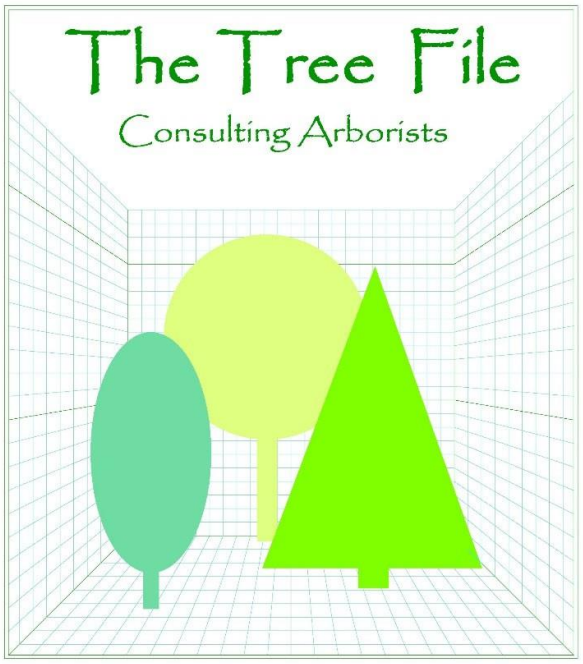

Arboricultural Report

Trees at Proposed Site at
Former Heiton Buckley Site
Swords Road
Santry
Dublin 9
March 2024

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

Contents

Associated Drawings

This report must be read in conjunction with the drawings noted below

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

1 Report Summary

1.1 The site area is broadly devoid of trees, with the specimens described in this report being located beside and often just outside the site boundaries.

1.2 Most of the trees described are young, whether planted recently, such as the roadside planting to the east, west and south of the site, or comprising the natural regeneration associated with the western boundary. The quality of the material varies greatly. Much of the recently planted material is in good condition, though the survey noted a small number of instances where trees have suffered disturbance. To the west of the site, tree quality is notably reduced, and many trees have been affected by prior disturbance. The sustainability of these trees is considered impaired. This issue is compounded by Ash Dieback disease, the symptoms of which are already apparent on many of the sites Ash trees.

1.3 Much of the proposed development will have no effect on trees. However, the extent and nature of the works and its inclusion of details affecting positions close to boundaries means that tree adjoining and outside of the site boundaries could be affected. Attempting to quantify these issues has been complicated by a lack of topographical information, that has required that tree locations are estimated on the supplied drawings and that the relationship between the proposed works and neighbouring group in respect of finished and proposed levels is unknown. For this reason, the outcomes suggested in this report must be regarded as estimations only.

1.4 Notwithstanding the above, it appears that "Hedge 2" will be lost to allow for a new watermain and footpath to the east of the site. It is however hoped that levels modifications will be minimal and that the alignments of Lime can be retained in this area. In a similar manner to the west of the site, proposed roadworks will encroach upon trees Nos.89 and 90 that appear to be outside of the site area and arising from a raised embankment above current site levels.

1.5 issues such as those noted above will require that tree retention and sustainability will have to be reviewed either at construction stage or when relevant details become available.

2 Introduction

2.1 This report was commissioned by-
Dwyer Nolan Developments Ltd,

This report has been prepared by-
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Report Brief

2.2 An Arboricultural report has been requested in respect of the proposed development. As "BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations" is the accepted frameworks for such reports, then its composition, inclusions and recommendations have been followed, as a general basis for such reporting.

Report Context

2.3 This report includes a Arboricultural review of the proposed development project. This includes an assessment of the sites existing tree population within its current context, as well as an assessment of their potential for sustainable retention in the post-development scenario and the likely effects and repercussions of the development and construction process upon those trees. It also provides information regarding the necessary tree protection and the avoidance of damage to trees during the construction process, necessary to achieve sustainable tree retention.

