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ARBORICULTURAL ASSESSMENT

Client

Hallway Properties Limited

Project

Land at Norway Lane, Littlehampton

Date

April 2025

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Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	LES / 15.03.25	TEP / 02.04.25
A	Final	MHE / 10.04.25	TEP / 10.04.25

1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Hallway Properties Limited to present the findings of an Arboricultural Assessment and survey of trees located at Land at Norway Lane, Littlehampton (hereafter referred to as the site), OS Grid TQ 036 036.

Site Description

1.2 The site was located to the north of the town of Littlehampton in west Sussex, to the north and east of Norway lane close to The Body Shop roundabout on the A259. There were warehouses to the north of the site and a residential development to the west.

1.3 The site consisted of a commercial property with a large carpark to the south of a vacant distribution warehouses (Units 5 & 6) and to the east and west of a vacant office building (Unit 7).

Scope of Assessment

1.4 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on Thursday 11th July 2024 in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).

1.5 This report has been produced to accompany a Detailed planning application for the 'p*art demolition, conversion, refurbishment and re-elevation of Units 5 and 6 and construction of retail (food and non-food), leisure and food & beverage units (Use Class E), together with associated car parking, access, loading areas, landscaping and associated works'.*

1.6 Unit 7 (the former Body Shop headquarters) will be demolished to facilitate the proposed development and as a first enabling phase. The demolition of Unit 7 forms part of an earlier Prior Notification of demolition application (ref. LU/27/25/DEM).

1.7 The purpose of this report is therefore to firstly, present the results of this assessment of the existing trees' arboricultural value, based on their current condition and quality and to secondly, provide an assessment of impact arising from the proposed development of the site.

2.0 PLANNING POLICY

National Planning Policy Framework December 2024

2.1 National Planning Policy is defined by the National Planning Policy Framework (NPPF). This sets out the Government's most current and up to date planning policies for England and how these should be applied. The current NPPF is dated December 2024.

2.2 Paragraphs 10 and 11 of the NPPF state that there is a presumption in favour of sustainable development and states that for decision making, the LPA should be 'c) approving development proposals that accord with an up-to-date development plan without delay'.

2.3 In relation to arboriculture, the NPPF states that:

- 136 '*Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined (footnote 52), 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'. (footnote 52: unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate)*
- *193 (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 (footnote 70) and a suitable compensation strategy exists'*.
- and provides specific guidance that:
- *193 (d) 'development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.*

2.4 With reference to paragraph 193 (c), examples of what is deemed to be 'wholly exceptional' are included within Footnote 70 and provides the examples of 'infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat'.

Local Planning Policy

2.5 Local planning decisions regarding all future developments are assessed against a framework to ensure that the district or county in question is developed in a well-informed and coherently systematic manner, this may include decisions to ensure that the right number and types of houses are built and incorporating the correct type of shopping and recreation facilities, whilst protecting the local ecological resources, landscape context and intrinsic heritage value of an area.

2.6 Within the context of the adopted Local Plan 2011- 2031 for Arun District Council there are several policies relating to trees. The following lists the most relevant.

- *Policy D DM1 Aspects of form and design quality*

When considering any application for development the Council will have regard to the following aspects:

7.Trees and woodland All new development will be expected to incorporate existing and new tree planting as an integral part of development proposals.

- *Policy ENV DM4 Protection of trees*

Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s), (TPO) identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless development:

a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or

b. Would enhance the survival and growth prospects of other protected trees;

c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland.

Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme.

Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning permission given.

Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

d. Land and tree surveys

e. A tree constraints plan

f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement

These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.

3.0 SURVEY METHODOLOGY

3.1 The survey of trees has been carried out in accordance with the criteria set out in Chapter 4 of BS5837. The survey has been undertaken by a suitably qualified and experienced arboriculturist and has recorded information relating to all those trees within the site and those adjacent to the site which may be of influence to any proposals. Trees were assessed for their arboricultural quality and benefits within the context of the proposed development in a transparent, understandable, and systematic way.

3.2 Trees have been assessed as groups or hedgerows where it has been determined appropriate.

- The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally including biodiversity or habitat potential for example parkland or wood pasture.
- For the purposes of this assessment, a hedgerow is described as any boundary line of trees or shrubs less than 5m wide at the base and are managed under a regular pruning regime.

3.3 An assessment of individual trees within groups, hedgerows and woodland has been made where a clear need to differentiate between them, for example, to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categories

3.4 Trees, groups and hedgerows, have been divided into one of four categories based on Table 1 of BS5837, 'Cascade chart for tree quality assessment'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).

3.5 Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds.

3.6 Categories A, B and C are applied to trees that should be of material consideration in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.

3.7 Category (U) – (Red): Trees which are unsuitable for retention and are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Trees within this category are:

- Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.
- Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.
- Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low-quality trees suppressing adjacent trees of better quality.
- Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.

3.8 Category (A) – (Green): Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years with potential to make a lasting contribution. Such trees may comprise:

- Subcategory (i) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.
- Subcategory (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
- Subcategory (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

3.9 Category (B) – (Blue): Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years with potential to make a significant contribution. Such trees may comprise:

- Subcategory (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
- Subcategory (ii) trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.
- Subcategory (iii) trees with material conservation or other cultural value.

3.10 Category (C) – (Grey): Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

- Subcategory (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- Subcategory (ii) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary / transient screening benefits.
- Subcategory (iii) trees with no material conservation or other cultural value.

Ancient and Veteran Trees

3.11 Various published methodologies are currently available for the identification of Ancient and Veteran trees which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions.

3.12 This assessment and the criterion for defining a veteran tree is based upon the definition within BS:5837.

3.13 “Tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned”.

3.14 NOTE These characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem

3.15 Stem girth is the most reliable guide when determining the age of trees and in normal growing conditions, ancient and veteran trees are those which have a large girth by comparison with other trees of the same species. To inform the assessment of chronological age reference has been made to the chart provided within Lonsdale (2013) (shown below in Figure 1).

3.16 BS:5837 does not provide a definition for ancient trees and therefore the assessment and the criterion being used for identifying ancient tree is based upon government guidance on, ancient woodland, ancient trees and veteran trees: advice for making planning decisions[1] which states.

"All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient, or veteran will vary by species because each species ages at a different rate."

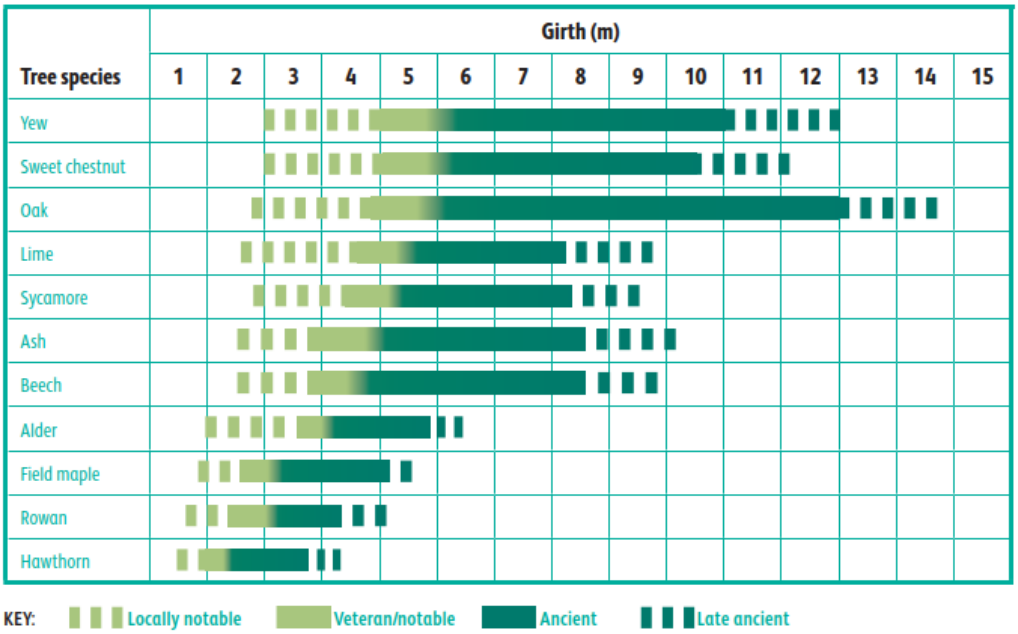

Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)[2].

