

Local Authority Own Housing  
Development for Phase 1 Lands at  
Mooretown, Swords, Co. Dublin  
Green Infrastructure, Landscape and Biodiversity  
Statement

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**Brady Shipman  
Martin**

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## 1 Introduction

Fingal County Council (FCC) is proposing a new housing development at Moortown, Swords, Co. Dublin. It is proposed to carry out this Local Authority Own Housing Development pursuant to Section 179A (s.179A) of the Planning and Development Act 2000, as amended (“the 2000 Act”), and, inter alia, Article 81A (art.81A) of the Planning and Development Regulations 2001, as amended by the Planning and Development (Section 179A) Regulations 2023 (S.I. No.101/2023) (“the 2001 Regulations”).

The proposed development comprises Phase 1 of a potential overall development on c.9.35 hectares zoned ‘RA Residential’ in the *Fingal Development Plan 2023-2029*. The development will provide for 274 no. dwellings, in a mix of houses, own door duplexes, and apartment units, arranged in clusters varying in height from 2 to 5 storeys. It includes all associated road infrastructure with car parking and bicycle parking, including external covered bike stores, public open space, new pedestrian / cycle links, hard and soft landscaping, connections to existing services and all ancillary / enabling site development works.

The Phase 1 site, is located within the northern portion of the overall landholding and is accessed off Rathbeale Road, refer to [Figure 1.1](#). The site is adjacent to existing / emerging residential developments and associated open space, and a network of small streams with riparian vegetation traverses the lands.

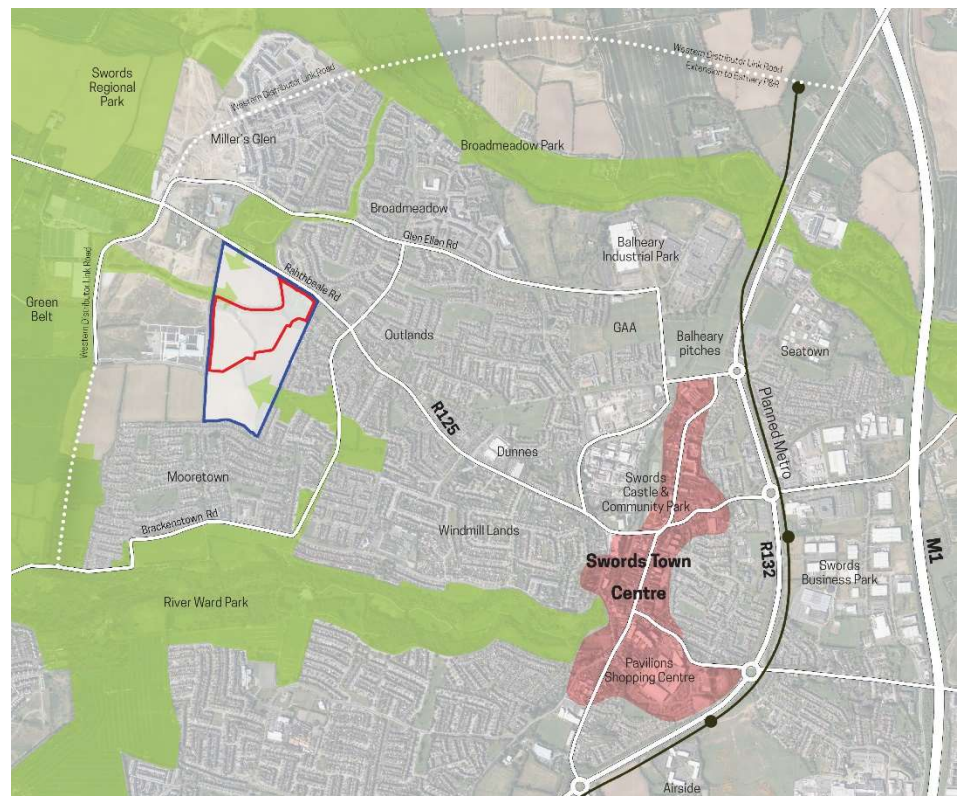


Figure 1.1: Site Context

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Green Infrastructure, Landscape and Biodiversity Statement

This statement, which has been prepared by Brady Shipman Martin, environmental and landscape consultants, sets out the objectives and principles for the treatment of green infrastructure, landscape and biodiversity design for the proposed development. The design has been developed in conjunction with the Project Arborist, Project Ecologists and the wider Design Team.

## 2 Existing Environment

### 2.1 Landscape Context

#### 2.1.1 Overall

The site for the proposed development is located within an established suburban context at Mooretown, Swords, Co. Dublin. The site, which has a total gross area of 9.35 hectares (ha) and a net development area of c.7 ha is accessed off the R125 Rathbeale Road.

