Arboricultural Report

Tree Survey,

Arboricultural Impact Assessment &

Arboricultural Method Statement

In relation to the development proposal at: Lands at Fosterstown North Dublin Road / R132 Swords Co. Dublin

> On behalf of: J. Murphy (Developments) Limited

> > April 2022

200902-PD-11

CHARLES MCCORKELL ARBORICULTURAL CONSULTANCY

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Section 1: Arboricultural Impact Assessment

1 Summary

- 1.1 This arboricultural report has been instructed by J. Murphy (Developments) Limited (the 'Applicant').
- 1.2 The proposal is for the construction of a strategic housing development at Lands at Fosterstown North, Dublin Road / R132, Swords, 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 The proposed development has been carefully designed to incorporate the existing trees and hedgerows as much as possible. In total, the proposed development will require the removal of two low quality (C Category) hedgerows (H1 & H24), the part removal of one low quality (C Category) hedgerow (H8), and the part removal of one moderate quality (B Category) hedgerow (H7).
- 1.5 The proposed removal of hedgerows will have an initial impact on the immediate surrounding landscape. These losses have been taken into consideration as part of the landscape design, as a significant number of new high-quality trees and hedgerows have been proposed throughout the site. This new planting will mitigate the loss of hedgerows and can have a positive impact on the local landscape in the future.
- 1.6 In conclusion, the proposed development is achievable in both arboricultural terms and in relation to local planning policy as it relates to trees. Tree impacts have been assessed and tree protection measures have been specified in accordance with best practice and are sufficient to safeguard retained trees during the proposed works.

2 Introduction

Instructions

2.1 This arboricultural report has been instructed by J. Murphy (Developments) Limited to provide information to assist all parties involved in the planning process to make balanced judgements with regard to arboricultural features in relation to the proposed development at Lands at Fosterstown North, Dublin Road / R132, Swords, Co. Dublin.

Development proposal

2.2 The proposed development comprises a Strategic Housing Development of 645 no. residential units (comprising of 208 no. 1 bedroom units, 410 no. 2 bedroom units, and 27 no. 3 bedroom units), in 10 no. apartment buildings, with heights ranging from 4 no. storeys to 10 no. storeys, including undercroft / basement levels (for 6 no. buildings). The proposals include 1 no. community facility in Block 1, 1 no. childcare facility in Block 3, and 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use) in Blocks 4 and 8. The proposal includes all associated and ancillary development.

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.

Definitions

- 2.9 **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.
- 2.10 **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.

Supporting information

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

Document	Reference	Location
Arboricultural Method Statement	N/A	Section 2
Tree Schedule	200902-PD-10	Appendix A
Tree Work Schedule	200902-PD-12	Appendix A
Tree Survey Plan	200902-P-10	Appendix B
Tree Works Plan	200902-P-11	Appendix B
Tree Protection Plan	200902-P-12	Appendix B

3 Observations & Context

Site visit

- 3.1 The Application Site was first visited by Charles McCorkell on 16 September 2020. A second site visit was carried out on 5 January 2022 to update the original survey information and record any changes that may have occurred following the September 2020 assessment.
- 3.2 The purpose of these site visits was to survey trees and vegetation 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

- 3.3 The Application Site is an existing agricultural field located approximately 1km south of Swords Main Street. The surrounding area contains residential properties to the south and west, Airside Retail Park to the east, and agricultural lands to the north (Map1).
- 3.4 The site is bounded by native hedgerows and contains several mature ash trees within the neighbouring site adjacent to the northeastern boundary. The majority of these trees are in poor condition and infected with the fungal pathogen ash dieback.



Map 1 (Google 2022): Dashed yellow line highlighting the area of the proposed development within the local area.

View of the site and trees



Photo 1: View of hedge H1 consisting of brambles and elder located on the eastern boundary.



Photo 2: View of the early-mature ash tree T2.



Photo 3: View of the mixed native hedgerow H3 located along the southern boundary.



Photo 4: View of the mixed native hedgerow H7 located along the southern side of the western boundary.



Photo 5: View of the mixed native hedgerow H8 located along the northern side of the western boundary.



Photo 6: View of the mixed native hedgerow H9 located along the western side of the northern boundary.



Photo 7: View of the early-mature and mature ash trees located adjacent to the northeastern corner of the boundary.



Photo 8: View of the mixed native hedgerow H24 located along the eastern boundary.