3.17 Ancient and veteran trees are also material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2023, which includes its own definition of ancient and veteran trees:

3.18 'A tree which, because of its age, size, and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'[3]

Considerations and Limitations of the Tree Survey

3.19 The survey was completed from ground level only and from within the boundary of the site. Aerial tree inspections or an assessment of the internal condition of the stem/s or branches were not undertaken at this stage as this level of survey is beyond the scope of the initial assessment.

1 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

2 Lonsdale, D. (Ed.). 2013). Ancient and other veteran trees: further guidance on management. London: The Tree Council.

3 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

3.20 The statements made in this report regarding the assessed applies to the date of survey and cannot be assumed to remain unchanged. It will be necessary to review all comments and observations made within this report, in accordance with sound arboricultural practice, within two years of the date of survey (unless explicitly stated elsewhere within this report). Further review may also be necessary where site conditions change or works to trees are carried out which have not been specified in detail within this report.

3.21 Hedgerows are identified as a Habitat of Principal Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The tree survey conducted, in accordance with BS5837, does not assess hedgerows against the Hedgerow Regulations 1997 or specifically from an ecological perspective, and is outside the scope of this assessment.

3.22 It may be necessary during detailed design to undertake further assessment and accurate positioning of woody species within tree groups and hedgerows to assist structural calculations for foundation design of structures in accordance with NHBC Chapter 4.2 Building near Trees.

4.0 RESULTS

4.1 A total of seventy individual trees, fourteen groups of trees and two hedgerows were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups, hedgerows and woodland as per the survey methodology.

4.2 Appendix A presents details of all individual trees, groups and hedgerows recorded during the assessment including heights, diameters at 1.5m from ground level, crown spread (given as a radial measurement from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention and the root protection area (RPA), calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012.

4.3 General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.

4.4 The individual positions of trees, groups and hedgerows have been shown on the Tree Survey Plan. The positions of trees are based on a topographical / land survey, as far as possible, supplied by the client. Where topographical information has not identified the position of trees these have been plotted using a global positioning system and aerial photography to provide approximate locations. The crown spread, root protection area and shade pattern (where appropriate) are also indicated on this plan.

Results Summary

4.5 Species identified on site are as follows:

apple *Malus domestica*
aspen *Populus tremula*
buddleia *Buddleia davidii*
cider gum *Eucalyptus gunni*
common ash *Fraxinus excelsior*
common beech *Fagus sylvatica*
common hawthorn *Crataegus monogyna*
Corsican pine *Pinus nigra ssp. Laricio*
crab apple *Malus sylvestris*
Elder *Sambucus nigra*
English oak *Quercus robur*
evergreen spindle *Euonymus japonicus*
field maple *Acer campestre*
firethorn *Pyracantha*
goat willow *Salix caprea*
hazel *Corylus avellana*
holly *Ilex aquifolium*
holm oak *Quercus ilex*
horse chestnut *Aesculus hippocastanum*
hybrid black poplar *Populus x canadensis*
London plane *Platanus x hispanica*
manna ash *Fraxinus ornus*
Norway maple Crimson King *Acer platanoides 'crimson king'*
paper birch *Betula papyrifera*
plum *Prunus domestica*
rowan *Sorbus aucuparia*
shiny leaf viburnam *Viburnam tinus 'lucidium'*
sycamore *Acer pseudoplatanus*
tree cotoneaster *Cotoneaster lacteus*
tree of heaven *Ailanthus altissima*
whitebeam *Sorbus aria*
wild cherry *Prunus avium*
wild service tree *Sorbus torminalis*

4.6 All trees surveyed were designated category B – C dependant on their arboricultural, landscape and ecological value as per BS 5837:2012.

4.7 Table 1 below summarises the trees assessed and several of the trees have been discussed in more detail following the table, owing to their physical condition or arboricultural significance.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable	T60	1		0
Category A (High Quality / Value)		0		0
Category B (Moderate Quality / Value	T3, T4, T5, T6, T8, T10, T12, T13, T16, T18, T25, T27, T42, T44, T47, T48, T49, T50, T51, T53, T55, T58, T59, T61, T62, T64, T65, T67, T68, T69, T70	31	G10, G12, G13	3
Category C (Low Quality / Value)	T1, T2, T7, T9, T11, T14, T15, T17, T19, T20, T21, T22, T23, T24, T26, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, T39, T40, T41, T43, T45, T46, T52, T54, T56, T57, T63, T66	38	G1, G2, G3, G4, G5, G6, G7, G8, G9, G11, G14, H1, H2	13

Moderate Quality Trees

4.8 Situated within a planting bed to the south-west of the warehouse was T3, a paper birch. The planting bed was becoming overgrown with bramble extending into the crown. Otherwise, the tree was in good health and structure with a life expectancy of at least 20 years warranting category B.

4.9 There were fourteen hybrid black poplar trees throughout the eastern and western car parks. All of which had been pruned as pollards on a cyclical basis as a part of the management for the car park trees. Each tree was in good health and had benefited from their previous management. They had good structure and provided shading and visual amenity within the car park; all these trees merited category B.

4.10 Other moderate quality trees in the western car park were T4 and T5 which were both holm oak situated within a shared planting bed. Both trees had good form and vitality therefore were excellent representatives for their species, meriting category B. Similarly, two Aspen, T8 and T10, were also of good form and vitality. These trees were managed as pollards, like much of the tree stock within the car parks. They provided shading and visual amenity within the landscape and warranted category B.

4.11 Within the eastern car park were two London planes, T44 and T48. Both of which had good structure due to of being managed proactively as pollards. T50 was a holm oak which with a single stem and despite having a suppressed crown, did have good form and was in good condition. These trees brought good value for visual amenity and shading within the car park and merits category B.

4.12 To the immediate west of the entry gates within a grass verge was a field maple, T61, and a manna ash, T62. Both trees were prominent, with their crowns beginning to coalesce to form a canopy. On the other side of the road was T64, a tree of heaven. There was some decay to a south trending branch however the crown was in good health otherwise. The trees' position was again prominent within the landscape as it was a lone tree situated next to the main signage for the body shop. T65 was an English oak situated on the verge adjacent to the body shop roundabout, its crown was beginning to coalesce into a canopy with T66. These trees were similar in stature, all in good health with good structure and were great examples of their species, and warranted category B, due to this.

4.13 T67 to 70 were a linear group of trees lining the access road to the south of the site. These trees were slightly offset from H2 and allowed some room to mature. Three of the four trees were holm oaks with T70 being English oak. They were all situated one meter from the access road and had been crown raised leaving mixture of good and poor pruning wounds. The crowns of these trees were growing towards the dual carriage way to the south, all trees were early mature, in good health and had a good structure which merited category B.

4.14 G10 surrounded a pond opposite the main entrance to the building. This was a semi-formal planting group of early mature trees with enough space to mature into. The group had become unmanaged with bramble starting to dominate in areas, despite this, the group still offers great aesthetic and amenity value within the landscape warranting category B.

4.15 Directly opposite the main entry gate were G11 to G13. G12 consisted of three horse chestnut trees and a single common beech tree, all of which were early-mature. There was one horse chestnut to the south of the group which was in decline due to pressures from leaf miner and bleeding canker. It is recommended to remove this tree as it would not negatively affect the visual and amenity value of this group. The northern most chestnut was not yet showing mature bark despite being the biggest tree within the group. Leaf miner was also present on the other two horse chestnut trees. The beech had strimmer damage to the entire circumference of the base. There was a sizable burr on the west side of the stem at about 1m above ground level. Due to the age and prominence in the landscape this group had, it was a strong candidate for category B.

4.16 G13 was situated on the same grass verge as G12, being located to the west adjacent to the fence. This group consisted of five apple trees. These trees were early mature and had good form with fastigiate crowns. Because of the health and form of the trees this group warranted category B.

