# Arboricultural Impact Assessment

**Prepared for:**

Van Dijk Architects

**Proposed site:**

Cherry Orchard Site 4 & 5, Dublin 10

**Prepared by:**

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Arboricultural ASSOCIATION Professional Member

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**Executive Summary**

1.0 This arboricultural report has been commissioned by Van Dijk Architects on behalf of Dublin City Council in partnership with The Land Development Agency to provide information to assist with the planning process in relation to a proposed development at the above location.

This report includes:

- an assessment of the trees, their quality and value in accordance with BS 5837:2012 - Trees in relation to design, demolition and construction;
- the site context and observations on the trees;
- local planning policies relevant to the consideration of trees on the site;
- the impact of the proposed development upon the tree population in and around the site;
- methods of reducing impacts on trees; and
- measures to be taken to protect trees during the proposed works.

## 2.0 Introduction

### 2.1 Instructions

Arbor-Care Ltd (Professional Consulting Tree Service) was retained to undertake an on-site tree survey of all trees that could be potentially be impacted within the site extents (Figure 1), the findings of the report will be used to inform design of development works and support a planning application for same.

The objective of the impact assessment was to identify the areas that contained trees, groups of trees, and to ensure where possible that these areas would be retained and to identify the trees that are to be removed to facilitate the proposed scheme.

The below impact assessment report is based on the British standard *BS 5837:2012 Trees in relation to design, demolition and construction recommendations*, this standard gives recommendations and guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees, including shrubs, hedges and hedgerows, with structures. It sets out to assist those concerned with trees in relation to construction to form balanced judgements. This impact assessment report will be accompanied by an inventory of trees and hedgerows on site and a tree protection plan. The Arboricultural Impact Assessment and a tree protection plan was prepared for the site identifying trees that may be impacted on by the proposed development based on the proposed design.

### 2.2 Methodology

An initial tree survey and visual condition assessment was on the 7th July 2024. The purpose of this report and in accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction* r*ecommendations* only trees with diameters of 75mm or greater were surveyed. Also in accordance with section 4.4.2.3 of the British standard document where trees formed obvious groups these were assessed and recorded as groups. All trees were individually tagged with a metal disc. This was placed on the northern side of the tree where practical.

*Section 4.4.2.3 of BS 5837: 2012 states:*

*Trees growing as groups or woodland should be identified and assessed as such where the arboriculturist determines that this is appropriate. However, an assessment of individuals within any group should still be undertaken if there is a need to differentiate between them, e.g. in order to highlight significant variation in attributes (including physiological or structural condition).*

*NOTE: The term "group" is intended to identify trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture), in respect of each of the three subcategories.*

The survey concentrated primarily on the significant trees located within the parameters of the scheme and has been based on the topographical survey plan provided.

The objective of this survey was to gather information regarding the trees within or adjacent to the development area and the impact the proposed scheme may have on the trees. **Please refer to Appendix A for the tree inventory**.

Significant trees can be equated as those trees whose visual importance to the surrounding area are sufficient to justify special efforts to protect/preserve and whose loss would have an irremediable adverse impact on the local environment. Significance can also be placed depending on the trees age, another variable to imply significance can be the aesthetic merit of the tree based on its unusual size, intrinsic physical features or outstanding appearance or occurring in a unique location or context, and thus provides a special contribution as a landmark or landscape feature.

All above parts of the trees were visually examined. Tree diameters (DBH) were estimated at 1.5 meter above grade as per standard arboricultural practice. Tree height was measured with the use of a clinometer (Where practical). A generalised system was employed to describe the overall health of the trees. The system uses a three tier rating scale with the following descriptors:

Specimen condition 3-tier rating system

- Poor- 1-30%
- Fair- 31-60%
- Good- 61-100%

## 3.0 Initial Tree Survey Overview

3.1 Site 4 is a large green field site that is subdivided with hedgerows, it also contains large areas of scrub willow and hawthorn. There are no trees within site 5

*Figure 1: Site Location.*

## 4.0 The Trees.

A total of 8 trees were individually surveyed and an additional 3 hedgerows, the majority of the trees are large individual mature trees. A breakdown of the Tree Categories on site as per BS 5837 2012 is set out in the table below:

A breakdown of the Tree Categories on site *as per BS 5837 2012* is set out in the table below:

| Category | Quantity |
|---|---|
| A-Tree of high quality | 0 |
| B-trees of good/moderate quality | 8 + 1 Tree Group |
| C (Low quality or trees less than 75mm diameter) | 3 hedgerows + 5 scrubs area |
| U (remove due to poor condition) | 0 |

The above tree categories relate to the categorisation of trees as per the relevant British Standard

## 5.0 Statutory and Non-Statutory Designations

The National Planning Framework (NPF) seeks to ensure that new development is sustainable and underlines the importance of Green Infrastructure, of which trees form an integral part. This encompasses recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate change adaption. The NPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity.