4 Local Planning Policy

The Fingal Development Plan 2017 – 2023

4.1 The Fingal Development Plan 2017 – 2023 was adopted in March 2017 and contains several policies that relate to trees, woodlands and hedgerows. Saved policies relating to this application include:

Chapter 9. Natural Heritage – Ecological Corridors and Stepping-Stones Including Trees and Hedgerows

Objective NH27

Protect existing woodlands, trees and hedgerows 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.

Chapter 12. Development Management Standards – Tree Policy

Objective DMS77

Protect, preserve and ensure the effective management of trees and groups of trees.

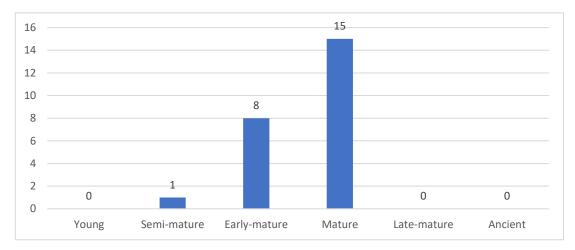
Objective DMS78

Ensure, during the course of development, trees and hedgerows that are conditioned for retention are fully protected in accordance with '*BS5837 (2012) Trees in relation to the Design, Demolition and Construction – Recommendations*' or as may be updated.

5 Technical Information

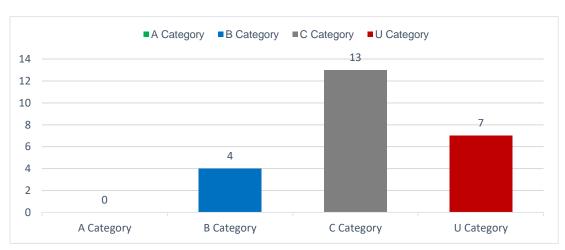
Tree data

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



Life stage analysis

Figure 1: Life stage analysis of the 24 survey entries recorded.



BS5837 (2012) category breakdown

Figure 2: Breakdown of BS5837:2012 categories of the 24 survey entries recorded.

6 Analysis of the Proposal in Respect of Trees

Arboricultural Impacts

- 6.1 Loss of trees The proposed development will require the removal of two low quality (C Category) hedgerows (H1 & H24), the part removal of one low quality (C Category) hedgerow (H8), and the part removal of one moderate quality (B Category) hedgerow (H7).
- 6.2 The proposed removals are specified within the Tree Work Schedule at Appendix A and are highlighted on the Tree Works Plan at Appendix B. A breakdown of trees and groups to be removed / part removed according to their BS5837:2012 category is outlined in Figure 3.

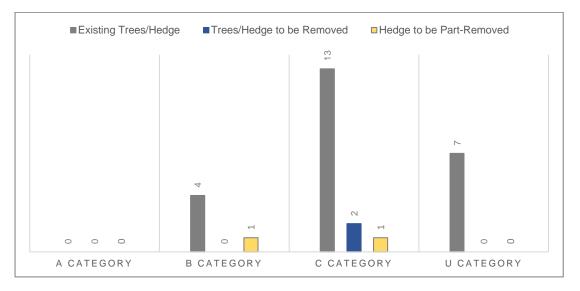


Figure 3: Breakdown of the tree and hedge removals required as part of the development.

- 6.3 Although of low quality and value, the proposed removal of the eastern boundary hedgerows (H1 & H24) will have an initial visual impact on the immediate surrounding area due to their prominent location. Their loss has been taken into consideration as part of the development design and sufficient space along the same boundary has been provided and new high-quality trees and hedgerows have been proposed to mitigate their loss.
- 6.4 Overall, the proposed development provides a good opportunity to improve the tree and hedge cover across the site and within the local area. Although some hedge removals are required, the extent of the new tree planting proposed will ensure that the local canopy cover and diversity of species are significantly enhanced. This

planting will have a long-term positive impact on the character and appearance of the development proposal and the local surrounding landscape.