2.4 This assessment summarises the Arborists findings and recommendations, arrived at after reviewing the proposed project details as provided, and after an evaluation of trees as defined and described in the tree survey at "Appendix 2". This report also includes a preliminary "Arboricultural Method Statement" at "Appendix 1" as well as a Tree Protection Plan that illustrates the requisite conservation and protection methodologies necessary to maintain tree sustainability. This report is not intended as a critique of the proposed development but is an impartial assessment of the development implications relating to the sustainable retention of trees, whether that be any, some, or all trees. This report is for planning purposes only and may be deficient for construction phase use.

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 as 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, particularly in respect of how construction works might proceed on a day to day basis and appreciates the "design" stage of the project, as opposed to "detail design" or "construction" detail.

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 in respect of sustainable tree retention.

3 Site Description

3.1 The site in question is broadly rectangular, longest about its east-west axis, with a narrow access lane extending north-eastwards from its north-westernmost corner.

3.2 The site supports an existing factory complex that dominates the main area of the site. Much of the remaining area supports cement hard-standing or access roadways.

3.3 The site supports limited soft landscape including a narrow strip along its western edge, as well as a small area to the south-east.

3.4 The site is adjoined by a number of off-site areas that support notable vegetation including the southern boundary hedge and the road reserve to the east of the site.

4 Pre-Development Arboricultural Scenario

4.1 The greater proportion of the site in question has been previously developed and comprises either buildings or hardstanding. Soft landscape from which shrubbery and trees arises is typically limited to the site perimeter.

4.2 Much of the material associated with the site is of typically poor quality. Only a small proportion exhibits evidence of deliberate or artificial planting and the greater proportion comprising what appears to be naturally arising Ash and Sycamore in conjunction with remnants of what might have been a pre-existing Thorn based agricultural hedge.

4.3 Note should be made that much of the material associated with this boundary, appears to relate to the neighbouring properties. This is obvious to the south, where tree nos. 87 to 93 all arise from positions to the west of the palisade boundary. Similar appears to apply to tree nos.44 to 58, though the fence is incomplete in places. This leaves a scenario whereby only tree nos.59 to 72a appear “fenced into” the site area.

4.4 With regard to the site western boundary and its separation from neighbouring sites, note is made that both the subject site and the adjoining site appears to support tree and shrub material. As one progresses in a southerly direction, disparities in site levels become pronounced with the site to the west being up with the 1.50 m higher than the subject site towards the southern end.

4.5 Along most of the western boundary, there are sometimes extensive signs of vegetation clearance and embankment grading. This has resulted in obvious damage to some trees and is likely to have disturbed many others. The boundary disturbance is most obvious towards the northern end of the boundary and particularly in the vicinity of the new ESB transformer box. Unfortunately the full extent or repercussion of such disturbance is unknown.

4.6 Notwithstanding the above, it is noted that the vast majority of material of the site’s western boundary was found to be of generally poor quality, much being naturally arising, of poor structural form and in many instances, severely suppressed either by the proximity of near neighbours or by invasive plants such as Bindweed and Ivy. Much

of this material would appear to offer limited sustainability, especially the Ash, some of which appear already to be affected by Ash Dieback disease attack.

4.7 To the east of the site, the site supports no material of interest within the developed site area. However, note is made of an adjoining Beech hedge and alignment of young Limes arising from the grass reserve between the site's eastern boundary and the Swords Road. To the south-east of the broader site, a previous development is nearing completion. The extent to which the hedge material has been disturbed or affected by the works remains unknown at this time and would warrant regular review.

4.8 The alignment of Limes, located substantially to the east of the hedge, have, for the most part suffered minimal disturbance. However it is noted that trees near the entrance to the current development have suffered damage and encroachment.

4.9 Note should however be made that the Limes assert immense potential for continued growth over time and accordingly and notwithstanding their current small stature, will become large trees in time. Accordingly there is potential for the future to see encroachment issues regarding the new development.