The site is located within the jurisdiction of *Dublin County Council*. The Local Planning Authorities have a statutory duty to consider both the protection and planting of trees when considering planning applications. The potential impact of development on all trees (including those not protected by a Tree Preservation Order or other statutory designation) is therefore a material consideration. I have reviewed *Dublin County Council Development Plan 2023-2029 Tree Preservation Orders (TPO's).* There are no TPO's identified within the development site.

## 6.0 The Proposed Development

**Development Description**

The proposed development (GFA of c. 13,280sqm) involves the construction of 137no. dwellings in a mix of houses, duplexes and own-door apartments ranging in height from 2 to 3 storeys comprising 31no. two-bed units (9no. two-bed three-person and 22no. two-bed four-person) and 106no. three-bed units (13,015 sqm total residential floor area), and all ancillary accommodation including bike and bin stores and ESB substation (265sqm total GFA). The proposed development also includes the provision of 2,133sqm landscaped public open space, in addition to 2,050sq.m of public open space as consented under the Phase 1 permission (Bord. Ref: ABP-318607-23). The total public open space provided for Phase 2 totals 4,183 sqm (12.34% of the net site/development area (3,390ha) of Phase 2 lands). Communal open space for the duplex and apartment units is provided across three dedicated communal amenity areas (602sq.m in total area) with private open space to serve the proposed units to be delivered through a mixture of rear gardens and terraces.

The proposed development will also involve the provision of 141no. car parking spaces at curtilage and street level throughout the development, of which 7no. are accessible spaces and 71no. EV charging points (representing 50% of the total parking spaces). A total of 306no. bicycle parking spaces, of which 18no. are visitor spaces accommodated through a mixture of bike stores and external cycle parking stands. A total of 7no. motorbike parking spaces are also provided. Vehicular, pedestrian and cycle access routes to serve the proposed development are provided via the consented Phase 1 entrance to the east of the site along Park West Avenue with further connections provided to the north and to the south to the permitted Phase 1 scheme. Provision is also made for the installation of a signalised access junction with associated traffic lights and below ground infrastructure and the relocation of bus stop and shelter along Park West Avenue. The need to provide a signalised junction requires minor alterations to the entrance to the development including adjustment to the paving as previously permitted under the Phase 1 scheme (no further amendments to that permission are proposed under this application.) The proposed development also includes the provision of off-street cycle lanes along Park West Avenue that will provide direct connectivity to the Rail Station to the southeast and Cherry Orchard Park to the east.

The development will also provide for all associated ancillary site development works including site clearance, boundary treatment, associated public lighting, internal roads and pathways, bin and bike stores, ESB substation, hard and soft landscaping, play equipment, and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply.

*Figure 2. The Proposed Development*

View of the Trees.

| | |
|---|---|
|  | T1-T7 mature ash trees, to be removed |
|  | Typical hedgerow found within the site |

| | |
|---|---|
|  | Scrub areas |
|  | Group of dead trees |

| | |
|---|---|
|  | Tree group one consist of spruce and larch and 1 self-seeded early mature horse chestnut |

## Arboricultural Impact Assessment

**7.0** Analysis of the Proposal in Respect of Trees

This impact assessment sets out the likely principal direct and indirect impacts of the proposed development on the trees on or immediately adjacent to the site and suitable mitigation measures to allow for the successful retention of significant trees or to compensate for trees to be removed, where appropriate.

