

Arboricultural Report

Tree Survey,
Arboricultural Impact Assessment &
Arboricultural Method Statement

In relation to the development proposal at:

Islandbridge
Dublin 8

June 2023

220123-PD-11-B

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Section 1: Arboricultural Impact Assessment

1 Summary

- 1.1 This arboricultural report has been instructed by Dublin City Council (the 'Applicant').
- 1.2 The proposal is for the instalment of a pontoon and a walkway on a small island on the River Liffey at Islandbridge, Dublin 8. (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 is achievable in both arboricultural terms and in relation to local planning policy as it relates to trees. In total, three C Category trees and two B Category trees are required to be removed to facilitate the development and 7 poor quality U Category trees are required to be removed for arboricultural reasons.
- 1.5 The removal of trees has been assessed and is not deemed to be significant. A replacement tree planting strategy that will include the planting of 17 new high-quality trees and 10 large growing shrubs has been proposed. In the medium term, this planting will mitigate the loss of trees and canopy cover on the island and improve the diversity of species.
- 1.6 The proposed development requires working operations to be carried out within the RPAs of retained trees. Each of these works has been assessed and can be addressed as outlined within this report using sensitive design and construction measures.
- 1.7 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 Dublin City Council, to provide information to assist all parties involved in the planning process to make balanced judgements with regard to the arboricultural features in relation to the instalment of a pontoon on a small island at Islandbridge, Dublin 8.

Development proposal

- 2.2 The proposal is for the instalment of a pontoon and a walkway on a small island on the River Liffey at Islandbridge, Dublin 8.

Qualification and experience

- 2.3 This report has been prepared by Charles McCorkell. Charles is a Chartered Arboricultural Consultant who deals 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 is not a health and safety inspection 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 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 in order 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	N/A	Section 2
Tree Schedule	220123-PD-10	Appendix A
Tree Work Schedule	220123-PD-12	Appendix A
Tree Survey Plan	220123-P-10	Appendix B
Tree Removals Plan	220123-P-11	Appendix B
Tree Protection Plan	220123-P-12	Appendix B
Tree Planting Plan	220123-P-13-A	Appendix B
Cellular Confinement System	-	Appendix C

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 Application Site was visited by Charles McCorkell on 9 February 2022, to survey trees that 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 a small island located on the River Liffey (Map 1). It is accessed on foot from the Bellevue apartment complex to the east. To the south of the island is the Irish National War Memorial Gardens and to the north, beyond Chapelizod Road, is the Phoenix Park. There are a number of residential properties along Chapelizod Road that look out onto the river and are immediately north of the island.
- 3.3 The island is currently used by rowers to access the lower section of the River Liffey. Rowers use an existing slip on the southern side of the island and carry their boats to a cutout section of the bank on the northern side. From this area, they can access the lower section of the River Liffey.
- 3.4 The tree cover on the island is dominated by early-mature and mature sycamore, with a select number of willow and ash.



Map 1 (Google 2022): Dashed yellow line showing the location of the island and area where the tree survey was carried out.

Views of the site and trees



Photo 1: View of the island from the OPW carpark which is suited to the south of the River Liffey.



Photo 2: View of the existing footbridge and southern side of the island.



Photo 3: View of the existing track through the island that is currently used by rowers.



Photo 4: Section of the steel walkway that is required to be removed prior to the construction of the new walkway.



Photo 5: View showing the current point that rowers return to the water on the northern side of the island. Note the surface rooting from the trees.



Photo 6: View showing the trees on the northern side of the island.

4 Local Planning Policy

Development Plan 2022 - 2028

- 4.1 Dublin City Council's Development Plan 2022-2028 (adopted 14th December 2022) contains a number of policies that relate to trees. These include:

Section 10.5.7 Trees

GI40 - Tree Planting - General

To require appropriate and long-term tree and native hedgerow planting in the planning of new development, urban spaces, streets, roads and infrastructure projects. New development should seek to provide for additional tree planting using a diversity of species including native species as appropriate to the location of the development in the interests of natural heritage, amenity, environmental quality and climate resilience.

GI41 – Protect Existing Trees as Part of New Development

To protect existing trees as part of new development, particularly those that are of visual, biodiversity or amenity quality and significance. There will be a presumption in favour of retaining and safeguarding trees that make a valuable contribution to the environment.

GIO41 - Dublin City Tree Strategy 2016

To support the implementation of the Dublin City Tree Strategy 2016 and any future revision thereof, which sets a vision for the long-term planting, protection and maintenance of trees, hedgerows and woodlands within Dublin City.

Dublin Tree Strategy 2016-2020

- 4.2 The Dublin City Tree Strategy 2016-2020 is referenced several times within the council's Development Plan and contains a number of policies within Section 3.3 that relate to trees and development. These include:

- **3.31 Protection of Existing Trees** - Dublin City Council will consider the protection of existing trees when granting planning permission for developments and will seek to ensure maximum retention, preservation and management of important trees, groups of trees and hedges.
- **3.3.2 Information to accompany planning applications** - Where there are trees within an application site, or on land adjacent to it that could influence or be affected by proposed development (including street trees), the planning application must

include a detailed submission prepared by a suitably qualified Arboriculturist in accordance with BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations'.

- **3.3.5 Tree Planting integral to Development** - Dublin City Council will encourage and promote tree planting in the planning and design of private and public developments.

