

## **TREE SURVEY AND REPORT**

**PREPARED TO SATISFY BS 5837:2012**

**Trees in relation to design, demolition and construction – Recommendations.**

**FOR**

**Provelio Limited**

**CARRIED OUT AT**

**Chalkhill  
Princess Royal Hospital  
Haywards Heath  
RH16 4NQ**

**By**

**Ben McWalter MRICS M.Arbor.A.**

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## 1. SCOPE OF REPORT

### 1.1. Survey Brief

Hurst Tree Consultants has been instructed by Luke Goddard of Provelio to provide an Arboricultural Survey and Tree Constraints Plan in relation to significant trees which may be influential to the proposed development of a new entrance / access to Sussex Partnership NHS, Chalkhill, Princess Royal Hospital, Haywards Heath.

The Trust has requested an assessment of the proposed construction on the trees and guidance on any tree and design conflicts to implement the proposal whilst protecting the trees to inform a design layout.

The trees have been categorised in accordance with the guidance contained in section **4.5 Tree Categorisation method** of BS 5837:2012 as to the quality and value of the existing tree stock.

The report is accompanied by the following plan:

C 2089 Chalkhill tcp

### 1.2 Background

Provelio is preparing a planning application for the construction of a new entrance / accessway to Chalkhill from Colwell Road.

The Topographical Survey carried out by Sircle and has been made available to us.

### 1.3 Report references

As Chartered Surveyors and Professional Member of The Arboricultural Association, Hurst Tree Consultants carry's out regular Continuing Professional Development training to remain abreast of current best practice. Our Arboricultural Impact Assessments are informed by the Arboricultural Association's training in the application of BS 5837 together with reference material including:

- BS 5837:2012 *Trees in relation to Design, Demolition and Construction – Recommendations*
- BS 3998: 2012 *Tree Works – Recommendations*
- National House Building Council Standard Chapter 4.2 *Building near trees*
- John Roberts, Nick Jackson & Mark Smith *Tree Roots in the Built Environment*
- National Joint Utilities Group (2007) Publication Volume 4: Issue 2 *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*

We have been provided with the following drawings and plans by the client:

Sircle – Topographical Survey 220711

### 1.4 Report limitations and methodology

The tree survey was restricted to those trees considered relevant to the proposal which are included in the Topographical Survey and are identified in our Tree Constraints Plan C 2089 Chalkhill tcp amended to this report.

This report provides the data and advice outlined in BS5837:2012 only. It must not be substituted for a tree risk assessment. Detailed tree inspection including decay mapping or aerial inspection was not undertaken. If further detailed inspection is deemed necessary, then it will be made clear within this report. Unless stated, no trees were climbed, and all inspections were carried out from ground level. A

nylon sounding hammer or binoculars were used for more detailed inspection where necessary.

The survey was carried out to assess the trees on site for their quality and benefits within the context of any proposed development. The quality of each tree, or group of trees has been recorded by allocating it to one of four categories, where:

- Trees of A and B category can be considered as being influential to development and, where practical, should be incorporated into any proposed development design.
- C category trees will not usually be retained where they would impose a significant constraint to development but should be retained where there is no reason for their removal.
- U category trees are in such a condition that they are unlikely to contribute beyond 10 years and may be removed as good arboricultural practice.

The Topographical Survey was carried out by Sircle. Our plans and report are based on this data supplied to us. We have not independently verified any tree data supplied, however while carrying out our site inspection it was concluded that the information appears to be an accurate record of the tree population.

## **1.5 Assessment of Ecological Status & potential constraints**

The Wildlife and Countryside Act 1981 provides statutory protection to birds, bats, insects and other species which inhabit trees, hedgerows and other vegetation.

Following our site visit, we are of the opinion that there is a medium potential for habitats which would support protected species. The wooded area to the south west of the site contains some features which may afford habitat to protected species, however because of the arboricultural constraints imposed by the density of the trees it is not proposed to carry out any works within this area and which could impact on these habitats.

## **2 STATUTORY TREE PROTECTION SEARCH**

### **2.1 Tree Protection Order or Conservation Area Local Authority Search**

A search of the Local Authority Tree Preservation Order (TPO) Map shows that there are no Tree Preservation Orders on the site and the site is not within a Conservation Area.

## **3 SITE ASSESSMENT**

### **3.1 Weather conditions**

The site survey was carried out on 07.03.2023. The weather was overcast and drizzling.