A brief summary of trees to be removed, related to the Proposed Scheme are detailed within the table below:

**Table 1: Schedule of trees to be removed to accommodate the design** (To be read in conjunction with Appendix 1 and the Tree Protection Plan.

| Tree number | Species | Age Class | Tree category |
|---|---|---|---|
| T1 | Ash | Mature | B2 |
| T2 | Ash | Mature | B2 |
| T3 | Ash | Mature | B2 |
| T4 | Ash | Mature | B2 |
| T5 | Ash | Mature | B2 |
| T6 | Ash | Mature | B2 |
| T7 | Ash | Mature | B2 |
| T8 | Ash | Mature | B2 |
| Hedge 1 | Hawthorn<br>Elder<br>bramble | Mature | C2 |
| Hedge 2 | Hawthorn<br>Elder<br>bramble | Mature | C2 |
| Hedge 3 | Hawthorn<br>Elder<br>bramble | Mature | C2 |
| Scrub area 1-5 | Willow, bramble | Mature | C2 |
| Tree group 1 | Norway spruce<br>Larch<br>1 x horse chestnut | SM | C2 |

*In accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction*. *Recommendations.,*

Category A signifies those trees of high value and in such a condition as to be able to make a substantial contribution.

Category B signifies those trees *of a "moderate value and in such a condition as to be able to make a substantial contribution*

Category C signifies those trees/hedgerows *of "a low quality and value that are currently in an adequate condition to remain until new planting could be established*

*Category U. This category signifies those trees that are 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 management.*

## 8.0 Discussion & Conclusion

General Change

8.1 My assessment is that loss of trees is low and therefore there will be a minimal impact on the character and appearance of the immediate surrounding landscape; the proposal provides a good opportunity to carry out new high quality tree planting that will significantly enhance the tree population and have a positive impact on the visual appearance of the site and the local area in the future.

Proposal in relation to local planning policy

8.2 The proposed development complies with local planning policy as it relates to trees. A tree survey has been carried out in accordance with best practice. Although the removal of the above vegetation would not be consistent with Policy GI41 of the current DCC Development Plan, '*Protect Existing Trees as Part of New Development*' . The vegetation that is to be removed is of limited biodiversity value the proposed landscape plan which Includes new high quality tree planting will form part of the proposal. New planting will mitigate the loss of trees and enhance the visual appearance of the site and aid the local biodiversity. Please review the landscape plan for further details.

# Appendix A: Tree Survey

*Key abbreviations used in the survey*

| | | |
|---|---|---|
| Ref No | Specific identification number given to each tree or group.<br>T=Tree/H=Hedge/G=Group/W=Woodland/S=Shrub. | |
| Tag No. | Tree marked with individual tree tag of this reference number on site. | |
| Species | Common name followed by botanical name shown in *italics* | |
| RPA | Root Protection Area (As defined by BS5837) | |
| Stem diameter | Diameter of main stem, measured in millimetres at 1.5 m above ground level.<br>(MS = Multi-stem tree measured in accordance with BS5837 Annexe C) | Av / Average:<br><br>indicates an average representative measured dimension for the group or feature |
| Spread | The width and breadth of the crown. Estimated on the four compass points in metres. | |
| Crown clearance | The estimated height (in metres) above ground level of the lowest significant branch attachments. | |
| # | Estimated dimensions | |
| * | Indicates estimated position of tree (not indicated on topographical survey). | |
| P | Privately owned tree (e.g. tree not located in the public highway or adjacent public land). | |
| Category | Categorisation of the quality and benefits of trees on Site as per Table 1 and 2 of BS5837:2012.<br>1=Arboricultural quality/value<br>2=Landscape quality/value<br>3=Cultural quality/value (including conservation) | |
| | A=High quality/value 40yrs+ (light green).<br>B=Moderate quality/value 20yrs+ (mid blue)<br>C=Low quality/value min 10yrs/stem diameter less than 150mm (grey).<br>U=Unsuitable for retention (dark red). | |
| Life stage | **Young (Y):** Newly planted tree 0-10 years.<br>**Semi-Mature (SM):** Tree in the first third of its normal life expectancy for the species (significant potential for future growth in size).<br>**Early Mature (EM):** Tree in the second third of its normal life expectancy for the species (some potential for future growth in size)<br>**Mature (M):** Tree in the final third of its normal life expectancy for the species (having typically reached its approximate ultimate size).<br>**Over Mature (OM):** Tree beyond the normal life expectancy for the species.<br>**Veteran (V):** Tree which is of interest biologically, aesthetically or culturally because of its condition, size or age. | |
| Structural condition | **Good:** No significant structural defects<br>**Fair:** Structural defects which can be resolved via remedial works.<br>**Poor:** Structural defects which cannot be resolved via remedial works.<br>**Dead:** Dead. | |
| Physiological condition | **Good:** Normal vitality including leaf size, bud growth, density of crown and wound wood development.<br>**Fair:** Lower than normal vitality, reduced bud development, reduced crown density, reduced response to wounds.<br>**Poor:** Low vitality, low development and distribution of buds, discoloured leaves, low crown density, little extension growth for the species.<br>**Dead:** Dead<br>**Fair/Good** = Indicates an intermediate condition<br>**Fair – Good** = Indicates a range of conditions (e.g. within a group) | |
| Preliminary management recommendations | Works identified during the tree survey as part of sound arboricultural management, based on the current context of the Site (where relevant reference has been made to tree management based on the potential future context of the site). | |
| Works to facilitate the development | Tree works identified as necessary to facilitate the Proposed Development following a desk top analysis of the proposals in relation to tree constraints. | |