The overall landholding of c.23.9ha is located between the established residential estates of Cianlea and Lioscian off Murrough Road to the east; Ormond Crescent and Swords Manor Crescent to the south and the new Cronan's Well Brook, Swords Community College and emerging residential development (under construction / permitted) to the west. The lands are accessed from the north off Rathbeale Road. Dublin Airport is over 3km to the south of the site.

The Phase 1 site, which has a total gross area of 9.35ha and a net development area of c.7ha, provides for 274 no. dwellings and all associated infrastructure, public open space, connections to existing services and all ancillary / enabling site development works. The site is located within the northern portion of the overall landholding and is accessed off Rathbeale Road, refer to [Figure 2.1](#). The site is not particularly sensitive to the environmental effects of development. There are no designated environmental areas on the site or in the immediate vicinity. However, the site is adjacent to existing / emerging residential developments and associated open space, and a network of small streams with riparian vegetation traverses the lands.



Figure 2.1 Proposed Landscape Masterplan (BSM, 2024)

### 2.1.2 Landscape Planning Context

The Fingal Development Plan 2023-2029 zones the site, the wider land holding and lands to the west as Residential Area (RA) – *‘Provide for new residential communities subject to the provision of the necessary social and physical infrastructure.’* Swords Community School to the west of the site is zoned Community Infrastructure (CI) – *‘Provide for and protect civic, religious, community, education, health care and social infrastructure.’*

Established residential areas to the northeast, east and south are zoned as Residential (RS) – *‘Provide for residential development and protect and improve residential amenity’* and Open Space (OS) – *‘Preserve and provide for open space and recreational amenities.’* There is a specific objective to *‘Preserve Views’* along Rathbeale Road to the north of the site, refer to [Figure 2.2](#).

A number of archaeological / heritage features in the area surrounding the site are listed on the Sites and Monuments Record (SMR). These include a Field System (SMR No. DU011-144004) to the northwest of the site; and a Settlement Cluster (SMR No. DU011-149), Holy Well (SMR No. DU011-018) and Fulacht Fia (SMR No. DU011-148) to the south of the site. These features are located on the wider land holding. The remains of a further Structure (*‘Glasmore Abbey’*) (SMR No. DU011-019) is located on open space in Cianlea to the west of the lands. A Ringfort site (SMR No. DU011-147) is located on lands southwest of site. An Ecclesiastical Enclosure (SMR No. DU011-144001) and Field System (SMR No. DU011-144003) are located north of Rathbeale Road. Refer to [Figure 2.2](#).

As noted the site includes a network of riparian corridors. Fingal Development Plan includes policies and objectives that supports the protection, maintenance, and enhancement of the watercourses and their riparian corridors in the county. Objectives IUO26, DMSO154 and DMSO210 require a minimum 10m wide riparian buffer strip measured from the top of the bank either side of all watercourses.

Section 4.5.2 and Table 4.3 of the Development Plan sets out the requirement for provision of open space on development sites. This includes a requirement for 12 – 15% of the site to be allocated to Class 2 Open Space. Objective DMSO68 of the Development Plan also requires provision of play facilities at a rate of 4sqm per residential unit for developments in excess of 50 units. Play should be provided in accordance with the council guidelines *“Space for Play - A Play Policy for Fingal”*.

Requirements for communal open space is defined by the Sustainable Urban Housing Apartment Guidelines 2023. The Guidelines require the following minimum communal open space areas:

- Studio 4 sq.m
- 1-bed 5 sq.m.
- 2-bed (3person) 6sqm
- 2-bed (4person) 7 sq.m.
- 3-bed 9 sq.m.



Figure 2.2 Extract from Land Use Zoning Plan for Swords (Sheet 8 Fingal Development Plan 2023-2029). (Phase 1 Site outlined in Red. Overall landholding outlined in Blue.)

## 2.2 Green Infrastructure and Ecological Context

### 2.2.1 Ecological Baseline

The subject site at Mooretown comprises former agricultural land, now unmanaged. The evidence suggests that the fields were probably sown with



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potatoes or similar when last the land was farmed. The fields are separated from each other by steep-sided, narrow ditches, heavily vegetated with scrub and hedgerows / tree lines with associated ditches (including the Newtown Stream). All ditches on the site flow north to the Broadmeadow River.

The hedges and groups are made up of a mixture of native mostly tree species, including ash, hawthorn, elder, blackthorn, wild cherry, and elm. Vegetation growing along the field boundaries and ditches comprises a mix of hawthorn, elder and blackthorn, heavily overgrown with bramble. The ash trees show signs of ash dieback disease and Dutch elm disease is also prevalent in the elm trees at the site.

There is a small area of rank grassland in the northeastern corner of the subject site which appears not to have been farmed recently. This area also contains some areas of hard standing and bonfires appear to have lit in this location in the recent past.

