TREE STANDOFF DISTANCE STATEMENT

Harley Way Quarry

REF: 11-0877/3202/D03/R
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1. ARBORICULTURAL INFORMATION

1.1 Introduction

1.1.1 The western, northern and eastern boundaries of the proposed quarry site are tree lined. To ensure that these trees and their soils are protected through the working life of the quarry adequate standoff distances are required from haul roads, soil storage bunds, the quarry edge etc.

1.1.2 British Standard 5837:2005 ‘Trees in Relation to Construction - Recommendations’ provides a robust set of guidelines and advice with regard to the protection of trees adjacent to any kind construction activity.

1.1.3 Therefore in line with BS5837:2005 the scope of this statement is to:

- provide a baseline account of the tree resource through a survey of trees on the site;
- calculate the appropriate standoff distances from the retained trees and quarry works; and,
- comment on additional tree related issues.

1.2 Limitations

1.2.1 This is not an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering or soil.

1.2.2 This is not a full arboricultural health and safety survey.

1.2.3 The inspection was undertaken from ground level.

1.2.4 Trees are growing dynamic structures. Therefore, no tree is ever absolutely safe due to the unpredictable laws and forces of nature.

1.3 Data Collection

1.3.1 A site visit was undertaken on the 4th July 2011 by Bryan Clary BSc(Hons)Arb MArborA MICFor, Arboricultural Consultant at Lockhart Garratt Ltd and the trees were inspected from ground level.

1.3.2 The survey was in line with BS5837:2005 and recorded trees either as individual specimens or as groups. The criteria utilised for data collection during the tree survey is outlined below:

- Trees with a stem diameter <75mm were generally not surveyed as they could be easily replaced or relocated.
- Each individual tree has been given a tree identification number and the groups clearly defined for the purpose of the survey.
- The tree species have been recorded with both common and botanical name. All heights were assessed using a clinometer (with an accuracy of approximately ± 10%) and where indicated in groups, the height of the tallest tree was measured unless otherwise stated.
- All stem diameters were measured at 1.5m above ground level, unless otherwise stated (“gl” is an abbreviation for ground level where diameter was measured just above root flare, “E” is an estimate and “av” is an average).
- The approximate crown spread is recorded in either the four cardinal points or is given as an average diameter for the crown especially in groups or where the crown is evenly weighted.

- The height of the ground clearance is given in metres and is an estimate of the height of the first branch union above ground level. In reality the branches of trees hang lower than this, especially in trees with a pendulous habit.

- In the absence of detailed information on the age, the following classification has been used:
  
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yng</td>
<td>Young trees less than 1/3 life expectancy</td>
</tr>
<tr>
<td>Mid</td>
<td>Middle age trees 1/3 – 2/3 life expectancy</td>
</tr>
<tr>
<td>Mat</td>
<td>Mature trees over 2/3 life expectancy</td>
</tr>
<tr>
<td>O/mat</td>
<td>Over-mature – declining or moribund trees of low vigour</td>
</tr>
<tr>
<td>Vet</td>
<td>Veteran trees – specimens exhibiting 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.</td>
</tr>
</tbody>
</table>

  Age class is indicative and will vary between species.

- The physiological condition has been recorded to provide an indication of the tree’s general health and vitality. The trees have been described thus:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Generally in good health typical of the species</td>
</tr>
<tr>
<td>Fair</td>
<td>Reasonable health with few defects</td>
</tr>
<tr>
<td>Poor</td>
<td>Has significant defects which are irremediable or tree is in decline</td>
</tr>
<tr>
<td>Dead</td>
<td>Tree has died</td>
</tr>
</tbody>
</table>

- The structural condition of the trees has been assessed and is summarised as:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Few minor defects of little overall significance</td>
</tr>
<tr>
<td>Fair</td>
<td>A significant defect or several small defects</td>
</tr>
<tr>
<td>Poor</td>
<td>Major defect present or many small defects</td>
</tr>
</tbody>
</table>

- Each tree was individually assessed and comments, where appropriate, were recorded for the condition of each tree’s roots, main stem and crown. General comments have also been made where appropriate with recommendations where relatively immediate works are required.

- Estimated remaining contribution has been categorised as: less than 10 years, 10-20 years, 20-40 years or over 40 years, based upon an assessment of the tree’s potential safe useful life expectancy.

