

APPENDIX C – ARBORICULTURAL ASSESSMENT REPORT

ARBORICULTURAL ASSESSMENT REPORT

LEHAUNSTOWN LAND CHERRYWOOD SDZ CO. DUBLIN

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TCAR006

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Cherrywood SDZ

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B

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CONTENTS

1. Client brief and Methodology	3
2. General description of site	3
3. Hedgerow locations	4
3.1 General description of trees and hedgerows	5
4. Limitations of survey	11
5. Relevant legislation	11
6. Concluding comments	12
7. Concluding comments	12
8. References	13

Summary

The site at Cherrywood is bordered by hedgerows to the north (part of), south and west, riparian vegetation to the east and garden boundary plantings to the north.

The hedgerows which were originally structured as standard tree and clipped hawthorn have had no effective management for some time and have become degraded in terms of their structure and composition. Much of the hedgerows are now swamped in ivy and bramble thereby degrading the quality of the hawthorn and significantly reducing the diversity of plant species within the ground layer. The standard tree element is composed of ash and sycamore. The condition of the trees is relatively good though the ash which currently appears free of ash dieback will likely succumb to this disease in the near future.

The hedgerows which conform to the designation WL1 (Fossitt 2000) represent constraints on the development of the site particularly where standard trees are located. The average Root Protect Area (RPA) around mature trees in this instance is approximately 10m. However, the use of systems such as cell-web can reduce this area significantly where roads and paths are required to be located in close proximity to trees.

In terms of linking the subject site to the neighbouring lands there is a 6m gap within the western hedgerow and two gaps of 19m and 10m within the southern hedgerow.

Future management options for the existing hedgerows include:

- Ivy and bramble management with a view to removing / reducing competition from the hawthorn and ground flora.
- Replace dead areas of hawthorn
- Investigate options for layering the hedge to improve appearance and encourage land-based traditional skills.
- Increase the species diversity of the tree population by planting within degraded / dead areas of hawthorn

The riparian vegetation which is composed primarily of willow and alder is well established and by the very nature of the soils and offset required from the river is not considered an area which could be developed unless for recreational purposes.

The hedges on the properties to the north of the site are of mixed species and includes Leyland cypress and a range of ornamental shrubs and smaller trees. The main constraint which these boundary plantings represent is considered to be future boundary treatments such as fences and walls with the latter unlikely to be suitable in close proximity to these hedges / plantings.

A construction access route of 4m is proposed through HR1 at an existing gap in the hedgerow. Following completion of construction works the gap will be replanted with suitable native species as agreed with the project ecologist.

A new, permanent 11m opening is proposed to be made in HR1 to connect the site with the road layout shown on planning drawings within the site to the west.

It is proposed that the temporary construction access route is replanted with native species of trees and shrubs as agreed with the project ecologist.

1. Client brief & Methodology

CMK Hort + Arb Ltd. were commissioned by Dún Laoghaire Rathdown County Council to provide an assessment of woody vegetation at a parcel of land at Cherrywood, Co. Dublin (image 1).

It should be noted that the analyses of trees within this report is not intended to provide detailed descriptions of individual trees but to provide broad descriptions of the composition of the hedgerows / boundary plantings on and adjacent to the site with a view to examining options for the integration and management of trees and hedgerow in any development of the site.

The initial fieldwork was undertaken on the 18th of October 2023.

2. General description of site

The site is located to the northern edge of the Cherrywood Planning Scheme (Dún Laoghaire Rathdown Development Plan 2022-2028) and is accessed from Lehaunstown Lane (image 1). It is bordered to the north by private properties, to the east by a river and to the south and west by as yet undeveloped land which forms part of the Cherrywood Planning Scheme.

The site is former agricultural land used for grazing livestock and horses which appears to have not been under any recent management regimes.