- 6.5 *Pruning works* It has been recommended that the ivy from trees is severed and that the lateral growth of boundary hedgerows are pruned, where deemed necessary, to provide sufficient clearance for development works to be carried out.
- 6.6 These proposed works are considered to be minor and will not be detrimental to the health of the trees or hedgerows concerned, or their character and appearance within the local area. Details of the proposed works are specified within the Tree Work Schedule at Appendix A.
- 6.7 **Site access** The existing or proposed site access can be used to construct the development without adversely impacting retained trees or hedgerows, provided the appropriate tree protection measures, as specified within the Tree Protection Plan at Appendix B, are installed.
- 6.8 **Compound area** The proposed site compound area has not yet been designed; however, there is sufficient space available throughout the site to avoid any unnecessary impacts to retained trees and hedgerows, provided the tree protection measures, as detailed within the Tree Protection Plan at Appendix B, are adhered.
- 6.9 **Construction of the main development** The construction of the main built development does not require excavation or other working operations within the RPAs of retained trees and hedgerows, therefore, special methods of work are not considered necessary.
- 6.10 It will be necessary during the course of construction that site operations do not cause damage to trees and hedgerows or the soil environment in which they are growing. Details of appropriate protection measures to safeguard retained trees are specified on the Tree Protection Plan at Appendix B.
- 6.11 **Daylight and sunlight levels -** Shading by trees or hedgerows is not deemed to be an issue in relation to the proposed development.
- 6.12 **Drainage and services** Details of the proposed drainage and service runs across the site are currently unknown. All proposed drainage and service runs are required to be located outside the RPAs of retained trees and hedgerows. Prior to construction works commencing, the arboricultural consultant must review and approve all drainage and service proposals to ensure they will not negatively impact retained trees and hedgerows.

- 6.13 **Tree protection measures** All retained trees and hedgerows can be successfully protected during the proposed development works by using robust fencing which complies with the recommendations outlined within BS 5837:2012. The location and specification of all tree protection measures are highlighted on the Tree Protection Plan at Appendix B.
- 6.14 **Landscape operations -** Landscaping operations will typically take place at the end of the construction period. These works will normally require the removal of protective fencing to facilitate access for works. There is a risk that machinery may damage soil structure where tree roots are growing. These risks can be managed by maintaining good professional standards of work and working to a method statement. The principle of avoiding soil disturbance or changes in levels within the RPAs of retained trees should be followed unless arboricultural advice has been sought.

Arboricultural mitigation

6.15 A landscape masterplan has been designed and will form part of the planning application for this development. The proposal includes significant new high-quality tree and hedge planting throughout the Application Site. This planting will have a positive visual and environmental impact on the site by increasing local canopy cover and improving the diversity of species.

7 Discussion & Conclusion

General Change

- 7.1 In visual terms, the proposed removal of the eastern boundary hedgerow will have an initial impact on the immediate surrounding area; however, these hedgerows are of low quality, and new high-quality tree and hedge planting have been proposed along the same boundary to mitigate their loss.
- 7.2 Overall, the proposed development provides a good opportunity to enhance the tree and hedge cover across the site. This can have a positive impact on local canopy cover and enhance the character and appearance of the new development and local surrounding area.

Proposal in relation to local planning policy

- 7.3 The proposed development complies with planning policies as they relate to trees. Although hedgerows of amenity and biodiversity value are required to be removed, the proposed development does include significant new tree and hedge planting that will have a positive impact on the surrounding landscape by improving the local canopy cover and the diversity of species.
- 7.4 Existing trees and hedgerows can be successfully retained and protected in accordance with best practice BS 5837:2012. The retention of these trees and hedgerows will visually benefit the site by adding an element of maturity to the new development.

Conclusion

- 7.5 The proposal has been assessed in accordance with BS5837:2012. Retained trees can be successfully protected during the development by following the information provided within this report and adhering to industry best practice.
- 7.6 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 character or appearance of the surrounding landscape.

8 **Recommendations**

8.1 The proposal should be carried out in accordance with the recommendations outlined within this report.

Tree Protection

- 8.2 The positioning of tree protective barriers should be installed as detailed on the Tree Protection Plan at Appendix B.
- 8.3 The protective fencing measures to be installed must comply with the recommendations outlined within BS5837:2012.
- 8.4 No materials or equipment other than those required to install tree protection will be delivered to the site until all fencing is in place.
- 8.5 Site supervision should be carried out by an arboricultural consultant at key stages of the project to ensure that retained trees can be successfully protected during the development. Details of supervision are included within the Arboricultural Method Statement at Section 2 of this report.

Tree Works

8.6 All tree works are required to be carried out in accordance with best working practice BS3998:2010 – *Tree Work Recommendations* and by a reputable arboricultural contractor.