1.3.3 BS5837:2005 sets out a prioritised system of retention categories, it is reproduced in full at within the BS5837:2005 Cascade Chart for Tree Retention at Appendix 1 and summarised below:

A Category Trees of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years


B Category  Trees of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years

C Category  Trees of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 metres above ground level.

R Category  Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

1.4 Summary of Data

1.4.1 The survey contained 12 individual trees and eight groups of trees. The comments including species, age, condition and the BS5837:2005 retention category for each individual tree and group of trees are given in detail in the Tree Schedule at Appendix 1.

1.4.2 The location of each individual tree and group of trees and their associated root protection areas (see below) are shown on the Tree Constraints Plan at Appendix 2.

1.5 Standoff Calculation

1.5.1 The below ground constraints are generally confined to the root protection area (RPA). The RPA is a circular area with a radius 12 or 10 times the diameter of the trees measured at 1.5 m or at ground, level respectively.

1.5.2 The RPA is the minimum area in which no ground works should be undertaken without due care in relation to the retained tree(s) in order to avoid soil compaction, root severance, changes in levels or soil contamination which could reduce future tree health and/or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions.

1.5.3 The RPA for the trees have been calculated as prescribed by BS 5837:2005 and are shown as circles for simplicity on the Tree Constraints Plan at Appendix 2.

1.5.4 In addition the Tree Schedule at Appendix 1 indicates the root protection calculations for each tree or group of trees where Radius (m) is the distance of root protection from the main stem and Area (m²) is the overall root protection area.

1.6 Description of the Tree Resource in Relation to their Associated Standoffs

1.6.1 The Tree Constraints Plan at Appendix 2 illustrates the standoffs from trees and groups of trees as coloured lines.

1.6.2 For the purpose of describing the onsite tree resource it can be split into three discrete areas:

Trees on the Western Boundary

1.6.3 A 1.2m deep ditch abuts the western boundary. G1, G2 and T3 are located to the west of the ditch. These trees are of similar age except for two larger Lombardy poplar. All the trees are in good condition.
1.6.4 No roots from these trees are likely grow under the ditch to the east therefore their rooting potential onsite will be nil, therefore a RPA calculation is not required.

1.6.5 To clarify, **no tree related standoff is necessary for the trees on the western boundary** but to keep the intact edge of the drainage ditch a **standoff of 1-2m is recommended**.

**Trees on the Northern Boundary**

1.6.6 The trees and hedgerow on the northern boundary abut Warley Way to the north and the arable field to the south. The field is ploughed up to 1.5m of some trees main stems and within their RPA’s, which over time will particularly affect the health of the ash trees which respond negatively to root disturbance.

1.6.7 In a few isolated areas there are no trees therefore there is no RPA standoff requirement.

1.6.8 Two over mature ash have RPA’s that translate to over 10m and 14m standoff distances. However, these trees are in poor condition and require felling. As a result the RPA’s on the northern boundary vary between 2.8 and 4.9m.

1.6.9 It is therefore recommended that **a minimum standoff of 5m is maintained on the northern boundary**.

**Trees on the Eastern Boundary**

1.6.10 A copse of woodland forms the eastern boundary of the site which leads into a hedgerow to the south. The southern end of the hedgerow has a handful of larger trees, therefore the RPA is higher is this area.

1.6.11 To the north of the eastern boundary close to the site of the new and existing haul road the standoff is 4m whilst further to the south it is 5.5m.

1.7 **Tree Protection**

1.7.1 The standoff distances have been provided as the RPA, this is also known as the Construction Exclusion Zone (CEZ) trees (above and below ground) and associated soils are maintained through the life of the quarry.

1.7.2 The CEZ will be sacrosanct throughout development and no access will be allowed to this area including for example the storage of or moving of materials or machinery.

1.7.3 During construction of the haul roads, soil bunds etc. close to the CEZ barriers/fencing may be required to demonstrate that the CEZ is not being infringed upon.

1.7.4 The positioning the barrier/fencing should be on the edge of the RPAs on the standoff lines indicated on the Tree Constraints Plan at **Appendix 1** or adjusted to include tree crowns to prevent damage by machinery.

1.7.5 The recommended barrier/fencing will be made from scaffold in a vertical and horizontal framework (usually Heras fencing), as shown at Figure 2 in BS5837:2005 (at **Appendix 3**) with vertical tubes up to 3 metres apart. The framework will be braced to resist impacts.
1.8 **Tree Protection: Legal Status**

1.8.1 The Local Planning Authority (LPA) has not been contacted to establish whether any trees contained within the proposed site area survey are protected by either a Tree Preservation Order (TPO) or are within a Conservation Area.