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

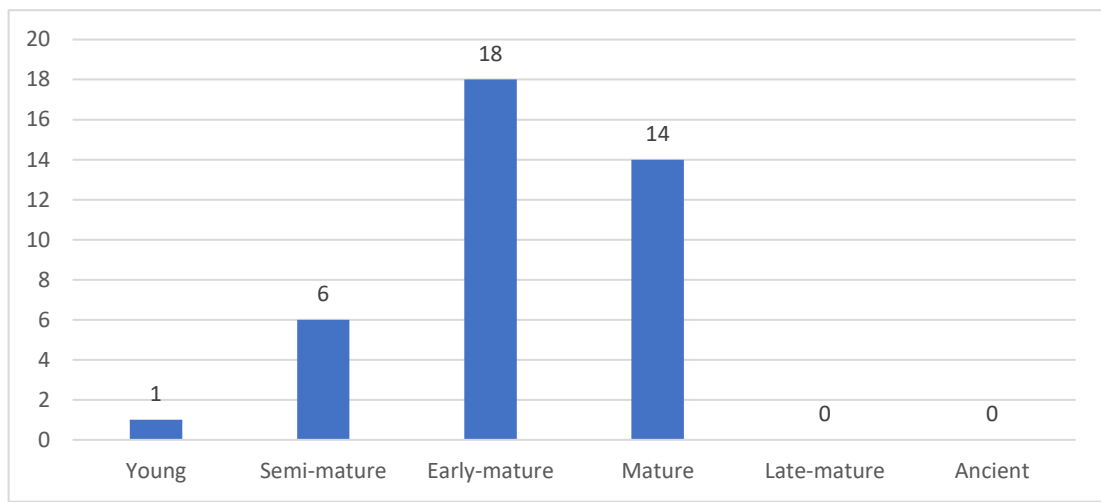


Figure 1: Life stage analysis of the 39 survey entries recorded.

BS5837 (2012) category breakdown

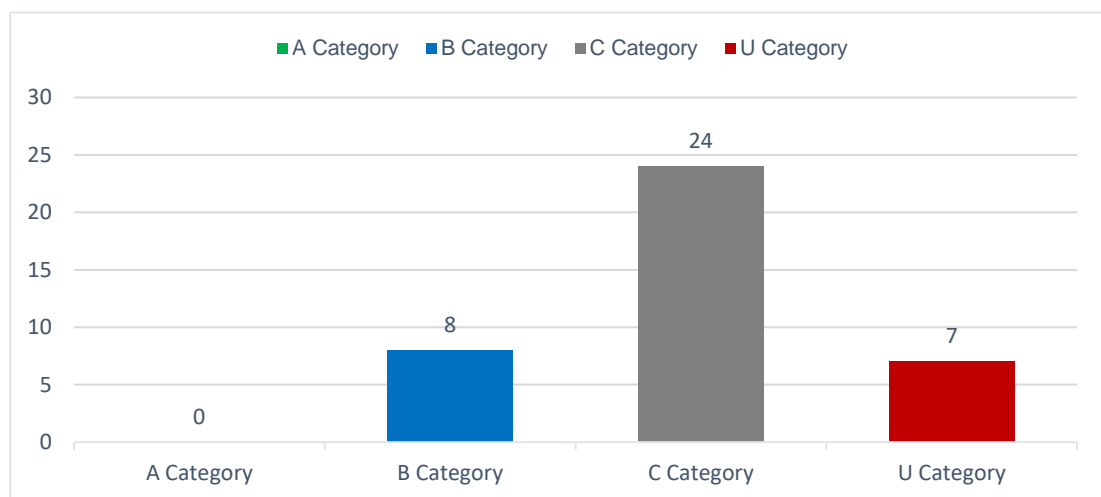
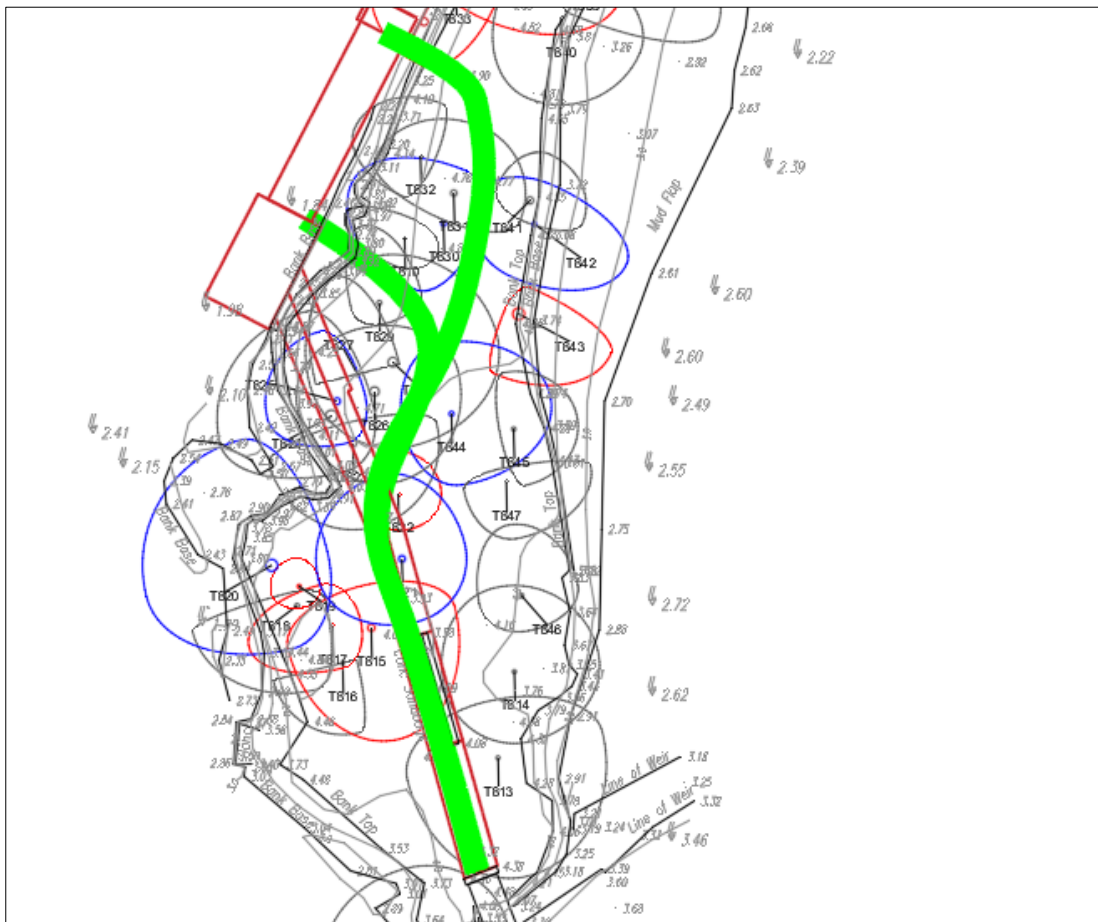


