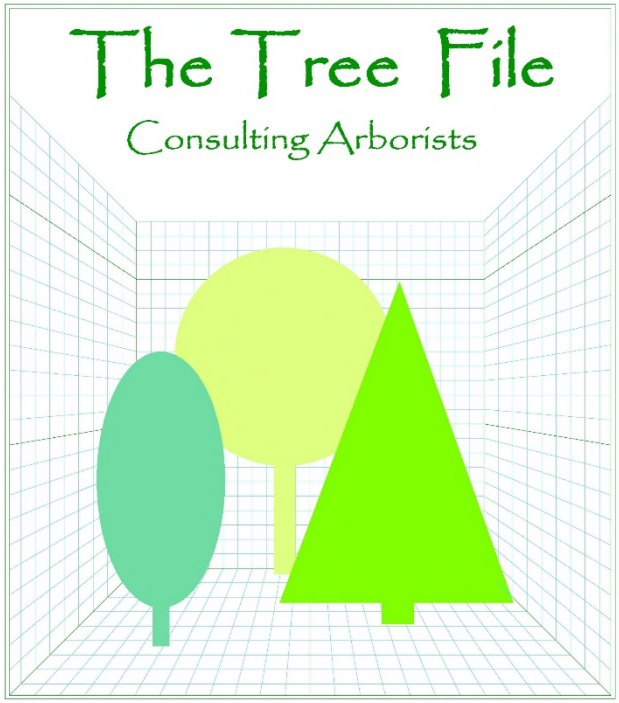


# Arboricultural Report
## Proposed Development at
## The Lord Mayor's Public House
## Main Street
## Swords
## Co. Dublin
## March 2022

**The Tree File Ltd**
**Consulting Arborists**
**Ashgrove House**
**26 Foxrock Court**
**Dublin 18**
**D18 R2K1**
**086-3819011**

# Contents



## Associated Drawings

This report is for reading in conjunction with the drawings noted below

| | Drawing Title | Drawing Subject |
|---|---|---|
| 1) | Lord Mayor SHD Tree Constraints Plan | Tree Constraints Plan<br>A plan depicting the predevelopment location, size, calculated constraints, and simplified tree quality category system |
| 2) | Lord Mayor SHD Tree Impacts Plan | Tree Impacts Plan<br>This plan represents the effects of the proposed development works on the above tree population and depicts trees to be retained and removed. |
| 3) | Lord Mayor SHD Tree Protection Plan | Tree Protection Plan<br>This plan depicts the nature, location and extent of tree protection measures required for sustainable tree retention. |

# 1 Report Summary

1.1 The site supports a diverse tree population, including recently planted trees, associated with the landscaped areas of the existing public house context as well as substantial areas of natural regeneration, dominated by lapsed agricultural field boundary hedges and new thicket including Bramble, Birch, Sycamore, Goat Willow, Buddleia and Common Alder. Much of the tree material on the site is young and generally small, with only a few trees adjoining the eastern roadside boundary offering any significant landscape impacts.

1.2 The proposed development will see much of the site area affected by significant excavation and modification and accordingly there is limited potential to retain existing vegetation and a clear majority will be removed (See "Lord Mayor SHD Tree Impacts Plan" drawing)

1.3 The design team intends to retain two trees to the north of the site including Common Alder no.1919, and Crack Willow no.1920. These trees are positioned close to a significant new pathway with elevated finished levels. Accordingly, sustainable retention will be contingent on applying suitable construction strategies and methodologies at construction stage. Additionally, it is intended to retain two trees near the site's southern boundary, including Sycamores no.1933 and no.1934. Both trees are located close to areas of substantial construction works and grading. Their sustainable retention will be reliant upon the ability to provide suitable tree protection during the construction stage.

1.4 In respect of tree protection measures required during the construction period, attention is drawn the Arboricultural Method Statement provided at "Appendix 1" to this report. The primary form of tree protection will involve the use of simple tree protection fencing/hoarding so as to separate the tree protection areas from the broader construction site area. This is defined on the tree protection plan drawing "Lord Mayor SHD Tree Protection Plan" by the bold orange line representing the protection hoarding line and the orange hatched area representing the construction exclusion zone. Note should be made that the development design requires known works close to trees. This will involve unavoidable entry into the nominal tree protection zones. Such areas have been defined by pale blue hatching on the tree protection plan. Sustainable tree retention will require only low impact works within that zone, including the employment of low impact methodologies and the use of specific material and structures.

1.6 Notwithstanding the above and appreciating that much of the site's existing vegetation is either of broadly small stature or that it comprises natural regeneration that may be of questionable worth within a newly developed landscape, then consideration should be given to new and replacement planting, including the use of context specific and suitable trees, installed in a sustainable manner within the new landscape context.

# 2 Introduction

2.1 This report was commissioned by-
**Jacko Investments Ltd**.

This report was prepared by-
Andy Worsnop Tech Arbor A, NCH Arb (PTI LANTRA)
**The Tree File Ltd**
Ashgrove House
26 Foxrock Court
Dublin 18
D18 R2K1

## Report Brief

2.2 The Tree File Ltd has been requested by **Jacko Investments Ltd** to provide an Arboricultural report in respect of the proposed development.

## Report Context

2.3 As "BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations" is the accepted framework for such reports, its composition, inclusions and recommendations being followed as a general basis for this report. An arboricultural review of the proposed development project is included in this report. The report includes an evaluation of the existing tree population at the site in its current context. The report evaluates their chances of long-term retention in the post-development scenario. The report also discusses the potential effects and consequences of the development and construction process on those trees. It also provides information on the necessary tree protection and avoidance of tree damage during the construction process, which is required to achieve long-term tree retention.

2.4 The report conclusions were created after studying the design team's proposed project specifics and evaluating trees as specified and presented in "Appendix 2". Appendix 1 has a preliminary "Arboricultural Method Statement" and a Tree Protection Plan. This plan depicts the necessary conservation and protection methods to ensure tree sustainability. However, this paper is not meant to criticise the proposed development, but rather to examine the development's implications for the sustainable retention of trees. This report is only for planning and may not be suitable for building.

## Report Limitations

2.5 This report relates the Arborists interpretation of information provided to him before the report compilation and gained by him during the undertaking of the site review and tree survey. The site review data is subject to the limitations set out under "Inspection and Evaluation Limitations and Disclaimers" in "Appendix 2" of this report. The findings and recommendations made within this report are compiled based upon the knowledge and expertise of the inspecting Arborist.

2.6 The "Implication Assessment" element of the report builds on assumptions and estimates, unavoidably associated with the "design" stage of the project. This report cannot address issues that may arise at "detail design" or "construction" detail stage or in respect of how construction works might proceed on a day-to-day basis. Equally, this report cannot address issues that may arise in respect of changes or amendments required to address or comply with any conditions of a grant of permission.

2.7 In line with the "design" stage of the development proposals, many elements of the "Arboricultural Method Statement" are deliberately broad and generic. They will require review, amendment and consolidation at the construction stage, for example, in respect of the size and nature of the equipment, plant and machinery that might be utilised by any potential building contractor and any details as may change at "detail design" or "construction detail" stages.

2.8 Accordingly, this assessment is premised on all its elements/recommendations, and the omission or alteration of any part of it, particularly the application of tree protection methodologies, can radically alter outcomes regarding sustainable tree retention.

## 3 Site Description

3.1 The site in question is adjoined and bounded by Church Road and its associated stream along its eastern side. The southern boundary of the site appears to comprise the main street in swords and includes the existing Lord Mayor public house. The western portion of the southern boundary comprises the rear boundaries of neighbouring properties, is indistinct and currently defined by a broad, nebulous hedge.

3.2 The sites western boundary at its southern end is again defined by an ill-defined hedge that appears to exist in conjunction with a ditch and embankment scenario and adjoining footpath. The northern path part of the western boundary supports much of the same hedge though is adjoined by a stream that acts as a physiological boundary to the site.

3.3 Whilst the southern portion of the site is hugely artificial both in respect to its support of hard surfaces, existing buildings and a planted landscape, the northern western element of the site are disused, overgrown and appear to relate to a prior agricultural landscape that may have been defined/divided by Hawthorn-based hedges.