4.10 The site's southern boundary is again effectively devoid of on-site vegetation other than at its eastern and western most ends. The westernmost element of vegetation comprises the previously mentioned overgrown shrub border though the eastern corner supports a similar element now dominated by buddleia. This material is considered to be a dubious sustainability or suitability for retention.

4.11 The southern boundary of the site is currently defined by a large palisade railing existing in conjunction with a cement wall about the centre and west of the site comprises a substantial retaining wall structure. Accordingly, it is reasonable to assume that much of the vegetation on the southern boundary of the site is physiologically divided from any potential disturbance as would be associated with site development works. Note is made that this material currently extends notably through the palisade railing and thus management and clipping back in the future will likely be required.

5 Other Legislative and Legal Constraints

5.1 Under the Forestry Act 2014, the felling of a tree standing in a county area requires a felling license, however, as this site are exists wholly within an urban area, then there appears to be no requirement for a tree felling licence.

5.2 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.

6 Construction Activities and their Effect on Trees

General

6.1 Tree retention is costly in respect of available space. There is a substantial difference between physically retaining a tree in situ and gaining any realistic expectation of it surviving into the future and remaining safe, the latter being dependent upon the extent and nature of protection it can be afforded.

6.2 Trees are living organisms and are highly reliant upon a continuity of environmental factors, the changing of which can easily undermine health and sustainability. As a perennial plant, a trees nature is to necessarily become larger on an annual basis. The

survival of the plant and its funding of continued growth requires a minimum import of water and various nutrients, which are provided by the soil in which the tree is rooted.

6.3 A tree is highly dependent upon the ground from which it arises. The nature of that ground and a continuity of conditions and provisions that that ground provides are of particular importance to maintaining tree health and sustainability. Any change extending beyond the short-term, has the potential to affect a tree's metabolism, health, and sustainability.

6.4 Development works can easily result in the loss, changing or denaturing of this ground upon which a tree is dependant. Any action that removes, disturbed or denatures the existing soil environment in respect of gas flux, hydrology, soil strength or bulk density can damage tree roots and render a soil incapable of supporting plant root function. Therefore, these effects must be avoided in the areas upon which a tree is reliant.

6.5 Any structure or activity that results in the issues noted above must be regarded as contrary to sustainable tree retention. Where such issues arise within the minimum "root protection area" as defined under "BS5837-2012", then the affected tree is likely to be regarded as unsustainable and unsuitable for retention.

Construction Specific Issues

6.6 New buildings, roads, or other structures or their foundations (and/or basements) require the excavation of ground space. Foundation digs are often substantially larger than the building footprint, with depth often requiring safety related battering or benching of the excavation edges to avoid collapse. Many structures, including roads and paths, require that the ground beneath is compacted to provide a necessary bearing ratio. The combination of these typically results in the loss or denaturing of the soil volume that a tree would be reliant upon. Underground services require excavation and trenching, with the added complication that gravity led systems can often require the modification of ground levels to achieve necessary gradients and minimum overburdens, a factor that can often influence the finished levels of both the roads and buildings.

6.7 Most modern construction involves the use of substantial plant, equipment, and vehicles. The movement and activity of such machinery quickly denatures the ground, destroying the soil profile and structure, making them inhospitable and of no use the to the supported trees.

6.8 Though beyond the scope of this report, consideration might be given the broader changes to the ground environment, for example relating to possible hydrological changes about the broader development area.

Contextual Issues

6.9 Some tree losses may be justified because of poor-quality, ill-health or other deterioration. In such instances, the potential for, and suitability for their retention, would be limited regardless of any site development. However, some poorer-quality trees, if located in areas of reduced sensitivity, might offer some degree of limited retention, dependant on the retention context and the threat they may present.

6.10 Where the site context changes in respect of occupation and use near trees, repercussions may include a requirement for greater scrutiny and management. Some trees may require specific attention, including structural pruning improve their safety status within the changed context as well as to deal with issues of exposure and shelter loss.