Figure 2: Breakdown of BS5837:2012 categories of the 39 survey entries recorded.

6 Analysis of the Proposal in Respect of Trees

Arboricultural Impacts

- 6.1 **Loss of trees** – The construction of the proposed walkway that provides a link for rowers to carry their boats from the existing slip on the southern side of the island to the proposed pontoon on the northern side of the island will require the removal of two B Category trees (T821 & T825) and three C Category trees (T823, T824, T827).
- 6.2 The final location of the proposed walkway was discussed with the project architects. Alternative options were considered; however, the current proposal was the preferred option as it is the route that is currently used by rowing clubs, and it provides the best staging point for accessing the river and locating the pontoon.



Map 2: Alternative options that were discussed with the architects highlighted in green.

- 6.3 The proposed loss of the five trees required to facilitate the walkway is not considered to be significant. The trees are not of high quality and although their loss will have an initial impact on the island's visual appearance and canopy cover, the overall impact on the wider local landscape will be minimal.

- 6.4 In addition to these tree removals, it is recommended that 7 U Category trees (T815, T817, T819, T822, T833, T834, T843) are removed for arboricultural reasons due to their poor condition and limited future life expectancy. Three of these trees (T833, T834, T843) will only be felled to a specified height and their main stem will be retained for habitat and biodiversity reasons.
- 6.5 There are known invasive species on the site. It is therefore required that prior to any tree removals or works commencing, the appointed tree surgeon must consult with the invasive treatment specialist.
- 6.6 For full details on the proposed tree removals, please refer to the Tree Work Schedule at Appendix A and the Tree Removal Plan at Appendix B. Figure 3 below shows a breakdown of the proposed removals in comparison with the total number of trees assessed.

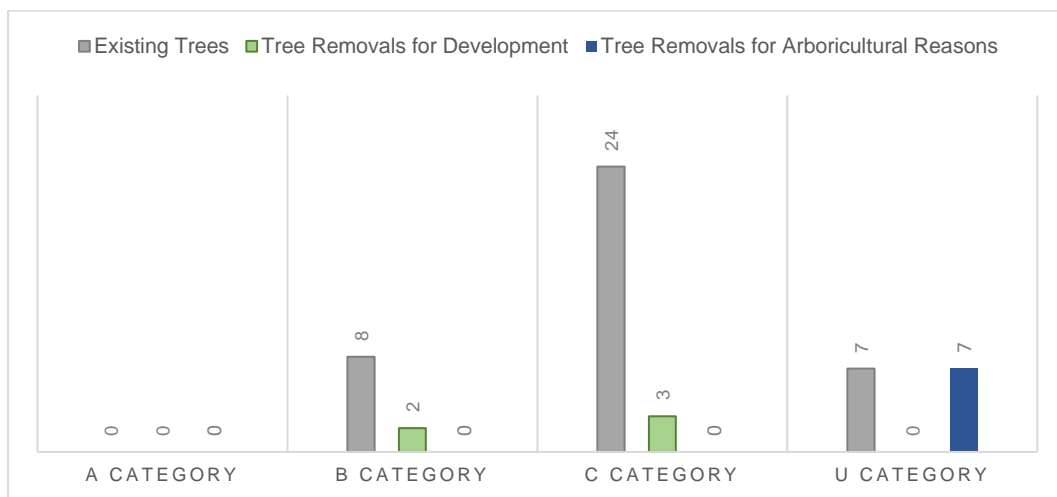
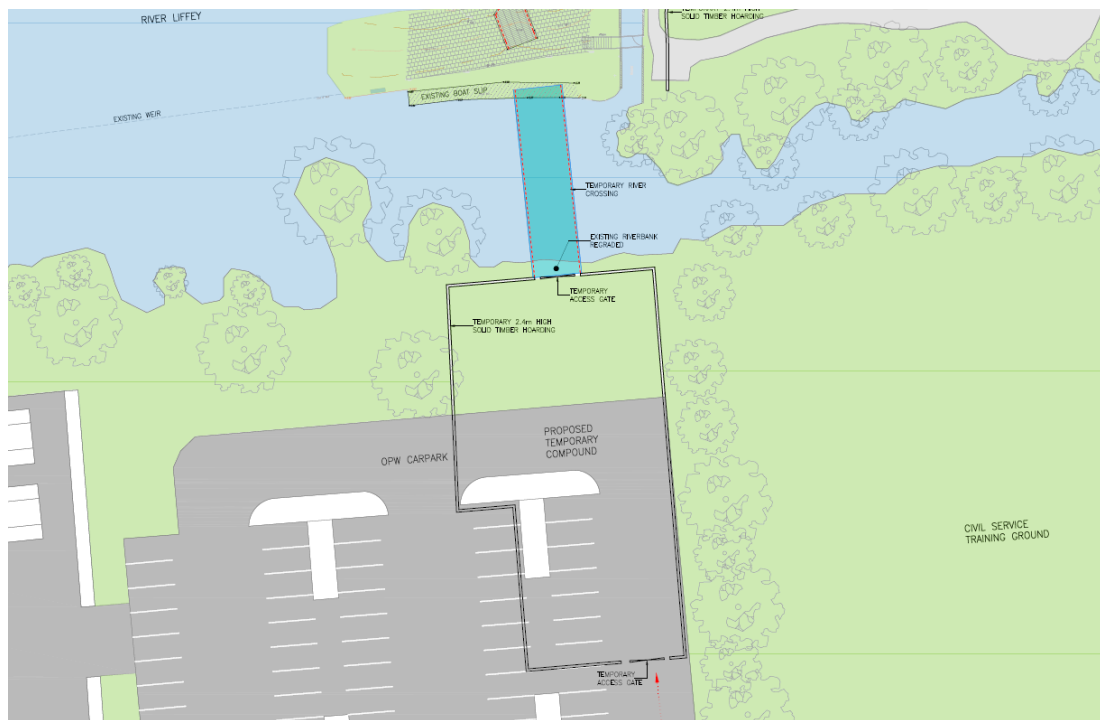