The proposed development site is not under any wildlife or conservation designation. Furthermore, no rare, threatened or legally protected plant species, as listed in the *Irish Red Data Book 1 – Vascular Plants* (Curtis & McGough, 1988), the *Flora Protection Order, 2022* or the *EU Habitats Directive*, are known to occur within the site and none were recorded during the site visits carried out.

No species listed on the Third Schedule of the Habitats Regulations, such as giant hogweed (*Heracleum mantegazzianum*), Japanese knotweed (*Reynoutria japonica*), Himalayan balsam (*Impatiens glandulifera*) or three-cornered leek (*Allium triquetrum*) are known to be present at the proposed development site.

No rare habitats or habitats of significant ecological value (i.e. International or National) are present at the site. A total of 30 bird species were recorded on the site during the surveys undertaken in December 2023 and January 2024 (refer to **Appendix 1**). The species are all common and widespread bird species of Ireland and include four Red-listed<sup>1</sup> species (kestrel, snipe, meadow pipit and yellowhammer) and five Amber-listed species (herring gull, starling, goldcrest, house sparrow and linnnet),

There is no habitat on the site suitable for use, even on a very occasional basis, by any overwintering birds, such as pale-bellied Brent goose, or any other protected bird species listed as a Special Conservation Interest (SCI) in any European site within the Zone of Influence. Herring gull, which is listed as an SCI species in the North-West Irish Sea SPA, was recorded as flying over the site only.

The mature hedges and tree lines that run through the site are of value for commuting and foraging bats (species protected under Article 12 of the Habitats Directive), however they contain few features suitable for use by roosting bats. No evidence of otter (also protected under Article 12 of the Habitats Directive) was recorded however the drainage ditches that traverse the site are likely to be of occasional use by otters moving through the landscape.

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<sup>1</sup> Gilbert G., Stanbury A., & Lewis L. 2021. Birds of Conservation Concern in Ireland 2020-2026. Irish Birds, 43: 1-22. Birdwatch Ireland, Kilcoole Co Wicklow.

None of the habitats or features present on the site are Qualifying Interests/Special Conservation Interests in any European site within the Zone of Influence and none of these Qualifying Interests/Special Conservation Interests are present on the site. No evidence of any habitats or species with links to European sites was recorded during either the field surveys or desk study undertaken and no 'reservoir' type habitats (habitats which have the potential to support Qualifying Interest/Special Conservation Interest species in any European site) are present. Refer to the separate AA Screening Report, issued separately, for full details.

Overall the site of the proposed development is of **Local (Higher Value) importance**, as defined by the ecological resource valuations presented in the National Roads Authority/Transport Infrastructure Ireland *Guidelines for Assessment of Ecological Impacts of National Road Schemes* (NRA/TII, 2009 (Rev. 2)).

### 2.2.2 Green Infrastructure and Ecological Mitigation and Enhancement

- No designated conservation areas will be impacted in any way by the proposed development and no mitigation measures are required in this regard.
- Tree felling works, where they are required, will be carried out by a qualified and experienced tree surgeon in accordance with *BS3998 (2010) Tree Work – Recommendations*. The Tree Survey Report recommends erecting sturdy tree protection fencing or suitable site hoarding to prevent construction work into the root protection areas of the trees and hedges being retained. The tree protection measures will be put in place as soon as the tree and hedgerow clearance works have been completed and before the more general construction activity commences and will remain in place until their removal or re-location is authorised by a qualified arborist.
- The Tree Survey Report recommends that where construction machinery must encroach the RPAs of the trees to be retained for reasons unforeseen and unavoidable; suitable ground protection will be put in place to prevent any significant soil compaction or root damage near the trees; this should take the form of suitable strength ground protection mats or cellular confinement system capable of supporting the appropriate weight. Any cellular confinement system will be installed in accordance with Arboricultural Association Guidance Note 12: *The Use of Cellular Confinement Systems Near Trees* (2020).
- A significant amount of new planting will be incorporated into the landscape design, and the planting will maximise the new biodiversity resource at the site. The proposed planting / landscaping strategy will include a mix of appropriate species, incorporating species that will attract feeding invertebrates, including moths, butterflies and bees. It takes account of and implements the policies and objectives of the *All-Ireland Pollinator Plan (2021 – 2025)*. Low-maintenance tree groups and wildflower meadows are being

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provided, as are nest boxes and insect hotels and areas of bare ground (for solitary bees).