6.11 Tree canopy cover varies by species and can change by season. Therefore, their relationship with the post development site must be considered in respect of additions issues, including shadow-cast and light admission and littering.

6.12 Tree retention close to buildings should consider the blockage of views and light, and the possible effects on daylight analysis. Trees can have a material effect on these issues and can lead to post development request for more tree removal, for example based on a requirement for artificial light during daylight hours.

6.13 Deciduous tree shed leaves each autumn that can be subject to local wind patterns, creating local drifts and accumulations. Such issues may require management and can lead to drainage issues including the blockage of drains and gullies, or to the creation of slippery surfaces.

7 Nature of Project Works

7.1 The proposed development will include the creation of multiple apartment block above car parking, together with access roads, drainage and other modern infrastructure.

7.2 Considering the scope and scale of the propsed development, it is considered likely that most of the issues dealt with at “Construction Works and Trees” above, will apply at various points and particularly regarding-

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 that makes a tree unsuitable for retention.

8 Specific Issues and Arboricultural Concerns

8.1 The greatest issue potentially affecting trees relates to the extent and nature of the proposed works and the degree of disturbance as may be caused to trees adjoining the periphery of the site.

8.2 The above issues have been compounded by a lack of information. Tree locations relative to the proposed works are estimate only and existing site levels information is not available, thereby complication the consideration of potential tree related impacts.

9 Design Iterations and Arboricultural Considerations

9.1 An earlier tree survey was extended and updated in May of 2021 and the preliminary results were provided to the broader design team. Accordingly, there was an early appreciation of the site's tree cover, its quality, condition, and the estimated constraints it presented.

9.2 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 Identification of Development Impacts to Trees

10.1 The expected tree impacts have been represented graphically on the tree impacts drawing "**Santry Tree Impacts Plan"**, as well as within the narrative of this report. This drawing combines the tree constraints plan information with the current stage development details including the architectural and services layouts below, thereby allowing for simple direct comparisons to be made between the existing site context and the development proposals in respect of new structures.

10.2 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.

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

- DBFL Consulting Engineers – watermain information overlaid on Masterplan
- Dermot Foley landscape Architects – Landscape Design overlaid with deveklopment masterplan

10.4 The evaluation is primarily based on minimum protection ranges as defined paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS 5837:2012. Any structure, action or apparent need to enter or otherwise disturb/convert the "root protection area" of a site tree has

been considered likely to have a negative impact, with the potential to render a tree wholly unsuitable for retention, unsafe or unsustainable.

10.5 The broader assessment attempts to consider both direct and indirect implications, based on perceived construction requirements, as well as how a tree will likely interact with the development in respect of growth, hazard development, light blockage and other social concerns in respect of the changing context, including its effect on tree amenity value.

11 Tree Retention and Loss

11.1 The drawing "Santry Tree Impacts Plan" comprises the tree survey drawings overlaid by the development drawings, thus providing a graphic representation of the relationship between tree constraints and the development elements. In this drawing, the trees that will be removed, are highlighted in "pink dashed" outlines.

11.2 As noted within the survey data, the "red line" area supports a total of 55no. individually trees and 5 tree groups/hedge that comprise multiple specimens, which, for the purposes of this report, will be regarded as 60no. items that have been categorised as:

- No category "A" trees,
- 20no, category "B" trees,
- 29no. category "C" trees,
- 11no. category "U" trees,

11.3 Normally, all category "U" trees (11 in total across survey area) identified in the survey would be removed. However, of these trees, it is noted that 3 trees (nos. 54, 81, 87) exist outside the site area, and appear to be outside of the site jurisdiction. Accordingly, they could only be removed by their respective owners. Therefore, only Nos.61, 66, 67, 68, 69, 70, 72 and 72a should be removed.

11.4 Of the trees/hedges recorded, it appears that the proposed works will result in the loss of one category "B" item, "Hedge 2".

