



Arboricultural Impact Assessment

Prepared for:

Van Dijk Architects

Proposed site:

Cherry Orchard Site 4 & 5, Dublin 10

Prepared by:

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Executive Summary

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

This report includes:

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

2.0 Introduction

2.1 Instructions

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

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

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

2.2 Methodology

An initial tree survey and visual condition assessment was on the 7th July 2023. The purpose of this report and in accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction. Recommendations* only trees with diameters of 75mm or greater were surveyed. Also in accordance with section 4.4.2.3 of the British standard document where trees formed obvious groups these were assessed and recorded as groups. All trees were individually tagged with a metal disc. This was placed on the northern side of the tree where practical.

Section 4.4.2.3 of BS 5837: 2012 states:

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

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

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

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

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

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

Specimen condition 3-tier rating system

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

3.0 Initial Tree Survey Overview

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

Figure 1: Site Location.



4.0 The Trees.

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

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

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

5.0 Statutory and Non-Statutory Designations

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

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

6.0 The Proposed Development

Development Description

The proposed development (GFA of c. 66,399sqm) involves the construction of a residential led mixed use scheme across 16 blocks contained within 9 buildings ranging in height from 4 to 15 storeys. The development includes the provision of 708no. residential apartments comprising 547no. cost rental and 161no. social / affordable units (28no. studio units, 263no. one-bed units, 368no. two-bed units and 49no. three-bed units, together with a convenience retail supermarket (2,523sq.m GFA), 7no. retail / commercial units (totalling 373sq,m GFA), community, arts and cultural spaces delivered across 13no. community and arts / cultural units (totalling 1,222sq.m GFA), and associated external events space and community gardens (1,157sq.m) and a childcare facility (672sq.m GFA) with associated external playing space (200sq.m) and all ancillary accommodation including sub stations, plant, refuse stores, cycle stores, and metre / comms rooms. The proposed development also includes the provision of landscaped public open space of 6,123 sq. m. including a public plaza, play space, outdoor fitness trail, communal amenity space of 5,596 sq. m. Private open space for the apartment units is achieved through the provision of balconies or terraces for all individual apartments.

The proposed development will also involve the provision of sufficient car parking (including accessible car parking) and bicycle parking spaces at undercroft and surface level throughout the development. The development will also provide for all associated ancillary site development infrastructure including site clearance, boundary treatment, associated public lighting, internal roads and pathways, ESB substations, switch room, water tank rooms, storage room, meter room, sprinkler tank room, comms room, bin storage, bicycle stores, green roofs, hard and soft landscaping, play equipment, attenuation area, green and blue infrastructure including green roofs, PV panels and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply. Please refer to the statutory notices for full and complete description of the proposed development.

View of the Trees.



T1-T7 mature ash trees, to be removed



Typical hedgerow found within the site



Scrub areas



Group of dead trees



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

Figure 2: Proposed Development



Arboricultural Impact Assessment

7.0 Analysis of the Proposal in Respect of Trees

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

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

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

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

**In accordance with BS 5837: 2012 Trees in relation to design, demolition and construction. Recommendations., Category B signifies those trees of a “moderate value and in such a condition as to be able to make a substantial contribution (A minimum life expectancy of 20 yrs is suggested).”*

Category C signifies those trees/hedgerows of “a low quality and value that are currently in an adequate condition to remain until new planting could be established (a minimum life expectancy of 10yrs is suggested).”

Category U. This category signifies those trees that are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

8.0 Discussion & Conclusion

General Change

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

Proposal in relation to local planning policy

8.2 The proposed development complies with local planning policy as it relates to trees. A tree survey has been carried out in accordance with best practice and where possible trees have been retained and can be successfully protected during construction.

8.3 A landscape plan which includes new high quality tree planting will form part of the proposal. New planting will mitigate the loss of trees and enhance the visual appearance of the site in the future. Please review the landscape plan for further information

Conclusion

- 8.4 The proposal has been assessed in accordance with BS5837:2012 and special working methods have been recommended to minimise tree impacts.

Appendix A: Tree Survey

Key abbreviations used in the survey

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

Appendix A: Tree Survey Schedule-Site 4

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

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

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

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

Appendix B: Arboricultural Method Statement

Introduction

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

Sequence of Operations

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

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

Supervision

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

- Pre-commencement meeting with site manager to confer trees and hedgerows to be removed
- Inspection upon completion.

Arboricultural Method Statement	
Scope	Methodology
Pre-commencement meeting	<p>Prior to the commencement of works, a meeting between the arboricultural consultant, local authority and the site manager will be held in order to discuss the tree proposed works required in close proximity to trees. (if requested)</p> <p>Contact details of all parties will be circulated to ensure all team members are able to communicate correctly.</p> <p>The appointed arboricultural consultant will be available for verbal advice throughout site works.</p>
Tree Works	<p>Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works.</p> <p>It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority.</p> <p>All tree works will be carried out by a reputable arboricultural contractor in accordance with the recommendations given in BS 3998:2010 – Tree Work Recommendations.</p> <p>All tree works should be carried out in accordance with Section 40 of the Wildlife Act 1976 and Section 46 of the Wildlife (Amendment) Act 2000.</p>
Tree Protection	no required as all trees will be removed
Compound Area	The proposed site compound area has not yet been designed;
Installation of fencing within RPAs	Not required



This report was prepared by:

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Yours in Conservation,

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