaxial geotextile grid - to be designed by a structural engineer to accommodate likely loadings.	
	Manual Excavation
Within root protection areas the first 750mm depth of any excavation, whether for proposed foundations, hard surfacing, or other construction services shall be undertaken by hand under arboricultural supervision. The soil will be loosened with a pick or fork, and will then be cleared from roots with a compressed air soil pick. All roots will be cut cleanly with a hand saw or secateurs. The edge of the excavation closest to the trees will be covered with hessian sagging to prevent drying out, and if necessary be shuttered with an appropriate material to prevent soil collapse. Where appropriate, the soil beneath this depth may be sheet piled, and deeper excavation may be undertaken by a machine provided it works from outside the root protection areas.	
	Above Soil Surfacing
Proposed hard surfacing for footpaths, cycle surfaces or similar within root protection areas (RPAs) of retained trees to be constructed in accordance with section 7.4 of BS 5837: 2012. Trees in relation to design, demolition and construction - Recommendations. Other than the careful removal, using hand tools, of any turf layer, surfaces will be installed above existing soil level, or no deeper than the base of any existing surfacing it is replacing, so that the soil is not disturbed and no roots are severed; and an appropriate ground covering, possibly using a geogrid, a geoweb, or a combination of the two will be placed beneath the sub-base to minimise compaction of the soil in which tree roots are growing. Edge supports will also be installed above existing soil level. Where 1:3 soil batters are to be created adjacent to proposed access road, drives and plots, the material to be deposited within RPAs will be well-aggregated fill soil with coarser texture than the existing soil onto which it is deposited. These works will be carried out under the direct control and supervision of the arboricultural consultant to ensure any plant/machinery involved in the works do not traverse RPAs and that material is not stored or allowed to spill beyond the proposed footprint.	
Arboricultural Supervision	
The arboricultural consultant will directly supervise all construction works that have to be undertaken within root protection areas. These include: - Location of protective fencing and ground protection. - Construction of above-ground hard surfacing. - All excavations, whether for proposed foundations, hard surfacing, or underground services.	



ARBORESCULE PLANNING CONSULTANTS

Project:

Officers Meadows, Shenfield

Client:

Croudisse Homes

Drawing:

TREE PROTECTION PLAN

Drawing no:

SJA TPP 22579-041 North

Based on:

x_Layout_0409_Shenfield Proposed Site Layout

Drawn by:

TES/SHK

Date of issue:

September 2023

Scale:

1: 750 @ A1

Checked by:

FPS

Tel:(01737) 813056

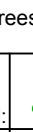
sja@sja-trees.co.uk

Tree nos.:

● 45

Category 'U' trees: ● [155]

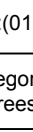
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Category 'B' RPA:



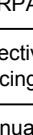
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Trees to be removed:



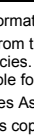
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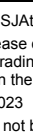
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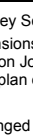
Above soil surfacing:



Manual excavation:



Indicative pruning line:



For further information refer to the SJA/Trees Tree Survey Schedule

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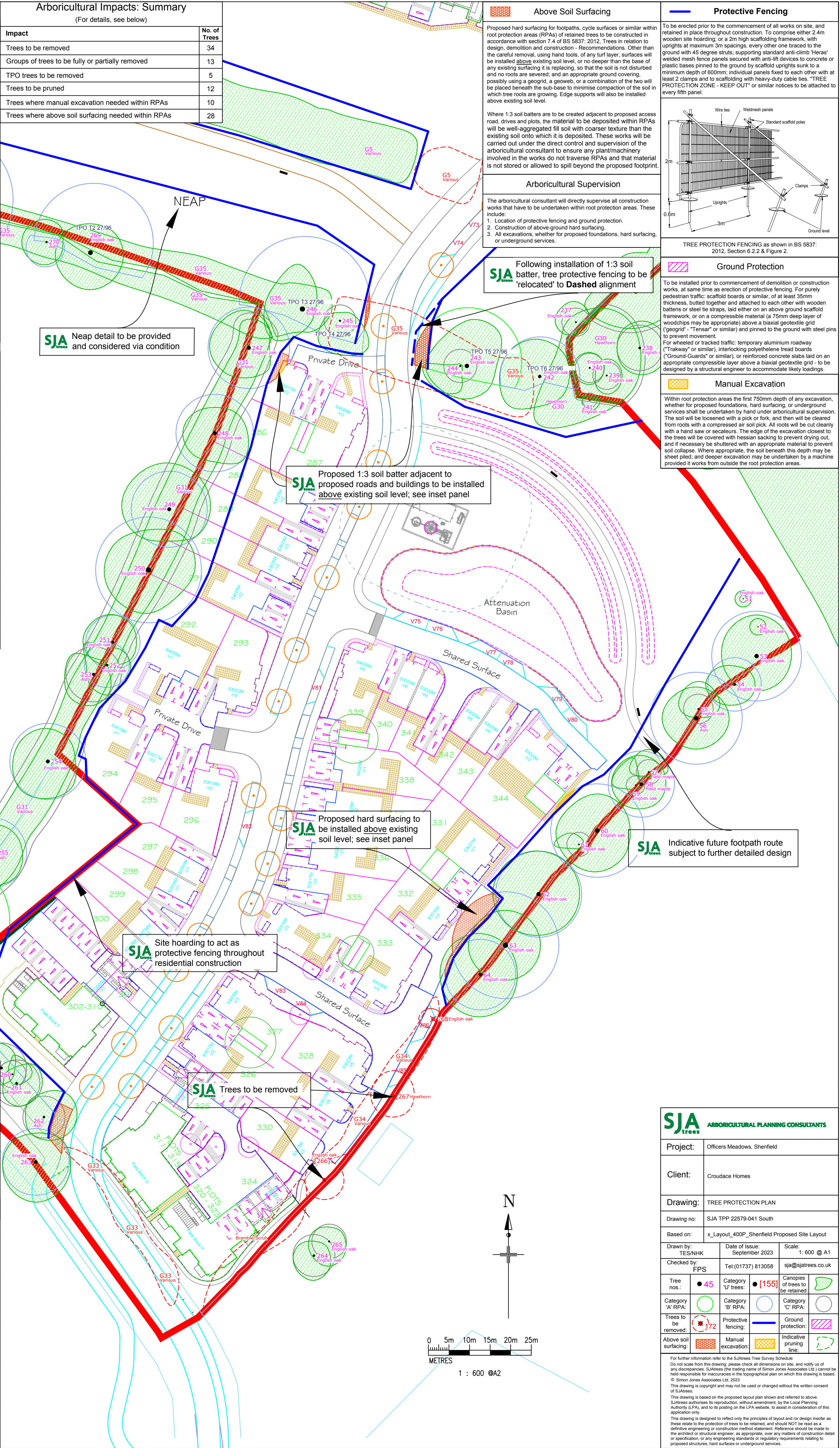
Trees to be Removed		
No	Species	Category
1	Field maple	C (1)
2	Field maple	C (1)
18 - 20	English oak	C (1)
25	Goat willow	C (12)
26	English oak	C (12)
27	English oak	C (12)
30	English oak	U
36	Hornbeam	C (12)
70	Horse chestnut	B (12)
71	English oak	B (12)
72	Horse chestnut	B (12)
73	Ash	C (12)
152	Goat willow	C (1)
155	Ash	U
156	English oak	U
166	English oak	C (12)
168	English oak	U
172	Ash	C (12)
178 - 179	Silver birch	C (1)
233	English oak	C (12)
266	English oak	U
267	Hawthorn	C (1)
268	English oak	C (1)
283	English oak	C (12)
284	Sweet chestnut	C (1)
285	English oak	C (12)
286	Cockspur thorn	C (1)
287	Cockspur thorn	U
288	Unidentifiable	C (1)
289	Cockspur thorn	C (1)
290	English oak	C (12)

Total numbers of trees to be removed			
Category	No. of trees	Category	No. of trees
A	0	B	4
C	25	U	6

Trees to be pruned		
No.	Species	Works (Outline only)
4	English oak	Crown reduce SE lateral extents by 2m towards boundary, leaving extents no less than 5.5m from trunk
28 - 29	Goat willow	Crown reduce NW extents to provide a minimum of 1m clearance from proposed FP, leaving extents no less than 5m from trunk
68	English oak	Crown lift NW canopy to 2.5m above footpath
164	English oak	Crown lift W canopy to 2.5m above ground adjacent to proposed footpath
212	English oak	Crown reduce W canopy extent by up to 2m leaving it no closer than 9.2m from trunk
213	English oak	Crown reduce W canopy extent by up to 1.5m leaving it no closer than 9m from trunk
215	Hornbeam	Crown reduce W canopy extent by up to 1.5m leaving it no closer than 6.5m from trunk
217	English oak	Crown reduce W canopy extent by up to 2m leaving it no closer than 11.7m from trunk
218	Hornbeam	Crown reduce W canopy extent by up to 2m leaving it no closer than 12.3m from trunk
245	English oak	Crown lift SE canopy quadrant to 2.5m above ground adjacent to proposed footpath
262	Ash	Crown lift E canopy extent to 2.5m above ground adjacent to proposed footpath
Pruning is to be undertaken in accordance with the British Standard Recommendations for Tree work, BS3998: 2010. Climbing irons or spikes are not to be used whilst pruning trees.		