11.5 Notwithstanding the fact that other trees might be disturbed by the proposed works, their apparent location outside of the site ownership means no other trees can/will be removed.

11.6 The tree loss breakdown for the proposed developemnt will be-

- 0 Category "A" items
- 1 Category "B" items (Hedge 2)
- 0 category "C" items
- 8 category "U" trees (of 11 Category "U" items recorded across review area)

12 Tree Protection within the Scope of a Development

12.1 The design and management recommendations as set out in "BS5837:2012" are considered as "best practice" regarding the selection, retention, protection, and management of tree within the scope of new developments.

12.2 In respect of tree protection, whether vertical or horizontal, all must conform or equate to the recommendations of Section 6, BS5837: 2012, must be fit for purpose and commensurate with the nature of development and the expected day-to-day activities of the site works.

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

12.4 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".

12.5 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.

13 Preliminary Management Recommendations

13.1 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.

13.2 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 a trees suitability for retention may change over time.

13.3 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. This will allow for the updating and amending 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.

14 Bibliography

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

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

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

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

14.7 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, "Santry 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 "Santry 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 "Santry Tree Constraints Plan" regarding the representation of tree positions, crown forms, "RPA" extents and colour reference to category systems. Trees were omitted from the supplied drawing and have been "sketched in" to "Santry Tree Constraints Plan". It is advised that tree locations should be located and plotted by professional means to identify precisely, 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 May 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 The original survey was carried out spring. 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 generalized 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	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
44	Norway Maple *(Acer platanoides)*	M/A	G/F	14.00	1.75	4.50	5.50	5.50	5.00	1	398	4.77	A relatively large and dominating specimen arising from neighbouring property. Has suffered minor localised ground disturbance apparently gaining access to new ESB substation. Extent of excavation/root damage is unknown. Crown has suffered minor lower branch disturbance and damage.	Review regularly	L	B2
45	Norway Maple *(Acer platanoides)*	M/A	G/F	14.00	2.00	6.00	5.50	4.00	5.00	1	420	5.04	Large spreading specimen of good vigour and vitality arising wholly from within confines of neighbouring site. Middle crown supports extensive and developing Ivy cover.	Cut Ivy near ground level and review regularly.	L	B2
46	Ash *(Fraxinus excelsior)*	E/M	F/P	12.00	1.50	5.00	5.00	3.50	2.50	3	385	4.62	Multi-stemmed and heavily divided. Is notably distorted. Of dubious sustainability. Canopy support some deadwood. Tree will be regarded as being at risk from Chalara canker.	Review regularly.	M	C2
47	Ash *(Fraxinus excelsior)*	E/M	F	12.00	2.00	4.50	5.00	2.00	3.00	1	261	3.13	Heavily distorted as result of suppression. Has suffered minor lower crown damage. Concerns exist regarding sustainability in light of Chalara canker attack.	Review regarding retention context.	M	C2
48	Ash *(Fraxinus excelsior)*	M/A	F/P	13.00	2.50	4.50	5.50	3.00	4.00	2	306	3.67	Suppressed, distorted and exhibiting evidence of prior mechanical failure. Crown supports some deadwood and developing Ivy cover.	Cut Ivy and rereview.	S	C2
49	Ash *(Fraxinus excelsior)*	S/M	F/P	5.50	1.50	0.50	1.50	1.50	1.00	1	131	1.57	Heavily suppressed and apparently in decline with crown supporting notable deadwood.	Review regarding retention context.	S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
50	Ash *(Fraxinus excelsior)*	E/M	F/P	13.00	1.25	4.50	5.50	4.00	4.00	1	366	4.39	Distorted and unbalanced. Is of variable vigour with substantial deadwood noted within crown. Lower crown has suffered mechanical damage about lower south-eastern portion.	Review with regard to retention context and sustainability.	S	C2
51	Ash *(Fraxinus excelsior)*	E/M	F/P	7.00	1.00	1.00	2.00	2.50	2.50	1	175	2.10	Suppressed and distorted, is considered to be of poor quality.	Review regard retention context.	S	C2
52	Ash *(Fraxinus excelsior)* Group	E/M	F/P	10.00	0.00	3.00	5.00	1.50	1.50	3	296	3.55	Of poor quality and notably distorted. Of dubious retention merit.	Review regard retention context.	S	C2