Figure 3: Proposed removals in comparison to the total number of survey entries recorded and their category in accordance with BS5837.

- 6.7 **Pruning works** – Pruning works have been recommended both to facilitate development and for arboricultural reasons. These are detailed within the Tree Work Schedule at Appendix A.
- 6.8 The pruning works required to facilitate the development will involve crown lifting and reducing lower laterals to provide sufficient clearance to allow access for a lightweight machine during construction. These works will also provide clearance for rowers using the island post-development.
- 6.9 The specified works are not considered to be significant or likely to have a detrimental impact on the health or visual appearance of the trees concerned.
- 6.10 **Compound area and site access** – The site compound area proposed is located within the OPW car park on the southern side of the River Liffey, refer to Map 3. This

area will need to be marked out on site with the arboricultural consultant to ensure that it does not impact the rooting environment of any retained trees.

- 6.11 A temporary causeway constructed using pre-filled stone gabions or rock-filled bags will be installed to provide a crossing point for lightweight machinery from the compound area to the southern section of the island. This crossing is required to be positioned outside the RPA of retained tree T596.



Map 3: Image taken from the Malone O'Regan Consulting Engineers Construction Methodology report which shows the proposed compound area and site access.

- 6.12 **Advanced works** – Ground investigations will be required in advance of the main contract. This will include driving a single borehole to identify the nature of the underlying soils.
- 6.13 Malone O'Regan Consulting Engineers have provided four options for the location of the borehole, one of which is on the Island. If this option is selected, the location must be agreed upon with the arboricultural consultant and the appropriate tree protection measures must be installed prior to works commencing.
- 6.14 **Construction operations** – The proposed development works required with the RPAs of the retained trees are highlighted on the Tree Protection Plan at Appendix B.
- 6.15 The pontoon to be constructed will be supported by 2 no. tubular steel piles (subject to site investigations). These piles will be installed from a barge within the river and will therefore have a negligible impact on the retained trees and their rooting environment.

- 6.16 The pontoon is proposed to be constructed using a number of precast concrete caisson elements with an above concrete slab to create a solid top platform. The works will require some local excavation of the riverbank and the transport of materials such as concrete from the southern side of the island. Where possible, materials and working operations should be undertaken from a barge to reduce the impact on the retained trees. Any machinery required to access the pontoon via the island must be lightweight (< 2T) and tracked and operate on ground protection at all times.
- 6.17 If possible, the proposed walkway should be constructed prior to the pontoon and used as a suitable area of ground protection for machinery. Prior to the construction of the walkway, the removal of the footbridge and steel walkway panels is required. As stated above, if machinery is required to operate within the RPAs of retained trees to carry out these works, they must operate on suitable ground protection measures.
- 6.18 The proposed walkway is required to be constructed using methods of no-dig above the existing ground levels on the island. The existing track through the island shows that surface rooting is present and that the ground levels vary considerably.
- 6.19 A layer of soil or lawn sand may be required across the route of the walkway prior to installing the no-dig system in order to provide an even base level. The finishing material on the walkway will consist of Dycel precast concrete mattress units, which to minimise the impact on tree roots, are required to be installed above a cellular confinement system, refer to Appendix C for an example. Prior to construction works commencing, a construction detail showing the proposed walkway is required and must be approved by the arboricultural consultant.
- 6.20 ***Tree protection measures*** – Retained trees can be successfully protected during the proposed development works by using robust fencing and ground protection measures that comply with the recommendations outlined within BS5837:2012. For details of all tree protection measures required during construction operations, please refer to the Tree Protection Plan located at Appendix B.

Arboricultural mitigation

- 6.21 A tree replacement planting plan has been produced and is shown at Appendix B. It proposes the planting of 17 new high-quality trees and 10 large growing shrubs. In the medium term, these trees and shrubs will mitigate the loss of the trees required to be removed, whilst improving the diversity of species across the island.

7 Discussion & Conclusion

General Change

- 7.1 The proposed loss of trees has been assessed and will not have a significant visual impact on the character and appearance of the wider local landscape. The development proposal has taken into consideration the loss of these trees and has proposed new planting that is suitable to the local habitat and will replace the canopy cover lost whilst improving the diversity of species on the island.