## 4 Pre-Development Arboricultural Scenario

4.1 The site supports a diverse tree population in respect of age, size and quality.

4.2 In and about the environs of the Lord Mayor public house and its car parking area, we find a hugely artificial and broadly well-maintained landscape that supports several ornamental trees including Jacquemont's Birch, Horse Chestnut, Sycamore, Silver Birch, Willow and extensive shrub plantings. For the most part, these trees tend to be relatively young or early mature in age profile and many are of good quality however, some specimens and particularly Norway Maple No.1926 and Willow No.1927 found to be particularly poor condition and Chestnut No.1930 is already dead.

4.3 These trees exist in conjunction with existing artificial environments some trees being constrained by an existing watercourse and car park, others arising from managed and artificial landscaped areas. Accordingly, the ability to retain such trees will relate not only to their health and sustainability but also to the ability to maintain and preserve the ground features upon which they are supported.

4.4 Note has been made of some trees located outside of the site boundaries and particularly, "Tree Group 1" to the west of the main public house buildings. These trees appear to arise from the neighbouring property but, comprising Birch and Sycamore and that such proximity to the boundary wall, raise tangible issues of sustainability in respect of encroachment and potential for causing structural damage to adjoining features.

4.5 To the west and north of the site, we appear to be dealing with an old agricultural field format that appears to have been broadly unmanaged for some time. The only current science management relate to ESB input and particularly, the decapitation of trees both in the middle of the site and adjoining Church Road to the east where a substantial

number of relatively young trees have suffered notable damage both regarding their appearance and their structural form.

4.6 The dominant large vegetative elements in this area comprise “Hedge 3” and “Hedge 4” to the west of the site. Both hedges exhibit evidence of once having comprised continuous Hawthorn hedges however at this time, they are dilapidated and lapsed with broader continuity now been provided more by a combination of Bramble thicket elder and Hawthorn rather than the original hedge. Hedge 3 is broadly inaccessible at present and the boundary position is indistinct. Hedge 4 appears to exist in conjunction with an earthwork such as a ditch and embankment that is currently adjoined on its western side by a footpath.

4.7 Both hedges are of mediocre to poor quality and will raise issues regarding potential for retention and management if retained. Eradication of invasive species will see a massive diminution continuity and cover levels and thus would raise issues of suitability for retention and a choice between augmentation or replacement with new plantings.

4.8 Progressing to the north of the site, the northern half of “Hedge 4” is adjoined by a stream that acts as a physiological barrier and boundary to the site. In this area, any semblance original hedge has become overwhelmed and suppressed by what has become commonplace Common Alder regeneration throughout this area of the site. As noted above, many of these trees been decapitated to provide minimum clearance for overhead ESB high tension power cables though numerous individual, typically small and young specimens remain. There may be some potential for these trees to be retained however, there potential mature size should be considered as should the ease with which they might be replaced with new nursery stock.

4.9 As mentioned above, the retention of any of the above material will be contingent on an ability to maintain existing ground environments in positions within the nominal root protection area of such trees.

4.10 Attempting to review the site’s tree popuation nemerically is complicated by the proportion of material existing as individual plants, as opposed to material comprising part of multi-plant groups, such as hedges or thicket areas of natural regeneration. As can be seen from the graphs below, imndividual tree qualities tend to be somewhat mediocre (see figs 1 and 2). The age profile tends to be very young (see fig 3), with much of the site dominated by new planting or natural regeneration. It is only the site’s hedges that add any degree of maturity. Notwithstanding the site’s broadly young age profile, the condition breakdown shows now dominance of better condition trees, with the overall breakdown being notable spread over a wide array of conditions.

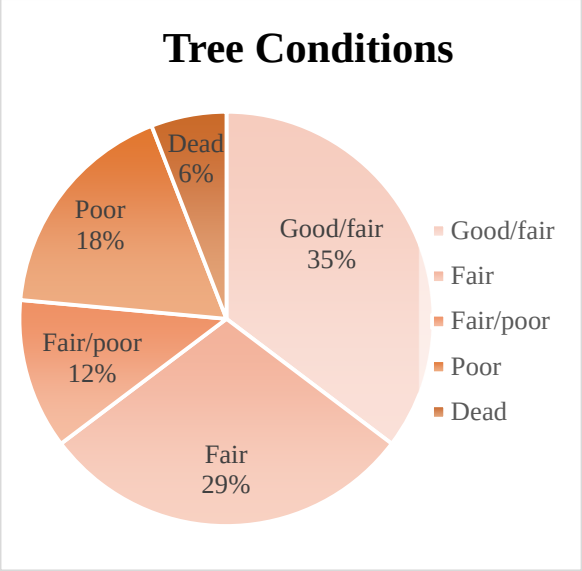


Fig 1

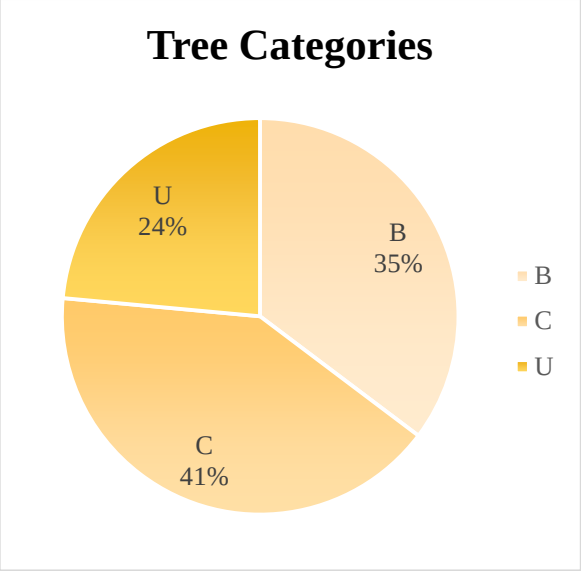


Fig 2

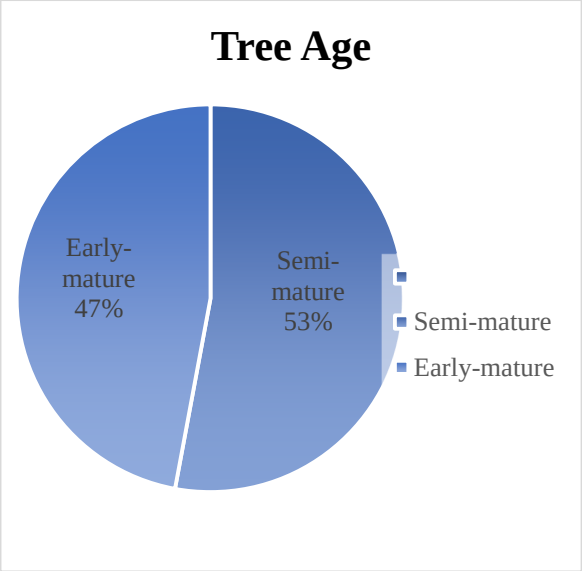


Fig 3

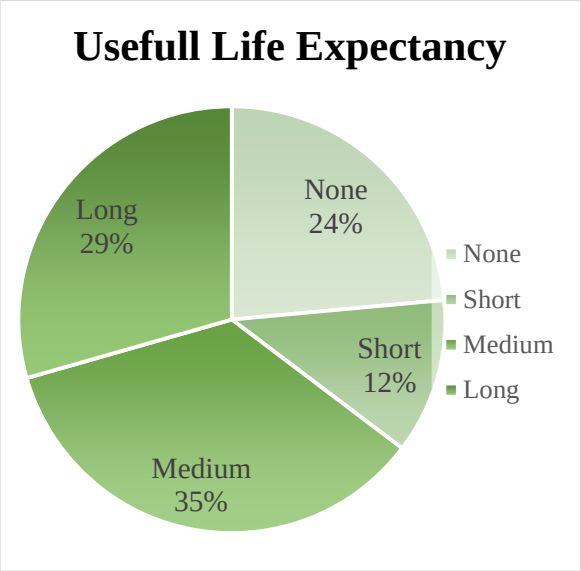


Fig 4

4.11 The planted and individual tree population appears quite diverse in respect of species. This relates to the planted nature of the site and the complications relating to the broadly limited extend of individually classified trees.

4.12 Notwithstanding the diversity and the grouping of various areas, Sycamore and groups of sapling Birch and Alder, apparently relating to natural regeneration dominate the overall tree populations.