53	Sycamore *(Acer pseudoplatanus)*	E/M	F	14.00	2.00	4.50	5.00	4.50	3.00	5	430	5.16	Multi-stemmed from ground level and considered to be of poor mechanical form. Remains vigorous at this time.	Review with regard to retention context.	M	C2
54	Elder *(Sambucus nigra)*	M	P	5.00	0.00	3.00	4.50	3.00	1.00	1	229	2.75	Typically considered as a weed species the specimen is of poor quality having been cut and sustained substantial breakage in past. Unsuitable for retention.	Remove.	N/A	U
55	Sycamore *(Acer pseudoplatanus)*	S/M	G/F	7.00	1.50	2.50	3.00	2.50	2.50	1	156	1.87	Has undergone substantial pruning and removal of south-eastern stem in recent past.		M	C2
56	Ash *(Fraxinus excelsior)*	E/M	F/P	13.00	1.50	4.00	4.50	4.00	4.00	2	366	4.39	Heavily divided from near ground level raising concerns with regard to mechanical integrity. General vigour and vitality remains good at this time may be subject to Chalara canker attack.	Review regard retention context and clean-out.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
57	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	F/P	9.00	0.00	2.50	3.00	3.00	2.00	1	369	4.43	Heavily distorted at 1.25 m but otherwise of good vigour and vitality. Has been heavily cut on south-eastern side to facilitate erection of palisade railing.	Review regard retention context.	M	C2
58	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	F/P	12.00	0.00	1.50	3.00	2.00	2.00	1	271	3.25	Heavily suppressed and distorted as result of proximity to near neighbour.	Review in unison with 57.	M	C2
59	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	F/P	11.00	1.00	2.50	3.50	3.00	3.00	1	430	5.16	Multi-stemmed having stood suffered substantial stem damage to south-eastern stem is. Vigour and vitality appear to be impaired suggesting limited sustainability.	Review regard retention context in respect of limited retention merit.	M	C2
60	Ash *(Fraxinus excelsior)*	M/A	F/P	13.00	3.50	5.00	5.00	3.50	5.00	1	525	6.30	Appears to be in decline and deterioration having suffered widespread mechanical failure and loss of much of southern crown. Tree currently arises from ground obviously disturbed by recent activities.	Cleanout and review on annual basis regarding ongoing suitability pretension.	S	C2
61	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	F/P	13.00	2.00	3.00	2.00	2.00	2.00	1	306	3.67	Wholly suppressed by combination of adjoining Sycamore and dense Ivy cover. Is considered to be of particularly poor quality and ill-suited to retention.	Consider early removal.	N/A	U
62	Sycamore *(Acer pseudoplatanus)*	E/M	F/P	9.00	1.50	3.50	4.00	2.00	1.00	1	210	2.52	Young and vigorous but unbalanced to east as a result of suppression.	Consider early removal.	S	C2
63	Sycamore *(Acer pseudoplatanus)*	E/M	F	11.00	3.50	2.50	2.00	2.50	3.50	1	229	2.75	Slightly suppressed on eastern side but maintaining reasonable vigour and vitality.	Review regard retention context.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
64	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	P	10.00	3.00	2.50	2.50	2.50	2.50	1	239	2.86	Chronically suppressed and supports limited viable crown at higher levels only. Principal stem is obscure by dense Ivy cover. Tree appears to offer limited sustainability.	Remove.	S	C2
65	Sycamore *(Acer pseudoplatanus)*	E/M	F	9.00	3.50	1.00	1.00	2.50	3.50	1	207	2.48	Heavily suppressed, distorted and one sided. Is considered to be of dubious retention merit.	Review regard retention context.	S	C2
66	Sycamore *(Acer pseudoplatanus)*	E/M	F/P	10.00	1.00	2.00	4.00	4.00	2.00	4	334	4.01	Distorted and of poor quality. Is considered to be of dubious retention merit.	Consider early removal.	N/A	U
67	Lawson Cypress *(Chamaecyparis lawsoniana)*	M	P	8.00	1.00	2.50	2.00	1.00	1.00	1	366	4.39	Is in particularly poor condition with entire apex already dead.	Remove.	N/A	U
68	Sycamore *(Acer pseudoplatanus)*	S/M	F/P	7.50	0.00	1.00	3.00	3.50	3.00	2	207	2.48	Suppressed, one-sided and of typically poor quality. Is considered to be of dubious retention merit.	Consider removal and replacement.	N/A	U
69	Elder *(Sambucus nigra)*	M	P	5.00	0.50	2.00	3.00	3.00	4.00	1	229	2.75	Typically regarded as a weed species and unsuitable for retention.	Remove.	N/A	U
70	Elder *(Sambucus nigra)*	M/A	P	5.00	1.50	1.00	1.00	2.00	2.00	1	191	2.29	Partially collapsed.	Remove.	N/A	U
71	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	F/P	9.00	0.50	2.00	2.00	1.00	1.00	1	229	2.75	Appears to be in state of low vigour and decline.	Consider removal and replacement.	S	C2
72	Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	F/P	11.00	1.00	2.00	2.50	2.00	2.00	1	274	3.29	Appears to be in state of decline deterioration and has suffered visible extent of notable surface root damage to east of stem.	Consider early removal.	N/A	U
72a	Ash *(Fraxinus excelsior)*	M/A	P	10.00	1.50	4.00	6.00	4.50	4.50	4	462	5.54	Exists as a remnant of a once larger tree having been partially cut down. Is considered unsuitable for attention.	Remove.	N/A	U