Arboricultural impacts

- 7.2 Constraints posed by trees have been assessed and where impacts occur, these have been identified specifically in this report and can be addressed using sensitive design and construction measures.
- 7.3 The protection of retained trees on this site during the proposed development works can be achieved by continuing to follow the recommendations in BS5837:2012 and through arboricultural supervision at key stages of construction.

Proposal in relation to local planning policy

- 7.4 The proposed development complies with local planning policies as they relate to trees. Tree removals are required and their loss and the impact it will have on the local area have been assessed and mitigation measures recommended.
- 7.5 The proposal has been assessed in accordance with best practice BS 5837:2012 and, provided the recommendations as detailed within this report are followed, retained trees can be successfully protected for the duration of construction.

Conclusion

- 7.6 Retained trees can be successfully protected during the development by following the information provided within this report and adhering to industry best practice.
- 7.7 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.

8 Recommendations

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

Tree Protection

- 8.2 Tree protective barriers and ground protection measures should be installed during the development as detailed on the Tree Protection Plan at Appendix B.
- 8.3 The protective fencing measures and ground protection 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 and ground protection is in place.
- 8.5 Engineering details of the proposed walkway within tree RPAs must be designed to comply with BS5837:2012. This must be reviewed and agreed in advance of any construction works commencing on site by the arboricultural consultant.
- 8.6 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.

Tree Works

- 8.7 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.
- 8.8 Prior to any tree removals or works commencing, the appointed tree surgeon must consult with the invasive treatment specialist associated with the project.

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.
- Construction.
- Landscaping.

Alternative sequences can be discussed and agreed upon 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 the site manager and parks department;
- Inspection of tree works and tree protection measures prior to the commencement of works;
- Supervision during the construction of the walkway within tree RPAs;
- Supervision during any local excavation works along the riverbank;
- Monthly site visits to inspect tree protection measures;
- Supervision during all working operations within tree RPAs; and
- Tree inspection upon completion.

Arboricultural Method Statement	
Scope	Methodology
Pre-commencement meeting	<p>Prior to the commencement of works, a meeting between the arboricultural consultant, site manager, and local authority parks department will be held in order to discuss the tree protection measures, site compound, and all proposed works required in close proximity to trees.</p> <p>Contact details of all parties will be circulated to ensure all team members are able to communicate correctly.</p> <p>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.</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. 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>
Tree Protection	<p>The position of tree protection measures are shown on the Tree Protection Plan at Appendix B.</p> <p>Protective fencing will be constructed and installed in accordance with BS5837:2012, please refer to the Tree Protection Plan for the specification. Alternatives to those shown must be agreed in advance by the arboricultural consultant.</p>

	<p>Any machinery located within tree RPAs must operate on the appropriate ground protection at all times, this will include the installation and removal of ground protection.</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 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 without the prior consent of the arboricultural consultant.</p>
<p>Area of No-Dig Construction</p>	<p>The proposed walkway within the RPAs of retained trees is required to be constructed above ground level using a cellular confinement system, or similar approved. These works will be carried out under arboricultural supervision using the following methodology;</p> <p>The proposed area will be marked out on site and if leveling is required, this will be carried out through the spreading of lawn sand or good quality topsoil. No excavation works will occur.</p> <p>Once leveled, the area will be covered by a permeable membrane onto which the cellular system will be laid. This will then be infilled with 20-40mm angular non-fine aggregate and edged with pressure-treated pegged timber board or similar.</p> <p>The finishing surface layer will consist of Dycel precast concrete mattress units.</p> <p>The system must be installed in accordance with the manufactures specification.</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 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</p>

	<p>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>
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Appendix A - Schedule

Document	Reference	Revision
Tree Schedule	220123-PD-10	-
Tree Work Schedule	220123-PD-12	-

220123 - Islandbridge, Dublin 8

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (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 T596	1 Acer pseudoplatanus (Sycamore)	16.0	75	1	6.0	7.5	5.0	5.0				2.0		Mature	Structural condition Fair. Physiological condition Good. Ivy or climbing plant. Tree is located on neighbouring site.	09/02/2022	254.5	9.0	20-40	B2	
Tree T810	1 Acer platanoides (Norway Maple)	6.0	10	1		1.5	2.5	2.0	4.5			0.0		Young	Structural condition Good. Physiological condition Good.	09/02/2022	4.5	1.2	20-40	C2	
Tree T811	1 Salix alba (White Willow)	11.0	24 COM	4	3.0	4.0	3.5	3.5				0.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Recent. Fork - Weak with included bark. Multi-stemmed.	09/02/2022	26.1	2.9	10-20	C2	
Tree T812	1 Salix alba (White Willow)	13.5	52 COM	7	5.5	6.0	6.0	7.0				0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Fallen tree / trees - Partial collapse. Root plate movement - Historic (suspected stabilised). Tree has partially uprooted but has stabilised and is in fair condition.	09/02/2022	126.7	6.3	10-20	C2	
Tree T813	1 Acer pseudoplatanus (Sycamore)	17.0	88 COM	5	4.0	7.5	8.5	6.5				2.5		Mature	Structural condition Fair. Physiological condition Fair. Epicormic growth - Base. Exposed crown - Historic. Fork - Weak with included bark. Ivy or climbing plant. Multi-stemmed. Unbalanced crown - Minor. Congested stems with weak unions at the base.	09/02/2022	356.3	10.6	20-40	C2	
Tree T814	1 Acer pseudoplatanus (Sycamore)	14.0	55 COM	5	6.0	6.0	5.0	5.0				2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Decay / structural defect - Base. Ivy or climbing plant. Multi-stemmed. Two stems on easternmost side have decay at the base and are in decline.	09/02/2022	141.4	6.7	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.