1.8.2 If full planning consent is granted then any trees which require felling to implement the approved plans are exempt from statutory protection.

1.8.3 This statement does not consider the general requirements of the Forestry Act 1967 as full planning permission is exempt from the need for a felling licence.

2. **ARBORICULTURAL CONCLUSIONS**

2.1.1 The surveyed trees on the western, northern and eastern boundaries number 12 individual trees and eight groups.

2.1.2 Two ash trees (T6 and T13) require felling on health and safety grounds as a high priority. The remainder of the trees are of good quality, exhibit few defects and/or disease and have good future potential.

2.1.3 Those trees on the northern boundary close to the existing field boundary (and subject to ploughing within their RPA’s) are likely to benefit from the larger standoff distances recommended.

2.1.4 The recommended minimum standoffs are:

- Western boundary 2m;
- Northern boundary 3-5m; and
- Eastern boundary 4-5.5m.

2.1.5 The recommended standoffs are minimum distances where tree protection fencing and the CEZ should be maintained.

2.1.6 Please note the recommended standoffs are minimums and methodologies, for example to construct soil bunds must be considered.

2.1.7 Appropriate standoffs and methods of tree protection has been outlined for the construction phase which if followed will significantly reduce the risk of direct damage and ensure that the quarry works have no long term detrimental effect of the onsite tree resource.
APPENDIX 1: TREE SCHEDULE

Tree Schedule (Ref 11-0876)