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
73-82	Lime *(Tilia europea)*	S/M	G/F	7.00-8.00	1.50-2.00	3.00	3.00	3.00	3.00	1	0.25	3.00	A group of you and typically good conditioned trees, that require little management at this time. Exceptions to this include no.80 that arises from ground as suffered extensive recent disturbance. Extent of disturbance and its effect on damage is unknown. Lime no.81 is affected by a deep excavation immediately to north. There is visible root damage suggesting the tree should be replaced. Lime no. 82 appears now to be located within a landscape feature cement surrounding. The extent of disturbance and construction stage is unknown but lower crown has suffered notable branch damage.	Clean-out.	L	B2 (inc C and U)
2141-2148	Lime *(Tilia europea)*	S/M	G/F	7.00	1.50-2.00	3.00	3.00	3.00	3.00	1	0.25	3.00	A row of typically small, young trees arising from grass verge outside of site area. Most trees are identical, tough No.2144 supports minor imbalance to east. Trees are considered physiologically detached from the adjoining site because of the plinth railing wall where the plinth and its foundation will have acted as a likely barrier to root radiation.		L	B2
87	Ash *(Fraxinus excelsior)* Sycamore *(Acer pseudoplatanus)*	M/A	P	12.00	0.00	4.50	4.50	4.00	4.50	2	398	4.77	A close-knit and cohesive group combining both Sycamore and Ash. The Ash appears to be the dominating element but exhibits classic signs of decline and dieback within crown suggesting minimal sustainability. Unsuitable for retention.	Remove.	N/A	U

