

Arboricultural Report

Tree Survey,
Arboricultural Impact Assessment &
Arboricultural Method Statement

In relation to the development proposal at:

**Main Street
Newcastle
Co. Dublin**

On behalf of:

Cairn Homes Properties Limited

November 2021

211109-PD-11

Additional Information Point 2(i)

Planning Reference SD21A/0247

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Section 1: Arboricultural Impact Assessment

1 Summary

- 1.1 This arboricultural report has been instructed by Cairn Homes Properties Limited (the 'Applicant').
- 1.2 The development proposal is for the demolition of the existing dwelling and the construction of a replacement two storey dwelling at Main Street, Newcastle, Co. Dublin (the 'Application Site').
- 1.3 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.
- 1.4 My conclusions are that the proposed development is achievable in both arboricultural terms and in relation to local planning policy as it relates to trees.
- 1.5 The removal of trees is required as part of the development proposal. These losses have been assessed and will have a negligible impact on the character and appearance of the surrounding local area due to their low quality and limited visual public amenity value.
- 1.6 The proposal includes new high-quality native tree and hedge planting that will mitigate the loss of trees and have a positive impact on the character and appearance of the new development within the local surrounding area.

2 Introduction

Instructions

- 2.1 This arboricultural report has been instructed by Cairn Homes Properties Limited to provide information to assist with Point 2(i) of the Additional Information request by South Dublin County Council, Planning Ref: SD21A/0247, with regard to arboricultural features in relation to the development proposal at Main Street, Newcastle, Co. Dublin.

Development proposal

- 2.2 The development proposal is for the demolition of the existing derelict dwelling and the construction of a replacement two storey, four bedroom detached dwelling (169.97sq.m) together with all associated landscape, boundary, site and development works.

Qualification and experience

- 2.3 This report has been prepared by Charles McCorkell. Charles is a Chartered Arboricultural Consultant dealing with trees in relation to all forms of human activity, including the built environment. He is a Professional Member of the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association, a qualified professional tree inspector (LANTRA), and has a BSc Honours Degree in Arboriculture from the University of Central Lancashire.

Scope and limitations

- 2.4 The survey undertaken is not a health and safety assessment of trees; however, trees identified as imminently dangerous will have been highlighted and recommendations made, where appropriate.
- 2.5 The contents of this report are the copyright of Charles McCorkell Arboricultural Consultancy and may not be distributed or copied without the author's permission.

Methodology and guidance

- 2.6 The author of this report has referred to *British Standard 5837: Trees in relation to design, demolition and construction (2012)* which provides a methodology for the assessment of trees and other significant vegetation on development sites.
- 2.7 BS 5837 (2012) is intended to assist decision making with regard to existing and proposed trees and sets out the principles and procedures to be applied to achieve a

harmonious relationship between existing and new trees and structures that can be sustained for the long term.

- 2.8 The BS 5837 (2012) recommends the National Joint Utilities Group (NJUG) document *Guidelines for the planning, installation and maintenance of utility apparatus in the proximity to trees*. Volume 4, issue 2. London: NJUG, 2007, as a normative reference for guidance on the installation of utilities within proximity to trees.

Supporting information

- 2.9 This report should be read in conjunction with the following supporting documents attached to this report.

Document	Reference	Location
Arboricultural Method Statement	-	Section 2
Tree Schedule	211109-PD-10	Appendix A
Tree Survey Plan	211109-P-10	Appendix B
Tree Removals & Protection Plan	211109-P-11	Appendix B

Definitions

- 2.10 **Root Protection Area (RPA)** – a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree.
- 2.11 **Tree Protection Zone (TPZ)** – an area based on the RPA in m² identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

3 Observations & Context

Site visit

- 3.1 The site was visited by Charles McCorkell on the 15 November 2021. The purpose of the visit was to survey trees on and adjacent to the site which may be of significance to the proposed development. The survey was carried out in accordance with BS 5837:2012 and from ground level only.

Site location and description

- 3.2 The Application Site is located on the southern side of Newcastle Main Street (Map 1). It is an existing derelict bungalow with a rear garden. The surrounding area is residential.
- 3.3 The tree cover on the site comprises of a semi-mature ash within the front garden, a group of young naturally regenerated sycamore on the eastern side of the existing dwelling, and an early-mature multi-stemmed sycamore in the rear garden. There is a mature neighbouring sycamore located adjacent to the southwest corner of the site that overhangs the boundary.