Low Quality Trees

4.17 There were two small unremarkable trees to the very north-west of the site. T1 was a semi mature domestic plum tree and T2 was a semi-mature multi-stemmed elder. Due to their size and unremarkable nature neither tree guaranteed anything more than a category C.

4.18 There were a fifteen of small semi-mature London planes throughout the east and west wings of the car park. Each tree was situated within a planting bed, with car parking spaces to the east and west. The structure of these trees was consistent with the cyclical pollard management which many of the car park trees underwent. Because they were small and unremarkable in nature, they only merited category C.

4.19 There were also four small holm oak, T19, 22 and 54 which were young recently established trees and T24 which was a larger semi mature individual. T24 had been previously undergone pollarding as a part of the management for the car park. These three trees were small, unremarkable and merited category C.

4.20 Within the courtyard of the main building were eight wild cherry trees, T30-37. The four central trees were older and were early mature trees, whereas the four outer trees were semi-mature. The central trees were larger specimens, however all trees within the courtyard were of poor quality and structure and cannot merit anything more than category C. Also situated within the courtyard was G5, consisting of 4 suppressed holly tress which were also of poor quality and form, like the cherries these trees can only warrant category C.

4.21 At the south-east corner of the building within a triangular planting bed was a small semi-mature viburnum; an unexceptional shrub with little aesthetic value warranting category C. To the north-east of this shrub were a row of three rowan situated in a planting between next to some parking spaces. T39 was the healthiest tree but like T40 and 41 it was small in stature. T40 was showing signs of crown dieback, and T41 had more dieback throughout the crown. These rowan trees were of mixed quality without a great deal of visual interest and minimal shading ability and warranted category C.

4.22 Within the planting bed trending northwards from the rowan trees was a wild cherry, T45. It is semi-mature with established ivy cover. It had been managed previously as a pollard but did not show as much vitality as the other pollarded trees. It had about 50% of its possible foliage within the crown and as a result deserves category C. Another wild cherry, T63, which was situated within the verge to the west of the main entry gate next to T61 and T62; was also of sparce crown and poor form despite being an early mature specimen, its poor quality made it a candidate for category C.

4.23 Two trees within a shared planting bed were T56, a whitebeam and T57, a crab apple. The whitebeam was a small semi-mature individual with a crown that overhung the carpark by 1m at a height of 1.5m. This was an unremarkable individual which could only be category C. The crab apple was a poor specimen with dominant ivy. The crown did show some vitality otherwise would have been category U, because of that it made category C.

4.24 T66 was a common ash tree situated adjacent to T65. The crowns of each tree were beginning to coalesce into a canopy, however the crown of the ash tree was showing symptoms of ash dieback; seed loading, epicormic growth and dead tips. Because of the trees declining condition, it could only merit category C.

4.25 G1 and G2 were located to the north-west and west of the warehouse building at the north of the site. Both groups were managed mechanically but were since getting outgrown. Both groups gave good screening value between the warehouse and the access road that runs parallel. Due to their unmanaged appearance, they only merited category C. G3 was a group of consisting of buddleia between the two warehouse buildings to the south. They were made up of larger specimens from a group of smaller shrubs which had been mechanically managed; they were unremarkable and warranted category C.

4.26 G4 was on the south-western boundary and consisted of 5 sporadically located individuals growing out of a dense bramble patch. They were all small unremarkable species and could only merit category C. G6 was located on the south-eastern boundary and consisted of a mixed tree and shrub, this was the understory group for T58, 59 and 54. The group had previously been managed mechanically but only on the north-western aspect. There was dense bramble throughout. This group had little aesthetic value but made up for it in screening value. A deserved category C.

4.27 Groups 7 to 9 were situated between the main building and G10. All groups consisted of various fruit trees and an understory of either viburnum or holly. All three groups were now getting to be untidy but would have had better aesthetic value when manged properly. There were some poor pruning wounds evident throughout the trees. All three group provided some screening between the pond and the offices and merited category C.

4.28 There were five small wild cherries, G11, forming a linear group along the northern edge of the verge directly south of the main entrance. This group had some visual amenity as they were all unremarkable specimens and therefore merited category C. G14 which were located immediately east of the fence. This group consisted of crab apple and wild service trees. Some of the canopy overhung the road by 1m which had been cut back prior leaving several poor pruning wounds. The eastern wild service tree had a lean of about 30 degrees whilst both wild service were showing basal epicormic growth. Due to the location of this group, they did not have a great deal of visual amenity as the access road which runs alongside is seldom used. This group was deserving of a category C on that basis.

4.29 There were two hedgerows on site. H1 was a hawthorn hedge which had been mechanically managed with bramble present throughout. H2 continues from H1 but showed more diversity with species through the introduction of beech, elder and holm oak. H2 had only been managed previously on the northern edge. This hedge had been previously kept to 1.5m high but had since grown out to 2.5m. Both hedges were there to provide screening between the site and the dual carriageway to which they were adequate for this purpose. Therefore, H1 and H2 warranted category C.

Unsuitable For Retention

4.30 Only T60 was unsuitable for retention. T60 was a small wild cherry with substantial strimmer damage that had caused it to go into significant decline. Because this tree is very unlikely to recover, it can only be considered for category U.

Ancient and Veteran Trees

4.31 None of the assessed trees were considered as ancient or veteran trees in accordance with our veteran survey methodology.

Statutory Considerations

4.32 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location.

4.33 Under a TPO it is a criminal offence to cut down, top, lop, uproot or wilfully destroy a tree protected by that Order, or to cause or permit such actions, if carried out without the prior written consent of the acting LPA.

4.34 No direct consultation with the Local Planning Authority has taken place, however, it is understood having used the online search facility on the website for the Local Planning Authority, Arun District Council that there are no Tree Preservation Orders and Conservation Areas that would apply to any trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. Before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the 03.07.2024.

5.0 ARBORICULTURAL IMPACT ASSESSMENT

5.1 The following paragraphs present a summary of the tree survey and discussion of particular trees and groups recorded in the context of any proposed development in the form of an Arboricultural Impact Assessment in accordance with section 5.4 of BS5837. Any final tree retentions will need to be reconciled with the advice contained within this report.

5.2 The AIA has been based upon the Drawing Titled '11631-PL108_REV C' and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for the 'p*art demolition, conversion, refurbishment and re-elevation of Units 5 and 6 and construction of retail (food and non-food), leisure and food & beverage units (Use Class E), together with associated car parking, access, loading areas, landscaping and associated works*'.

5.3 An overlay of the layout has been incorporated in the Tree Retention Plan to assist in identifying the relationship and any potential conflicts between the proposals and the existing trees and hedgerows. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.

5.4 Table 3 below summarises the impact on tree stock and these impacts have been discussed in more detail following the table.

Table 3: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part (P)	Total
Category U - Unsuitable		0	T60	1
Category A (High Quality / Value)		0		0
Category B (Moderate Quality / Value	T3, T4, T5, T58, T59, T61, T62, T64, T65, T67, T68, T69, T70, G12, G13	15	T6, T8, T10, T12, T13, T16, T18, T25, T27, T42, T44, T47, T48, T49, T50, T51, T53, T55, G10(P),	19
Category C (Low Quality / Value)	T1, T2, T66, G4, G7, G8,	6	T7, T9, T11, T14, T15, T17, T19, T20, T21, T22, T23, T24, T26, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, T39, T40, T41, T43, T45, T46, T52, T54, T56, T57, T63, G1, G2, G3, G5, G6(P), G9(P), G11(P), G14(P), H1, H2(P)	45

5.5 In order to facilitate the proposed development a total of forty-five trees, four groups, portions of five groups, one whole hedgerow and a portion of another will require removal.

5.6 The majority of the losses on site are required to enable the redesign of the car park area to accommodate the required parking spaces. Additional removals of G6 are required along the southeastern boundary of the site to accommodate additional parking.

5.7 The low-quality wild cherry, T63 at the junction of Norway Road will require removal due to the widening of the footpath in this area. This specimen had a sparse form with poor vitality and as such the loss of this specimen can be easily mitigated for through new onsite planting.