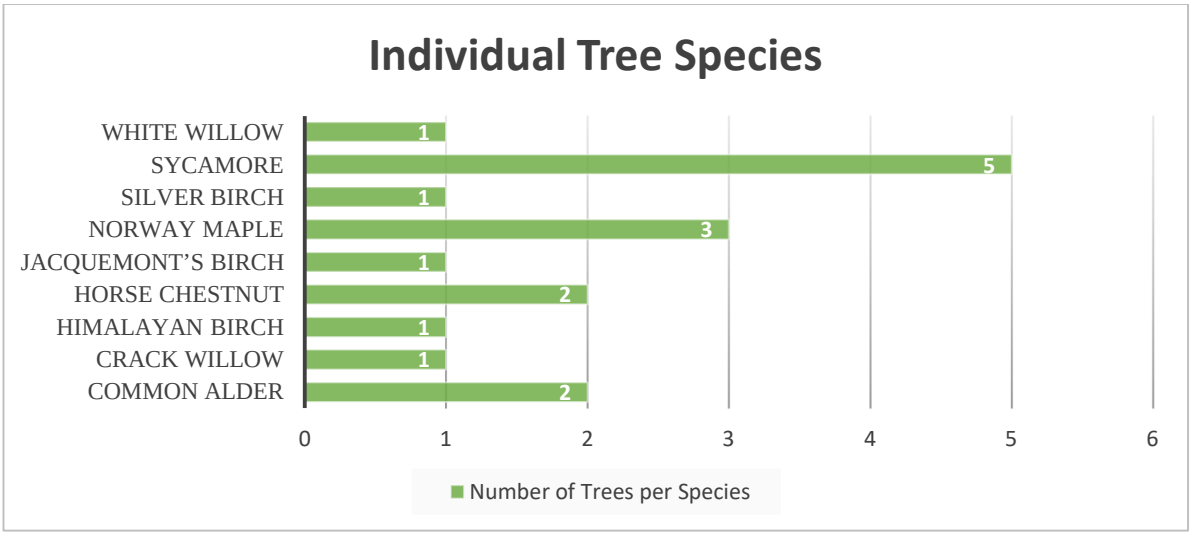


Fig 5

## 5 Planning Scenario in Respect of Tree

5.1 In respect of trees as they relate to planning within the Fingal County Council area, note is made of two areas of guidance including - **The Forest of Fingal A Tree Strategy for Fingal** and **Fingal Development Plan 2017-2023.**

5.2 **The Forest of Fingal A Tree Strategy for Fingal**, a draft strategy document that outlines various intents and desires surrounding trees and woodlands within the county area

5.3 **Fingal Development Plan 2017-2023**, that sets out both a tree policy, as well as specific tree related objective across 5 different chapters of the plan, including, **Chapter 3 – Placemaking (**Objective PM64**), Chapter 5 – Rural Fingal (**Objectives RF24, Objective RF52, Objective RF57 and Objective RF59(b))**, Chapter 8 – Green Infrastructure (**Objective GI16 and Objective GI19) **, Chapter 9 - Natural Heritage** (Objective NH23, Objective NH27 and Objective NH28) **, Chapter 12 - Development Management Standards** (Objective DMS39, Objective DMS78, Objective DMS79, Objective DMS80, Objective DMS81, Objective DMS82, Objective DMS83 and Objective DMS84)

5.4 Notwithstanding the notes above, the current development plan shows no specific objectives to protect and preserve trees and woodland on or near the site. Equally, the site area supports no Tree Preservation Orders. Note is made that the northern and north-western extent of the site is designated as a "Green Belt" area.

## 6 Other Legislative and Legal Constraints

6.1 Under the Forestry Act 2014, the felling of a tree standing in a county area requires a felling license unless the trees are exempted under Section 19 of the Act. Section 19(1)(M)(ii), where "the removal of which is specified in a grant of planning permission".

6.2 Other non-specific exemptions may also be applicable, including-

- Trees standing in an urban area.
- Trees within 30 metres of a building (other than a wall or temporary structure), but excluding any building built after the trees were planted.
- Trees removed by a public authority in the performance of its statutory functions.
- A tree that is, in the opinion of the planning authority, dangerous on account of its age, condition or location.
- A tree within 10 metres of a public road and which, in the opinion of the owner (being an opinion formed on reasonable grounds), is dangerous to persons using the public road on account of its age or condition.

6.3 The above derogations do not apply where-

- The tree is within the curtilage or attendant grounds of a protected structure under Chapter 1 of Part IV of the Act of 2000.
- The tree is within an area subject to a special amenity area order
- The tree is within a landscape conservation area under section 204 of the Act of 2000.
- The tree is within a monument or place recorded under section 12 of the National Monuments (Amendment) Act 1994, a historic monument or archaeological area entered in the Register of Historic Monuments under section 5 of the National Monuments (Amendment) Act 1987, or a national monument in the ownership or guardianship of the Minister for the Arts, Heritage and the Gaeltacht under the National Monuments Acts 1930 to 1994 or is within a European Site or a natural heritage area within the meaning of Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)

6.4 For further clarification, contact should be made with Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford

6.5 Other legislation may affect tree cutting and felling. Particular note should be made of the "Wildlife Act 1976 (as amended), as well as the EU Habitats Directive. These offer protection to animals, including Bats that often root or even breed in trees. The protection afforded by the above legislation means that particular care must be taken in the pruning of felling of trees that may contain Bats. For this reason, specific specialist advice should be sought.

## 7 Construction Activities and their Effect on Trees

7.1 Retaining trees takes up space. There is a big difference between physically preserving a tree and ensuring its future survival. Sustainable tree retention often depends on the extent and nature of construction protection.

7.2 Like all living things, trees are highly dependent on their environment in which the exist. A tree continuity in supplies of water and nutrients from the soil. Any long-term change in ground conditions can easily affect a tree's metabolism, health, and sustainability.

7.3 Particularly, development and construction activities can easily damage the soil environment. Removing, disturbing or denaturing soil can irreparably damage tree roots and can render the soil incapable of supporting plant root function. Most modern construction requires large plants, equipment, and vehicles. Such machinery causes soil profile destruction and compaction that denatures the soil.

7.4 Where the above issues occur within the minimum "root protection area" as defined by "BS5837-2012", the tree's sustainability and safety may be compromised.

7.5 Sustainable tree retention must accept changing contexts and increased management in the future. Where rates of occupation and use increase, then any retained trees have a potential to cause harm or damage. This issue may be exacerbated where shelter-loss and exposure occur regarding the retention of individual trees.

7.6 Retained trees should be considered in respect of shadow-cast, light admission, and view-blocking. Wind patterns can affect leaf shedding, causing drifts and accumulations creating management issues around drains and gullies, or the creation of slippery surfaces.

## 8 Nature of Project Works

8.1 The development will principally consist of:

(i) demolition of the existing 1-3 storey public house, restaurant, off-licence and associated storage buildings (totalling 1,197sq.m) and removal of associated surface car park; (ii) construction of a residential development of 146 no. apartments (69 no. one-bedroom, 68 no. two-bedroom and 9 no. three-bedroom) in 4 no. blocks (ranging in height from four to six storeys over basement level) as follows:
- Block A containing 15 no. apartments (3 no. one bedroom, 9 no. two bedroom and 3 no. three-bedroom) and measuring four storeys in height;
- Block B containing 41 no. apartments (23 no. one bedroom, 17 no. two bedroom and 1 no. three bedroom) and measuring part-five part-six storeys in height;
- Block C containing 54 no. apartments (33 no. one bedroom, 16 no. two bedroom and 5 no. three bedroom) and measuring part-five part-six storeys in height; and,
- Block D containing 36 no. apartments (10. no one bedroom and 26 no. two bedroom) and measuring part-four part-five storeys in height.