Arboricultural mitigation

- 8.7 Tree planting is proposed to mitigate the loss of trees and must be carried out and maintained as specified by the Landscape Architect.
- 8.8 All new tree planting must be carried out in accordance with BS 8545:2014 *Trees: from nursery to independence in the landscape. Recommendations.*

Section 2: 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

- Proposed tree works.
- Installation of tree protection measures.
- Enabling works, including the installation of a site compound.
- Construction, including 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.

- Pre-commencement meeting with site manager and local planning authority to discuss tree protection measures;
- Inspection of tree works and protection measures prior to the commencement of works;
- Monthly site visits to inspect tree protection measures;
- Supervision during any other works that may affect retained trees; and
- Tree inspection upon completion.

Arboricultural Method	Statement
Scope	Methodology
Pre-commencement meeting	 Prior to the commencement of works, a meeting between the arboricultural consultant, site manager, and local planning authority will be held in order to discuss the tree protection measures and proposed works required in close proximity to trees. Contact details of all parties will be circulated to ensure all team members are able to communicate correctly. The site manager will be responsible for the protection of all retained trees for the duration of the project. Whenever necessary, the site manager will engage the arboricultural consultant to ensure trees are adequately protected. The appointed arboricultural consultant will be available for verbal advice throughout site works.
Tree Works	 Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works. The location of trees to be removed is highlighted on the Tree Works Plan at Appendix B. It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority. 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. 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. It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works.
Tree Protection	The position of protective fencing for construction is shown on the Tree Protection Plan at Appendix B. 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.

r	Τ
	No materials or equipment other than those required to erect protective fencing will be delivered to the site before the fencing is installed.
	Signs will be fixed to every third panel stating, 'Tree Protection Area Keep Out – Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant'.
	The main contractor will inform the local authority and the arboricultural consultant that tree protection is in place before site clearance works commence.
	No alteration, removal or repositioning of the tree protection will take place during construction without the prior consent of the arboricultural consultant.
Compound Area	The site compound must be located outside the designated TPZs as highlighted on the Tree Protection Plan at Appendix B.
	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.
	No operating generators or toxic liquids will be stored within the RPAs of retained trees during construction.
	Overhanging tree canopies must be taken into consideration when transporting, installing, and removing site cabins near tree crowns. A banksman will be present during this process to ensure that all operations are carried out in a controlled manner and no part of the cabin meets overhanging tree crowns.
Drainage and Service Installation	All methods of work for the installation of drainage runs or services within the RPAs of retained trees will follow the guidance within Table 3 of BS 5837 (2012), or National Joint Utilities Group (NJUG) <i>Guidelines for the</i> <i>planning, installation and maintenance of utility apparatus in proximity to</i> <i>trees.</i> Volume 4, issue 2, London NJUG 2007.
	Any approved works within the TPZ will be carried out using either hand tools such as an air lance and vacuum excavator or trenchless techniques as outlined within Table 3 of BS5837:2012.
	For excavation works, all roots greater than 25mm in diameter will be retained and will be immediately wrapped in dry hessian to prevent desiccation and temperature fluctuations. Roots will be pushed aside to allow for runs to be installed.

	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). Prior to root pruning taking place, the contractor will consult the arboricultural consultant. Trenches should not remain open for more than one day. If this is unavoidable, any exposed roots should be watered and covered with hessian until the area is backfilled with soil. No machinery will be permitted within the TPZ at any time unless ground protection is installed and agreed upon with the arboricultural consultant beforehand. The requirement for temporary ground protection must be installed in accordance with Section 6.2.3.3 of BS 5837:2012. Prior to drainage or service installation works commencing within RPAs, the arboricultural consultant will be contacted, and a date agreed for a site meeting to run through the proposed methods of work on-site with the site manager and relevant site operatives.
General Principals to Avoid Damage to	All tree works will be carried out in accordance with the recommendations given in BS 3998 (2010).
Trees	No fires will be permitted within 20m of the crown of any tree.
	No changes in soil levels will take place within the tree protection zones without prior written consent of the local authority.
	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.
	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.
	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.
Landscape Operations	All landscape operations within the protected area will be carried out by hand, using hand tools only, unless otherwise agreed with by the arboricultural consultant.