BS5837:2005 Cascade Chart for Tree Retention
<table>
<thead>
<tr>
<th>Tree No.</th>
<th>Species</th>
<th>Height (m)</th>
<th>Stem Dia (mm)</th>
<th>Crown Spread (m)</th>
<th>Height of Crown Clearance (m)</th>
<th>Age Class</th>
<th>Phys Con</th>
<th>Struc Con</th>
<th>Additional notes</th>
<th>Preliminary management recommendations</th>
<th>Estimated remaining contribution (Years)</th>
<th>Ret Cat</th>
<th>RPA Radius (m)</th>
<th>RPA Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>Group of: Field maple (Acer campestre) Ash (Fraxinus excelsior) Pedunculate oak (Quercus robur)</td>
<td>up to 8.5</td>
<td>up to 150</td>
<td>av dia 4.5</td>
<td>1</td>
<td>Yng</td>
<td>Good</td>
<td>Good</td>
<td>Located west of drainage ditch (1.2m deep). Roughly 4.5m spacing. Majority of the specimens are in good condition with long term potential.</td>
<td>None.</td>
<td>40+</td>
<td>C</td>
<td>1.8</td>
<td>-</td>
</tr>
<tr>
<td>G2</td>
<td>Group of: 2 x Lombardy poplar (Populus nigra var. italica)</td>
<td>up to 17</td>
<td>up to 480</td>
<td>av dia 4</td>
<td>1</td>
<td>Mid</td>
<td>Good</td>
<td>Good</td>
<td>Located offsite, west of drainage ditch. Typical form for species in good condition.</td>
<td>None.</td>
<td>40+</td>
<td>B1</td>
<td>5.76</td>
<td>-</td>
</tr>
<tr>
<td>T3</td>
<td>Silver birch (Betula pendula)</td>
<td>14</td>
<td>320</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1.5</td>
<td>Mat</td>
<td>Good</td>
<td>Good</td>
<td>First specimens in a line of roadside silver birch heading west from the site boundary. Located west of the drainage ditch and roadside culvert. Specimen of good quality (as are all in the line to the west).</td>
<td>None.</td>
<td>20-40</td>
</tr>
<tr>
<td>T4</td>
<td>Horse chestnut (Aesculus hippocastanum)</td>
<td>8</td>
<td>gl 305</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1.5</td>
<td>Mid</td>
<td>Good</td>
<td>Good</td>
<td>Main stem forks at 2m. Reasonable form and condition. 3m from crop.</td>
<td>None.</td>
<td>40+</td>
</tr>
<tr>
<td>T5</td>
<td>Horse chestnut (Aesculus hippocastanum)</td>
<td>6.5</td>
<td>gl 280</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1.5</td>
<td>Mid</td>
<td>Good</td>
<td>Good</td>
<td>Main stem forks at 1.5m Reasonable wide, spreading form and in good condition. 3m from crop.</td>
<td>None.</td>
<td>40+</td>
</tr>
<tr>
<td>T6</td>
<td>Ash (Fraxinus excelsior)</td>
<td>15</td>
<td>1200</td>
<td>5</td>
<td>4.5</td>
<td>3.5</td>
<td>6.5</td>
<td>2.5</td>
<td>Over Mat</td>
<td>Fair</td>
<td>Poor</td>
<td>Large bole. Significant basal decay. Cavity in main stem east at 1-4m indicates stem is hollow. Previous loss of upper crown. Upper crown liable to structural failure. Upper crown likely to fall into field not Harley Way. Large diameter deadwood over field to south.</td>
<td>Fall and replace.</td>
<td>0-10</td>
</tr>
<tr>
<td>G7</td>
<td>Group of: Blackthorn (Prunus spinosa) 3 x Ash (Fraxinus excelsior)</td>
<td>up to 12</td>
<td>up to 240</td>
<td>av dia 4.5</td>
<td>0</td>
<td>Yng</td>
<td>to Mid</td>
<td>Good</td>
<td>Roadside hedge of blackthorn with the occasional young ash. Ash have good long term potential.</td>
<td>None.</td>
<td>40+</td>
<td>C</td>
<td>2.88</td>
<td>-</td>
</tr>
<tr>
<td>T8</td>
<td>Pedunculate oak (Quercus robur)</td>
<td>9</td>
<td>325</td>
<td>5</td>
<td>4.5</td>
<td>4.5</td>
<td>5</td>
<td>2.5</td>
<td>Mid</td>
<td>Good</td>
<td>Good</td>
<td>Main stem forks at 2.5m. Good form and condition with long term potential. 4m from crop.</td>
<td>None.</td>
<td>40+</td>
</tr>
<tr>
<td>T9</td>
<td>Horse chestnut (Aesculus hippocastanum)</td>
<td>11</td>
<td>310</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>Mid</td>
<td>Fair</td>
<td>Good</td>
<td>Good form and in good condition.</td>
<td>None.</td>
<td>20-40</td>
</tr>
<tr>
<td>T10</td>
<td>Ash (Fraxinus excelsior)</td>
<td>14.5</td>
<td>330</td>
<td>5</td>
<td>5.5</td>
<td>4.5</td>
<td>6</td>
<td>3.5</td>
<td>Mid</td>
<td>Good</td>
<td>Good</td>
<td>Main stem forks at 3.5m. Good form with long term potential. Crop 1.2m to south.</td>
<td>None.</td>
<td>40+</td>
</tr>
<tr>
<td>Tree No.</td>
<td>Species</td>
<td>Height (m)</td>
<td>Stem Dia (mm)</td>
<td>Crown Spread (m)</td>
<td>Height of Crown Clearance (m)</td>
<td>Age Class</td>
<td>Phys Con</td>
<td>Struc Con</td>
<td>Additional notes</td>
<td>Preliminary management recommendations</td>
<td>Estimated remaining contribution (Years)</td>
<td>Rat Cat</td>
<td>RPA Radius (m)</td>
<td>RPA Area (m²)</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------</td>
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<td>--------------</td>
</tr>
<tr>
<td>T11</td>
<td>Turkey oak (Quercus cerris)</td>
<td>16.5</td>
<td>405</td>
<td>5.5</td>
<td>5.5</td>
<td>3.5</td>
<td>Mid</td>
<td>Good</td>
<td>Good Main stem forks at 3.5m. Good form with long term potential. Crop 2.5m to south.</td>
<td>None.</td>
<td>40+</td>
<td>A1</td>
<td>4.86</td>
<td>74.2</td>
</tr>
<tr>