There are hedgerows on a section of the northern boundary and the entirety of the southern and western boundaries with riparian vegetation on the eastern boundary adjacent to a small river. Where the site abuts boundaries with private gardens there are hedges and mixed native and ornamental trees and shrubs.



Image 1. Site location (redline denotes approximate boundary)

3. Hedgerow locations



Image 2. Codes / descriptions of hedgerows and boundaries

The site is bordered by a range of domestic plantings, agricultural hedgerows and natural riparian boundaries (image 2).

3.1 General description of trees and hedgerows

HR 1.

Location: Western boundary

Length: 145m

Woody species composition	Frequency
Ash (<i>Fraxinus excelsior</i>)	Occasional
Sycamore (<i>Acer pseudoplatanus</i>)	Occasional
Elder (<i>Sambucus nigra</i>)	Occasional
Hawthorn (<i>Crataegus monogyna</i>)	Frequent

Description

A field boundary hedgerow which has lost much of its original structure (clipped hawthorn and standard trees). Understory dominated by bramble (*Rubus fruticosus*) which extends up to 10m into site. Less dominant where shading from tree cover stronger. Hawthorn element fragmented and becoming swamped by ivy (*Hedra helix*). Standard sycamore and ash trees of mixed age classes are in relatively good condition however ash is highly susceptible to ash dieback.

Constraints imposed by existing trees and hedgerow

As there is no ditch separating the site from the neighbouring fields the standard trees are very likely to have roots extending into the site. The estimated constraints / root protection area varies from 3m to 12m where larger standard trees are located.

A 6m gap in the hedgerow represents a potential location for linking the subject site to the neighbouring area to the west (image 3).



Image 4. Hedgerow #1. Gap in hedgerow arrowed

Image 3. Hedgerow #1. Note fragmented nature of hedgerow with occasional hawthorn and 6m gap (arrowed) which provides potential for linking the subject site to the neighbouring

HR 2.

Location: Southern boundary

Length: 285m

Woody species composition	Frequency
Ash (<i>Fraxinus excelsior</i>)	Occasional
Sycamore (<i>Acer pseudoplatanus</i>)	Occasional
Elder (<i>Sambucus nigra</i>)	Occasional
Hawthorn (<i>Crataegus monogyna</i>)	Frequent
Rose (<i>Rosa canina</i>)	Occasional
Cotoneaster (<i>Cotoneaster</i> spp)	Occasional

Description

A field boundary hedgerow which has lost much of its original structure (clipped hawthorn and standard trees) due to limited management inputs and the extensive smothering growth of ivy. Understory dominated by bramble which extends up to 12m into site at its greatest extent. Standard sycamore and ash trees of mixed age classes are in relatively good condition however ash is highly susceptible to ash dieback.

Constraints imposed by existing trees and hedgerow

Though a number of the trees are located on or just outside the site boundary as there is no ditch separating the site from the neighbouring fields the standard trees are very likely to have roots extending into the site.

A 19m gap in the hedgerow represents a potential location for linking the subject site to the neighbouring area to the south (images 5 & 6).

The estimated constraints / root protection area ranges from 3m to 10m at the locations of mature standard trees. A number of the ash have extended limbs up to 7m over the site (image 7) which may also pose a constraint.



Image 5. Hedgerow #2. A 19m gap at the north-western corner (arrowed & image 6) provides potential for linking the subject site to the neighbouring lands



Image 6. Two gaps in hedgerow #2 provide potential for linking the subject site to neighbouring lands to the south.

HR2 Cont.

Large limbs overhang the site may represent a constraint on development however appropriate pruning and tree management can reduce this constraint without adversely impacting on trees. Note that the tree in image 7 is an ash. The future for ash trees is limited generally due to ash dieback. The nature and structure of this hedgerow varies over its length (images 5 & 8)



Image 7. Ash tree overhanging site



Image 8. Sloping nature of site and variation in structure of hedgerow in comparison with section shown in image 5

Northern boundary with neighbouring properties and HR 3.