220123 - Islandbridge, Dublin 8

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (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 T815	1 Acer pseudoplatanus (Sycamore)	18.0	87 COM	3	3.0		6.0		8.0		6.0		2.5		Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Decay / structural defect - Base. Decay / structural defect - Open cavity / cavities. Multi-stemmed. Root decay - Evident / observed. Raised surface roots. Exposed roots. Significant decay at the base of two southern stems, likely progressing into union and is weakening the attachment.	09/02/2022	345.3	10.5	0-10	U
Tree T816	1 Acer pseudoplatanus (Sycamore)	10.0	24	1	0.0		1.0		5.0		5.0		1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Leaning trunk - Minor. Suppressed crown - Major. Unbalanced crown - Major.	09/02/2022	26.1	2.9	10-20	C2
Tree T817	1 Acer pseudoplatanus (Sycamore)	17.0	51 COM	4	3.0		2.0		3.0		6.0		4.0		Early Mature	Structural condition Fair. Physiological condition Poor. Competition - Adjacent trees. Die-back - Upper crown. Decline - Suspected. Deadwood - Minor. Multi-stemmed.	09/02/2022	118.3	6.1	0-10	U
Tree T818	1 Acer pseudoplatanus (Sycamore)	17.0	50 COM	2	1.0		2.0		6.0		7.5		2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Epicormic growth - Base. Fork - Weak with included bark.	09/02/2022	116.8	6.1	20-40	C2
Tree T819	1 Acer pseudoplatanus (Sycamore)	17.0	25	1	2.0		1.5		1.5		2.0		12.0		Early Mature	Structural condition Poor. Physiological condition Fair. Form - Small sail area / crown extent. Main stem is contorted at the base and has a poor stem-to-height ratio. Stem failure likely.	09/02/2022	28.3	3.0	0-10	U
Tree T820	1 Acer pseudoplatanus (Sycamore)	18.0	80	1	9.0		4.0		6.0		9.0		2.0		Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Unbalanced crown - Minor.	09/02/2022	289.5	9.6	20-40	B2
Tree T821	1 Acer pseudoplatanus (Sycamore)	18.0	56 COM	2	6.0		4.5		4.5		6.0		2.0		Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor.	09/02/2022	144.9	6.8	20-40	B2
Tree T822	1 Ulmus procera (English Elm)	11.0	15	1	3.0		3.0		2.5		2.0		0.0		Semi Mature	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Dutch elm disease.	09/02/2022	10.2	1.8	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.

220123 - Islandbridge, Dublin 8

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (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 T823	1 Acer pseudoplatanus (Sycamore)	18.0	43	1	1.5		6.0		6.0		6.0		5.0		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Decay / structural defect - Base. Decay / structural defect - Open cavity / cavities. A large open cavity that has formed from a pruning wound is located on the eastern side of the stem base.	09/02/2022	83.6	5.2	10-20	C2
Tree T824	1 Acer pseudoplatanus (Sycamore)	18.0	80	1	7.5		3.0		4.0		8.0		5.0		Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Fork - Weak with included bark. Leaning trunk - Minor. Suppressed crown - Minor. Unbalanced crown - Major.	09/02/2022	289.5	9.6	20-40	C2
Tree T825	1 Acer pseudoplatanus (Sycamore)	18.0	42	1	5.0		2.0		3.0		5.0		11.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor.	09/02/2022	79.8	5.0	20-40	B2
Tree T826	1 Acer pseudoplatanus (Sycamore)	20.0	61	1	4.5		6.0		6.5		5.5		6.0		Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Fork - Weak with included bark. Ivy or climbing plant. Bark dysfunction at weak included union at 5m.	09/02/2022	168.3	7.3	10-20	C2
Tree T827	1 Acer pseudoplatanus (Sycamore)	17.0	33	1	7.0		3.0		0.0		3.0		2.5		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Decay / structural defect - Base. Leaning trunk - Minor. Suppressed crown - Major. Unbalanced crown - Major.	09/02/2022	49.3	4.0	10-20	C2
Tree T828	1 Acer pseudoplatanus (Sycamore)	21.0	63	1	7.5		7.5		6.0		6.0		4.0		Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Fork - Weak with included bark. Ivy or climbing plant.	09/02/2022	179.6	7.6	20-40	C2
Tree T829	1 Acer pseudoplatanus (Sycamore)	15.0	31	1	5.5		3.0		1.5		2.0		6.0		Early Mature	Structural condition Fair. Physiological condition Fair. Bark wound - Minor. Competition - Adjacent trees. Deadwood - Minor. Suppressed crown - Minor. Unbalanced crown - Minor.	09/02/2022	43.5	3.7	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

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220123 - Islandbridge, Dublin 8