Trees that require manual excavation within RPAs		
No.	Species	Type of structure
24	Silver birch	Proposed foundations and hard surfacing
60	English oak	Proposed hard surfacing
65	English oak	Proposed hard surfacing
154	English oak	Proposed foundations and hard surfacing
171	English oak	Proposed retaining structure and 1.5m construction offset
173	English oak	Proposed retaining structure and 1.5m construction offset
174	Ash	Proposed access road and vehicle parking
180	English oak	Proposed retaining structure; 1.5m construction offset
247	English oak	Proposed foundations
291	English oak	Proposed roundabout
Trees that require above soil surfacing within RPAs		
No.	Species	Type of structure
31	English oak	Proposed semi-natural footpath
62 - 64	English oak	Proposed access drive
67	Lombardy poplar	Proposed shared path
68 - 69	English oak	Proposed footpath widening
151	English oak	Proposed 1:3 soil batter into VTB
154	English oak	Proposed footpath
160	English oak	Proposed 1:3 soil batter
163	English oak	Proposed 1:3 soil batter
165	English oak	Proposed 1:3 soil batter
167	English oak	Proposed 1:3 soil batter
170	Ash	Proposed shared path and 1:3 soil batter
177	English oak	Proposed footpath
180 - 183	English oak	Proposed 1:3 soil batter
228	English oak	Proposed 1:3 soil batter
243	English oak	Proposed 1:3 soil batter
246	English oak	Proposed 1:3 soil batter
247	English oak	Proposed 1:3 soil batter
262	Ash	Proposed footpath
263	English oak	Proposed footpath
281	Hawthorn	Proposed footpath
282	English oak	Proposed footpath
291	English oak	Proposed footpath

Arboricultural Impacts: Summary		
(For details, see below)		
Impact		No. of Trees
Trees to be removed		34
Groups of trees to be fully or partially removed		13
TPO trees to be removed		5
Trees to be pruned		12
Trees where manual excavation needed within RPAs		10
Trees where above soil surfacing needed within RPAs		28



Above Soil Surfacing

Proposed hard surfacing for footpaths, cycle surfaces or similar within root protection areas (RPAs) of retained trees to be constructed in accordance with section 7.4 of BS 5837: 2012. Trees in relation to design, demolition and construction - Recommendations. Other than the careful removal, using hand tools, of any turf layer, surfaces will be installed above existing soil level, or no deeper than the base of any existing surfacing it is replacing, so that the soil is not disturbed and no roots are severed; and an appropriate ground covering, possibly using a geogrid, a geoweb, or a combination of the two will be placed beneath the sub-base to minimise compaction of the soil in which tree roots are growing. Edge supports will also be installed above existing soil level.

Arboricultural Supervision

The arboricultural consultant will directly supervise all construction works that have to be undertaken within root protection areas. These include:

1. Location of protective fencing and ground protection.
2. Construction of above-ground hard surfacing.
3. All excavations, whether for proposed foundations, hard surfacing, or underground services.

Following installation of 1:3 soil batter, tree protective fencing to be 'relocated' to Dashed alignment

Protective Fencing

To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise either 2.4m wooden site hoarding; or a 2m high scaffolding framework, with uprights at maximum 3m spacings, every other one braced to the ground with 45 degree struts; supporting standard anti-climb 'heras' welded mesh fence panels secured with anti-lift devices to concrete or plastic bases pinned to the ground by scaffold uprights sunk to a minimum depth of 600mm; individual panels fixed to each other with at least 2 clamps and to scaffolding with heavy-duty cable ties. "TREE PROTECTION ZONE - KEEP OUT" or similar notices to be attached to every fifth panel.

Ground Protection

To be installed prior to commencement of demolition or construction works, at same time as erection of protective fencing. For purely pedestrian traffic: scaffold boards or similar, of at least 35mm thickness, butted together and attached to each other with wooden battens or steel tie straps, laid either on an above ground scaffold framework, or on a compressible material (a 75mm deep layer of woodchips may be appropriate) above a biaxial geotextile grid ("geogrid" or similar) and pinned to the ground with steel pins to prevent movement. For wheeled or tracked traffic: temporary aluminium roadway ("Trakway" or similar), interlocking polyethylene tread boards ("Ground-Guards" or similar), or reinforced concrete slabs laid on an appropriate compressible layer above a biaxial geotextile grid - to be designed by a structural engineer to accommodate likely loadings.

Manual Excavation

Within root protection areas the first 750mm depth of any excavation, whether for proposed foundations, hard surfacing, or underground services shall be undertaken by hand under arboricultural supervision. The soil will be loosened with a pick or fork, and then will be cleared from roots with a compressed air soil pick. All roots will be cut cleanly with a hand saw or secateurs. The edge of the excavation closest to the trees will be covered with hessian sacking to prevent drying out, and if necessary be shuttered with an appropriate material to prevent soil collapse. Where appropriate, the soil beneath this depth may be sheet piled; and deeper excavation may be undertaken by a machine provided it works from outside the root protection areas.

Diagram of Protective Fencing

Diagram of Ground Protection

Diagram of Manual Excavation

Project:

Officers Meadows, Shenfield

Client:

Croudace Homes

Drawing:

TREE PROTECTION PLAN

Drawing no:

SJA TPP 22579-041 South

Based on:

x_Layout_400P_Shenfield Proposed Site Layout

Drawn by:

TES/NHK

Date of Issue:

September 2023

Scale:

1: 600 @ A1

Checked by:

FPS

Tel:

(01737) 813058

Email:

sja@sja-trees.co.uk

Tree nos.:

● 45

Category 'U' trees:

● [155]

Canopies of trees to be retained:

Category 'A' RPA:

Category 'B' RPA:

Category 'C' RPA:

Trees to be removed:

■ 72

Protective fencing:

Ground protection:

Above soil surfacing:

Manual excavation:

Indicative pruning line:

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