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
88	Ash *(Fraxinus excelsior)* Group	E/M	P	9.00	0.00	3.00	3.00	3.00	3.00	3	366	4.39	Appears in state of ongoing decline and deterioration resulting from disturbance of the bank near the tree's stems.	Review regard retention context.	S	C2
89	Hawthorn *(Crataegus monogyna)*	M	F	5.00	0.50	2.50	2.50	2.50	2.50	1	207	2.48	Appears to be maintaining reasonable vigour and vitality. Arises from raised level in comparison to site and from neighbouring property.	Review regard retention context.	S	C2
90	Ash *(Fraxinus excelsior)* Group	E/M	P	7.50	0.00	3.50	3.50	3.50	3.50	6	398	4.77	Is in a state of ongoing decline and deterioration essential canopy dying back. Tree has been recently disturbed by extensive grading works immediately to east of stem.	Review regard retention context.	S	C2
91	Sycamore *(Acer pseudoplatanus)* Group	E/M	F/P	10.00	0.00	4.50	4.50	4.50	4.50	5	398	4.77	Young and vigorous but most likely naturally arising from disturbed ground.	Review with regard retention context.	M	C2
92	Ash *(Fraxinus excelsior)* Group	E/M	F/P	12.00	1.50	5.00	4.50	3.00	4.50	2	398	4.77	Young and vigorous but most likely naturally arising from disturbed ground.	Review with regard retention context.	M	C2
93	Ash *(Fraxinus excelsior)* Group	E/M	P	11.00	0.00	3.00	5.00	5.00	5.00	3	398	4.77	A multi-stemmed and most likely naturally arising. Material appears to arise from positions elevated in respect of subject site.	Review regard retention context.	S	C2
Groups, Alignments and Hedges																
TL1	Tree Line 1 Lawson Cypress *(Chamaecyparis lawsoniana)*	M/A	P	6.00-9.00	0.50	2.50	2.50	2.50	2.50	1	271	3.25	Now fragmented and retaining only 5 specimens, with specimens located adjoining position of ESB facility having been removed. Individual specimens remain suppressed and are of typically poor quality suggesting limited sustainability. Consider early removal.		S	C
TL2	Tree Line 2 Leyland Cypress *(Cuppressocyparis leylandii)*	E/M	F/P	8.00	0.00	3.00	3.00	3.00	3.00	1	271	3.25	A short alignment of trees having been heavily cut. southern façade and supporting little remaining material. Trees are unlikely to offer sustainable retention over time.		S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stem	Dia.	RPA	Structural condition	PMR	Yrs.	Cat
H1	Hedge 1 Beech *(Fagus sylvatica)*	S/M	G/F	2.00-4.00	0.00	n/a	n/a	n/a	n/a	m/a	n/a	n/a	Hedge 1 remains in situ but has been curtailed at northern end regard to development of Santry Place. The hedge has not undergone any recent works and requires extensive clipping/cutting maintained as a hedge. Current stature for the development of leggy saplings with diminishing canopy cover at lower levels.	Review regard retention context and regarding application of suitable management scheme.	L	B2
H2	Hedge 1 Beech *(Fagus sylvatica)*	S/M	G/F	2.00	0.00	n/a	n/a	n/a	n/a	m/a	n/a	n/a	Broadly identical to Hedge 1 above but is smaller and has been recently trimmed.	Review regard retention context and regarding application of suitable management scheme.	L	B2
H3	Hedge 3 Pyrocantha Cotoneaster *(Cotoneaster Sp)* Escalonia *(Escalonia Sp.)* Winter Flowering Cherry *(Prunus subhirtella "Autumnalis")* Gorse *(Ulex europaeus)* Bramble *(Rubus fruticosus)* Ivy *(Hedera helix)* Viburnam *(Viburnam Sp.)*	M/A	F	3.00-4.00	0.00	n/a	n/a	n/a	n/a	m/s	n/a	n/a	A highly variable and sometimes non-existent alignment of shrubbery often clipped to create a formal prismatic hedge like structure. Hedge is in better condition towards the east of the alignment with a more fragmented layout of individual shrubs and plants towards the west. General vigour and vitality tend to be good however, it was noted that the multiple winter flowering cherries arising from the hedge tend to be of poor quality with many showing signs of low vigour and possible pathological issues.	Review regard retention context and suitable management.	M	B2