Location: Northern boundary

Length: 150m (agricultural hedgerow), 226m (garden boundaries)

Woody species composition	Frequency
Ash (<i>Fraxinus excelsior</i>)	Occasional
Elder (<i>Sambucus nigra</i>)	Occasional
Hawthorn (<i>Crataegus monogyna</i>)	Occasional
Rose (<i>Rosa canina</i>)	Occasional
Blackthorn (<i>Prunus spinosa</i>)	Occasional
Pittosporum tenuifolium	Occasional
Ornamental conifers (<i>Cupressus</i>)	Occasional
Viburnum	

Description

A field boundary hedgerow which has been reduced to an average height of 2.25m. Bramble now dominating large sections of the hedge. No standard trees present. Ash present at juvenile stage only and vulnerable to ash dieback. Blackthorn self-seeding into field.

The western section borders two private gardens which contain a. mixed ornamental trees and shrubs b (image 10). a low Leyland cypress hedge (image 11) with a single sycamore tree.

Constraints imposed by existing trees and hedgerow

This section of the boundary between the site and neighbouring lands (image 9) on the northern boundary does not impose a constraint on development in terms of root growth into the site as there are no standard trees present.



Image 9. Eastern section of northern boundary

Northern boundary with neighbouring properties and HR 3 cont..

The section of the boundary with the ornamental trees and shrubs represents a constraint in terms of potential root growth into site. This is considered to be in the region of approximately 4m. There is very limited limb overhang over site.



Image 10. Western section of northern boundary



Image 11. Leyland cypress hedge at rear of private property

Riparian vegetation Eastern boundary

Woody species composition	Frequency
Willow (<i>Salix alba</i>)	Frequent
Alder (<i>Alnus glutinosa</i>)	Common
Hawthorn (<i>Crataegus monogyna</i>)	Occasional
Rose (<i>Rosa canina</i>)	Occasional
Bramble (<i>Rubus fruticosus</i>)	Frequent

Description

Naturally regenerating vegetation at a low waterlogged section of the site adjacent to a stream (image 12). The willow are all multi-stemmed possibly due to past grazing pressure. Occasional alder are developing within the willow scrub. With grazing pressure no longer in place this area of vegetation is likely to extent into the wet areas of this section of the site.

Constraints imposed by vegetation

The nature of the ground in this area and the restrictions around development near streams and rivers are more of a constraint than the vegetation itself.



Image 12. Scrub vegetation within wetland area on eastern boundary

4. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and hedgerows does not attempt to provide in depth analyses of individual tree condition.

5. Relevant legislation

Hedgerows on this site are shown as retained habitats (image 13)