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

Appendix A - Schedule

Document	Reference	Revision
Tree Schedule	200902-PD-10	A
Tree Work Schedule	200902-PD-12	-

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	N					w NW	Crown clearance (m)	L.B. (m)		e Coudition Notes expectancy (yrs) BS Category)
Hedge H1	 Rubus fruticosus s. (Blackberry/Bramble) Sambucus nigra (Elder) 	3.5	10 AVE	1							0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded only species mix. Section of hedgerow overgrown with brambles.	2
Tree T2	1 Fraxinus excelsior (Ash)	9.0	51 COM	3	6.0	7.0	5	5.0	4	1.0	2.0		Early Mature	Structural condition Fair. Physiological condition Poor. Access to inspect base - Not possible. Deadwood - Minor. Fork - Weak with included bark. Ivy or climbing plant. Leaning trunk - Minor. Multi-stemmed. Unable to inspect tree closely due to dense scrub. Suspected ash-dieback disease.05/01/2022 (122.1)122.16.210-20C2	2

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.

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Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	N				Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H3	1 1 1	Crataegus monogyna (Common Hawthorn/Quick/May) Fraxinus excelsior (Ash) Rosa canina	7.0	25 AVE	1					0.0			Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded only species mix. Native boundary hedgerow. Hedgerow mainly located in and on far side of ditch. Rejuvenation works required.	05/01/2022	28.3	3.0	20-40	B2
	1	(Dog-rose) Rubus fruticosus s. (Blackberry/Bramble) Salix caprea (Goat Willow/Great Sallow)																
	1	Sambucus nigra (Elder)																
Tree T4	1	Fraxinus excelsior (Ash)	8.0	25	1	2.5	2.5	2.5	2.0	5.0			Structural condition Fair. Physiological condition Poor. Access to inspect base - Restricted / obscured. Competition - Adjacent trees. Decline - Suspected. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to ivy cover. Tree infected with ash dieback.	05/01/2022 y	28.3	3.0	10-20	C2
Tree T5	1	Fraxinus excelsior (Ash)	8.0	25	1	2.5	3.0	4.0	3.0	2.0		Mature	Structural condition Fair. Physiological condition Poor. Access to inspect base - Restricted / obscured. Competition - Adjacent trees. Die-back - Upper crown. Decline - Evident / observed. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to ivy cover. Tree infected with ash dieback.	05/01/2022	28.3	3.0	10-20	C2

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.

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TREES



Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems	N	CF				1) W N	⊠ Crown	clearance (m)	L.B. (m)	Life stage	Coudition Notes Category BS Category
Tree T6	1	Acer pseudoplatanus (Sycamore)	7.0		2	2.5		3.0	:	3.0	 2.5	0			Semi Mature	Structural condition Good.Physiological condition Good.16/09/202024.62.840+C2Access to inspect base - Not possible.Unable to inspectaaaabatree closely due to dense scrub.abaaaabab
Hedge H7	1	Crataegus monogyna (Common Hawthorn/Quick/May)	7.0	25 AVE	1							0	.0		Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded only species mix. Native boundary hedgerow. Hedgerow located on raised bank. Rejuvenation works required.05/01/2022 28.328.33.020-40B2
	1	Prunus spinosa (Blackthorn/Sloe)														
	1	Rosa canina (Dog-rose)														
	1	Rubus fruticosus s. (Blackberry/Bramble)														
	1	Sambucus nigra (Elder)														

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.

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TREES



Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems	N) 1 W	NW	Crown clearance (m)	L.B. (m)	Life	e stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H8	1	Crataegus monogyna (Common Hawthorn/Quick/May) Prunus spinosa (Blackthorn/Sloe)	6.0		1						0.0			ature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded, only species mix. Native boundary hedgerow. Large sections of hedgerow are overgrown with brambles. Trees located on both sides of the ditch. Cluster of trees on southern side have suffered extensive fire damage.	05/01/2022	10.2	1.8	20-40	C2
	1	Rosa canina (Dog-rose)																		
	1	Rubus fruticosus s. (Blackberry/Bramble)																		
	1	Sambucus nigra (Elder)																		

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.