### **3.2 Local landscape and amenity valuation**

The property is located in a residential area of Haywards Heath to the east of the town.

The property currently comprises a department of the Princess Royal Hospital.

The roadside strip to the north west of Chalkhill is comprised of a wooded area which contains a number of native tree species including Beech, Holly, Oak, Scots Pine, Silver Birch, Sweet Chestnut and Sycamore together with an understory of Hawthorn and Laurel.

This wooded area is considered to have a significant landscape value, providing a screen of the Hospital from Colwell Road.

**Photograph 1: T2 – Beech - showing poor form**



**Photograph 2: T3 – Scots Pine - showing bark delamination**



**Photograph 3: T4 – Beech - showing Ivy infestation**



**Photograph 4: T6 – Oak - showing Ivy infestation**



**Photograph 5: T7 – Sycamore – showing Ivy infestation**



**Photograph 6: T13 & 14 – Sweet Chestnuts to be removed**



### 3.3 Underlying soils

We used The British Geological Surveys' 'Geology of Britain Viewer' ([www.bgs.ac.uk](http://www.bgs.ac.uk)) to inform an assessment of the soils likely to be on the site in March 2023. The result was 'Upper Tunbridge Wells Sand – Sandstone and siltstone, interbedded.'

### 3.4 Soil tests

We are not aware of Soil tests having been carried out. However, the Soilscape Viewer from Cranfield University ([www.landis.org.uk/soliscapes](http://www.landis.org.uk/soliscapes)) identifies that the property is in an area where the soils are defined as 'Soilscape 8: Slightly acid loamy and clayey soils with impeded drainage'.

The geology and soil type are not considered to be a significant influencing factor in the design of the proposed development.

### 3.5 Fluorimeter Tests

A fluorimeter test is used to evaluate the function of the tree leaves to turn sunlight into energy, a process known as photosynthesis. This provides an indication of the overall health of a tree.

A Fluorimeter test was not considered necessary for this project.

## 4 PROPOSED DEVELOPMENT

### 4.1 Proposed Construction

It is proposed to construct a new access from Colwell Road.

### 4.2 Existing Grounds

The existing grounds comprise an area of mixed native tree species, including Beech, Holly, Oak, Scots Pine, Silver Birch, Sweet Chestnut and Sycamore together with an understory of Hawthorn and Laurel.

#### Slopes and Boundaries

The site slopes gently from North East to South West which is typical of The Weald of Sussex and Kent and is bordered to the north by a chain-link fence to Colwell Road and high security fencing to Chalkhill.

The proposed development may be located within the Root Protection Areas of some of the trees to be retained which are the subjects of this survey. The new access will be constructed by using a 'no-dig' roadway installed in accordance with the Arboricultural Association's Guidance Note 12: The use of cellular confinement systems near trees. This method is consistent with industry best practice and prevents harm to the rooting environment of any retained trees.

### 4.4 Tree Survey Schedule

The schedule below contains the tree details and survey data in accordance with Section 4.4 of BS 5837: 2012 together with an assessment and categorisation of the relevant trees for arboricultural quality and amenity significance.

Section 4.5 of BS 5837 states in sub-section 4.5.2:

*'The purpose of the tree categorization method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed*

*decisions to be made concerning which trees should be removed or retained in the event of development occurring.'*

| BS5837:2012 Table 1 - <b>Cascade chart for tree quality assessment</b>                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                   |                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Category and definition                                                                                                                                                   | Criteria (including subcategories where appropriate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                   |                                                                                                                                       |
| <b>Trees unsuitable for retention</b> (see Note)                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                   |                                                                                                                                       |
| <b>Category U</b><br>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years | *Trees that have 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 category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)<br>*Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline<br>*Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality<br><br><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i> |                                                                                                                                                                                                                                                                   |                                                                                                                                       |
|                                                                                                                                                                           | <b>1 Mainly arboricultural qualities</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>2 Mainly landscape qualities</b>                                                                                                                                                                                                                               | <b>3 Mainly cultural values, including conservation</b>                                                                               |
| <b>Trees to be considered for retention</b>                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                   |                                                                                                                                       |
| <b>Category A</b><br><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years                                                        | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features                                                                                                                                                            | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) |
| <b>Category B</b><br><b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years                                                    | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation                                                                                                                                                                                                                                                                                                                                                     | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation or other cultural value                                                                              |
| <b>Category C</b><br><b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm        | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits                                                              | Trees with no material conservation or other cultural value                                                                           |