Map 1 (Google 2021): Yellow line indicating the location of the Application Site boundary within the local area.

View of the site and trees



Photo 1: View of the existing bungalow from the Main Street and the semi-mature ash (T615) located within the front garden.



Photo 2: View of rear garden of the site showing the neighbouring sycamore (T616) and onsite multi-stemmed sycamore (T614).



Photo 3: View showing the group of young naturally regenerated sycamore (G617) located adjacent to the existing dwelling.

4 Local Planning Policy

Development Plan

- 4.1 The South Dublin County Council Development Plan 2016-2022 (adopted 10th June 2016) contains several policies that relate to trees. These include:

Green Infrastructure (G) Policy 2 Green Infrastructure Network

- G2 Objective 5 – To integrate Green Infrastructure as an essential component of all new developments;
- G2 Objective 9 – To preserve, protect and augment trees, groups of trees, woodlands and hedgerows within the County by increasing tree canopy coverage using locally native species and by incorporating them within design proposal and supporting their integration into the Green Infrastructure network;
- G2 Objective 11 – To incorporate appropriate elements of Green Infrastructure e.g. new tree planting etc. into existing areas of hard infrastructure wherever possible.

Heritage, Conservation and Landscapes (HCL) Policy 15 Non- Designated Areas

- HCL15 Objective 3 – To protect existing trees, hedgerows, and woodlands which are of amenity or biodiversity value and/or contribute to landscape character and ensure that proper provision is made for their protection and management in accordance with Living with Trees: South Dublin County Council's Tree Management Policy 2015-2020.

Living with Trees – Tree Management Policy 2015 – 2020

- 4.2 The South Dublin County Council Tree Management Policy 'Living with Trees' 2015-2020 contains information within Chapter 7 Trees and Development that relates to the retention, protection and planting of trees on development sites. Relevant points within this section include:

- The Council will use its powers to ensure that where it is conducive with the objectives of the County Development Plan, and other planning objectives there is maximum retention of trees on new development sites.
- In the processing of planning applications, the Council will seek the retention of trees of high amenity / environmental value taking consideration of both their individual merit and their interaction as part of a group or broader landscape feature.

- On construction sites all work must be in accordance with British Standard 5837 (2012): Trees in Relation to Design, Demolition and Construction – Recommendations.
- The Council will promote the replacement of trees removed to facilitate approved planning and development of urban spaces, buildings, streets, roads, infrastructural projects and private development sites.

5 Technical Information

Tree data

- 5.1 The Tree Survey Plan at Appendix B illustrates the location of trees, the extent of the spread of their crowns, and their root protection areas. Dimensions, comments and information for each tree are given in the Tree Schedule at Appendix A.

Life stage analysis

- 5.2 The site contains one group of young sycamore trees (G617); one semi-mature ash (T615); and one early-mature sycamore (T614). The neighbouring sycamore (T616) is of a mature age.

BS5837 (2012) category breakdown

- 5.3 All trees have been assessed as being of low quality and value (C Category) in accordance with BS5837:2012.

6 Analysis of the Proposal in Respect of Trees

Arboricultural Impacts

- 6.1 **Loss of trees** – The early-mature sycamore (T614), semi-mature ash (T615), and group of young sycamore trees (G617), all of low quality and value (C Category), are proposed to be removed as part of the development. Details of the proposed removals are specified within the Tree Schedule at Appendix A and are highlighted on the Tree Removals Plan at Appendix B.
- 6.2 The ash (T615) and group of sycamore (G617) are required to be removed to facilitate the main development works. The early-mature sycamore (T614) in the rear garden isn't directly impacted by the main building works; however, its long term retention is not considered suitable due to its condition and quality.
- 6.3 The tree is multi-stemmed and contains several weak included unions and has an unbalanced canopy due to the removal of a neighbouring tree. It is considered more appropriate to remove this tree as part of the development works and carry out new structured tree planting with better quality species that can have a greater long term impact on the site and local area.
- 6.4 The loss of the aforementioned trees will not have a negative impact on the character and appearance of the surrounding local landscape due to their low quality and limited public amenity value. The loss of these trees has been taken into consideration, as new high-quality native tree planting has been proposed as part of the overall landscape design.
- 6.5 **Construction operations within tree RPAs** – The proposal does not require the construction of hard standing, buildings, or drainage and services within the RPA of the neighbouring sycamore (T616).
- 6.6 The only working operations required within this tree's RPA is the installation of a 2m high concrete panel and post fence. The installation of this fence will require posts to be set into concrete filled pits. The excavation of these pits must be carried out using hand tools only and all roots above 25mm in diameter will be retained or alternative locations which do not contain roots above 25mm will be found. All post pits will be lined with 1000 gauge polythene in order to prevent phytotoxic effects of cement products upon tree roots.
- 6.7 **Tree protection measures** – The neighbouring sycamore (T616) can be successfully protected during the proposed development works by using robust fencing measures