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TREES

Generated By tree management software

Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems	5	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H9	1 1 1 1 1	Acer pseudoplatanus (Sycamore) Crataegus monogyna (Common Hawthorn/Quick/May) Prunus spinosa (Blackthorn/Sloe) Rosa canina (Dog-rose) Rubus fruticosus s. (Blackberry/Bramble) Sambucus nigra (Elder)	7.0	25 AVE	1		0.0		Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded only species mix. Native boundary hedgerow. Hedgerow mainly on far side of the ditch.	05/01/2022	28.3			B2
Hedge H10	1 1 1	Crataegus monogyna (Common Hawthorn/Quick/May) Prunus spinosa (Blackthorn/Sloe) Rubus fruticosus s. (Blackberry/Bramble) Sambucus nigra (Elder)	5.5	20 AVE	1		0.0		Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded, only species mix. Native boundary hedgerow. Section of hedgerow overgrown with brambles.	05/01/2022	18.1	2.4	20-40	C2

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

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.

The survey information in this schedule has been gathered following a BS5837 survey for planning

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Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems				(m) N W NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Group G11	1 1 1 1	Crataegus monogyna (Common Hawthorn/Quick/May) Prunus spinosa (Blackthorn/Sloe) Rubus fruticosus s. (Blackberry/Bramble) Salix sp. (Willow sp.) Sambucus nigra (Elder)	7.0		1					0.0			Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded only species mix. Neglected area heavily overgrown in willow and blackthorn.		18.1	2.4	20-40	C2
Tree T12	1	Fraxinus excelsior (Ash)	17.0	86 COM	3	8.5	9.0	7.5	8.5	3.0		Mature	Structural condition Fair. Physiological condition Fair. Acces to inspect base - Not possible. Arboricultural work - Historic. Branch - Broken. Coppice stool - Coppice origin / Mature stems. Deadwood - Minor. Decay / structural defect - Suspected. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree located at a lower level within the ditch. Unable to inspect tree closely due to ivy cover. Ownership of tree unknown.	s 05/01/2022	339.3	10.4	10-20	C2
Tree T13	1	Fraxinus excelsior (Ash)	17.0	77 COM	3	8.0	8.0	5.5	8.0	2.0		Mature	Structural condition Fair. Physiological condition Poor. Access to inspect base - Restricted / obscured. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Minor. Tree is infected with ash dieback. Unable to inspect tree closely due to dense scrub.	05/01/2022	269.1	9.3	0-10	U

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

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.

The survey information in this schedule has been gathered following a BS5837 survey for planning

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TREES tree management software



Tree ID	No	. Species	Height (m)	Stem diameter (cm)	No. of Stems			EAD (m)	w	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H14	1	Crataegus monogyna (Common Hawthorn/Quick/May)	7.0	25 AVE	1					0.0			Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded only species mix. Native boundary hedgerow.	05/01/2022	28.3	3.0	20-40	B2
	1	Prunus spinosa (Blackthorn/Sloe)																
	1	Rosa canina (Dog-rose)																
	1	Rubus fruticosus s. (Blackberry/Bramble)																
	1	Sambucus nigra (Elder)																
Tree T15	1	Fraxinus excelsior (Ash)	18.0	68 COM	2	2.0	 7.0	7.0	7.0	4.0		Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Die-back - Upper crown. Decline - Suspected. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree appears to be growing on bank which is higher than the site.	\$ 05/01/2022	209.2	8.2	10-20	C2
Tree T16	1	Fraxinus excelsior (Ash)	18.0	63 COM	2	7.0	 5.0	5.0	6.0	2.0		Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree appears to be growing on bank which is higher than the site.	\$ 05/01/2022	183.2	7.6	10-20	C2

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.