|                                                                   |                             |                       |
|-------------------------------------------------------------------|-----------------------------|-----------------------|
| Client: Provelio                                                  | Report No. C 2089 tr        | Surveyor: B. McWalter |
| Site: Chalkhill, Princess Royal Hospital, Haywards Heath RH16 4NQ | Weather: Overcast & drizzle |                       |

| Ref | Name                             | Age | DBH (mm)  | Hgt. (m) | Can. hgt. (m) | Can N (m) | Can E (m) | Can S (m) | Can W (m) | Physio cond. | Struct cond. | Life Exp. | Ret. Cat. | Comments                                               | Rec's (Proposed works are highlighted) |
|-----|----------------------------------|-----|-----------|----------|---------------|-----------|-----------|-----------|-----------|--------------|--------------|-----------|-----------|--------------------------------------------------------|----------------------------------------|
| T1  | Common Beech (Fagus sylvatica)   | Y   | 480 est.  | 12       | 6             | 3         | 1         | 1         | 1         | Fair         | Fair         | 40+       | C2        | Undergrown tree of fair form.                          | Remove.                                |
| T2  | Common Beech (Fagus sylvatica)   | Y   | 270       | 8        | 2             | 1         | 1         | 1         | 1         | Fair         | Poor         | 20+       | C2        | Undergrown tree of poor form.                          | Remove.                                |
| T3  | Scots Pine (Pinus sylvestris)    | M   | 380 est.  | 18       | 8             | 1         | 1         | 1         | 1         | Poor         | Poor         | <10       | U         | Significant bark delamination.                         | Remove.                                |
| T4  | Common Beech (Fagus sylvatica)   | M   | 310 : 520 | 16       | 6             | 8         | 3         | 3         | 4         | Normal       | Normal       | 40+       | A2        | Ivy clad.                                              | Remove Ivy.                            |
| T5  | Scots Pine (Pinus sylvestris)    | M   | 530       | 22       | 16            | 3         | 3         | 3         | 3         | Poor         | Fair         | 40+       | A2        | Nice tree.                                             |                                        |
| T6  | English Oak (Quercus robur)      | EM  | 560       | 14       | 1             | 4         | 4         | 4         | 4         | Poor         | Fair         | 20+       | B2        | Fair tree as part of group. Ivy clad.                  | Remove Ivy.                            |
| T7  | Sycamore (Acer pseudoplatanus)   | Y   | 200 est.  | 13       | 4             | 3         | 3         | 3         | 3         | Poor         | Normal       | 20+       | B2        | Fair tree as part of group. Ivy clad.                  | Remove Ivy.                            |
| T8  | Silver Birch (Betula pendular)   | EM  | 275       | 14       | 5             | 5         | 3         | 3         | 3         | Normal       | Normal       | 10+       | C2        | Ivy clad.                                              | Remove Ivy.                            |
| T9  | Sweet Chestnut (Castanea sativa) | Y   | 330 : 160 | 12       | 3             | 5         | 3         | 3         | 3         | Poor         | Normal       | 20+       | C2        | Undergrown tree with lean to North.                    |                                        |
| T10 | Sweet Chestnut (Castanea sativa) | EM  | 495       | 7        | 4             | 1         | 1         | 1         | 1         | Normal       | Normal       | 10        | C2        | Has been topped / pollarded. Leans towards playground. | Consider removal.                      |
| T11 | Scots Pine (Pinus sylvestris)    | M   | 540       | 20       | 16            | 4         | 3         | 2         | 2         | Fair         | Fair         | 20+       | A2        | Nice tree.                                             |                                        |
| T12 | Scots Pine (Pinus sylvestris)    | M   | 500 est.  | 16       | 10            | 4         | 3         | 3         | 3         | Normal       | Fair         | 20+       | A2        | Nice tree.                                             |                                        |

| Ref | Name                                | Age | DBH<br>(mm) | Hgt.<br>(m) | Can.<br>hgt.<br>(m) | Can<br>N<br>(m) | Can<br>E<br>(m) | Can<br>S<br>(m) | Can<br>W<br>(m) | Physio<br>cond. | Struct<br>cond. | Life<br>Exp. | Ret.<br>Cat. | Comments  | Rec's (Proposed<br>works are<br>highlighted) |
|-----|-------------------------------------|-----|-------------|-------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------|--------------|-----------|----------------------------------------------|
| T13 | Sweet Chestnut<br>(Castanea sativa) | Y   | 240         | 8           | 6                   | 2               | 2               | 2               | 2               | Normal          | Normal          | <10          | C2           | Declining | Remove                                       |
| T14 | Sweet Chestnut<br>(Castanea sativa) | Y   | 240         | 6           | 4                   | 1               | 1               | 1               | 1               | Fair            | Fair            |              | U            | Dead      | Remove                                       |