which comply with the recommendations outlined within BS 5837:2012. The location and specification of tree protection measures are highlighted on the Tree Removals & Protection Plan at Appendix B.

Arboricultural mitigation

- 6.8 A landscape proposal has been formulated as part of the development design. This include the planting of five new high-quality native trees, plus mixed native hedge planting and ornamental shrub planting. The proposed new planting will more than mitigate the loss of trees on the site and can have a positive impact on the visual appearance of the development and contribute to the local canopy cover in the future.

7 Discussion & Conclusion

General Change

- 7.1 The loss of trees proposed as part of the development will not have a negative impact on the visual appearance and character of the surrounding local area. The trees to be removed are of low quality and limited public amenity value only and the development proposal has provided adequate replacement tree planting which will mitigate their loss and have a positive impact on the visual appearance of the proposed development.

Proposal in relation to local planning policy

- 7.2 The proposal complies with local planning policy as it relates to trees. Although the proposal requires the removal of trees, these are not considered to be of high public amenity value and new high-quality native planting has been proposed to mitigate their loss. Tree protection measures have been specified in accordance with industry best practice BS5837:2012 and are appropriate to safeguard the neighbouring tree for the duration of construction.

Conclusion

- 7.3 The neighbouring tree can be successfully protected during the development by following the information provided within this report and adhering to industry best practice.
- 7.4 Provided the recommendations and methods of work as outlined within this report are followed, the proposed development can be successfully carried out without having a negative impact on the local area.

Section 2: Arboricultural Method Statement

Introduction	
<p>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.</p>	
Sequence of Operations	
<ul style="list-style-type: none"> • Proposed tree works. • Installation of tree protection measures. • Enabling works, including the installation of a site compound. • Demolition works. • Construction, including the installation of drainage and services. • Landscaping. <p><i>Alternative sequences can be discussed and agreed with the local authority and project manager if required.</i></p>	
Supervision	
<p>All key / critical activities that will affect trees during construction will be inspected and monitored by the approved arboricultural consultant.</p> <ul style="list-style-type: none"> • Inspection of tree works and tree protection measures prior to the commencement of the main development works; 	
Arboricultural Method Statement	
Scope	Methodology
Tree Works	<p>Please refer to the Tree Schedule at Appendix A for a list of all proposed tree works. The location of trees to be removed are highlighted on the Tree Removals Plan at Appendix B.</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> <p>It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works.</p>
<p>Tree Protection</p>	<p>The position of protective fencing is shown on the Tree Protection Plan at Appendix B.</p> <p>Protective fencing must be constructed and installed using the BS5837:2012 fencing specification as detailed on the Tree Protection Plan at Appendix B. Alternatives to those shown must be agreed in advance by the client approved arboricultural consultant.</p> <p>No materials or equipment other than those required to erect protective fencing will be delivered to the site before the fencing is installed.</p> <p>Signs will be fixed to every third panel stating, <i>'Tree Protection Area Keep Out – Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant'</i>.</p> <p>The main contractor will inform the local authority and the arboricultural consultant that tree protection is in place before site clearance works commence</p> <p>No alteration, removal or repositioning of the tree protection will take place during construction without the prior consent of the arboricultural consultant.</p>
<p>Compound Area</p>	<p>The site compound must be located outside the designated TPZs as highlighted on the Tree Protection Plan at Appendix B.</p> <p>No excavation works within tree RPAs are permitted to install temporary services for site cabins and facilities. Any temporary services within tree RPAs must be above ground and protected accordingly.</p> <p>No operating generators or toxic liquids will be stored within the RPAs of retained trees during construction.</p> <p>Overhanging tree canopies must be taken into consideration when transporting, installing and removing site cabins near tree crowns. A banksman will be present during this process to ensure that all operations</p>