<td>T12</td>
<td>Ash (Fraxinus excelsior)</td>
<td>14</td>
<td>250</td>
<td>4.5</td>
<td>4</td>
<td>3</td>
<td>Mid</td>
<td>Good</td>
<td>Good Main stem forks at 3.5m. Good form with long term potential. Crop 2.5m to south.</td>
<td>None.</td>
<td>40+</td>
<td>A1</td>
<td>3</td>
<td>28.3</td>
</tr>
<tr>
<td>T13</td>
<td>Ash (Fraxinus excelsior)</td>
<td>8.5</td>
<td>850</td>
<td>3</td>
<td>2.5</td>
<td>2</td>
<td>Over Mat</td>
<td>Fair</td>
<td>Poor Densely ivy clad to the upper crown. Main stem is completely hollow and is liable to structural failure. Fell as high priority.</td>
<td>Fall.</td>
<td>0-10</td>
<td>R</td>
<td>10.2</td>
<td>326.9</td>
</tr>
<tr>
<td>T14</td>
<td>Hornbeam (Carpinus betulus)</td>
<td>7.5</td>
<td>250</td>
<td>3.5</td>
<td>3.5</td>
<td>3</td>
<td>Mid</td>
<td>Good</td>
<td>Good Main stem forks at 2m. Reasonable wide, spreading form and in good condition. 2.5m from crop.</td>
<td>None.</td>
<td>40+</td>
<td>B1</td>
<td>3</td>
<td>28.3</td>
</tr>
<tr>
<td>T15</td>
<td>Ash (Fraxinus excelsior)</td>
<td>8</td>
<td>230</td>
<td>3.5</td>
<td>3.5</td>
<td>3</td>
<td>Mid</td>
<td>Good</td>
<td>Good Main stem bifurcates at 2.5m. Good long term potential. 2.5m from crop.</td>
<td>None.</td>
<td>40+</td>
<td>A1</td>
<td>2.76</td>
<td>23.9</td>
</tr>
<tr>
<td>G16</td>
<td>Group of: Field maple (Acer campestre) Pedunculate oak (Quercus robur) Hawthorn (Crataegus monogyna) Crab apple (Malus sylvestris) Horse chestnut (Aesculus hippocastanum)</td>
<td>up to 6</td>
<td>up to 250</td>
<td>av dia 4</td>
<td>0</td>
<td>Yng to Mat</td>
<td>Fair to Good</td>
<td>Fair to Good Hedgegrew specimens in good condition.</td>
<td>None.</td>
<td>20-40</td>
<td>C</td>
<td>3</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>G17</td>
<td>Group of: Field maple (Acer campestre) Horse chestnut (Aesculus hippocastanum) Hawthorn (Crataegus monogyna) Mysmbalan plum (Prunus cerasifera) Blackthorn (Prunus spinosa)</td>
<td>up to 11</td>
<td>up to 235</td>
<td>av dia 3.5</td>
<td>0</td>
<td>Yng to Mid</td>
<td>Fair to Good</td>
<td>Fair to Good Dense hedgeawr with no gaps. Occasional middle aged tree. Overall in good condition.</td>
<td>None.</td>
<td>40+</td>
<td>B2</td>
<td>2.82</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>G18</td>
<td>Group of: Wild cherry (Prunus avium) Blackthorn (Prunus spinosa) Hawthorn (Crataegus monogyna) Elder (Sambucus nigra) Ash (Fraxinus excelsior)</td>
<td>up to 9.5</td>
<td>up to 170</td>
<td>av dia 3.5</td>
<td>Yng to Mat</td>
<td>Dead to Good</td>
<td>Poor to Good</td>
<td>Dense scrub with a wayleave through it's centre. Largely low quality specimens although larger better quality to east of way leave</td>
<td>None.</td>
<td>20-40</td>
<td>C</td>
<td>2.04</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Tree No.</td>
<td>Species</td>
<td>Height (m)</td>
<td>Stem Dia (mm)</td>
<td>Crown Spread (m)</td>
<td>Height of Crown Clearance (m)</td>
<td>Age (Class)</td>
<td>Phys Con</td>
<td>Struc Con</td>
<td>Additional notes</td>
<td>Preliminary management recommendations</td>
<td>Estimated remaining contribution (Years)</td>
<td>Ret Cat</td>
<td>RPA Radius (m)</td>
<td>RPA Area (m²)</td>
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<tr>
<td>G19</td>
<td>Group of: Ash (Fraxinus excelsior) Rowan (Sorbus aucuparia) Pedunculate oak (Quercus robur) Wild cherry (Prunus avium) Silver birch (Betula pendula) Sycamore (Acer pseudoplatanus) Whitebeam (Sorbus aria) Hornbeam (Carpinus betulus)</td>
<td>up to 18</td>
<td>up to 430</td>
<td>av dia 7</td>
<td>1.5</td>
<td>Yng to Mat</td>
<td>Fair to Good</td>
<td>Fair to Good</td>
<td>Some specimens located 1.5 from ploughed field although majority are set away from edge. Specimens largely in good condition with a hedge element in places as an under storey.</td>
<td>None.</td>
<td>20-40</td>
<td>B2</td>
<td>5.16</td>
<td>-</td>
</tr>
<tr>
<td>G19</td>
<td>Group of: Ash (Fraxinus excelsior) Rowan (Sorbus aucuparia) Pedunculate oak (Quercus robur) Wild cherry (Prunus avium) Silver birch (Betula pendula) Sycamore (Acer pseudoplatanus) Whitebeam (Sorbus aria) Hornbeam (Carpinus betulus)</td>
<td>up to 15</td>
<td>up to 320</td>
<td>av dia 7</td>
<td>1.5</td>
<td>Yng to Mat</td>
<td>Fair to Good</td>
<td>Fair to Good</td>
<td>Several specimens located 1.5 from ploughed field although majority are set away from edge. Mixed species. Specimens largely in good condition with additional hedgerow species.</td>
<td>None.</td>
<td>20-40</td>
<td>B2</td>
<td>3.84</td>
<td>-</td>
</tr>
<tr>
<td>G20</td>
<td>Group of: Ash (Fraxinus excelsior) Hybrid black poplar (Populus x canadensis)</td>
<td>up to 18</td>
<td>up to 430</td>
<td>av dia 8</td>
<td>1.5</td>
<td>Yng to Mat</td>
<td>Fair to Good</td>
<td>Fair to Good</td>
<td>Continuation of G19 although a handful of larger mature specimens close to site boundary.</td>
<td>None.</td>
<td>20-40</td>
<td>B2</td>
<td>5.16</td>
<td>-</td>
</tr>
</tbody>
</table>
## TREES FOR REMOVAL