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Tree ID	Nc	b. Species	Height (m)	Stem diameter (cm)	No. of Stems		ROWN SPRE		NW	Crown clearance (m)	L.B. (m)	Life stage		RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T17	1	Fraxinus excelsior (Ash)	14.0		1	3.0	4.5	2.0	1.0	4.0		Early Mature	Structural condition Fair. Physiological condition Fair. Access 05/01/2022 4 to inspect base - Not possible. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Leaning trunk - Minor. Suppressed crown - Major. Unbalanced crown - Major. Unable to inspect tree closely due to dense scrub.	10.7	3.6	10-20	C2
Tree T18	1	Fraxinus excelsior (Ash)	9.0	30	1	4.0	5.0	1.0	1.0	4.0		Early Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Shedding limb / limbs - Major. Storm damage. Suppressed crown - Major. Unbalanced crown - Major. Unable to inspect tree closely due to dense scrub. Top of tree has failed.05/01/20224	0.7	3.6	0-10	U
Tree T19	1	Fraxinus excelsior (Ash)	16.0	60	1	4.0	6.0	6.0	6.0	3.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Not possible. Competition - Adjacent trees. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree is infected with ash dieback.	62.9	7.2	0-10	U
Tree T20	1	Fraxinus excelsior (Ash)	17.0	60	1	4.0	5.0	4.0	7.0	3.0		Mature	Structural condition Fair. Physiological condition Poor. 05/01/2022 1 Access to inspect base - Not possible. Competition - Adjacent trees. Die-back - Upper crown. Decline - Evident / observed. Deadwood - Minor. Ivy or climbing plant. 05/01/2022 1 Suppressed crown - Minor. Unable to inspect tree closely due to dense scrub. Tree is infected with ash dieback. 05/01/2022 1	62.9	7.2	0-10	U
Tree T21	1	Fraxinus excelsior (Ash)	16.0	60	1	5.0	5.0	4.0	6.0	4.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Not possible. Competition - Adjacent trees. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree is infected with ash dieback.	62.9	7.2	0-10	U

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.

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Generated By



Printed on 12/03/22 (BS5837 Tree Schedule (with recs) - tables)

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	N	CROWN		0 (m) SW W NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T22	1 Fraxinus excelsior (Ash)		60	1	5.0	3.0	6.0	5.0	4.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Not possible. Competition - Adjacent trees. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree is infected with ash dieback.	05/01/2022	162.9	7.2	0-10	U
Tree T23	1 Fraxinus excelsior (Ash)	17.0	70	1	7.0	8.0	7.0	5.0	4.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Not possible. Competition - Adjacent trees. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Minor. Ivy or climbing plant. Unable to inspect tree closely due to dense scrub. Tree is infected with ash dieback.	05/01/2022	221.7	8.4	0-10	U
Hedge H24	 Crataegus monogyna (Common Hawthorn/Quick/May) Prunus spinosa (Blackthorn/Sloe) 	5.0	15 AVE	1					0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Neglected / overgrown. Height and stem diameter are average for group. Quantities not recorded - only species mix. Native boundary hedgerow consisting mainly of self-seeded blackthorn and early-mature hawthorn.Hedgerow is a borderline C/B Category.	05/01/2022	10.2	1.8	20-40	C2
	1 Rosa canina (Dog-rose)																
	1 Rubus fruticosus s. (Blackberry/Bramble)																
	1 Sambucus nigra (Elder)																

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.

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Table 1 of BS5837 (2012)

Table 1 of BS5837 (2012) Cascad	te chart for tree quality assessment									
Category and definition	Criteria (including subcategories	where appropriate)	Identificati	ion on plan						
Trees unsuitable for retention (see not	e)									
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land us for longer than 10 years	 including those that will become unviloss of companion shelter cannot be Trees that are dead or are showing s Trees infected with pathogens of sign suppressing adjacent trees of better 	 Trees that have a serious, irremediable, 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 NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4. 								
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation							
Trees to be considered for retention										
Category A	Tree that are particularly good examples of	Trees, groups or woodlands of particular	Trees, groups or	GREEN						
Trees of high quality	their species, especially if rare or unusual; or those that are essential components of	visual importance as arboricutural and/or landscape features.	woodlands of significant conservation, historical,	ONLEN						
with an estimated remaining life expectancy of at least 40 years	groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).		commemorative or other value (e.g. veteran trees or wood-pasture).							
Category B	Trees that might be included in category A,	Trees present in numbers, usually growing	Trees with material	BLUE						
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	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.	as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	conservation or other cultural value.	BLUL						
Category C	Unremarkable trees of very limited merit or	Trees present in groups or woodlands, but	Trees with no material	GREY						
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	such impaired condition that they do not qualify in higher categories.	without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	conservation or other cultural value.							