	<p>are carried out in a controlled manner and no part of the cabin meets overhanging tree crowns.</p>
<p>Installation of fencing within RPAs</p>	<p>The installation of fencing within the RPAs of retained trees will be carried out using the following methodology:</p> <p>Post holes will be manually excavated with the use of hand tools only and where roots greater than 25mm in diameter or large fibrous roots are present, the position of the hole will be slightly altered to avoid potential root damage.</p> <p>If the position of the hole cannot be altered, roots greater than 25mm in diameter or large fibrous roots will be protected with flexible plastic pipes and retained within the pit.</p> <p>In some cases, individual roots less than 25mm in diameter may be pruned, making a clean cut with a suitable sharp sterile tool (e.g. secateurs or hand saw).</p> <p>Once the required depth has been excavated, the hole will be lined using 1000-gauge polythene and filled with the appropriate concrete mix.</p>
<p>General Principals to Avoid Damage to Trees</p>	<p>All tree works will be carried out in accordance with the recommendations given in BS 3998 (2010).</p> <p>No fires will be permitted within 20m of the crown of any tree.</p> <p>No changes in soil levels will take place within the tree protection zones without prior written consent of the local authority.</p> <p>No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboricultural consultant.</p> <p>Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately.</p> <p>The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.</p>
<p>Landscape Operations</p>	<p>All landscape operations within the protected area will be carried out by hand, using hand tools only.</p>

	<p>No dumping of spoil or rubbish, parking of vehicles or plant, storage of materials or temporary accommodation will be undertaken within the TPZs.</p> <p>All tree roots within the RPAs greater than 25mm diameter will be retained and worked around.</p> <p>Soil levels will not be increased or reduced within the RPAs of trees without prior agreement from the arboricultural consultant.</p>
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Appendix A - Schedule

Document	Reference	Revision
Tree Schedule	211109-PD-10	-

211109-PD-10-Tree schedule

211109 - Main Street, Newcastle, Co. Dublin

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
					N	NE	E	SE	S	SW	W	NW								
Tree T614	1 Acer pseudoplatanus (Sycamore)	14.5	49 COM	5	6.0	5.5	6.5	1.5	3.0	3.0	3.0	3.0	3.0	Early Mature	Structural condition Poor. Physiological condition Fair. Excavation within root zone - Recent. Exposed crown - Recent. Fork - Weak with included bark. Foreign object - Ingrown metal. Unbalanced crown - Minor. Fell - Ground level.	15/11/2021	110.8	5.9	10-20	C2
Tree T615	1 Fraxinus excelsior (Ash)	6.0	16 COM	2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	Semi Mature	Structural condition Fair. Physiological condition Fair. Fork - Weak with included bark. Natural regeneration. Bacterial canker of Ash. Fell - Ground level.	15/11/2021	13.0	2.0	10-20	C2
Tree T616	1 Acer pseudoplatanus (Sycamore)	15.0	50 AVE	1	6.5	6.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Branch - Broken. Excavation within root zone - Recent. Fork - Weak with included bark. Foreign object. Unable to inspect tree closely as located in neighbouring property.	15/11/2021	113.1	6.0	10-20	C2
Group G617	10 Acer pseudoplatanus (Sycamore)	4.5	7 AVE	1					0.0	0.0	0.0	0.0	0.0	Young	Structural condition Fair. Physiological condition Fair. Natural regeneration. Height and stem diameter are average for group. Group of young naturally regenerated sycamore trees. Quantities estimated. Fell - Ground level.	15/11/2021	2.2	0.8	10-20	C1

Stem **green** Estimated value
 Stem **AVE** Average stem diameter for tree groups
 Stem **COM** Combined stem diameter in accordance with BS5837
 L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees

Table 1 of BS5837 (2012) Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
Trees unsuitable for retention (see note)		
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> * Trees that have a serious, irreparable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) * Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline * Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality 	RED
NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7		
Trees to be considered for retention		
<p>1 Mainly arboricultural qualities 2 Mainly landscape qualities 3 Mainly cultural values, including conservation</p>		
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees with material conservation or other cultural value.
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees with no material conservation or other cultural value.

GREEN

BLUE

GREY

Appendix B - Plans

Document	Reference	Revision
Tree Survey Plan	211109-P-10	-
Tree Removals & Protection Plan	211109-P-11	-

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