<table>
<thead>
<tr>
<th>Category and Definition</th>
<th>Criteria</th>
<th>Identification on Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category R</strong>&lt;br&gt;Those in such a condition that any existing value would be lost within ten years and which should, in the current context, be removed for reasons of sound arboricultural management</td>
<td>• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R Category trees (ie where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)&lt;br&gt;• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.&lt;br&gt;• Trees infected with pathogens of significance to the health and/or safety of other trees nearby (eg Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality.&lt;br&gt;NOTE: Habitat reinstatement may be appropriate (eg R Category tree used as a bat roost; installation of bat box in nearby tree).</td>
<td>DARK RED</td>
</tr>
</tbody>
</table>

## TREES TO BE CONSIDERED FOR RETENTION

<table>
<thead>
<tr>
<th>Category and Definition</th>
<th>Criteria – Subcategories</th>
<th>Identification on Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category A</strong>&lt;br&gt;Those of a high quality and value: no such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)</td>
<td>1 Mainly arboricultural values&lt;br&gt;Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (eg the dominant and/or principal trees within an avenue)</td>
<td>LIGHT GREEN</td>
</tr>
<tr>
<td>2 Mainly landscape values&lt;br&gt;Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (eg avenues or other arboricultural features assessed as groups)</td>
<td>3 Mainly cultural values, including conservation&lt;br&gt;Trees, groups or woodlands of significant conversation, historical, commemorative or other value (eg veteran trees or wood-pasture)</td>
<td>MID BLUE</td>
</tr>
<tr>
<td><strong>Category B</strong>&lt;br&gt;Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)</td>
<td>Trees that might be included in the high category, but are downgraded because of impaired condition (ie presence of remediable defects including unsympathetic past management and minor storm damage)</td>
<td>GREY</td>
</tr>
<tr>
<td>Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (eg trees of moderate quality within an avenue that includes better A Category specimens) or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality</td>
<td>Trees with clearly identifiable conservation or other cultural benefits</td>
<td></td>
</tr>
<tr>
<td><strong>Category C</strong>&lt;br&gt;Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm</td>
<td>Trees not qualifying in higher categories</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 2: PLANS

Plans Produced by Lockhart Garratt Ltd

Tree Constraints Plan (D11-0787)
APPENDIX 3: TREE PROTECTION

Tree Protection Fence Specification
Standard scaffold poles.

Uprights to be driven into the ground.

Weldmesh wired to the uprights and horizontals.

Ground level.

2.3m

0.6m

3.0m

Supporting strut

Supporting pin

Rubber feet with supporting pins

Panels secured to uprights with wire ties and where necessary standard scaffold clamps.

Approx 0.6m driven into the ground.

Wire twisted and secured on inside face of fencing to avoid easy dismantling.