## Tree data schedule explanatory notes

This section explains the terms used in the **Tree data schedule** (Appendix 2).

**Ref:** Each item of vegetation has its own unique number, prefixed by a letter such that:

**T1**=Tree **S2**=Shrub or stump **G3**=Group **H4**=Hedge **W5**=Woodland

**Species:** Latin (and common names in brackets) are given.

### Age:

- **Y - Young** - Usually less than 10 years' old
- **SM - Semi-mature** - Significant future growth to be expected, both in height and crown spread (typically below 30% of life expectancy)
- **EM - Early-mature** - Full height almost attained. Significant growth may be expected in terms of crown spread (typically 30-60% of life expectancy)
- **M - Mature** - Full height attained. Crown spread will increase but growth increments will be slight (typically 60% or more of life expectancy)
- **V - Veteran** - A level of maturity whereby significant management may be required to keep the tree in a safe condition
- **OM – Over-mature** - As for veteran except management is not considered

worthwhile **DBH (mm):** Stem diameter, measured in mm, taken at 1.5m above

ground level where possible. **Hgt. (m): Height:** Measured from ground level to the

top of the crown in metres.

**Can Hgt. (m): Crown height:** Measured from ground level to the lowest tips of the main crown begins in metres. Where the crown is unbalanced, it is measured on the side deemed to be most relevant. This is usually the side facing the area of anticipated development.

### Can N, S, E, W: - Canopy extents

Approximate radial crown spread measured to the four cardinal points (for individual trees only)

**Physio cond.:** Indicates the physiological condition of the tree as one of the following categories:

- **Normal** - Healthy tree with no symptoms of significant disease
- **Fair** - Tree with early signs of disease, small defects, decreased life expectancy, or evidence of less-than- average vigour for the species
- **Poor** - Significant disease present, limited life expectancy, or with very low vigour for

the species and evidence of physiological stress

- **Very poor** - Tree is in advanced stages of physiological failure and is dying
- **Dead** - No leaves or signs of life
- of less-than- average vigour for the species
- **Poor** - Significant disease present, limited life expectancy, or with very low vigour for the species and evidence of physiological stress
- **Very poor** - Tree is in advanced stages of physiological failure and is dying
- **Dead** - No leaves or signs of life

**Struct cond.:** Indicates the structural condition of the tree as one of the following categories:

- **Normal** - No significant structural defects noted.
- **Fair** - Some structural defects noted but remedial action not required at present.
- **Poor** - Significant defects noted resulting in a tree that requires regular monitoring or remedial action.
- **Very poor** - Major defects noted that compromise the safety of the tree. Remedial works or tree removal is likely to be required.
- **Dead** - No leaves or signs of life

**Life Exp.:** The estimated number of years before the tree may require removal (<10), (10 – 20), (20 – 40), or (40+).

**Ret. Cat.:** - **Retention category:** BS5837:2012 Category where:

- **U = Trees unsuitable for retention.** Trees in such a condition that cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. These trees are shown on the tree plans with red centres.
- **A = Trees of high quality.** Trees of high quality with an estimated remaining life expectancy of at least 40 years. These trees are shown on the tree plans with green centres.
- **B = Trees of moderate quality.** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. These trees are shown on the tree plans with blue centres.
- **C = Trees of low quality.** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. These trees are shown on the tree plans with grey centres.

Trees of notable quality are graded as Category A or Category B. These trees are sometimes divided further into sub- categories:

- Sub-category 1 is allocated where it has been assessed that the tree has mainly arboricultural qualities.
- Sub-category 2 is allocated where it is assessed that the tree has mainly landscape qualities.
- Subcategory 3 is allocated where it is assessed that the tree has mainly cultural qualities, including conservation.