(ii) all apartments will have direct access to an area of private amenity space, in the form of a terrace/balcony, and will have shared access to internal communal amenities including a gym (211sq.m), communal store rooms (158sq.m) and a cinema/playroom

(89sq.m), 3,551sq.m of external communal amenity space and 2,041sq.m of public open space;

(iii) provision of 109 no. vehicular parking spaces (including 5 no. mobility parking spaces, 5 no. car-share spaces and 11 no. electric charging spaces), 6 no. set-down parking spaces and 332 no. bicycle parking spaces at basement level accessible via new vehicular access from Church Road; (iv) provision of 5 no. commercial units (746sq.m total) located at basement/ground floor level in Blocks A and B; and 1 no. childcare facility (424sq.m) located within the basement level of Block C; (v) removal of existing culverts, installation of new culverts to facilitate pedestrian/vehicular access and diversion of the Glebe Stream on site; and, (vi) all ancillary works including public realm/footpath improvements, landscaping, boundary treatments, internal footpaths, provision of surface level bicycle parking (56 no. spaces), bin storage, foul and surface water drainage, green roofs, ESB substation and all site services, site infrastructure and associated site development works necessary to facilitate the development. A Natura impact statement has been prepared in respect of the proposed development.

8.2 Considering the scope and scale of the proposed development, then many of the issues dealt with at "Construction Works and Trees" above could apply if trees are not protected during construction works, including-

a) Direct conflict with proposed structures, thus requiring tree removal.
b) A partial conflict where the "Root Protection Area" is encroached upon by works or ground amendments and cannot be preserved/protected in full.
c) Environmental damage e.g. compaction, capping, sealing – changing the existing ground environment to one that can no longer support tree root function.
d) Construction activity and the use of large plant and machinery that can denature the ground.
e) A change in site context or a change in occupation or use which makes a tree unsuitable for retention.

## 9 Development Related Issues and Arboricultural Concerns

9.1 The greatest issues affecting trees has been the consumption of site space and encroachment on trees ostensibly retainable trees and hedges.

9.2 The above issue is often compounded by the sloping nature of parts of the site. This means that site levels require modification and space adjoining new structures is often affected by collateral grading between the new and existing ground levels.

## 10 Design Iterations and Arboricultural Considerations

10.1 This report relates to clause 4.4.2.1 of BS5837-2012 in that its finding relate to a predefined concept that was issued for review. Accordingly, the report assesses Arboricultural implications and impacts of the proposals, making recommendations in

respect of tree protection relating to those trees that might be retained and as outlined below.

10.2 Notwithstanding 10.1 above, the design team were aware of the quality of and constraints afforded by the site tree population because of the previously completed tree survey.

## 11 Identification of Development Impacts to Trees

11.1 Though listed in this report, the expected tree impacts have also been represented graphically on the tree impacts drawing "**Lord Mayor SHD Tree Impacts Plan"**. This drawing combines the tree constraints plan information (survey data) with the development details, including the architectural and services layouts below, thereby allowing for simple and direct comparisons between the existing site context and the development proposals regarding new structures.

11.2 In this drawing, trees denoted with "Broken Pink" crown outlines are to be removed, and those denoted with "Continuous Green" crown outlines are to be retained.

11.3 Detail of the development proposals where gained from project drawings provided by-

- Aughey O'Flaherty Architects - Architectural Design
- CORA - Consulting Engineers – Drainage and Engineering information overlaid on Masterplan
- Mitchell + Associates Landscape Architects - Landscape Design

11.4 The assessment attempts to consider both direct and indirect consequences. Estimated construction requirements and a tree's likely interaction with the development are considered. In addition to growth, the assessment considers changes in the context and their impact on tree amenity value.

## 12 Tree Retention and Loss

12.1 Tree retention and loss relating to proposed development.

| | **Category A** | **Category B** | **Category C** | **Category U** | **Total** |
|---|---|---|---|---|---|
| **Total No. of Trees** | 0 | 6 | 7 | 4 | 17 |
| **No. of Trees Retained** | 0 | 2 | 2 | 0 | 4 |
| **No. of Trees Removed** | 0 | 4 | 5 | 4 | 13 |
| **Total Hedges/Groups** | 0 | 0 | 7 | 1 | 8 |
| **Hedges/Groups Retained** | 0 | 0 | 0 | 0 | 0 |
| **Hedges/Groups Removed** | 0 | 0 | 7 | 1 | 8 |

Table 1, Numeric Representation of Tree Loss/Retention Scenario

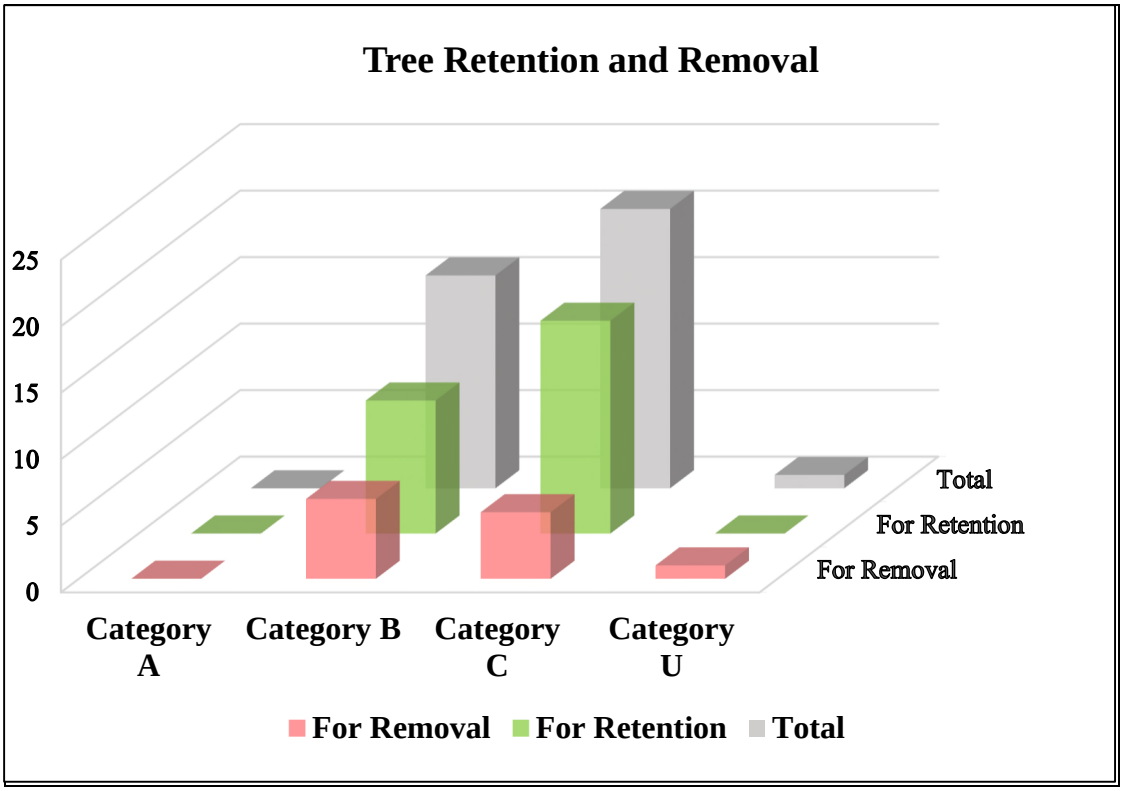


Fig 5 Graphic Representation of Tree Loss/Retention Scenario

12.2 While most poor-quality category "U" trees would be removed regardless of development, this development will require the removal of other quality trees as well. These trees are identified by their survey numbers in the list below-

| | |
|---|---|
| **Category A** | |
| **Category B** | 1923, 1925, 1931, 1935 |
| **Category C** | 1921, 1922, 1926, 1929, 1932 |
| **Category U** | 1924, 1927, 1928, 1930 |
| **Groups/Hedges** | Tree Group 1, Hedge 1, Hedge 2, Hedge 3, Hedge 4, Thicket Group 1, Shrub Group 2 and Shrub Group 1 |

Table 2, Itemised Tree Loss List

## 13 Tree Protection within the Scope of a Development

13.1 This report provides a "Preliminary Arboricultural Method Statement" at "Appendix 1" to this report, as well as the associated "Tree Protection Plan" drawing "Lord Mayor SHD Tree Protection Plan".

13.2 In the drawing, the "Construction Exclusion Zone" is defined by an orange hatching with bold "Orange" lines representing the proposed location of the primary protective "Construction Exclusion Fencing".

13.3 The above drawing provides only a representation of the protection locations and extents that must be located, positioned and erected under the guidance of the project Arborist. This drawing may require referral to a figured and dimensioned, "construction stage" version of the "Tree Protection Plan" drawing. All recommended protection measures will be installed before the commencement of any site works and must remain in situ (unless under the guidance of the site Arborist) until the completion of all site works.