- The proposed planting schedule contains no invasive species and none will be introduced, either deliberately or inadvertently, to the proposed development site. Appropriate biosecurity measures will be implemented during the construction phase of the proposed development.
- The clearance of scrub and other vegetation that may be suitable for use by nesting birds will be undertaken outside the bird nesting season (avoiding the period 1 March to 31 August). Should the construction programme require vegetation clearance between March and August, and this is unavoidable, bird nesting surveys will be undertaken by suitably qualified ecologists. If no active nests are recorded, vegetation clearance will take place within 24 hours. In the event that active nests are observed, an appropriately sized buffer zone (up to 5 m radius around the nest) will be maintained around the nest until such time as all the eggs have hatched and the birds have fledged – a period that may be three weeks from the date of the survey. Once it is confirmed that the birds have fledged and no further nests have been built or occupied, vegetation clearance may take place immediately.
- As bats are highly mobile creatures, a bat specialist shall examine any trees that require removal for bat roost potential and for the presence of bats before felling commences. The trees shall be assessed by a bat specialist from height if due for felling in winter or by a bat detector assessment (or a combination of both) if felling occurs at any other time. The discovery of any bat roosts, albeit unlikely, shall require a derogation from the National Parks and Wildlife service.
- It is proposed to install bat and bird boxes both throughout the proposed development site. The reason for the installation of bat and bird boxes is not to provide replacement roosting/nesting opportunities; rather, it is to augment the overall ecological value of the site. This will contribute to maximising the ecological value of the proposed development.
- To that end bat and bird boxes will be erected, with advice from the project Ecologist, in appropriate areas (within unlit areas away from traffic and likely disturbance within the site, no less than 3m above the ground in uncluttered areas, facing in a southerly direction). The locations of the bat and bird boxes shall be agreed with a specialist ecologist.
- Bats are sensitive to light at night, and the lighting design will ensure that the proposed development will not result in impacts on bats that do commute / forage in or near the proposed development site. The lighting design for the proposed development includes the following measures:
  - Where human safety permits it, dark corridors and dark areas will be incorporated into the open space and landscape design for the proposed development;
  - All luminaires shall lack UV elements when manufactured and shall be LED;
  - A warm white spectrum shall be adopted to reduce blue light component;

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- Luminaires shall feature peak wavelengths higher than 550 nm;
- Tree crown shall remain unilluminated. Specifically, no light spill will impact on the beech trees to the east of the proposed development site.
- The surface water mitigation measures proposed as part of the design measures will ensure that no sediment contamination, contaminated run-off or untreated wastewater will enter any on-site surface water ditches and drains as a result of the construction of the proposed development.

The monitoring measures for Biodiversity during the construction phase of the proposed development include:

- A suitably experienced Project Ecologist will be appointed for the duration of the construction phase and regular monitoring of all related works will take place to ensure the correct and full implementation of all mitigation measures. The Project Ecologist will ensure that all construction works take place in accordance with the project CEMP.

Vegetation clearance will only be permitted outside the bird-nesting season. Should vegetation clearance be required during the bird nesting season, and should this work be unavoidable, such clearance will take place only after the Project Ecologist has undertaken a survey to ensure that no active bird nests or recently fledged birds are present.

### 2.3 Appropriate Assessment Screening

None of the habitats or features recorded on the site are Qualifying Interests / Special Conservation Interests in any European site within the Zone of Influence of the proposed development. No evidence of any habitats or species with links to European sites was recorded either on site or as part of the desk study undertaken. No 'reservoir' type habitats (habitats which might have the potential to support Qualifying Interest/Special Conservation Interest species in any European site) are present. The following comprises the concluding statement from the AA Screening report:

*In view of best scientific knowledge this report concludes that the proposed development at the site at Mooretown in Swords, Co. Dublin, individually or in combination with another plan or project, will not have a significant effect on any European sites. This conclusion was reached without considering or taking into account mitigation measures or measures intended to avoid or reduce any impact on European sites.*

*It is considered that this report provides sufficient relevant information to allow the Competent Authority (Fingal County Council) to carry out an AA Screening and reach a determination that the proposed development will not have any likely significant effects on European sites in light of their conservation objectives.*

## 2.4 Trees and Hedgerows

### 2.4.1 Arboricultural Baseline

A Tree Survey Report has been prepared. The survey has been carried in April 2024 by John Morgan (Arborist) of Independent Tree Surveys Ltd.

This tree survey includes the following:

- Tree Survey Report
- Tree Constraints Drawing 24010\_TS\_Overview
- Tree Constraints Drawing 24010\_TS\_Detail Sheets 1 to 4

The survey notes that the site is bordered almost entirely by farm hedging and includes lengths of hedges and mixed riparian trees and bushes along the watercourse inside the site limits.

The survey site covers land formerly used for agriculture, but subsequently left unmanaged, with the land separated into fields by hedges and vegetation-lined watercourse channels.

The hedges and groups are made up of a mixture of native mostly tree species, including Ash, Hawthorn, Elder, Blackthorn, Wild Cherry, and Elm. The hedge (H1) along the western boundary contains a single Eucalyptus tree (T5) at the northern end which has probably been planted into the hedge by people from the adjoining property.

Dense vegetation is growing along the banks of the watercourse running through the site (making up groups G2 and G4), the vegetation is mostly a mix of Hawthorn, Elder and Blackthorn bushes, heavily overgrown with Brambles, Ivy, and suckering. Some larger trees (all Ash showing signs of infection by Ash dieback disease) are growing out of the understorey to heights of around 10-14m. The Ash trees in group riparian G2 are described collectively as group G3, the Ash trees in group G4 are included as individuals (T1-T4).