## Appendix A: Tree Survey Schedule-Site 4

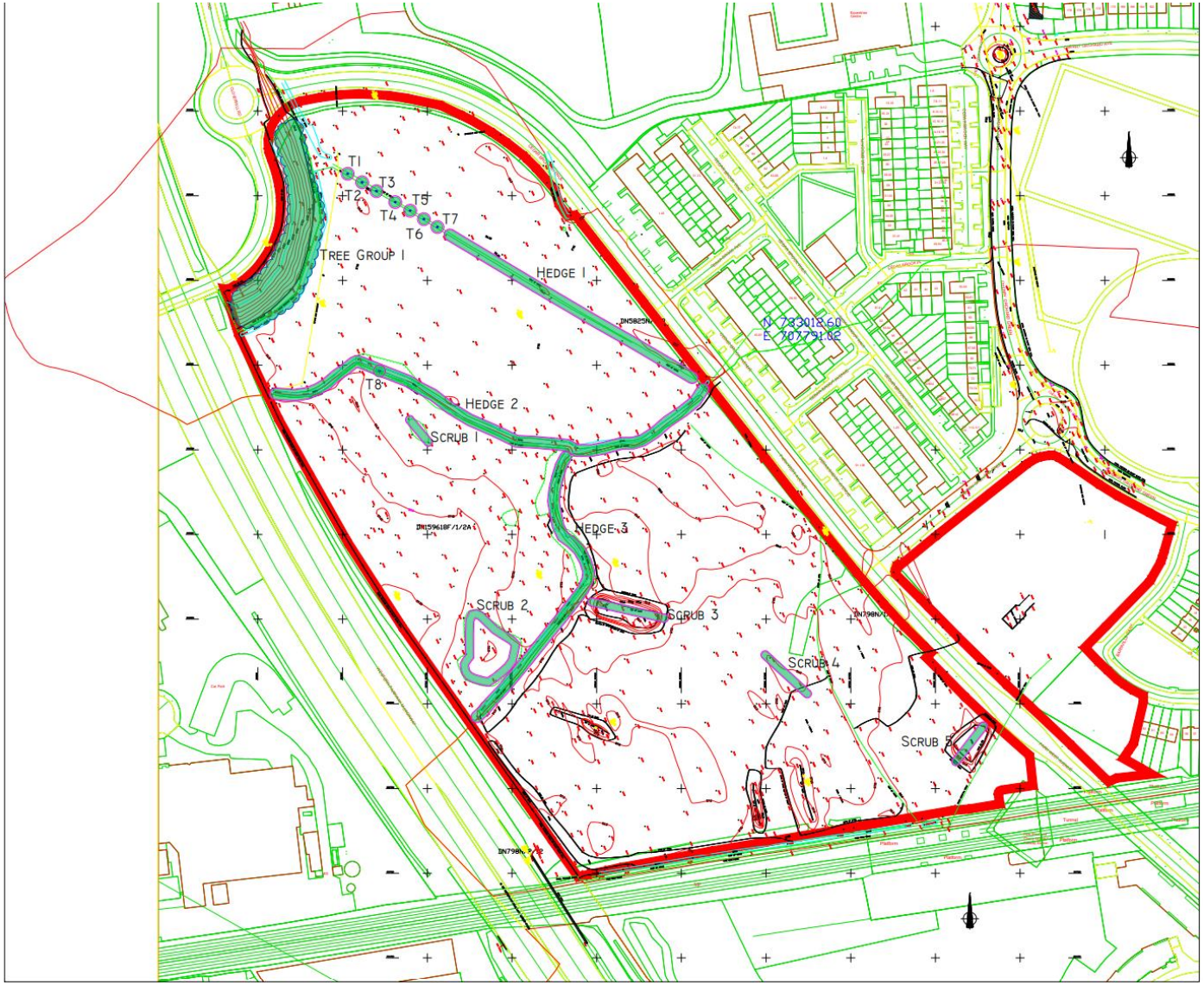
| Tree # | Species Botanical Name | Age class | Size (mm) | Height (M) | Crown Sp. (M) | Crown Cl.(M) | Condition | Structural/Physiological Observations | Impact of the development | PMR | Category | R.P.A. Meters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T1 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |
| T2 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |
| T3 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |
| T4 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |
| T5 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |

| Tree # | Species Botanical Name | Age class | Size (mm) | Height (M) | Crown Sp. (M) | Crown Cl.(M) | Condition | Structural/Physiological Observations | Impact of the development | PMR | Category | R.P.A. Meters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T6 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |
| T7 | Ash | M | 280 | 10 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature ash located within hedgerow 1 | Remove to facilitate the development | Remove | B2 | |
| T8 | Oak | M | 250 | 8 | N=3<br>S=3<br>E=3<br>W=3 | 2m | Good | A mature oak contained within hedgerow 2 | Remove to facilitate the development | Remove | B2 | |
| Hedge 1 | Hawthorn<br>Elder<br>bramble | M | 250 | 6 | N=3<br>S=3<br>E=3<br>W=3 | 1m | Fair | A low quality fragmented hedgerow consisting of scrub hawthorn and overgrown with briars | Remove to facilitate the development | Remove | C2 | |
| Hedge 2 | Hawthorn<br>Elder<br>bramble | M | 250 | 6 | N=3<br>S=3<br>E=3<br>W=3 | 1m | Fair | A low quality fragmented hedgerow consisting of scrub hawthorn and overgrown with briars | Remove to facilitate the development | Remove | C2 | |
| Hedgerow 3 | Hawthorn<br>Elder<br>bramble | M | 250 | 6 | N=3<br>S=3<br>E=3<br>W=3 | 1m | Fair | A low quality fragmented hedgerow consisting of scrub hawthorn and overgrown with briars | Remove to facilitate the development | Remove | C2 | |

| Tree # | Species Botanical Name | Age class | Size (mm) | Height (M) | Crown Sp. (M) | Crown Cl.(M) | Condition | Structural/Physiological Observations | Impact of the development | PMR | Category | R.P.A. Meters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Scrub area 1 | Willow Hawthorn | M | 150 | 4 | N=2 S=2 E=2 W=2 | .5m | Fair | A scrub area consisting scrub willow and hawthorn | Remove to facilitate the development | Remove | C2 | 2.5m |
| Scrub area 2 | Willow Hawthorn | M | 200 | 4 | N=2 S=2 E=2 W=2 | .5m | Fair | A scrub area consisting scrub willow and hawthorn | Remove to facilitate the development | Remove | C2 | |
| Scrub area 3 | Willow Hawthorn | M | 200 | 4 | N=2 S=2 E=2 W=2 | .5m | Fair | A scrub area consisting scrub willow and hawthorn | Remove to facilitate the development | Remove | C2 | |
| Scrub area 4 | Willow Hawthorn | M | 200 | 4 | N=2 S=2 E=2 W=2 | .5m | Fair | A scrub area consisting scrub willow and hawthorn, there is a group of dead trees within this area | Remove to facilitate the development | Remove | C2 | |
| Scrub area 5 | Willow Hawthorn | M | 200 | 4 | N=2 S=2 E=2 W=2 | .5m | Fair | A scrub area consisting scrub willow and hawthorn | Remove to facilitate the development | Remove | C2 | |

| Tree # | Species Botanical Name | Age class | Size (mm) | Height (M) | Crown Sp. (M) | Crown Cl.(M) | Condition | Structural/Physiological Observations | Impact of the development | PMR | Category | R.P.A. Meters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tree group 1 | Norway spruce<br>Larch<br>1 x horse chestnut | SM | 180 | 8 | N=2<br>S=2<br>E=2<br>W=2 | .5m | Good | A group of mature conifers growing within dense bramble | Remove to facilitate the development | Remove | B2 | |

Appendix A- Tree Location Drawing



## Appendix B: Arboricultural Method Statement

**Introduction**

This report has been prepared in accordance with British Standard 5837: Trees in relation to design, demolition and construction – Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.