## 14 Preliminary Management Recommendations

14.1 Provided in the tree survey table (Table 1) are "Preliminary Management Recommendations". These recommendations relate to the trees as they existed at the time of the tree review. Therefore and in line with the changing context of the site, such recommendations may no longer apply. Examples include where the felling of trees or other specific works are necessary to facilitate development requirements.

14.2 Many of the concerns raised in the tree survey relate to evidence suggesting mechanical failure to trees, ill-health or contextual issues. These may continue to a point where the suitability of a tree for retention may change over time.

14.3 Additionally, any development related loss of trees can result in exposure and shelter loss issues. Therefore all retained trees must be reviewed immediately after the primary site clearance works. A review will allow for the updating and amending of the "preliminary management recommendations" of the primary survey. Such amendments would address such issues as may arise and may include additional structural pruning works. Regular reviews of all retained trees must be maintained, so that early and prompt intervention and action can be applied as required.

## 15 Bibliography

15.1 British Standards Institution (2010) BS 3998:2010: Tree Work - Recommendations. London: British Standards Institution.

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15.3 Jackson, R.B et al (1996) A Global Analysis for Root Distribution in Terrestrial Biomes Oecologica, 108 (1996) pp389-411, Springer Verlag

15.4 Lonsdale, D. (2005) Principals of Tree Hazard Assessment and Management, London, TSO

15.5 Mattheck, C. and Breloer, H. (1994) The Body Language of Trees, London, TSO

15.6 Roberts, J. and Jackson, N. and Smith, M. (2006) Tree Roots in the Built Environment, London, TSO

15.7 Strouts, R.G. and Winter, T.G. (1994) Diagnosis of Ill-Health in Trees, London, HMSO

# A1 Appendix 1 - Arboricultural Method Statement (and Tree Protection Plan)

## Method Statement Outline

A1.1 This method statement intends to provide guidance in respect of tree protection on a development site. This is a broad and prescriptive method statement, intended to provide general advice and guidance in respect of trees and tree protection on a typical development site, dealing with issues known at planning stage.

A1.2 Any inability to conform to the recommendations of this method statement or the associated tree protection plan could readily change the sustainability of trees and/or their suitability for retention.

A1.3 This method statement addresses, amongst others, two primary issues, those being –

a) The avoidance/prevention of physical damage to a tree to be retained.

b) The avoidance/prevention of physical damage or disturbance to the ground/earth upon which a tree is reliant.

### Drawings

A1.4 This Arboricultural Method Statement must be read with the associated "Tree Protection Plan" drawing, "Lord Mayor SHD Tree Protection Plan". The "planning stage" drawing must be updated for "Construction" stage purposes, to include tree protection ranges/dimensions as defined for that tree within the tree survey table or unless otherwise defined by the project Arborist.

### Method Statement Use

A1.5 This Method Statement should be used under the direct guidance of the project Arborist. As limited "construction stage" detail was available at planning stage, it may require amendment and adjustment to address construction stage issues.

### Amendments and Modifications to Tree Protection Plan

A1.6 Any amendment to the tree protection plan must be agreed with the project Arborist, including the adoption of specific methodologies and/or procedures and structures for access into/use of certain parts of the above defined "Construction Exclusion Zones". Such procedures, including the provision of suitable ground protection may allow for the relocation of the "Construction Exclusion Fencing" to provide access to and across the previously protected areas.

### Works Related Impacts

A1.7 In respect of any necessary and unavoidable structures/works required within or entry into the "RPA" zone, all efforts must be made to minimise impacts. Aerial issues may

require "access facilitation pruning" or clearance pruning. Subterranean works that require excavation must, by design, location, and action, minimise impacts to trees.

**Tree Works Specification Updates**

A1.8 Many of the tree management recommendations stipulated within the "Preliminary Management Recommendation" section of the primary tree survey, relate to the "as was" site scenario. Because of changing site contexts, these may no longer apply and may require modification to account for the changes that the built project will cause.

## General Method Statement

## 1.0) Overview and Implementation

1.1 **Prior to any site works or construction/demolition related works or access, this method statement will be addressed and discussed by all member of the construction team management.**

1.2 The project Arborist or another suitably qualified person will oversee the application of all tree protection measures and any necessary modifications to this Method Statement (any issues as may have arisen in respect of planning conditions or details as may have changed between the design stage) to provide a basis upon which tree protection will be managed on the construction site.

1.3 Any situation that requires entry into the "root protection zones" of a tree intended for retention must be brought to the attention of the Project Arborist regarding the adoption/amendment of suitable tree protection measures.

1.4 As unforeseen tree losses may compromise project planning permissions, it is imperative that issues relating to tree protection and/or tree damage be brought to the immediate attention of the project Arborist for review and possible discussion with the relevant planning authority.

## 2.0) Works Sequence

2.1 No construction related works or mechanised site access will occur until the agreed level of tree protection, in accordance with the "Tree Protection Plan", is completed.

2.2 The only exception to the above will relate to the undertaking of tree works and felling as defined in the Arboricultural report and/or grant of permission.

2.3 On completion of tree felling/site clearance works, the tree management plan will be reviewed, accounting for (if necessary) the updating of the "preliminary Management Recommendations" stipulated in the original Tree Survey.

2.4 Any revised pruning/cutting works will be agreed with the local authority and applied at the earliest possible opportunity.

2.5 After the completion of primary tree clearance, but prior to the commencement of construction works, all "Construction Exclusion" and "Protective" fencing must be erected and "signed-off" as complete, by the Project Arborist.

2.6 Only on completion of all construction works will any/all tree protective measures be removed, and only then in a manner, that does not compromise the "Protection Zones". Such works must be agreed and overseen by Project Arborist.

2.7 At construction works completion stage, all retained trees will be reviewed regarding their condition and longer-term management recommendations and regarding site hand-over,

## 3.0) Tree Protection

3.1 All tree protection measures and locations must be agreed, overseen, and verified by the Project Arborist prior to works commencement.

3.2 All construction, works or access areas must be enclosed and defined by protective fencing, this comprising the "Construction Exclusion Zone" based upon drawings "Lord Mayor SHD Tree Protection Plan" (Construction Stage version).

3.3 Unless specifically stipulated by the project Arborist, the default minimum range of the protective fencing from a tree is the range stipulated for that tree within the "RPA" (root protection area) column of the original survey.

3.4 Such a fence must be fit for purpose and commensurate with the nature of activity expected upon the site and should comply with "Section 6.2" of BS5837: 2012.

3.5 The fence should be affixed with notification signs such as "TREE PROTECTION AREA - KEEP OUT"

3.6 Structures such as "lock-ups", offices or other temporary site building, not requiring excavation or underground ducting, might be positioned such as to comprise part of the "Construction Exclusion Zone" fencing. All remaining fencing must be continuous with such features and effectively prevents access to protected ground.

3.7 If entry into the "RPA" (Root Protection Area) zones becomes unavoidable, ground protection systems agreed with the project Arborist, will be utilised.

3.8 No amendment, alteration, relocation, or removal of the tree protection fencing shall occur without prior liaison and approval from the Project Arborist.

## 4.0) Provision of Ground Protection (If Required)

4.1 No vehicular/mechanised access whatsoever will be allowed onto unprotected "Construction Exclusion Area" ground.

4.2 Ground protection can comprise the use of proprietary materials/structures (installed to manufacturer's specifications and recommendations) or procedures that avoid ground damage/disturbance/compaction, or the use of procedures that avoid such effects e.g. manual/pedestrian installation procedures.

4.3 Any system utilised must effectively spread load-weight, avoid compaction, maintain drainage/percolation/aeration, and be installed in a manner that avoids these issues.

4.4 Newly provided access will be strictly limited to the area of the new protection structure.

4.6 Protection installation will require a progressive laying down of ground protection, with previously laid material providing vehicular access to the next zone will be accepted as an approved methodology.

## 5.0) Works within "RPA" Zone

5.1 Only works and construction practices, agreed with the Project Arborist prior to commencement, will be allowed in the "RPA" area.

5.2 All works will be undertaken under the supervision and guidance of the Project Arborist who will have the authority to stop works if activities are considered such as to have the potential to damage trees.