5.8 In addition to T63, four individuals from G11 will require removal due to the construction of a footpath along the southern side of Norway Road. These young specimens were considered to be low quality due to their stem diameters not exceeding the minimum diameter of 150mm to allow for a higher classification.

5.9 H1 and a portion of H2 will also require removal to facilitate the construction of a footpath to the north of The Body Shop roundabout. The proposals have been amended in this area to enable the retention of T65 and T66 a moderate and low-quality English oak and ash.

5.10 Three groups, G9, G10 and G14 will require partial removal to facilitate the new footpaths through the groups. These losses will cause minimal impacts to the group as the design of the path has worked around the majority of tree stock within the group.

5.11 Due to the outgrown and unmanaged nature of G1 and G2 areas of ornamental planting, it is proposed to remove these groups and replant with new plants that can be properly maintained.

5.12 Finally, G3 directly conflicts with the proposed buildings and as a result will require removal.

Impacts

5.13 Several retained trees will be impacted by the proposals namely, T4 and T5, T58 and T59, T61 and T62, and G10.

5.14 T4 and T5 were holm oaks that are proposed to be retained within the car park. These trees were located within an existing kerb-lined planting bed with their RPA extending beyond the kerbs. When the car park is resurfaced, the existing tarmac/paving will be removed and the subbase retained and undisturbed to minimise root disturbance if they extend beyond the kerb.

5.15 T58 and T59 also have both existing and proposed parking spaces within their RPA and will follow the same methodology outlined above.

5.16 It is proposed that T61 and T62 will have a footpath pass between the two trees within their RPA's. This path will be constructed using a no-dig specification to minimise root damage through excavation and compaction.

5.17 G10 contained a mixture of larger ornamental trees and outgrown shrubs surrounding the pond area. In order to improve this area, some of the shrub planting will be removed and replanted. This is detailed further within the detailed landscape proposals.

Discussion

5.18 In conclusion for arboriculture, the proposals are considered to meet the aims and objectives of local and national policy through careful consideration of the design. The retention of, coupled with targeted future management and enhancement of the existing and future tree cover will meet many of the individual aspirations set out in the various policies.

6.0 NEW TREE AND HEDGEROW PLANTING

6.1 As part of the development proposals a total of 72 new tree have been identified within the submitted Landscaping Plan to mitigate for the proposed tree removal. This new tree planting has been identified within the proposed car park and within the landscaped areas around the edges of the site.

6.2 The success of any landscaping scheme relies on an adequate provision of a high-quality rooting environment within which trees can thrive and reach their full potential. Planting trees with due care and consideration can, in the long term, provide a greater return on a schemes green investment and ensure trees remain healthy and grow to mature proportions.

6.3 Wherever possible, following discussions with the developer and utility companies, common service trenches should be specified to minimise land take associated with underground service provision and facilitation access for future maintenance.

6.4 Tree planting should be avoided where they may obstruct overhead power lines or cables. Any underground apparatus should be ducted or otherwise protected at the time of construction to enable trees to be planted without resulting in future conflicts.

7.0 TREE PROTECTION MEASURES

7.1 Retained trees should be adequately protected during works through the erection of the requisite tree protection measures. These protection measures should be detailed as part of a site-specific Arboricultural Method Statement, which could be imposed as a condition of planning approval.

7.2 Measures to protect trees should follow the guidance in BS5837 and be applied where necessary for the purpose of protecting trees within the site whilst allowing sufficient access for the implementation of the proposed layout. These have been broadly summarised below.

General Information and Recommendations

7.3 All trees retained on site should be protected by suitable barriers or ground protection measures around the calculated RPA, crown spread of the tree or other defined constraints of this assessment as detailed by section 6 and 7 of BS5837.

7.4 Barriers should be erected prior to commencement of any construction work and once installed, the area protected by fencing or other barriers will be regarded as a construction exclusion zone.

7.5 Any trees that are not to be retained as part of the proposals should be felled prior to the erection of protective barriers. Particular attention needs to be given by site contractors to minimise damage or disturbance to retained specimens.

7.6 Construction access may take place within the root protection area if suitable ground protection measures are in place. This may comprise single scaffold boards over a compressible layer laid onto a geo-textile membrane for pedestrian movements. Vehicular movements over the root protection area will require the calculation of expected loading and the use of proprietary protection systems.

Tree Protection Barriers

7.7 Tree protection fencing should be fit for the purpose of excluding any type of construction activity and suitable for the degree and proximity of works to retained trees. Barriers must be maintained to ensure that they remain rigid and complete for the duration of construction activities on site.

7.8 In most situations, fencing should comprise typical construction fencing panels attached to scaffold poles driven vertically into the ground, as illustrated in Appendix B.

7.9 Where site circumstances and the risk to retained trees do not necessitate the default level of protection an alternative will be specified appropriate to the level / nature of anticipated construction activity.

Protection outside the exclusion zone

7.10 Once the areas around trees have been protected by the barriers, any works on the remaining site area may be commenced providing activities do not impinge on protected areas.

7.11 All weather notices should be attached to the protective fencing to indicate that construction activities are not permitted within the fenced area. The area within the protective barriers will

then remain a construction exclusion zone throughout the duration of the construction phase of the proposed development.

7.12 Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles where they are near retained trees.

7.13 Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree stem. No concrete should be mixed within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.

7.14 Notice boards, telephone cables or other services should not be attached to any part of a retained tree.

7.15 Any trees which need to be felled adjacent to or are present within a continuous canopy of retained trees, must be removed with due care (it may be necessary to remove such trees in sections).

8.0 TREE MANAGEMENT

8.1 All retained trees should be subjected to sound arboricultural management as recommended within section 8.8.3 of BS5837 Post Development Management of Existing Trees, where there is a potential for public access to satisfy the landowner's duty of care.

8.2 Landowners responsible for trees, especially those within the public domain, have a legal 'duty of care' to ensure that visitors and neighbours of their land are reasonably safe and that nobody comes to harm or injury, by his or her negligence, through taking measures to reduce risks as far as is 'reasonably practical' (The Health and Safety at Work Act 1974).

8.3 To ensure that risks are reduced as far as is 'reasonably practicable' it will be necessary that, a review of the relationship between retained trees and the new development should be undertaken by a qualified arboriculturist to assess the retained tree cover and prepare a schedule of tree works.

8.4 The Occupiers Liability Act (1957 and 1984) also places a 'duty of care' to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk[4].

8.5 It is currently expected that a suitably qualified Arboriculturist or tree surveyor should inspect trees with an appropriate level of regularity. The purpose of the inspections is to determine whether a tree could foreseeably cause harm by virtue of its size and physical condition.

8.6 All tree works undertaken should comply with British Standard 3998:2010 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.

8.7 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

9.0 CONCLUSION

9.1 An arboricultural assessment of the site was undertaken on the 11th July 2024 which identified a total of 70 individual trees, fourteen groups and two hedgerows, varying in arboricultural quality, in accordance with BS5837:2012, from moderate to unsuitable for retention.

9.2 The proposals seek to construct a new retail, leisure and food and beverage units (class E) and realign the existing car park to provide an increased number of parking spaces and pedestrian walkways.

In order to facilitate the development, a total of forty-five trees, four groups, portions of five groups, one whole hedgerow and a portion of another will require removal. A total of 72 new trees are proposed within the new car park and surrounding landscaped areas to mitigate the loss of the existing tree stock.

[4] The Health and Safety at Work Act 1974

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Notes:

All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.