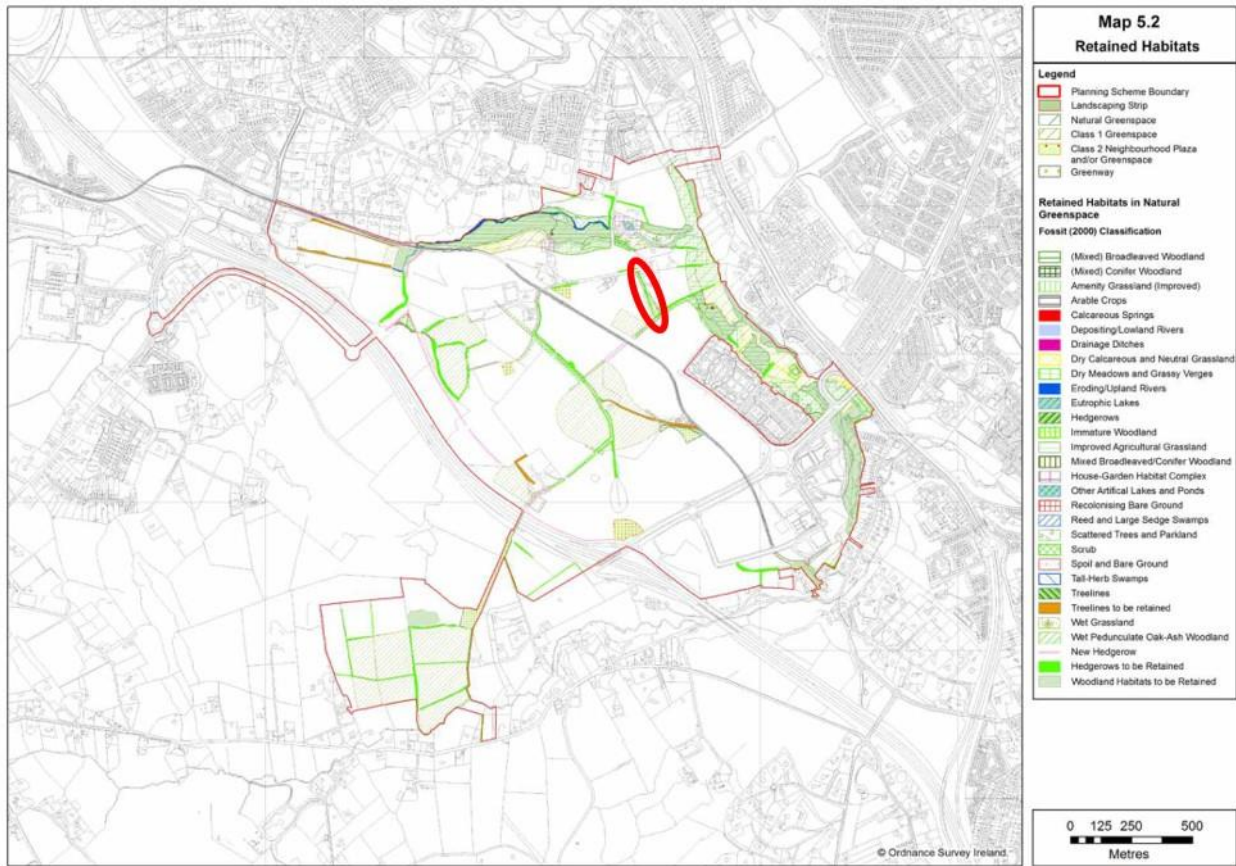


Image 13. Extract from Dún Laoghaire County Council Development Plan 2022 -2028 ¹
HR1 outlined in red

6. Impact of the proposed works

A construction access route of 4m is proposed through HR1 at an existing gap in the hedgerow. Following completion of construction works the gap will be replanted with suitable native species as agreed with the project ecologist.

A new, permanent 11m opening is proposed to be made in HR1 to connect the site with the road layout within the site to the west.