5.3 Preference must be given to manual labour and techniques within the fenced "RPA" zone.

5.4 On completion of the required works, the area will be inspected by the Project Arborist regarding the reinstatement of the original protection and the relocation of the protective fencing to a position relating to the original "RPA" area.

## 6.0) Service Installation

6.1 The "Project Arborist" must be consulted for advice and procedural recommendations, in respect of any installation of services within or requiring entry into the "Root Protection Area" of any tree intended for retention.

6.2 Any such works found to be unavoidable, must be undertaken with special care, incorporating the recommendations of both "BS5837: 2012 and the National joint utility groups, guidelines for the planning, installation and maintenance of utility services in proximity to trees (NJUG 10)

6.3 Preference must be given to trench-less techniques including Mole-piping, Directional-drilling manual hydro-trenching (high-pressure water), "Air-Spade" or broken-trench techniques.

## 7.0) Tree Management and Works

7.1 All tree works should be undertaken under the guidance of the project Arborist

7.2 The primary site clearance and felling should be undertaken at the earliest stage of the overall development works, to enable the re-assessment of all ostensibly retainable trees and the updating of the "Preliminary Management Recommendations" to account for context changes and construction access and/or other issues coming to light.

7.3 All Tree Works must adopt safe work procedures and must be undertaken by staff suitably trained for the purpose at hand and compliant with all legislative, safety and insurance requirements.

7.5 All additional works will be agreed with the local authority and/or other stakeholders and applied at the earliest possible opportunity.

7.6 On completion of site works, the retained tree population will be reviewed and re-evaluated regarding its ongoing condition and the likely requirements of any ongoing or future monitoring or management needs.

## 8.0) Demolition

8.1 All demolition procedures must be agreed and overseen by the Project Arborist or other suitably skilled staff to monitor for damage and to protect exposed roots/cut-trim exposed roots/oversee backfilling of exposed roots.

8.2 Where access into unprotected "RPA" zone becomes unavoidable then suitable ground protection, provided in accordance with an engineer's direction and agreed with the Project Arborist will be installed.

8.3 Care will be taken to avoid damage to soil volumes beneath and adjoining demolished structures that may contain tree root material.

8.4 Whilst existing foundations/structures may provide temporary protected access to areas within the "RPA" zone, preference must be given to the location of demolition plant outside of the "RPA" zone.

8.5 Where tree(s) exist near a structure to be demolished then the demolition should be undertaken inwards within the footprint of the existing building (top down, pull back).

8.6 Underground structures (services etc.) within the "RPA" zone should be reviewed with regards to decommissioning and retention in situ in the interest of avoiding tree damage.

8.7 Preference should be given to the retention existing sub-bases where hard surfaces are removed, particularly if the hard surface is to be replaced.

## 9.0) Ancillary Precautions

9.1 The methodologies as set out in this document apply to all undertakers of work upon or adjoining the site as may require access to the "Construction Exclusion Zone" or the "RPA" area of any tree.

9.2 This document will be disseminated to all persons requiring access to the work site, with all persons undertaking works either before or after the principal development (site investigation works, Landscape Contractors) are subject to the above requirements

9.3 Works outside the "Construction Exclusion Zone" must be controlled to create no potential secondary hazard to tree health.

9.4 Large loads accessing the site must be reviewed regarding clearance and potential tree damage.

9.5 Care must be taken regarding materials that may contaminate the ground. No concrete mixings, diesel or fuel, washings or any other liquid material may be discharged within 10 metres of a tree.

9.6 No fires can be lit within 5 metres of any tree canopy extent.

9.7 No tree will be used for support regarding cables, signs etc.

9.8 The trees should be reviewed on a regular basis throughout the development process and on completion. At that time, additional recommendations regarding tree management may be required.

9.9 Any issue that has the potential to affect site trees must be brought to the attention of the Project Arborist for review and comment.

9.10 Any circumstances that become known whilst the development project is ongoing that either involves trees or access to/works within the construction exclusion zone must be brought to the attention of the Project Arborist for evaluation and advice regarding approach and methodology.

9.11 It is possible that liaison/agreement will be required with the Local Planning Authority regarding compliance with, as well as the verification of the required tree protection measures.

# A2 Appendix 2 - Tree Survey

## Nature of Survey

A2.1 The criteria put forward in "BS5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations" have provided a basis for this report.

A2.2 The data collected has been represented in table form as "Table 1" within "Appendix 1" to this report. This appendix includes a Survey Methodology, Survey Key, Survey Abbreviations, Condition Category Definitions and a brief resume of the typical application of Tree Protection measures as defined within the above standard and as relates to the "RPA" zones defined both within the survey table and on the "TCP" drawing.

A2.3 The survey, its findings and management recommendations relate to the site and the conditions thereon at the time of the survey. It relates to a "do nothing" or "as is" scenario and intends to provide an impartial representation of the site's tree population, regardless of any possible development works. It is likely that changes in site usage, development or other environmental changes will require an amendment of any tree's potential retention status and its preliminary management recommendations, and in some instances, may require the re-classification of a tree's suitability for retention.

## Drawing References

A2.4 The survey must be read with the "Tree Constraints Plan" drawing "Lord Mayor SHD Tree Constraints Plan" regarding the representation of tree positions, crown forms, "RPA" extents and colour reference to category systems. Trees omitted from the supplied drawing may be "sketched in" to "Lord Mayor SHD Tree Constraints Plan". Any such trees should be located and plotted by professional means to identify the constraints such trees have upon the site.

A2.5 A green coloured outline represents each tree crown. It is scaled to represent the north, east, south, and west crown radii as denoted in the survey table. Each tree (categories A-green, B-blue, and C-grey only) have been apportioned a "Root Protection Area" (RPA see below) denoted as a dashed orange circle.

A2.6 The development of a Tree Constraints Plan (TCP) provides a design tool regarding tree retention. Such a plan combines the topographical land survey drawing with additional information as provided by the tree survey. The aspects of the tree's existence recorded on the "TCP" are, firstly, the tree canopies, represented by the four cardinal compass point radii (Sp: R in survey Table 1). Secondly, and following paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS5837: 2012, we represent each tree's "Root Protection Area" (RPA). For design purposes, it approximates the position of the tree protection fencing to be erected before the commencement of any site works, thus excluding all site

activities other than those dealt with by way of the "Arboricultural Implication Assessment" and "Arboricultural Method Statement".

A2.7 The "Tree Constraints Plan" (TCP) depicts the extent and location of constraints, placed upon the site by the trees. The "TCP" represents both the true canopy form (north, east, south, and west radii) but also the "RPA" as defined above. These constraints are provided to advise regarding the design and layout of a proposed development.

## Survey Intent and Context

A2.8 This document intends to highlight the extent and nature of the material of Arboricultural interest on the site in question.

## Survey Data Collection and Methodology

### The Survey

A2.9 An earlier survey was updated in March 2021. This survey portion of the overall report is not an Implication Assessment though but provided some of the basic information regarding its compilation. The compilation of this survey was guided by the recommendations of BS 5837: 2012. This survey typically includes trees of stem diameters exceeding 150mm at approximately 1.50 metres from ground level. The survey relates to current site conditions, setting and context.

A2.10 Each tree in the survey has a consecutive number that relates directly to the survey text. Measurements are metric and defined in metres and millimetres. All trees referred to in the survey text have been measured to provide information regarding canopy height and canopy spread (north, east, south, and west radii), level of canopy base and stem diameter at 1.50 meters from ground level. The dimensions provided are intended to provide a reasonable representation of a tree's size and form. While efforts are made to maintain accuracy, visual obstruction, especially regarding trees in groups, requires that some tree dimensions be estimated only.

### Inspection and Evaluation Limitations and Disclaimers

A2.11 The information set out in this report relates to the review of a tree population on the site in question. As such, the information provided is based on a general review of trees and does not constitute a detailed review of any one of the individual specimens. Such an evaluation (tree report) would require the gathering of substantially more information than that dealt with in this survey.

A2.12 The survey is not a safety assessment and the parameters reviewed within this survey context would be substantially deficient in extent to provide for a reliable safety assessment. The survey is intended to provide a general and qualitative review to assist

in gauging the suitability of an individual tree for retention within a development context. All trees are subject to impromptu failure and damage. The assessment of risk as may be presented by a tree requires the review of numerous factors more than those noted herein and as such, remains outside the scope of this document and any attempt to use the information herein for such proposes will render the information invalid.