Hedge condition is variable, with the effects of lapsed management, adjacent development activity, and disease all having detrimental effects on many of the hedgerow trees and bushes. The most significant impact is from disease, with both Ash Dieback disease and Dutch Elm disease causing significant mortality and physiological decline amongst the Ash and Elm trees present.

The mixed understorey (mostly Blackthorn, Hawthorn and Elder) of the groups and hedges remains in reasonable health for the most part and should continue to maintain the hedges as landscape features into the future, especially if reinforced by infill planting as the Ash trees die off. The exception to this is the long hedge (hedge H1) along the western boundary, which has been badly affected by a combination of Ash dieback disease, development works to the west, soil compaction and stripping to the east and a lack of management. Consequently, this hedge has become partially fragmented, with gaps emerging along its length, with a noticeable lack of vitality amongst many of the small trees and bushes.

### 2.4.2 Arboricultural Impact

The new development has been designed to retain as much of the existing network of hedgerows as is practicable, however, some sections of hedge and scrub growth will have to be removed to facilitate the new layout. These will include:

- The removal of the area of dense Blackthorn suckering labelled group G1, along with the adjacent bushes and scrub growth.
- A section of the riparian group G2 approximately 45m wide will be removed to create the space for the new access road, this will include one of the Ash trees making up group G3.
- Hedge H2 will have two sections (45m and 115m wide) removed to accommodate the new road network, as well as another three smaller (3x5m wide) openings being created through the northern half of the hedge.
- The scrub growth / hedge remnant labelled group G5 will be removed in its entirety, including the two Ash trees T7 and T8.
- A 16m wide swathe of hedge H1 will be removed to allow for the connection with the adjacent road network to the west, a further smaller opening (5m wide) will be created through the hedge to the north of the new Block E.

The surrounding hedges will be vulnerable to damage to construction activity (especially soil excavation and soil compaction) unless this activity is properly segregated from the hedges. The tree survey drawings show the indicative lines of protective fencing proposed around the site, this fencing will be positioned to provide ample buffer zones between the construction works and surrounding hedges and should prevent any significant activity encroaching too close to the hedgerow trees.

### 2.4.3 Arboricultural Management and Mitigation

The Tree Survey recommends that almost all of hedges would benefit from management intervention, in particular:

- Clearance of suckering and undergrowth (Brambles etc.) to allow access for other work operations.
- Coppicing of badly diseased trees and bushes to encourage the re-sprouting of the rootstocks.
- Monitoring of the Ash trees to check on the progress of Ash Dieback disease.
- This should include the felling of roadside/boundary trees where crown dieback exceeds 50% and the failure of the tree may present a hazard.
- Coppicing and laying of live stems where they are suited to traditional hedgerow management.
- Infill planting of gaps left by dying trees; this should be of suitable species such as Hazel, Holly, Oak, Hawthorn, Blackthorn, Spindle etc.

Development of the site should seek to retain the tree groups and hedgerows where practicable. Riparian tree groups and hedgerows of native species can constitute valuable wildlife habitats and biodiversity, and provide shelter, landscape amenity and screening.

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The design and layout of the proposed development sees the beneficial retention of the vast majority of the existing vegetation and riparian corridors. Impacts to trees and hedgerows is restricted to limited sections for road and pedestrian / cycle connections / bridges. Required infrastructure crossings will utilise these road / pedestrian crossings also.

The landscape proposals (see section 3 below also) includes for augmentation and enhancement of the riparian corridors, with additional tree and shrub planting and establishment of species rich meadows along the edge of the corridors.

The overall impact of the proposed development will be positive for the tree and hedgerow population and riparian corridors on the site.

## 3 Green Infrastructure Plan and Proposed Landscape Design

### 3.1 Green Infrastructure and Natural Heritage Plan

Existing green infrastructure was identified at the outset of the design development. This highlighted the significance of the existing network of streams and associated hedgerows and trees. As such the proposed development has been designed to:

- Retain, and other than for necessary road and footpath crossings, to protect existing stream corridors
- Retain, insofar as possible the existing tree and hedgerow character of the riparian corridors within the site
- Provide for augmentation and enhancement of the riparian corridors with additional native tree and shrub planting, with corridors edged with diverse species-rich grasslands
- Retain some sections of riparian corridor without access for people so as to enhance opportunity for local biodiversity
- Incorporate of the requirement for provision of an attenuation wetland as an area of increased biodiversity value within the landscape network
- To incorporate soft landscape measures in the forms of shallow swales and shallow detention / infiltration features within the landscape network

### 3.2 Proposed Approach to the Landscape Design

In addition to the green infrastructure elements above, the layout of the proposed development has been designed to:

- Provide for high-quality public open space, with a network of walking routes, exercise and play opportunities, together with accessible seating and viewing facilities
- Provide for pedestrian and cycling connections to emerging residential development to the west and potential residential development to the north and south of the site
- Provide for communal open space and play opportunities adjacent to the proposed apartment buildings
- A low plinth wall with a railing backed by a low hedge is provided around separately managed communal open space
- Provide defensible buffer planting between ground level windows / terraces and public areas
- Provide for ease of access for maintenance of open spaces
- Provide for pocket parks within the development allowing for social interaction and play for young children
- Provide for appropriate street tree planting along the main link road and the streets within the development clusters



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- Provision of new railings, hedgerows and avenue tree planting along the boundary with Rathbeale Road and along sections of the riparian corridors
- Have regard to Fingal's play policy - *Space for Play - A Play Policy for Fingal*, in the provision of play opportunities within the proposed development
- Have regard to Fingal's tree strategy - *Forest of Fingal - A Tree Strategy for Fingal*, in the provision of significant additional native tree and shrub planting
- Provide for SuDS features and permeable paving

### 3.3 Proposed Approach to Open Space

The overall landscape approach is indicated on the landscape masterplan drawings – see extract in [Figure 3.1 & 3.2](#). The landscape approach provides for the following open space elements:

- **Class 1 Public Open Space:** This requirement is met by the future delivery of the extension of Rathbeale Archaeology Park into the northwest of the wider lands, which will deliver c.3 ha of Class 1 Open Space.
- **Riparian Corridors:** As part of the green infrastructure strategy, circa 14,015sqm of riparian corridor is being retained as a central biodiversity spine throughout the site. It is proposed to augment the existing riparian with additional native tree and shrub planting and with species-rich grassland around the edges of the corridors. Circa 4,250sqm of this riparian corridor is retained as a biodiversity corridor where access for people is excluded.
- **Class 2 Public Open Space:** In addition to the riparian corridors, an area of c.8,300sqm of Class 2 Public Open Space is being provided for the proposed development. This Class 2 public open space includes the proposed attenuation wetland, but excludes the area of any underground attenuation.

The public open space includes Local Equipped Active Play (LEAP) opportunities, informal kick-about spaces, exercise features, seating, and walks within a high quality semi-natural corridor which runs throughout the development.

- **Pocket Park:** The proposed development provides for an additional c.1,775sqm of open space in the form of pocket parks greater than 500sqm in area with play facilities for younger children within the development clusters, and a further 1,175sqm in the form of smaller pocket parks.
- **Communal Open Space:** The proposed development includes for provision of 87no. residential units in two apartment buildings with an associated minimum requirement for 596sqm of communal open space as per [Table 3.1](#) below.

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In this regard the proposed development is providing for c.740sqm of communal open space, with active social and play areas, and associated amenity planting areas for the apartment buildings.

<b>Total Number of Apartments</b>	<b>Communal Open Space Required</b>	<b>Total Required sqm</b>
18 no. 1-bed units	18 no. units X 5 sq.m	90
5 no. 2-bed units (3pers)	5 no. units X 6 sq.m	30
50 no. 2-bed units (4pers)	50 no. units X 7 sq.m	350
14 no. 3-bed units	14 no. units X 9 sq.m	126
		596

**Table 3.1: Calculation of min. requirement for Communal Open Space**

**Play Provision:** Having regard to Fingal's play policy - *Space for Play - A Play Policy for Fingal*, 2 Local Equipped Active Play (LEAP) opportunities are provided in the main Class 2 Open Spaces. These include kickabout areas. Smaller Local Area Play (LAP) opportunities provided in the pocket parks and the communal open spaces. The total area of play provision extends to c.1,250sqm, which exceeds the minimum requirement of 4sqm per residential unit (1,096sqm).

Play features have been integrated into the overall landscape design in an informal / natural play approach. Exercise opportunities are also provided along the network of walks within the Open Spaces. Formal play equipment in LEAP facilities have been located in excess of 25m from residential units. Smaller play equipment, including some fixed and natural play elements within LAP facilities are located within 25m of residential units.

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Figure 3.1 Landscape Masterplan (showing the Green Infrastructure Plan)

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	OPEN SPACE AREAS INCLUDING RIPARIAN CORRIDORS	OPEN SPACE AREAS WITHOUT RIPARIAN CORRIDOR
	Future Class 1 Open Space (Rathbeale Park) 31,500sqm 🖐️	Future Class 1 Open Space (Rathbeale Park) 30,000sqm
<span style="display:inline-block; width:15px; height:15px; background-color: #008000;"></span>	Proposed Class 2 Open Space 18,065sqm	Proposed Class 2 Open Space 8,300sqm
<span style="display:inline-block; width:15px; height:15px; background-color: #808000;"></span>	Other Landscape Space 4,250sqm	Other Landscape Space 1,275sqm
<span style="display:inline-block; width:15px; height:15px; background-color: #4169E1;"></span>	Pocket Parks Open Space (Total) 2950sqm	Pocket Parks Open Space (> 500sqm) 1775sqm
<span style="display:inline-block; width:15px; height:15px; background-color: #ADD8E6;"></span>	Communal Open Space (Apartments) 740sqm	

Figure 3.2 Location and Area of Proposed Open Space Areas

## 4 Monitoring

Suitably experienced project arborists, ecologists and landscape architects will be appointed for the duration of the construction phase and regular monitoring of all construction works will take place to ensure the correct and full implementation of the design and mitigation measures set out in this report.