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (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 T830	1 Acer pseudoplatanus (Sycamore)	18.0	54 COM	2		4.0		2.5		5.0		7.0	2.5		Early Mature	Structural condition Fair. Physiological condition Good. Fork - Weak with included bark.	09/02/2022	132.1	6.5	20-40	B2
Tree T831	1 Fraxinus excelsior (Ash)	19.0	38	1		5.0		5.0		2.0		6.0	6.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Leaning trunk - Minor. Root plate movement - Historic (suspected stabilised).	09/02/2022	65.3	4.6	10-20	C2
Tree T832	1 Acer pseudoplatanus (Sycamore)	8.0	19	1		4.0		1.0		3.0		5.0	2.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Ivy or climbing plant. Suppressed crown - Minor.	09/02/2022	16.3	2.3	20-40	C2
Tree T833	1 Acer pseudoplatanus (Sycamore)	17.0	83 COM	3		6.0		3.0		6.0		6.0	2.0		Mature	Structural condition Poor. Physiological condition Poor. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Major. Decay / structural defect - Extensive. Decay / structural defect - Principal stems. Fork - Weak with included bark. Significant bark dysfunction and decay on the main stem. Tree is in decline.	09/02/2022	312.7	10.0	0-10	U
Tree T834	1 Acer pseudoplatanus (Sycamore)	18.0	86	1		9.0		8.0		5.0		8.0	3.0		Mature	Structural condition Poor. Physiological condition Fair. Bark wound - Major. Decay / structural defect - Bole. Fork - Weak with included bark. Significant bark dysfunction on the main stem.	09/02/2022	334.6	10.3	0-10	U
Tree T835	1 Acer pseudoplatanus (Sycamore)	11.0	26	1		4.0		1.0		1.0		5.0	3.0		Semi Mature	Structural condition Fair. Physiological condition Poor. Competition - Adjacent trees. Deadwood - Minor. Suppressed crown - Major. Unbalanced crown - Minor.	09/02/2022	30.6	3.1	10-20	C2
Tree T836	1 Acer pseudoplatanus (Sycamore)	18.0	90	1		8.0		9.0		4.5		8.0	1.0		Mature	Structural condition Good. Physiological condition Good. Competition - Adjacent trees. Deadwood - Minor. Unbalanced crown - Minor.	09/02/2022	366.4	10.8	20-40	B2

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.

220123 - Islandbridge, Dublin 8

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (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 T837	1 Fagus sylvatica (Common Beech)	13.0	21	1		4.0		7.0		5.0		5.0	1.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Suppressed crown - Major. The tree is growing up through the canopy of the mature sycamore. Branches are entwined. Its long-term protection is limited in this location.	09/02/2022	20.0	2.5	20-40	C2
Tree T838	1 Acer pseudoplatanus (Sycamore)	18.0	61 COM	6		3.0		7.0		5.5		7.0	4.0		Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Decay / structural defect - Localised. Fork - Weak with included bark. Ivy or climbing plant. Multi-stemmed.	09/02/2022	169.6	7.3	10-20	C2
Tree T839	1 Fraxinus excelsior (Ash)	18.0	47	1		6.0		10.0		3.0		1.0	0.0		Early Mature	Structural condition Poor. Physiological condition Fair. Leaning trunk - Major. Tree is leaning heavily over river.	09/02/2022	99.9	5.6	10-20	C2
Tree T840	1 Acer pseudoplatanus (Sycamore)	18.0	52 COM	7		4.0		6.0		6.0		4.5	2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Multi-stemmed.	09/02/2022	126.7	6.3	20-40	C2
Tree T841	1 Acer pseudoplatanus (Sycamore)	16.0	45	1		3.5		4.0		1.5		2.5	2.5		Early Mature	Structural condition Poor. Physiological condition Fair. Branch - Suspended. Competition - Adjacent trees. Decay entry points. Ivy or climbing plant. Shedding limb / limbs - Historic.	09/02/2022	91.6	5.4	10-20	C2
Tree T842	1 Acer pseudoplatanus (Sycamore)	18.0	51 COM	3		3.0		7.0		4.0		4.5	1.0		Early Mature	Structural condition Fair. Physiological condition Good. Bark wound - Minor. Competition - Adjacent trees. Ivy or climbing plant.	09/02/2022	122.1	6.2	20-40	B2
Tree T843	1 Acer pseudoplatanus (Sycamore)	16.0	80	1		2.0		7.0		4.5		1.0	2.0		Mature	Structural condition Poor. Physiological condition Poor. Die-back - Throughout crown. Decline - Evident / observed. Decay / structural defect - Base. Decay / structural defect - Extensive.	09/02/2022	289.5	9.6	0-10	U
Tree T844	1 Acer pseudoplatanus (Sycamore)	18.0	52 COM	2	5.0		7.0		5.0			3.5	5.0		Early Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Fork - Weak with included bark. Suppressed crown - Minor. Unbalanced crown - Minor.	09/02/2022	125.3	6.3	20-40	B2

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.

220123 - Islandbridge, Dublin 8

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (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 T845	1 Acer pseudoplatanus (Sycamore)	13.0	43 COM	3	4.0		4.5		4.0		1.0		2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Branch - Broken. Branch - Suspended. Competition - Adjacent trees. Ivy or climbing plant. Multi-stemmed. Suppressed crown - Minor. Unbalanced crown - Minor.	09/02/2022	85.6	5.2	20-40	C2
Tree T846	1 Sambucus nigra (Elder)	5.0	30	1	5.0		4.0		2.5		3.0		0.0		Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor.	09/02/2022	40.7	3.6	10-20	C2
Tree T847	1 Acer pseudoplatanus (Sycamore)	8.0	17 COM	3	1.0		6.0		4.0		3.0		1.5		Semi Mature	Structural condition Fair. Physiological condition Fair. Ivy or climbing plant. Multi-stemmed.	09/02/2022	13.6	2.1	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.