**Sequence of Operations**

- Carry out the proposed tree works.
- Installation of tree protection measures.
- Enabling works.
- Construction of proposal and the installation of drainage and services.
- Landscaping.

*Alternative sequences can be discussed and agreed with the local authority and project manager if required.*

**Supervision**

All key / critical activities that will affect trees during construction will be inspected and monitored bythe approved arboricultural consultant *if so requested by the local authority.*

- Pre-commencement meeting with site manager and local authority to confirm location of treeprotection measures.
- Inspection of all tree works and tree protection measures prior to the commencement ofworks.
- Supervision during the excavation works within the RPAs of retained trees.
- Supervision during the installation of all services within tree RPAs.
- Supervision during any other works that may affect retained trees.
- Inspection upon completion.

| Arboricultural Method Statement | |
|---|---|
| **Scope** | **Methodology** |
| **Pre-commencement meeting** | Prior to the commencement of works, a meeting between the arboriculturalconsultant, local authority and the site manager will be held in order to discuss the tree protection measures and proposed works required in closeproximity to trees. (if requested)<br><br>Contact details of all parties will be circulated to ensure all team members are able to communicate correctly.<br><br>The site manager will be responsible for the protection of all retained trees for the duration of the project. Whenever necessary, the site manager will engage the arboricultural consultant to ensure trees are adequately protected.<br><br>The appointed arboricultural consultant will be available for verbal advice throughout site works. |
| **Tree Works** | Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works. The location of trees to be removed are highlighted on the Tree Removals Plan<br><br>It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority.<br><br>All tree works will be carried out by a reputable arboricultural contractor inaccordance with the recommendations given in BS 3998:2010 – Tree Work Recommendations.<br><br>All tree works should be carried out in accordance with Section 40 of the Wildlife Act 1976 and Section 46 of the Wildlife (Amendment) Act 2000.<br><br>It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works. |
| **Tree Protection** | The position of protective fencing for construction is shown on the Tree Protection Plan.<br><br>Protective fencing will be constructed and installed using fencing in accordance with BS5837:2012, please refer to the attached Tree Protection Plan for the specification. Alternatives to those shown must be agreed in advance by the client approved, arboricultural consultant. |

| | |
|---|---|
| | Any machinery / site operative within tree RPAs must operate on the appropriate ground protection at all times, this will include the installation and removal of ground protection.<br><br>Ground protection measures must be installed in accordance with industry best practice guidance as stated within Section 6.2.3.3 of BS 5837:2012. They must be fit for purpose and capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.<br><br>No materials or equipment other than those required to erect protective fencing will be delivered to the site before the fencing is installed.<br><br>Signs will be fixed to every third panel stating, *'Tree Protection Area Keep Out – Any incursion into the protected area must be with the agreement ofthe local authority or arboricultural consultant'*.<br><br>The main contractor will inform the local authority and the arboricultural consultant that tree protection is in place before site clearance works commence.<br><br>No alteration, removal or repositioning of the tree protection will take placeduring construction without the prior consent of the arboricultural consultant. |
| **Compound Area** | The proposed site compound area has not yet been designed; however, the considerations below must be followed:<br><br>The site compound must be located outside the designated TPZs as highlighted on the Tree Protection Plan at Appendix B.<br><br>No excavation works within tree RPAs are permitted to install temporary services for site cabins and facilities. Any temporary services within tree RPAs must be above ground and protected accordingly.<br><br>No operating generators or toxic liquids will be stored within the RPAs of retained trees during construction.<br><br>Overhanging tree canopies must be taken into consideration when transporting, installing and removing site cabins near tree crowns. A banksman will be present during this process to ensure that all operations are carried out in a controlled manner and no part of the cabin meets overhanging tree crowns. |