- The project ecologist will, where necessary, monitor all site clearance activities in order to ensure compliance with legislative requirements and the commitments set out in the documentation. This includes the vegetation clearance and the installation of the bat and bird boxes;
- The project landscape architect will similarly ensure that all works undertaken are in full compliance with the landscape specification;
- The project arborist will ensure that all hedgerow and tree protection and management measures are fully implemented;
- All monitoring tasks will be recorded and logged for inspection by the site manager.

The bat and bird boxes installed on the site will be checked annually for a period of five years post-completion of the works, to ensure that they continue to be accessible to these species. Similarly, the swales will continue to be monitored to ensure they operate effectively.

## 5 Outline Landscape Specification

### 5.1 Protection

Landscape works shall have full regard to guidance, recommendations and requirements of:

- This Landscape and Biodiversity Statement and associated landscape drawings (BSM, 2024);
- Tree Survey Report (Independent Tree Surveys Ltd. 2024)
- The Construction and Environmental Management Plan (BSM, 2024)
- The Archaeological Impact Assessment (Courtney Deery, 2024)
- Any specific requirements of the Planning Authority.

Trees to be retained shall be fenced off in accordance with BS 5837: 2012, prior to commencement of the works. The fence will be removed at the end of the works.

### 5.2 Earthworks / Soil Works / Cultivation Works

Earthworks will be required in the initial re-grading and development of the site. Further earthworks will be required in localised levelling and finishing around buildings and open spaces. Works will also involve general site preparation and landscape reinstatement within courtyards and open spaces.

Normally work involving soil shall be carried out only when soil is dry and in dry weather. Soil shall not be stripped or moved when frozen or waterlogged.

Excavations, re-grading etc. shall only take once topsoil has been removed. Therefore topsoil shall be stripped in advance and stored separately for re-use within gardens and open space.

The full extent of landscape areas shall be re-graded in a series of initial operations followed by decompaction, secondary grading and final grading.

Grading and re-profiling of the landscape shall leave a free-flowing and draining surface, free of humps and hollows.

### 5.3 Planting

All landscape works to be carried out to comply with BS 4428:1989 (General Landscape Operations) and all plants to conform to BS 3936 (Nursery Stock).

Excavation, filling, cultivation, planting and other works will be suspended in wet weather and when conditions are unsuitable.

All plants shall be well grown, sturdy and bushy according to type and free from all diseases and defects.

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection, Aphis, Red Spider or other insect pest, and physical damage. It shall comply with the requirements of the appropriate sections of BS 3936, Specification for Nursery Stock, where applicable.

All plants shall have been nursery grown in accordance with good practice and shall be supplied through the normal channels of the wholesale nursery trade. They shall have the habit of growth that is normal for the species.

All plants supplied shall be exactly true to name.

Trees shall conform to appropriate standards for sizes as proposed. All trees shall have a well-balanced, branching head. Trees shall be well furnished with lateral and fibrous roots, and shall be lifted without severance of major roots. Roots shall be of the habit normal for the species and size. Trees over 12-14 cm girth shall be supplied rootballed.

Whips shall have a well-defined, straight and upright leader and stout, straight stem and be well furnished with strong lateral branches of balanced, feathered habit. Plants shall have been twice transplanted and shall have an extensive fibrous root system. Roots shall be of the habit normal for the species. Whips shall have a minimum height of 1.5 m.

Conifers shall be supplied root balled or container grown, with a good fibrous root system. Plants shall conform to specified height with well-developed, uniform branching systems.

Hedge plants, climbers and shrubs shall be of the minimum size specified, with several stems originating from or near ground level and of reasonable bushiness, healthy, well grown, and with a good root system. Roots shall not be deformed or restricted.

All plants are to be adequately and carefully packed and protected to survive transport, by whatever means, to the site, without damage in loading, transit or unloading.

All planting operations shall be carried out in accordance with BS 4428 and good horticultural practice. Particular attention must be paid to correct depth of planting ensuring the soil is firmed in around the roots.

Tree pits shall be excavated 150 mm all round larger than the natural spread of the roots / rootball of the plant. The base of the pit shall be thoroughly forked to a depth of 300 mm to allow roots to penetrate below the pits.