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, 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 <p>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7</p>			RED
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
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 particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	GREEN
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 present in numbers, usually growing 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.	Trees with material conservation or other cultural value.	BLUE
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 present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	GREY

220123-PD-12 - Planning Tree Works Schedule

220123 - Islandbridge, Dublin 8

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T811	1 <i>Salix alba</i> White Willow	C2	To facilitate development Reduce lateral limb / limbs. - Reduce lateral growth to allow the temporary removal of the existing footbridge.	Proposed
T812	1 <i>Salix alba</i> White Willow	C2	To facilitate development Reduce lateral limb / limbs. - Reduce lateral growth to allow the temporary removal of the existing footbridge.	Proposed
T813	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Lift low canopy - Specified extent. - To 3-4m above ground level over footpath.	Proposed
T814	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Lift low canopy - Specified extent. - To 3-4m above ground level over footpath. Good arboricultural practice Remove faulted stem / stems. - Remove the two stems on the eastern most side that have decay at the base and are in decline.	Proposed
T815	1 <i>Acer pseudoplatanus</i> Sycamore	U	Good arboricultural practice Fell - Ground level.	Proposed
T817	1 <i>Acer pseudoplatanus</i> Sycamore	U	Good arboricultural practice Fell - Ground level.	Proposed
T819	1 <i>Acer pseudoplatanus</i> Sycamore	U	Good arboricultural practice Fell - Ground level.	Proposed
T821	1 <i>Acer pseudoplatanus</i> Sycamore	B2	To facilitate development Fell - Ground level.	Proposed
T822	1 <i>Ulmus procera</i> English Elm	U	Good arboricultural practice Fell - Coppice.	Proposed
T823	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
T824	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
T825	1 <i>Acer pseudoplatanus</i> Sycamore	B2	To facilitate development Fell - Ground level.	Proposed
T826	1 <i>Acer pseudoplatanus</i> Sycamore	C2	Good arboricultural practice Climbing plant - Sever. - Sever and strip first 1.5m of ivy from main stem.	Proposed
T827	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
T833	1 <i>Acer pseudoplatanus</i> Sycamore	U	Good arboricultural practice Fell - Retain high stump. - Retain 2m high stem for habitat.	Proposed
T834	1 <i>Acer pseudoplatanus</i> Sycamore	U	Good arboricultural practice Fell - Retain high stump. - Retain 2m high stem for habitat.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T838	1 <i>Acer pseudoplatanus</i> Sycamore	C2	Good arboricultural practice Remove faulted stem / stems. - Thin-out stems. Remove 4 stems and leave the 2 located on the east and west side of the group.	Proposed
T843	1 <i>Acer pseudoplatanus</i> Sycamore	U	Good arboricultural practice Fell - Retain high stump. Fell tree to a height of 5-6m and leave the main stem standing for habitat and biodiversity reasons.	Proposed
T845	1 <i>Acer pseudoplatanus</i> Sycamore	C2	Good arboricultural practice Climbing plant - Sever. - Sever and strip first 1.5m of ivy from main stem.	Proposed

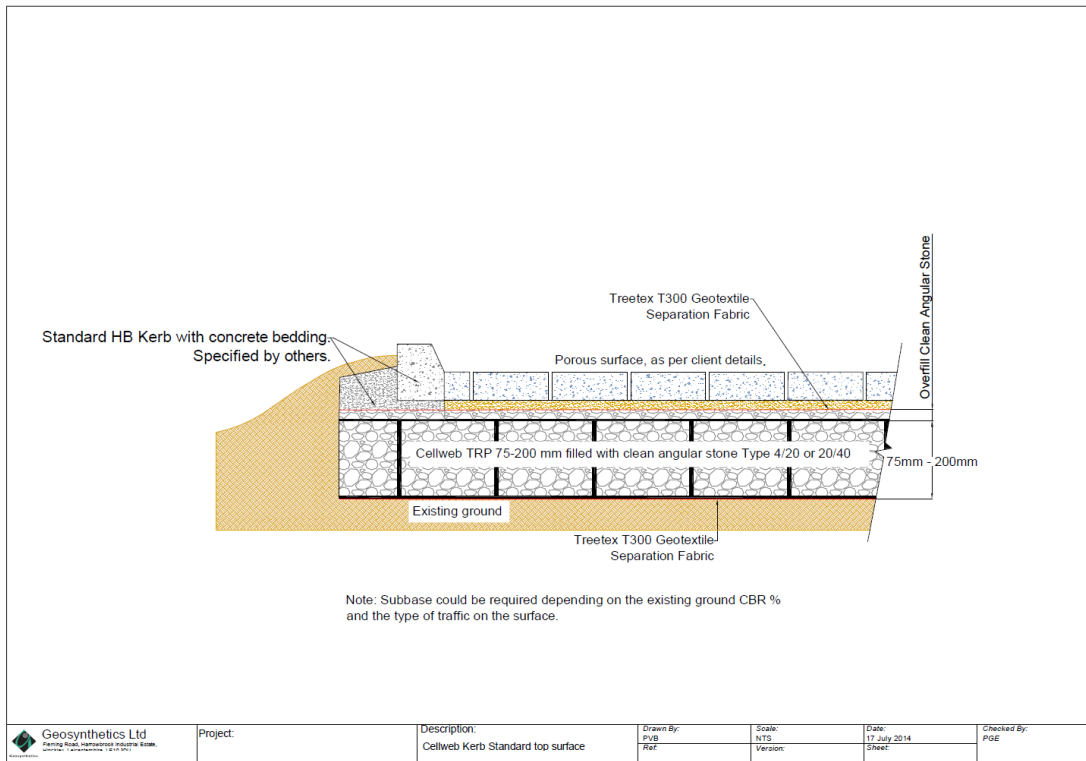
Tree work analysis (trees and trees in groups)

	Good arboricultural practice	To facilitate development	Total
Climbing plant - Sever	2	0	2
Fell - Coppice	1	0	1
Fell - Ground level	3	5	8
Fell - Retain high stump	3	0	3
Lift low canopy - Specified extent	0	2	2
Reduce lateral limb / limbs	0	2	2
Remove faulted stem / stems	2	0	2
Total	11	9	20

Appendix B - Plans

Document	Reference	Revision
Tree Survey Plan	220123-P-10	-
Tree Removals Plan	220123-P-11	-
Tree Protection Plan	220123-P-12	-
Tree Planting Plan	220123-P-13	A

Appendix C - Cellular Confinement System



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