200902-PD-12 - Planning Tree Works Schedule

200902 - Fosterstown North SHD

ID	No.	/ Species	BS5837 Category	Purpose of works Recommended works	Status
H1	1	<i>Rubus fruticosus s.</i> Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
	1	<i>Sambucus nigra</i> Elder			
T2	1	<i>Fraxinus excelsior</i> Ash	C2	Good arboricultural practice Remove faulted stem / stems. Remove eastern leaning stem. Good arboricultural practice Climbing plant - Sever.	Proposed
		<u> </u>			FTOPOSEU
H3	1	<i>Crataegus monogyna</i> Common Hawthorn/Quick/May <i>Fraxinus excelsior</i> Ash	B2	Landscape improvement Reduce crown by - Specified extent. Reduce lateral growth of hedgerow as highlighted on the Tree Works Plan to facilitate the development.	Proposed
	1	<i>Rosa canina</i> Dog-rose			
	1	<i>Rubus fruticosus s.</i> Blackberry/Bramble			
	1	<i>Salix caprea</i> Goat Willow/Great Sallow			
	1	Sambucus nigra Elder			
T4	1	Fraxinus excelsior	C2	Good arboricultural practice	
		Ash		Climbing plant - Sever.	Proposed
T5	1	Fraxinus excelsior	C2	Good arboricultural practice	
		Ash		Climbing plant - Sever.	Proposed
H7	1	Crataegus monogyna Common Hawthorn/Quick/May Prunus spinosa Blackthorn/Sloe	B2	To facilitate development Fell - Ground level. Section of hedgerow to be removed to facilitate proposed cycle path and footpath link to neighbouring housing estate.	Proposed
	1	Rosa canina Dog-rose			
	1	Rubus fruticosus s. Blackberry/Bramble			
	1	Sambucus nigra			

Elder



ID	No	. / Species	BS5837 Category	Purpose of works Recommended works	Status
H8	1	<i>Crataegus monogyna</i> Common Hawthorn/Quick/May <i>Prunus spinosa</i> Blackthorn/Sloe	C2	To facilitate development Fell - Ground level. Part removal of group as shown on Tree Works Plan.	Proposed
	1	<i>Rosa canina</i> Dog-rose			
	1	<i>Rubus fruticosus s.</i> Blackberry/Bramble			
	1	<i>Sambucus nigra</i> Elder			
H24	1	<i>Crataegus monogyna</i> Common Hawthorn/Quick/May <i>Prunus spinosa</i> Blackthorn/Sloe	C2	To facilitate development Fell - Ground level.	Proposed
	1	<i>Rosa canina</i> Dog-rose			
	1	<i>Rubus fruticosus s.</i> Blackberry/Bramble			
	1	<i>Sambucus nigra</i> Elder			



Appendix B - Plans

Document	Reference	Revision
Tree Survey Plan	200902-P-10	А
Tree Works Plan	200902-P-11	-
Tree Protection Plan	200902-P-12	-





This drawing is to be read in conjunction with the respective arboricultural schedules and reports relevant to this project. Where contradictions between this drawing and any other design information becomes apparent, the respective authors should be contacted immediately. It is the responsibility of the main site contractor to check and verify all information and measurements onsite and confirm prior to the commencement of works, and to ensure that all site operatives work in accordance with respective arboricultural reports and BS5837:2012, Trees in relation to design, demolition and construction. BS5837:2012 Tree Categorisation <u>Category A</u> Trees of high quality with an estimated remaining life expectancy of at least 40 years 0 <u>Category B</u> Trees of moderate quality with an estimated life expectancy of 0 at least 20 years <u>Category C</u> Trees of low quality with an estimated life expectancy of at 0 least 10 years, or young trees with a stem diameter below 150mm Category U Those in such a condition that they cannot realistically be 0 retained as living trees in the context of the current land use for longer than 10 years <u>Key</u> Root Protection Areas The minimum area around a tree deemed to contain sufficient roots and rooting volume to $^{
m J}$ maintain the trees viability. Tree, Shrub or Hedgerow Group. Reference Number for Tree, Group or Hedgerow. **T**3 Area of the proposed development. Trees and hedgerows to be removed to facilitate development shown dashed and shaded grey. Extent of hedgerow to be reduced highlighted in

hatched orange.

0 5m	10m	20m	30m	40m	50m
Revision Da	ate Desc	cription			
Title:					
Tre	e Worł	ks Plan			
Project: Fos	sterstov	vn North	SHD		
Client:	Murphy	(Develo	pments	s) Limite	d
Date:	Mar 2022	Scale: 1:500 @		atus: Planning	
Drawn by: Checked by	CMcC y: CMcC	Dwg ref: 200902-F			ev:
client and proje	ect as stated above Charles McCorkell	harles McCorkell Arbo . The drawing may no Arboricultural Consulta	t be reproduced or	amended, except by	the written
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