A2.13 A competent and experienced Arborist has completed all inspection and tree assessment. The inspection involves visual tree assessment (Mattheck and Breloer 1994) only, which has been carried out from ground level. No below ground, internal, invasive, or aerial (climbing) inspection has been carried out.

A2.14 Trees are living organisms whose health, condition and safety can change rapidly. All trees should be re-evaluated regarding their condition on an annual basis or after substantial trauma such a storm event, other damage, or injury. The results and recommendations of this survey will require review and reassessment after one year from the date of execution. This survey does not constitute a review of tree or site safety. Attempts to use the contents herein for such purposes will render the contents invalid.

A2.15 Throughout the undertaking of the survey, several factors acted against the inspectors, contriving to reduce the accuracy of the survey.

**Seasonality**

A2.16 Various surveys have been completed during different seasons. Some of the signs, typically symptomatic of ill-health or defect within a tree, may not have been available to view at the time of the survey or may have been obscured by seasonality related factors. Some of the fruiting bodies of various fungi, parasitic upon or causing decay or disease in trees, may have been out of season and unavailable to view. This survey can only comment upon symptoms of ill-health or defects visible at the time of the inspection.

## Survey Key

| | |
|---|---|
| **Species** | Refers to the specific tree species |
| **Age** | Referred to in generalised categories including: - |
| Y - Young | A young and typically small tree specimen. |
| S/M - Semi-Mature | A young tree, having attained dimensions that allow it to be regarded independently of its neighbours but typically, would be less than 50% of its ultimate size. |
| E/M - Early-Mature | A specimen, typically 50% - 100% of ultimate dimensions but with substantial capacity for mass and dimensional increase remaining. |
| M - Mature | A specimen of dimensions typical of a full-grown specimen of its species. Future growth would tend to be extremely slow with little if any dimensional increase. |

| | |
|---|---|
| O/M - Over-Mature | An old specimen of a species having already attained or exceeded its naturally expected longevity. |
| V - Veteran | An extremely old, veteran specimen of a species, usually of low vigour and typically subject to rapid decline and deterioration or of very limited future longevity. |
| **Tree Dimensions** | All dimensions are in meters. See notes regarding limitation of accuracy. |
| **Ht.** | Tree Height |
| **CH** | Lowest canopy height |
| **N, E, S, W** | Tree Canopy Spread measured by radii at north, east, south, and west |
| **Dia.** | Stem diameter at approx. 1.50m from ground level. |
| **RPA** | Root Protection Area, as a radius measured from the tree's stem centre. |
| **Con** | Physical Condition |
| G Good | A specimen of generally good form and health |
| G/F Good/Fair | |
| F Fair | A specimen with defects or ill health that can be either rectified or managed typically allowing for retention |
| F/P Fair/Poor | |
| P Poor | A specimen whom through defect, disease attack or reduced vigour has limited longevity or maybe un-safe |
| D Dead | A dead tree |
| **Structural Condition** | Information on structural form, defects, damage, injury, or disease supported by the tree |
| **PMR – Preliminary Management Recommendations** | Recommendation for Arboricultural actions or works considered necessary at the time of the inspection and relating to the existing site context and tree condition. Works considered as urgent will be noted. |
| **Retention Period** | |
| S – Short | Typically, 0 -10 years |
| M – Medium | Typically, 10 -20 years |
| L – Long | Typically, 20 – 40 years |
| L+ | Typically, more than 40 years |
| **Category System** | The Category System is intended to quantify a tree regarding its Arboricultural value as well as a combination of its structural and physical health. |
| Category U | Particularly poor quality, dangerous or diseased trees that offer no realistic sustainability |
| Category A | A typically a good quality specimen, which is considered to make a substantial Arboricultural contribution |
| Category B | Typically including trees regarded as being of moderate quality |
| Category C | Typically including generally poor-quality trees that may be of only limited value. The above categories are further subdivided regarding the nature of their values or qualities. |

| | |
|---|---|
| Sub-Category 1 | Values such as species interest, species context, landscape design or prominent aspect. |
| Sub-Category 2 | Mainly cumulative landscape values such as woods, groups, avenues, lines. |
| Sub-Category 3 | Mainly cultural values such as conservation, commemorative or historical links. |

## Table 1 – Tree Data Table

| No. | Species | Age | Con | Ht | CH | N | E | S | W | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1919 | Common Alder *(Alnus glutinosa)* | S/M | F | 11.00 | 1.00 | 3.00 | 1.50 | 3.00 | 3.00 | 4 | 334 | 4.01 | A close-knit community of multiple stems substantially cut back on western side because of encroachment on overhead power cables. Remains young and vigorous | | M | C2 |
| 1920 | Crack Willow *(Salix fragilis)* | E/M | F/P | 12.00 | 1.00 | 5.50 | 1.50 | 2.00 | 4.00 | 1 | 430 | 5.16 | Distorted because of prior cutting relating to proximity to overhead power cables. Tree is now one-sided and typically unbalanced to north. Tree remains vigorous. | | M | C2 |
| 1921 | Sycamore *(Acer pseudoplatanus)* | E/M | F | 13.00 | 2.00 | 5.50 | 5.50 | 5.50 | 2.50 | 4 | 844 | 10.12 | A relatively young and still vigorous specimen arising from roadside embankment. As multi-stemmed from ground level and may prove to be of impaired mechanical form. Western side of crown has been severely cut back in respect of adjoining passage of overhead high-tension cables. | Cut Ivy and rereview. | M | C2 |
| 1922 | Sycamore *(Acer pseudoplatanus)* | S/M | F | 6.50 | 1.00 | 1.00 | 2.50 | 4.00 | 1.50 | 1 | 216 | 2.60 | Distorted and unbalanced through position beneath canopy of larger adjoining Sycamore. Has been previously decapitated and come back in respect of proximity to adjoining overhead high-tension power cables. Is of dubious retention merit. | | S | C2 |
| 1923 | Common Alder *(Alnus glutinosa)* | S/M | F | 6.00 | 0.00 | 2.50 | 2.50 | 3.00 | 2.50 | 4 | 341 | 4.09 | Young and vigorous, combining to create a singular crown form. | Review regard retention context. | M | B2 |
| 1924 | Norway Maple *(Acer platanoides)* | S/M | F/P | 6.50 | 2.00 | 1.00 | 3.50 | 4.00 | 1.00 | 1 | 290 | 3.48 | Crudely decapitated in cut back with remaining crown limited to south-west and south. Is ill suited to retention. | Consider removal and replacement. | N/A | U |

| No. | Species | Age | Con | Ht | CH | N | E | S | W | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1925 | Jacquemont's Birch *(Betula jacquemontii)* | E/M | G/F | 6.50 | 1.50 | 2.00 | 2.50 | 2.50 | 3.00 | 1 | 258 | 3.09 | Young and still vigorous. | | L | B2 |
| 1926 | Norway Maple *(Acer platanoides)* | E/M | F | 9.00 | 1.50 | 3.00 | 2.50 | 2.50 | 4.00 | 1 | 376 | 4.51 | Young and still vigorous. Has undergone prior pruning, particularly to lower south-western crown. Crown structure appears compromised by multiple compression fork development that may predispose tree to increased risk of mechanical failure. | Review regarding retention context and consider application of structural pruning works. | M | C2 |
| 1927 | White Willow *(Salix alba)* | E/M | P | 13.00 | 1.00 | 5.00 | 5.00 | 8.00 | 4.50 | 1 | 748 | 8.98 | A once larger tree has suffered catastrophic loss of north-western stem with substantial damage to remaining upright stem. Secondary stem extending to south is considered heavily unbalanced and would be unsuitable for retention in isolation. | Remove. | N/A | U |
| 1928 | Norway Maple *(Acer platanoides)* | S/M | P | 7.50 | 1.75 | 2.50 | 2.00 | 3.00 | 4.00 | 1 | 290 | 3.48 | Heavily unbalanced to west and has suffered chronic decline and necrosis of eastern crown and supportive stems. Is unsuitable for attention. | Remove. | N/A | U |
| 1929 | Himalayan Birch *(Betula utilis)* | S/M | P | 5.00 | 1.00 | 2.50 | 2.50 | 2.50 | 2.50 | 1 | 197 | 2.37 | Principal stem has suffered chronic wounding with extensive timber exposure. Tree is suitable only for short-term retention. | | S | C2 |
| 1930 | Horse Chestnut *(Aesculus hippocastanum)* | S/M | D | 4.50 | 1.50 | 3.00 | 2.00 | 2.00 | 2.50 | 1 | 188 | 2.25 | Completely dead and in need of removal. | | N/A | U |
| 1931 | Silver Birch *(Betula pendula)* | E/M | G/F | 12.00 | 1.50 | 3.50 | 3.00 | 3.00 | 2.50 | 1 | 347 | 4.16 | Apparently vigorous, arising from artificial decking surface above native ground levels. | Review regarding retention context. | L | B2 |