- Category U - Trees / Groups Unsuitable for Retention (BS5837:2012)
- Category B - Trees / Groups of Moderate Quality (BS5837:2012)
- Category C - Trees / Groups of Low Quality (BS5837:2012)
- Hedgerow
  Colour Indicates BS5837:2012 Category
- Root Protection Area
- T1(A) G1(A) Individual/Group number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

rev	date	description	drwn/chkd
-	09.07.24	First Issue.	LES / MHE
A	25.07.24	Inclusion of Topographical Survey	LES / MHE

client

Hallway Properties Limited

project

Land at Norway Lane, Littlehampton

title

TREE SURVEY PLAN

scale

1:1000 @ A3

number

12641-T-01

status

-

rev

A

FPCR | environment & design

L:\12600\12641\ARB\Plans\12641-T-01 Tree Survey Plan - Rev A.dwg

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Notes:

All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Category U - Unsuitable for retention on arboricultural grounds
- Hedgerow proposed to be retained and incorporated into the new development
- Hedgerow proposed to be removed subject to relevant permission
- Root Protection Area
- T1(A) G1(A) Individual/Group number and BS5837:2012 Category
- T1(A) G1(A) Individual/Group number to be removed and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

rev	date	description	drwn/chkd
-	09.07.24	First Issue	MHE / TEP
A	31.03.25	Layout Update: 11631-PL108_REV B	MHE / TEP
B	10.04.25	Layout Update: 11631-PL108_REV C	MHE / TEP

client

Hallway Properties Limited

project

Land at Norway Lane, Littlehampton

title

TREE RETENTION PLAN

scale

1:1000 @ A3

number

12641-T-02

status

-

rev

A

FPCR | environment & design

L:\12600\12641\ARB\Plans\12641-T-02 Tree Retention Plan - Rev B.dwg

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APPENDICES

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Appendix A - Tree Schedule

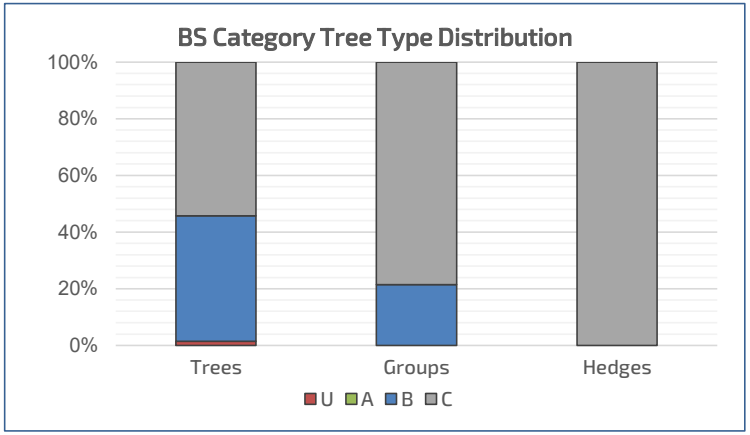
Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	**YNG**: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	**Category U -** Trees in 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.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	**SM:** Semi-mature trees less than 1/3 life expectancy	**Category A -** Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	**EM:** Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	**Category B -** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	**M:** Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	**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.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	**The BS category particular consideration has been given to the following:** • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified a buffer zone has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.
Fair - Structural defects that can be remediated	**Fair -** Symptoms of ill-health that can be remediated	
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	**Poor -** Significant ill-health. Unlikely the tree will recover in the long term	
Dead - Dead tree with structural integrity of tree severely compromised	**Advanced Decline / Dead -** Advanced state of decline and unlikely to recover or Dead	

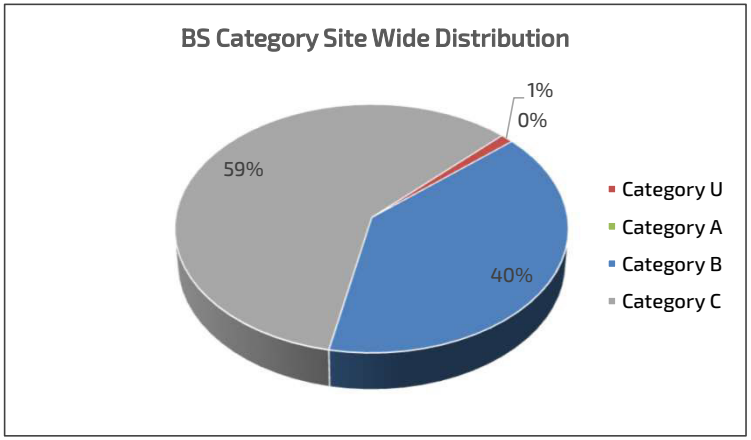
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U	T60	1		0
Category A		0		0
Category B	T3, T4, T5, T6, T8, T10, T12, T13, T16, T18, T25, T27, T42, T44, T47, T48, T49, T50, T51, T53, T55, T58, T59, T61, T62, T64, T65, T67, T68, T69, T70	31	G10, G12, G13	3
Category C	T1, T2, T7, T9, T11, T14, T15, T17, T19, T20, T21, T22, T23, T24, T26, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, T39, T40, T41, T43, T45, T46, T52, T54, T56, T57, T63, T66	38	G1, G2, G3, G4, G5, G6, G7, G8, G9, G11, G14, H1, H2	13
	Total	70	Total	16

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.



BS Category Site Wide Distribution shows the proportion of trees assessed in each category across the whole site which allows an interpretation of the site's overall quality.



Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Plum Prunus domestica	5	est 150	1	SM	G	Located on grass verge between amazon warehouse parking and the warehouse. Small specimen typical for carpark. Unremarkable individual.	10	1.8	C (i)
T2	Elder Sambucus nigra	5	avg 6x 70	1	SM	G	Multi-stemmed invidual located on verge between warehouse car park and warehouse. Characteristic of species. Unremarkable individual.	13	2.1	C (i)
T3	Paper Birch Betula papyrifera	8	upto 150	4	EM	F	Specimen located within overgrown planting bed adjacent to entrance gate. Bramble understory extending into the lower canopy. Specimen has good form.	10	1.8	B (i)
T4	Holm Oak Quercus ilex	7	upto 410	4	EM	F	Specimen located within planting bed surrounded by parking spaces. Lowest canopy height of 2m. Good form growing in close proximity to T5.	76	4.9	B (i)
T5	Holm Oak Quercus ilex	9	upto 580	5	EM	F	Specimen located within planting bed surrounded by parking spaces. Lowest canopy height of 2.5m. Good form growing in close proximity to T4.	152	7.0	B (i)
T6	Hybrid Black Poplar Populus x canadensis	9	upto 540	3	EM	F	Pollarded tree located within planting bed surrounded by parking spaces. Single stemmed to 3m branching thereon. Specimen has been pollarded once previously circa 3 years ago.	132	6.5	B (ii)
T7	London Plane Platanus x hispanica	6	upto 190	3	SM	G	Tree situated within planting bed. Car parking to the east and west. Located between T6 and T8.	16	2.3	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T8	Aspen Populus tremula	11	upto 290	3	EM	F	Specimen located within planting bed surrounded by parking spaces. Single stemmed form to 3m twin leadered from thereon. Specimen has been pollarded but not recently. Several dead branches within the lower canopy.	38	3.5	B (ii)
T9	London Plane Platanus x hispanica	7	upto 190	3	SM	G	Tree situated within planting bed. Car parking to the east and west. Located between T8 and T10.	16	2.3	C (i)
T10	Aspen Populus tremula	11	upto 300	4	EM	F	Specimen located within planting bed surrounded by parking spaces. Single stemmed form to 3m branching from thereon. Specimen has been pollarded but not recently. Paved path between parking rows located 0.5m south of stem.	41	3.6	B (ii)
T11	London Plane Platanus x hispanica	7	upto 130	2	SM	G	Tree situated within planting bed. Car parking to the east and west. Located between T10 and T12.	8	1.6	C (i)
T12	Hybrid Black Poplar Populus x canadensis	7	upto 450	3.5	EM	F	Pollarded tree located within planting bed surrounded by parking spaces. Single stemmed to 3m branching thereon. Recently repollarded with circa 1m of regrowth. Some large diameter deadwood noted within the canopy.	92	5.4	B (ii)
T13	Hybrid Black Poplar Populus x canadensis	11	upto 550	5	EM	G	Pollarded tree located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded. Knuckles are supporting circa 80-100mm regrowth.	137	6.6	B (ii)
T14	London Plane Platanus x hispanica	7	upto 200	4	SM	G	Tree situated within planting bed. Car parking to the east and west. Located adjacent to T13. Pollarded form and structure.	18	2.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T15	London Plane Platanus x hispanica	7	upto 290	4	SM	G	Tree situated within planting bed. Car parking to the east and west. Located adjacent to T16. Pollarded form and structure.	38	3.5	C (i)
T16	Hybrid Black Poplar Populus x canadensis	11	upto 650	5	EM	G	Pollarded tree located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting c.80-100mm regrowth. Canopy height of 3m above ground level.	191	7.8	B (ii)
T17	London Plane Platanus x hispanica	7	upto 130	2	SM	F / G	Tree situated within planting bed. Car parking to the east and west. Located between to T16 and T18. Pollarded structure with suppressed crown.	8	1.6	C (i)
T18	Hybrid Black Poplar Populus x canadensis	8	upto 480	4	EM	F	Pollarded tree located within planting bed surrounded by parking spaces. Single stemmed to 3m branching thereon. Specimen has been recently repollarded with c.1-2m of regrowth. T19 sits below the southern canopy of T18.	104	5.8	B (ii)
T19	Holm Oak Quercus ilex	3	upto 60	0.8	Yng	F	Young specimen growing beneath the canopy of T18.	2	0.7	C (i)
T20	London Plane Platanus x hispanica	5	upto 160	2	SM	F	Tree situated within planting bed. Car parking to the east and west. Located between to T19 and T21 Crown dieback likely caused by undetermined environmental stress.	12	1.9	C (i)
T21	London Plane Platanus x hispanica	5	upto 150	2	SM	P	Tree situated within planting bed. Car parking to the east and west. Located adjacent to T20 and T22 Crown dieback likely caused by undetermined environmental stress.	10	1.8	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T22	Holm Oak Quercus ilex	3	upto 60	0.8	Yng	F	Young specimen growing beneath the canopy of T21 and T23.	2	0.7	C (i)
T23	London Plane Platanus x hispanica	5	upto 140	2	SM	P	Tree situated within planting bed. Car parking to the east and west. Located adjacent to T22 and T24. Crown dieback likely caused by undetermined environmental stress.	9	1.7	C (i)
T24	Holm Oak Quercus ilex	8	upto 280	3	SM	F	Holm oak situated within planting bed between parking spaces. Single stemmed to 1.2m, three stemmed from thereon. Low canopy height of 1.8m. Specimen has been previously pollarded at 4m. Slightly suppressed by T25 4m to the south.	35	3.4	C (i)
T25	Hybrid Black Poplar Populus x canadensis	11	upto 520	4.5	EM	F	Pollarded tree located within planting bed surrounded by parking spaces. Two large roots (150mm diameter) observed running parallel to the kerb stones on the western aspect. Single stemmed to 3.5m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 50-80mm regrowth.	122	6.2	B (ii)
T26	London Plane Platanus x hispanica	6	upto 120	2	SM	F	Tree situated within planting bed. Car parking to the east and west. Located adjacent to T25 and T27 Pollarded structure with suppressed crown growth due to proximity of larger trees.	7	1.4	C (i)
T27	Hybrid Black Poplar Populus x canadensis	12	upto 660	4.5	EM	F	Pollarded tree located within planting bed surrounded by parking spaces. Single stemmed to 3.5m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 80-100mm regrowth.	197	7.9	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T28	London Plane Platanus x hispanica	7	upto 190	4	SM	G	Tree situated within small 1m x 1m planting bed. Car parking 1m within all compass points Located adjacent to T29. Pollarded structure with 2m clearance above ground.	16	2.3	C (i)
T29	London Plane Platanus x hispanica	7	upto 190	4	SM	G	Tree situated within small 1m x 1m planting bed. Car parking 1m within all compass points Located adjacent to T28 Pollarded structure with with 2m clearance above ground.	16	2.3	C (i)
T30	Wild Cherry Prunus avium	6	upto 210	N - 4 S - 2 E - 1 W - 3	SM	F	Located in courtyard west side closest to entry point. Suppressed crown to east. Previously pollarded at 2.5m Unremarkable tree.	20	2.5	C (i)
T31	Wild Cherry Prunus avium	6	upto 210	2	SM	F	Located in courtyard west side furthest from entry point. Previously pollarded at 2.5m Unremarkable tree.	20	2.5	C (i)
T32	Wild Cherry Prunus avium	7	upto 340	4	EM	F	Specimen located within courtyard. Forms one of a group of four trees located centrally. Slate chippings surrounding stem. Basal epicormic growth noted. Poor form and branching structure.	52	4.1	C (ii)
T33	Wild Cherry Prunus avium	7	upto 220	4	EM	F	Specimen located within courtyard. Forms one of a group of four trees located centrally. Slate chippings surrounding stem. Poor form and branching structure.	22	2.6	C (ii)
T34	Wild Cherry Prunus avium	7	upto 230	4	EM	F	Specimen located within courtyard. Forms one of a group of four trees located centrally. Slate chippings surrounding stem. Poor form and branching structure.	24	2.8	C (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T35	Wild Cherry Prunus avium	7	upto 190	3	EM	F	Specimen located within courtyard. Forms one of a group of four trees located centrally. Slate chippings surrounding stem. Poor form and branching structure.	16	2.3	C (ii)
T36	Wild Cherry Prunus avium	4	upto 140	2	SM	F	Located in courtyard east side furthest from entry point. Previously pollarded at 2.5m Unremarkable tree.	9	1.7	C (i)
T37	Wild Cherry Prunus avium	6	upto 200	4	SM	F	Located in courtyard east side closest to entry point. Previously pollarded at 2.5m Unremarkable tree.	18	2.4	C (i)
T38	Viburnum lucidum	3	upto 6x 70	2	SM	F	Multi stemmed specimen located within small triangular plant planting bed.	13	2.1	C (i)
T39	Rowan Sorbus aucuparia	3	upto 170	2	SM	G	Situated within car park planting bed. Car park spaces to the north. Unremarkable individual	13	2.0	C (i)
T40	Rowan Sorbus aucuparia	3	upto 110	1	SM	F	Situated within car park planting bed. Car park spaces to the north west. Unremarkable individual with some minor crown dieback.	5	1.3	C (i)
T41	Rowan Sorbus aucuparia	3	upto 140	2	SM	P	Situated within car park planting bed. Car park spaces to the north. Unremarkable individual with minor crown dieback.	9	1.7	C (i)
T42	Hybrid Black Poplar Populus x canadensis	12	upto 750	5	EM	G	Pollarded tree located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 80-100mm regrowth. Canopy height of 3-4m above ground level.	254	9.0	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T43	London Plane Platanus x hispanica	7	upto 240	3	SM	G	Tree situated within planting bed adjacent to T42 and T44 Car parking within 1m east and west. Pollarded structure with 2m clearance of ground.	26	2.9	C (i)
T44	London Plane Platanus x hispanica	7	upto 380	4	SM	G	Tree situated within planting bed adjacent to T43 and T45 Car parking within 1m east and west. Pollarded structure with 2m clearance of ground. Good long term management Ivy on established stem.	65	4.6	B (i)
T45	Wild Cherry Prunus avium	4	upto 150	1.5	SM	P	Specimen located within planting bed between parking spaces. Ivy growing on main stem and into primary branches. Specimen has circa 50% leaf coverage.	10	1.8	C (i)
T46	London Plane Platanus x hispanica	7	upto 320	N - 1 S - 3 E - 4 W - 3	SM	G	Tree situated within planting bed adjacent to T45 and T47 Car parking within 1m east and west. Pollarded structure with with 2m clearance of ground. Good long term management.	46	3.8	C (i)
T47	Hybrid Black Poplar Populus x canadensis	12	upto 750	5	EM	G	Pollarded tree located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 2m three stemmed thereon. Specimen hasnâ€™t been recently repollarded knuckle is supporting c.80-100mm regrowth. Canopy height of 3-4m above ground level.	254	9.0	B (ii)
T48	London Plane Platanus x hispanica	9	upto 320	N - 6 S - 0 E - 5 W - 4	SM	G	Tree situated within planting bed adjacent to T47 Car parking within 1m east and west. Pollarded structure with with 2m clearance of ground. Good long term management.	46	3.8	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T49	Hybrid Black Poplar Populus x canadensis	12	upto 750	5	EM	G	Pollarded tree located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 80-100mm regrowth. Canopy height of 3m above ground level. Ivy covered main stem and primary branches to 6m.	254	9.0	B (ii)
T50	Holm Oak Quercus ilex	8	upto 370	4	EM	F	Specimen located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 2m branching thereon. Canopy height of 2-2.5m above ground level. Good form despite suppression from T49 and T51.	62	4.4	B (ii)
T51	Hybrid Black Poplar Populus x canadensis	13	upto 560	5	EM	G	Pollarded tree located within planting bed surrounded by parking spaces. Good form specimen. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 80-100mm regrowth. Canopy height of 2m above ground level. Epicormic growth noted on the main stem at 1.5 m above ground level. Evidence of possible shrinkage of soil on the eastern aspect of the tree, lowering the paving stones by circa 150mm.	142	6.7	B (ii)
T52	London Plane Platanus x hispanica	7	upto 230	3	SM	G	Tree situated within planting bed adjacent to T51 Car parking within 1m east and west. Pollarded structure with with 2m clearance of ground. Good long term management.	24	2.8	C (i)
T53	Hybrid Black Poplar Populus x canadensis	13	upto 640	4	EM	G	Pollarded tree located within planting bed with parking spaces either side. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 80-100mm regrowth. Canopy height of 3m above ground level. Light Ivy covered main stem and primary branches to 6m.	185	7.7	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T54	Holm Oak Quercus ilex	4	upto 80	1	Yng	F	Young specimen growing beneath the canopy of T53.	3	1.0	C (i)
T55	Hybrid Black Poplar Populus x canadensis	13	upto 670	5	EM	G	Pollarded tree located within planting bed with parking spaces to the northwest. Single stemmed to 3m branching thereon. Specimen has nott been recently repollarded Knuckles are supporting circa 80-100mm regrowth. Canopy height of 4m above ground level. Ivy covered main stem and primary branches to 6m.	203	8.0	B (ii)
T56	Whitebeam Sorbus aria	6	upto 270	4	SM	G	Whitebeam situated within a planting bed. Car parking spaces within 2m north. Crown overhangs Car park by 1m at a height of 1.5m.	33	3.2	C (i)
T57	Crab Apple Malus sylvestris	3	Over ivy 250	2	SM	P	Situated within planting bed between car parking spaces on the east and west. Ivy dominates crown. Poor example of species. Crown does have some vitality otherwise a candidate for category U.	28	3.0	C (i)
T58	Hybrid Black Poplar Populus x canadensis	13	est 700	5	EM	G	Pollarded tree located within planting bed with parking spaces to the north. Unable to access stem due to dense foliage so stem diameter estimated. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 100-130mm regrowth. Canopy height of 3m above ground level. Light Ivy covered main stem and primary branches to 6m.	222	8.4	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T59	Hybrid Black Poplar Populus x canadensis	13	est 730	5	EM	G	Pollarded tree located within planting bed with parking spaces to the north. Unable to access stem due to dense foliage so stem diameter estimated. Single stemmed to 3m branching thereon. Specimen has not been recently repollarded Knuckles are supporting circa 80-100mm regrowth. Canopy height of 3m above ground level. Light Ivy covered main stem and primary branches to 6m.	241	8.8	B (ii)
T60	Wild Cherry Prunus avium	3	upto 120	1	SM	P	Located within the verge besides the fence in the south west car park, west of pedestrian enterence. Strimmer damage likely cause of significant decline.	N/A	N/A	U
T61	Field Maple Acer campestre	7	upto 380	5	EM	G	Prominent specimen close to main entrance gate. Good form. Canopy of T61 and T62 are starting to coalesce.	65	4.6	B (i)
T62	Manna Ash Fraxinus ornus	7	upto 380	5	EM	G	Prominent specimen close to main entrance gate. Good form and in good condition. Canopy of T61 and T62 are starting to coalesce.	65	4.6	B (i)
T63	Wild Cherry Prunus avium	5	upto 370	3	EM	F	Situated on grass verge outside of fence and entry point. Located with individuals T61 and T62. Crown is sparse. Poor pruning evident on most branches throught crown. Vitality is not typical for an established specimen.	62	4.4	C (i)
T64	Tree of Heaven Ailanthus altissima	8	upto 500	5	EM	F	Prominent specimen close to main entrance gate. Good form. Some minor decay within a southern trending branch.	113	6.0	B (i)
T65	English Oak Quercus robur	9	upto 390	5	EM	G	Specimen located within grassed area to the north of the roundabout. Canopies of T65 and T66 are starting to coalesce.	69	4.7	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T66	Ash Fraxinus excelsior	9	upto 280	4	EM	F / P	Specimen located within grassed area to the north of the roundabout. Canopies of T65 and T66 are starting to coalesce. Specimen is showing early signs of decline likely as a result of ash dieback including epicormic growth and a high seed loading.	35	3.4	C (i)
T67	Holm Oak Quercus ilex	8	upto 570	5	EM	G	Located 1m south of access road. Previously crown raised with a mix of good and poor pruning wounds. South crown growing towards dual carriage way.	147	6.8	B (i)
T68	Holm Oak Quercus ilex	7	upto 430	4	EM	G	Located 1m south of access road. Previously crown raised with a mix of good and poor pruning wounds. South crown growing towards dual carriage way.	84	5.2	B (i)
T69	Holm Oak Quercus ilex	8	upto 490	5	EM	G	Located 1m south of access road. Previously crown raised with a mix of good and poor pruning wounds. South crown growing towards duel carriage way.	109	5.9	B (i)
T70	English Oak Quercus robur	7	upto 370	4	EM	G	Located 1m south of access road. Previously crown raised with a mix of good and poor pruning wounds. South crown growing towards dual carriage way.	62	4.4	B (i)