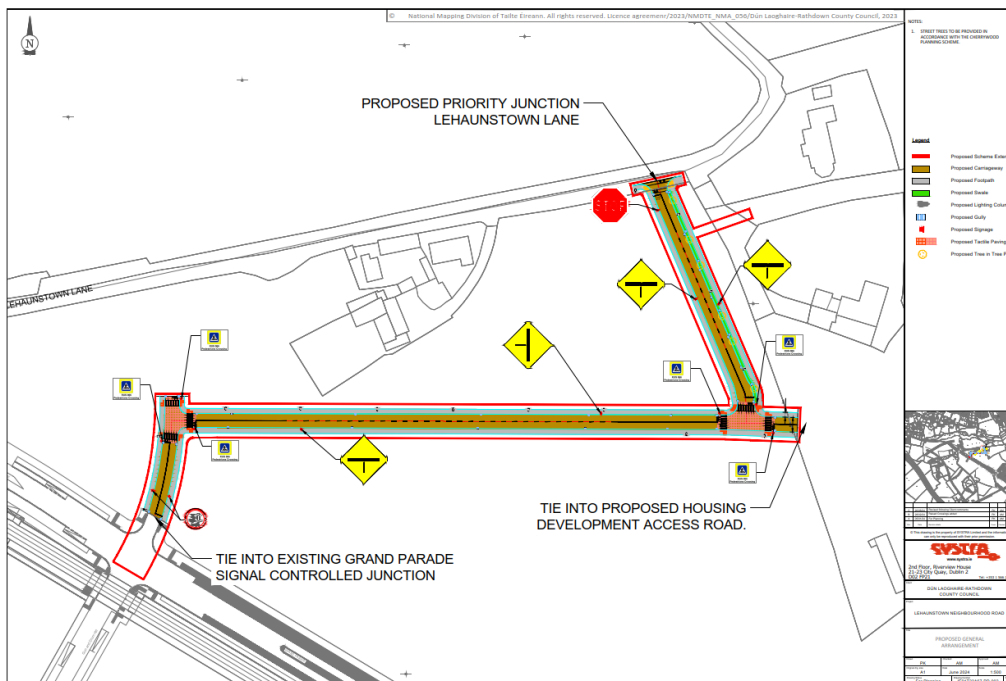


Image 14. Proposed General Arrangement

7. Concluding comments

The subject site is bordered by hedgerows to the north (part of), south and west with riparian vegetation to the east and garden boundary plantings to the north (part of). Management inputs have been largely confined to the domestic garden boundaries and the northern boundary hedgerow. There has been little or no management of the hedgerows on the southern and western boundaries. They have become degraded in terms of their structure and species composition as a result. The condition of the standard trees is relatively good though the ash will likely succumb to ash dieback disease in the near future.

The hedgerows represent constraints on the development of the site particularly where standard trees are located. The average Root Protect Area (RPA) around mature trees in this instance is approximately 10m. However, the use of systems such as cell-web can reduce this area significantly where roads and paths are required to be located in close proximity to trees.

The riparian vegetation which is composed primarily of willow and alder is well established and by the very nature of the soils and offset required from the river is not considered an area which could be developed unless for light recreational purposes. The hedges on the properties to the north of the site are of mixed species and includes Leyland cypress and a range of ornamental shrubs and smaller trees. The main

constraint which these boundary plantings represent is considered to be future boundary treatments such as fences and walls with the latter unlikely to be suitable in close proximity to these hedges.

In terms of linking the subject site to the neighbouring lands and the need for construction access the two locations shown on image 14 represent a permanent 11m gap in the hedgerow to facilitate the link road and a temporary 4m construction access route. This report is not designed to outline the ecological impact of the proposed works however from an arboricultural perspective the permanent loss of 11m of hedgerow is not considered significant if improvements are made to the structure of retained hedgerows and their management in the future.

If the overall aim is to retain functioning and ecologically vibrant hedgerows then a management plan should be developed to outline the most appropriate actions to be undertaken. The points outlined below provide initial options for the management and maintenance of retained hedgerows.

Future management actions / options for existing hedgerows include:

1. Make a determination on the future structure of the hedgerows i.e. clipped hedge with standard trees / mixed species unclipped with standard trees etc.
2. Monitor and manage mature trees in particular ash to determine condition and the potential spread of ash dieback.
3. Control ivy and bramble management with a view to removing / reducing competition from existing hawthorn and ground flora.
4. Replace dead areas of hawthorn with hawthorn or mixed species as per item 1.
5. Investigate options for laying hedges to improve appearance and / or encourage land-based skills.
6. Increase the species diversity of the tree population by planting within degraded / dead areas of hedgerows as per item 1.
7. Replace the section of hedgerow 1 temporarily removed for construction access.

8. References

Fossitt J.A. (2000) A Guide to Habitats in Ireland, Heritage Council

1. <https://dlrcocouncil.maps.arcgis.com/apps/webappviewer/index.html?id=6e5e0fb0384a47dcb61cbf4e36eb6dcc> (assessed 20,10,23)

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