Trees may be importance and priority as an A1 tree allocated more than one sub-category. All sub-categories carry equal weight, with for example an A3 tree being of the same.

**Comments:** Tree form and pruning history are also recorded along with an account of any significant defects.

**Rec's - Recommendations:** Usually based on any defects observed and intended to ensure that the tree is in an acceptable condition.

## **5 IMPLICATIONS OF PROPOSED DEVELOPMENT ON CURRENT TREE POPULATIONS**

The proposal can be designed to minimise any impact on the trees to be retained. Trees T3, T7, T10, T13 & T14 may be removed on the basis of sound arboricultural practice, condition and / or to facilitate the proposal.

## **6 DISCUSSION OF ARBORILCTURAL IMPLICATIONS**

### **6.1 Arboricultural Implications Assessment**

It is considered that the removal of the trees as recommended will afford sufficient space for the construction of the proposed access, allowing for the retention of the important native trees.

### **6.2 Below ground implications and mitigation**

The accessway can be constructed to allow for the retention of the identified trees. This will be constructed in line with the Arboricultural Association's Guidance Note 12 : The Use of Cellular Confinement Systems Near Trees, which is appended to this report. This sets out the industry standard approved method of constructing 'No dig' roadways in proximity to trees.

The construction of the accessway in line with the guidance of this method will enable the successful retention of all the identified trees.

### **6.3 Above ground implications**

The proposed development can be located to minimise any conflict with any retained trees.

### **6.4 Impact of proposals on the local amenity**

The amenity of the local area will be maintained by the retention of the important trees identified within this report.

## **7 TREE PROTECTION PLAN**

### **7.1 Tree protection with boxing-in, fencing barriers and ground protection**

When a detailed proposed layout has been designed, it may be necessary to provide for tree protection measures.

### **7.2 Non compacting ground protection**

Non compaction ground protection may be necessary in the Root Protection Areas of retained trees to allow for pedestrian access.

BS 5837 states:

#### **6.2.3 Ground protection during demolition and construction**

**6.2.3.1** Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier.

**6.2.3.2** Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection should be installed as part of the implementation of physical tree protection measures prior to work starting on site.

**6.2.3.3** New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

*NOTE The ground protection might comprise one of the following:*

- a) *for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;*
- b) *for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;*
- c) *for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.*

### **7.3 Precautions when working in Root Protection Areas**

Construction within the Root Protection Area should accord to the principle that the tree and soil structure take priority, and the most reliable way to ensure this is to preserve the RPA completely undisturbed. Soil structure should be preserved at a suitable bulk density for root growth and function, existing rootable soils retained and roots themselves protected.

**7.3.1** Inside the area of the Construction Exclusion Zone, the following shall apply:

- No mechanical excavation whatsoever
- No excavation by any other means without arboricultural site supervision
- No hand digging without a written method statement having first been approved by the project arboriculturist.
- No lowering of levels for any purpose (except removal of grass sward using hand tools)
- No storage of plant or materials
- No storage or handling of any chemical including cement washings
- No vehicular access
- No fire lighting

**7.3.2** In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees
- No fire shall be lit such that flames come within 5m of tree foliage.

Further, precautions must be taken when working outside the exclusion zone. BS 5837 states:

**6.2.4 Additional precautions outside the exclusion zone**

**6.2.4.1** Planning of site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees. Such contact can result in serious damage to the trees and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity to trees should be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times.

**7.4 Synopsis**

Good tree protection requires Arboricultural input and / or supervision. The nature and extent of this provision will vary depending upon the precise development and its proximity to retained trees. Early consultation can help prevent harm to retained trees.

**7.5 Supervision of Planning Conditions**

It is considered unlikely that this project is unlikely to require the imposition of any planning conditions.

**7.6 Phasing of Arboricultural input**

To ensure the successful retention of the trees identified to be retained, it will be essential to follow the guidance contained within this report. Arboricultural supervision may be necessary for the implementation of these recommendations.

When a design has been developed an assessment of the need for any Arboricultural supervision can be made.

## **7.7 Pre-commencement Arboricultural input**

See 7.6.

## **7.8 Site supervision**

See 7.6.

## **7.9 Site management**

It is the responsibility of the site owner / manager to ensure that the tree protection methods detailed in this report are adhered to by all site personnel. Any queries must be referred to the project Arboriculturist.