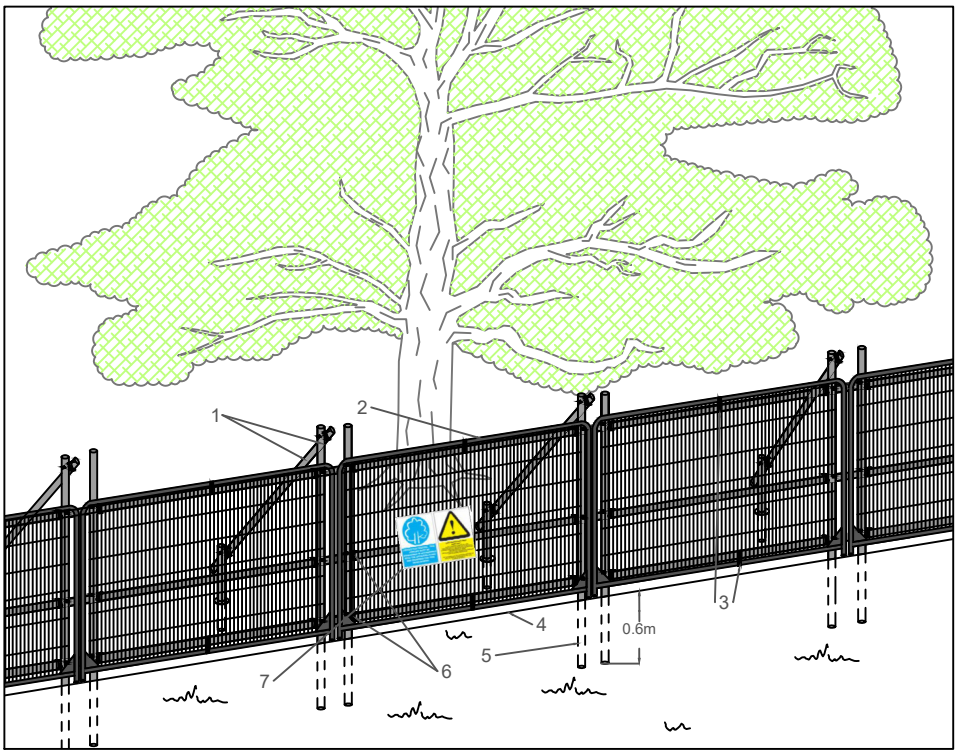
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Elder Sambucus nigra Hawthorn Crataegus monogyna	6	avg 130	1	SM	F	Bramble dominant throughout. Approxmately 4 multi-stemmed individuals Located north west of warehouse, east of access road to warehouse.	8	1.6	C (ii)
G2	Elder Sambucus nigra Holly Ilex aquifolium Butterfly bush Buddleia davidii Viburnam. euonymus Japonica. pyrocantha	6	avg 50	2	SM	F	Located west of warehouse, east of access road. Good screening value between road and warehouse.	1	0.6	C (ii)
G3	Butterfly bush Buddleia davidii	4	avg 80	2	EM	F	Mechanically managed linear group of shrubs. Forms part of the planting to the south of the warehouse. Unremarkable specimens.	3	1.0	C (ii)
G4	Hawthorn Crataegus monogyna Holm Oak Quercus ilex	6	avg 100	3	EM	P	Group of five sporadically placed individuals growing up through dense bramble. Group located along the western site boundary.	5	1.2	C (ii)
G5	Holly Ilex aquifolium	5	upto 100	2	SM	F	Two groups of two individuals located along the southern edge of the building courtyard. Slightly etiolated form likely due to shading.	5	1.2	C (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G6	Goat Willow Salix caprea Hybrid Black Poplar Populus x canadensis Wild Cherry Prunus avium Crab Apple Malus sylvestris Viburnam lucidum	5	avg 150	2	SM	F	Scrubby understory group screening access road from east car park. Bramble dominant with abundance of scrubby shrubs. Previously managed mechanicly north-west edge.	10	1.8	C (ii)
G7	Wild Cherry Prunus avium Viburnam lucidum	5	avg 70	2	SM	F	Scrubby understory group screening access road from east car park. Bramble dominant with abundance of scrubby shrubs. Previously managed mechanicly.	2	0.8	C (ii)
G8	Apple Malus domestica Crab Apple Malus sylvestris Holly Ilex aquifolium	6	avg 200	4	EM	F	Group of four specimens located southeast of the main building entrance. Previous pruning wounds noted to lower stems. Congested canopies as a result of poor/little pruning.	18	2.4	C (ii)
G9	Apple Malus domestica Viburnam lucidum	7	avg 190	3	SM / EM	G	3 apple trees with understory of viburnam bordering pond and ornamental planting. Acts as privacy screen from office windows. Viburnam mainly maintained as mechanically managed hedgerow.	16	2.3	C (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G10	Cider Gum Eucalyptus gunni Sycamore Acer pseudoplatanus Hazel Corylus avellana Wild Cherry Prunus avium Goat Willow Salix caprea Norway Maple Crimson King Acer platanoides 'Crimson King' Holly Ilex aquifolium Viburnam lucidum tree cotoneaster Corsican Pine Pinus nigra ssp. Laricio	7	avg 200	4	EM	F	Semi-formal planted group surround the pond to the south of the main building entrance. Trees have good spacing to allow for future growth. Some areas towards the south of the group is less managed with bramble starting to dominate. Despite this category B given due to visual amenity and arboricultural value.	18	2.4	B (ii)
G11	Wild Cherry Prunus avium	3	avg 120	1.5	Yng	P / F	Group of five evenly spaced trees to the south of the main access road. Pruning noted on all specimens.	7	1.4	C (ii)
G12	Beech Fagus sylvatica Horse Chestnut Aesculus hippocastanum	8	avg 350	4	EM	P / F / G	Situated on grassy area directly south of main enterence. The beech within the group has strimmer damage around the entire base and has epicormic growth throughout crown as a result. A sizeable burr has established on the west side of the stem at 1m above ground level. The southern most chestnut is declining due to bleeding canker. The other two chestnuts are in good condition with the larger of the two not showing mature bark. Chestnut leaf miner present. On the whole this group is prominent within landscape and provide great visual and amenity value. However we would recommend removal of the smaller chestnut.	55	4.2	B (ii)