| No. | Species | Age | Con | Ht | CH | N | E | S | W | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1932 | Horse Chestnut *(Aesculus hippocastanum)* | S/M | G/F | 6.50 | 1.50 | 3.00 | 3.00 | 3.00 | 3.50 | 1 | 385 | 4.62 | Young and vigorous but previously pruned within higher crown decapitated in recent past. Tree remains vigorous. | Review regarding retention context. | M | C2 |
| 1933 | Sycamore *(Acer pseudoplatanus)* | S/M | G/F | 9.00 | 1.75 | 4.00 | 4.00 | 3.00 | 3.00 | 1 | 251 | 3.02 | Young and vigorous, arising from broader outgrown hedge thicket. Arises from raised ground associated with boundary adjoining ramp and embankment. | Review regarding retention context. | L | B2 |
| 1934 | Sycamore *(Acer pseudoplatanus)* | E/M | G/F | 12.00 | 1.50 | 4.50 | 4.50 | 4.50 | 4.50 | 1 | 430 | 5.16 | Young and vigorous but is inaccessible through location within broader thicket. | Cut Ivy and review regarding retention context. | L | B2 |
| 1935 | Sycamore *(Acer pseudoplatanus)* | E/M | G/F | 13.00 | 1.00 | 5.00 | 5.00 | 5.00 | 4.50 | 1 | 484 | 5.81 | Young and vigorous. Arising in conjunction with a ditch and embankment scenario. | | L | B2 |

## Tree Lines, Groups and Hedges

| No. | Species | Age | Con | Ht | CH | Spread | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SG1 | Shrub Group 1<br>Bamboo<br>Italian Cypress<br>New Zealand Flax | E/M | F | 2.00-3.00 | 0.00 | Spread<br>Contiguous | m/s | 143 | 1.72 | An ornamental mixed planting dominated by Italian Cypress and bamboo but supporting a small number of additional species. Most individuals are of reasonably good health however, typically small stature would allow for ready replacement as part of a landscape scheme. | | L | C2 |
| H2 | Shrub Group 2<br>Buddleia<br>Dog Rose<br>*(Rosa canina)*<br>Bramble<br>*(Rubus fruticosus)* | E/M | P | 5.00 | 0.00 | Spread<br>Contiguous | m/s | 143 | 1.72 | A close-knit and naturally developing thicket effect, dominated by Buddleia. Would not normally be regarded as being suitable for retention. | Remove. | N/A | U |
| TG1 | Tree Group 1<br>Silver Birch<br>*(Betula pendula)*<br>Sycamore<br>*(Acer pseudoplatanus)* | S/M | F/P | 5.00-10.00 | 0.00-1.00 | Spread<br>Contiguous | 1 | 223 | 2.67 | An inaccessible, off site group of trees directly adjoining the site boundary. Trees are as of yet young raising substantial concern in respect of their development context relative to a boundary wall and with regards to potential for future growth and potential damage to that wall. It is advised that contact is made with the owners of these trees with regard to their ongoing suitability for retention and or management in respect of encroachment and future growth. | | S | C2 |

| No. | Species | Age | Con | Ht | CH | Spread | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H1 | Hedge 1<br>Hawthorn<br>*(Crataegus monogyna)*<br>Bramble<br>*(Rubus fruticosus)*<br>Buddleia<br>(Buddleia davidii)<br>Sycamore<br>*(Acer pseudoplatanus)*<br>Ivy<br>*(Hedera helix)*<br>Elder<br>*(Sambucus nigra)* | M | P | 2.00-3.50 | 0.00 | Spread<br>2.50-3.00 | m/s | 175 | 2.10 | A lapsed and derelict hedge exhibiting evidence of once having comprised a Hawthorne alignment. Hawthorn is now limited to sporadic outbreaks with greatest number of individuals southern end of section. Broader alignment is now best defined by combined thicket development dominated by Buddleia and Bramble. Eradication of invasive species would greatly denude alignment effect. | | S | C2 |
| H2 | Hedge 2<br>Hawthorn<br>*(Crataegus monogyna)*<br>Bramble<br>*(Rubus fruticosus)*<br>Buddleia<br>(Buddleia davidii)<br>Sycamore<br>*(Acer pseudoplatanus)*<br>Ivy<br>*(Hedera helix)*<br>Elder<br>*(Sambucus nigra)*<br>Dog Rose<br>*(Rosa canina)*<br>*convolvulus* | M | P | 2.00-3.50 | 0.00 | Spread<br>2.50-3.00 | m/s | 175 | 2.10 | As above. Much of this alignment is now devoid of large-scale vegetation with numerous low-level gaps not exceeding 0.75 m and comprising little more than an alignment of convolvulus and Bramble. | | S | C2 |

| No. | Species | Age | Con | Ht | CH | Spread | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H3 | Hedge 3<br>Hawthorn<br>*(Crataegus monogyna)*<br>Bramble<br>*(Rubus fruticosus)*<br>*(Hedera helix)*<br>Ivy<br>*(Hedera helix)*<br>Dog Rose<br>*(Rosa canina)*<br>*Convolvulus*<br>Elder<br>*(Sambucus nigra)* | M | F/P | 4.00-6.00 | 0.00 | Spread<br>5.00-8.00 | m/s | 239 | 2.86 | This hedge comprises an original Hawthorn alignment now encroached upon by substantial Spurious and invasive growth typically including Elder and Bramble. The original Hawthorn alignment is now somewhat intermittent with numerous gaps now filled by invading Bramble and elder whose removal would lead to a particularly intermittent hedge like feature. Overall and including the thicket continuity is broadly good but erratic and variable. Many of the Hawthorn are now affected by chronic degrees of smothering caused by Ivy and Bramble. The better element of the hedge comprises the Western two thirds whilst the eastern 3rd is particularly broken and intermittent | | M | C2 |

| No. | Species | Age | Con | Ht | CH | Spread | Stm | Dia | RPA | Structural Condition | PMR | Yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H4 | Hedge 4<br>Hawthorn<br>*(Crataegus monogyna)*<br>Bramble<br>*(Rubus fruticosus)*<br>*(Hedera helix)*<br>Ivy<br>*(Hedera helix)*<br>Dog Rose<br>*(Rosa canina)*<br>*Convolvulus*<br>Elder<br>*(Sambucus nigra)* | M | F/P | 3.00-6.00 | 0.00 | Spread<br>5.00-8.00 | m/s | 207 | 2.48 | An intermittent, broken and variable hedge illustrating an origin as a Hawthorne hedge in conjunction with a ditch and embankment scenario however, at this time, continuity is particularly poor and best provided for by lower level Bramble and Alder-based thicket. Eradication of invasive species would greatly undermine continuity. Note is made that the overall thicket alignment is often dramatically extended in an easterly direction as a result of the non-use and dereliction of the adjoining land and the corresponding development of scrub thicket, typically dominated by Bramble. | | M | C2 |
| THG1 | Thicket Group 1<br>Common Alder<br>*(Alnus glutinosa)*<br>Elder<br>*(Sambucus nigra)*<br>Bramble<br>*(Rubus fruticosus)* | S/M | F | 3.00-6.00 | 0.00 | Spread<br>Contiguous | 1 | 159 | 1.91 | A young and naturally arising, close-knit population of Common Alder together with a smaller number of goat willow and buddleia. Many trees within the group, particularly along the southern side have been harshly decapitated because of their position beneath high tension power cables. The remainder of the group may offer some degree of potential for retention however, population thinning would be required to reduce existing stem densities to sustainable mature density. | | M | C2 |