| | |
|---|---|
| **Installation of fencing within RPAs** | The installation of fencing within the RPAs of retained trees will be carried out using the following methodology:<br><br>Post holes will be carefully positioned as far away from the stem of trees as possible (minimum 50 cm) to minimise contact with tree stems and significant tree roots.<br><br>Holes will be manually excavated with the use of hand tools only and where roots greater than 25mm in diameter or large fibrous roots are present, theposition of the hole will be slightly altered to avoid potential root damage.<br><br>If the position of the hole cannot be altered, roots greater than 25mm in diameter or large fibrous roots will be protected with flexible plastic pipes and retained within the pit.<br><br>In some cases, individual roots less than 25mm in diameter may be pruned, making a clean cut with a suitable sharp sterile tool (e.g. secateurs or hand saw).<br><br>Once the required depth has been excavated, the hole will be lined using 1000-gauge polythene and filled with the appropriate concrete mix. |
| **Landscape Operations** | All landscape operations within the protected area will be carried out by hand, using hand tools only, unless otherwise agreed with by the arboricultural consultant. |
| | No dumping of spoil or rubbish, parking of vehicles or plant, storage ofmaterials or temporary accommodation will be undertaken within the TPZs.<br><br>All tree roots within the RPAs greater than 25mm diameter will be retainedand worked around.<br><br>Soil levels will not be increased or reduced within the RPAs of trees without prior agreement from the arboricultural consultant. |

| | |
|---|---|
| **General Principals to Avoid Damage to Trees** | All tree works will be carried out in accordance with the recommendations given in BS 3998 (2010).<br><br>No fires will be permitted within 20m of the crown of any tree.<br>No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboriculturalconsultant.<br><br>Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to thearboricultural consultant immediately.<br><br>The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately. |

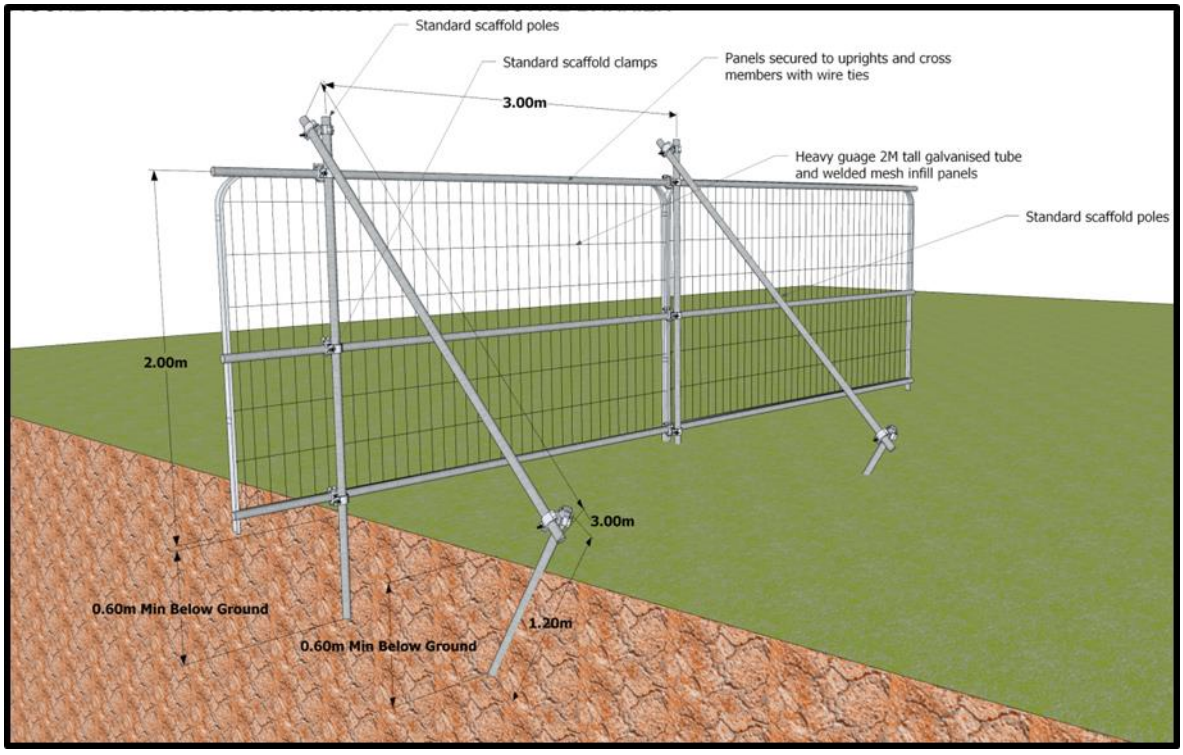



**Figure 3 Default specification for tree protection barrier in accordance with BS5837:2012**

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