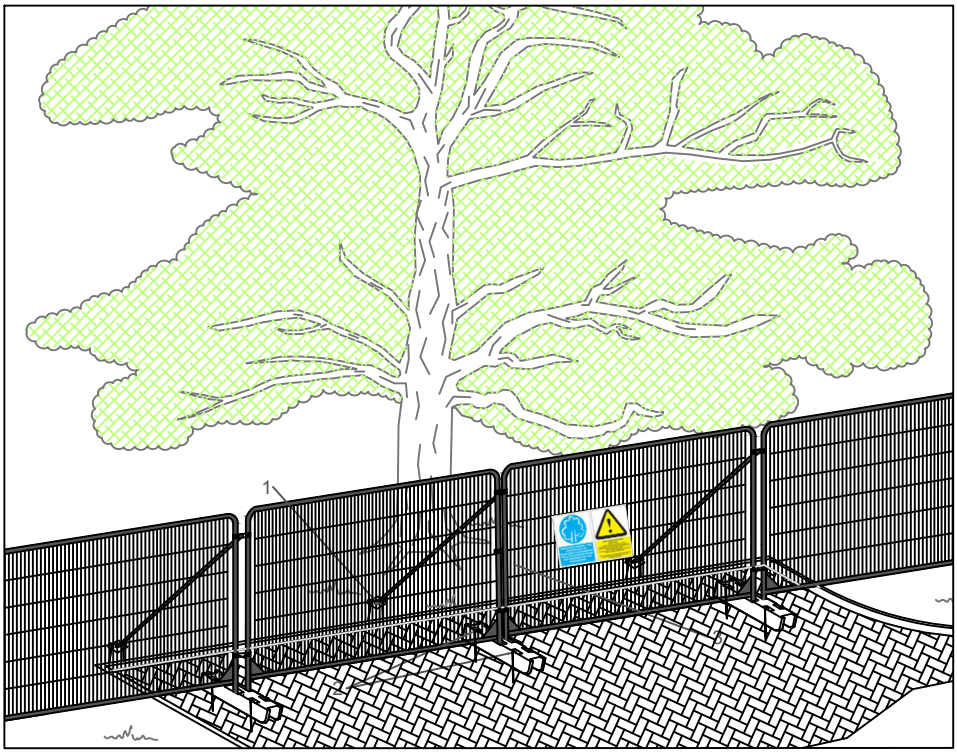
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G13	Apple Malus domestica	7	avg 230	3	EM	F	Two groups containing three trees each located within the grass verge to the south of the main access road. Specimens have good form and amenity value with relatively fastigiate form canopies.	24	2.8	B (ii)
G14	Crab Apple Malus sylvestris Wild Service Tree Sorbus torminalis	5	avg 150	3	SM / EM	F / G	Located inside gate to access road running alongside site south to east. Crown overhangs road by 1m. Previously crown raised via poor pruning. Eastern wild service has 30 degree lean. Basal epicormic on both wild service trees.	10	1.8	C (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Hawthorn Crataegus monogyna	3	avg 70	2	SM	G	Managed hedgerow running parallel up to the duel carriage way and road into site. Mechanically managed. Bramble features heavily throughout.	2	0.8	C (ii)
H2	Beech Fagus sylvatica Elder Sambucus nigra Hawthorn Crataegus monogyna Holm Oak Quercus ilex	3	avg 70	2	SM	G	Continuation of H1 which has received no recent management. Historically trimmed at 1.5m above ground level with 2.5m regrowth above. Spiral guards are still in place.	2	0.8	C (ii)



Specification for High Intensity Protection Barrier

1. Standard scaffold poles
2. Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3. Panels secured to scaffold frame with wire ties
4. Ground level
5. Uprights driven into the ground until secure (min depth of 0.6m)
6. Standard scaffold clamps
7. Construction Exclusion Zone signs



Specification for Low Intensity Protection Barrier

1. Stabiliser strut with base plate secured with ground pins
2. Feet blocks secured with ground pins
3. Construction Exclusion Zone signs

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

FPCR | environment & design

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