All trees shall be planted according to the general directions on planting given above.

Stakes shall be turned and pointed at one end. Sizes shall be as follows:-

- For Specimen / larger trees: 2 x 2400 mm long x 75 mm dia.
- For Standard trees: 1 x 1800 mm long x 50 mm dia.
- For other trees/conifers generally: 1 x 1200 mm long x 50 mm dia.

Set stake(s) vertically in the pit, to the western side of the tree station. Drive stake(s) before planting to secure firmly and to leave between 600-900 mm above ground. Drive stake(s) with a drive-all, wooden maul or cast iron headed mull, not with a sledge hammer.

Perforated irrigation tubing will be installed around the rootball in tree pits.

Tree ties shall be of rubber, PVC or proprietary fabric laminate composition, and shall be strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie. Ties shall be minimum 35 mm wide for standard trees.

Planting shall not be carried out while the ground is frozen or waterlogged.

All root balled and pot grown plants shall be well-soaked before planting. All planting shall be watered after planting, to consolidate soil around the roots, unless ground is so wet as to make additional water unnecessary.

Excavate tree pits to 150 mm all round larger than the natural spread of the roots of the plant. The base of the pit shall be broken up to a depth of 150 mm and glazed sides roughened. Supply and drive the stake(s) as scheduled.

Trees shall be planted at the same depth as in the nursery, as indicated by the soil mark on the stem of the trees. They shall be centred in the planting pit and planted upright. The roots shall be spread to take up their normal disposition. Clean a neat circle 500 mm dia. of all grass.

Excavate tree pits to 150 mm all round larger than the natural spread of the roots of the plant.

Place tree in pocket at same depth as in the nursery, spreading out roots to their natural configuration. Backfill pocket carefully incorporating ameliorated soil mix from stockpile on site.

Firm soil around roots, and firm thoroughly on completion. Any surplus soil shall be spread evenly over the surrounding area.

All shrubs and climbers to be planted in excavated pits to give 100 mm minimum growth space to accommodate root spread. Climbers to be fixed with adjustable ties to walls.

All hedge plants to be planted in an excavated pit or trench to give 100 mm minimum growth space to accommodate root spread. Hedgerows to be established as double staggered row. Plants to be randomly dispersed within mixed species hedgerows.

- Whips Transplants: Leave ground free of superficial debris including all stones and debris over 35 mm diameter and grass / weed within 500 mm of plant.
- Shrubs and Mixed Transplants / Shrubs: Leave surface reasonably even, free of all stones and debris over 35 mm diameter, free of grass / weed free within 500 mm of plant.

The planting will be inspected in spring and again in the September following planting. Any tree or shrub found to have died shall be replaced to the original specification.



## 5.4 Grass Seeding

A general high-quality low maintenance amenity seed mixture shall be used within the development area. A native grassland mix with native wildflowers will be used in areas fronting boundary hedgerows and trees. A native grassland mix will be used in the proposed swales:

- Amenity Sward (public open space, communal open space, verges etc.):  
A closely knit, continuous ground cover of even density, height and colour
- Native wildflower grassland mix (additional open space areas / ecological enhancement areas, boundaries)
- Native grassland mix (swale areas)

All machinery shall be in good and serviceable condition. Rotavators and stone-burying machines shall have their full complement of tines, which shall be sharp, effective, and set to give the specified depth of cultivation.

Work to soil shall be carried out in dry weather and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction.

Where required, areas to be grassed will be graded during cultivation with a light blade grader to bring them to a uniform and even grade to tie into surrounding levels and to remove all minor hollows and ridges.

Cultivate the surface using rotavators so as to break up the top 100 mm of soil by two passes in transverse directions to provide a fine tilth up to 25 mm suitable for grass seeding. All landscape areas shall be stone-buried to remove stones and debris over 35 mm from the final seeding surface.

Grass seed shall be sown at the rates appropriate to the seed mix (circa 30 g/sqm for general amenity sward and 15-20 g/sqm for native grassland). Seeding shall only be carried out on areas where cultivation and preparatory work has been approved.

Seeding shall be carried out during suitable calm weather conditions using an efficient broadcast machine for large areas or by hand in small areas and confined spaces. The operation will be carried out in equal sowings in transverse directions. After sowing, the ground will be rolled with a light-weight roller.

Grass sward shall be even and consistent in terms of height, density and growth. Re-cultivate and reseed any areas that fail to germinate or are of poor quality.

All damaged / failed grass seeded areas to be reseeded in spring and late summer following seeding, in accordance with this specification.

## 5.5 Aftercare

All landscape works, including planting and seeded areas, shall be maintained for a minimum period of 24 months from completion of the works.

All plants shall be alive, healthy, free of minor defects and free of weedkiller or cultivation damage.

Planting areas shall be free of weeds and debris.

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Meadow grassland shall be cut to an even height, after seed has set, in the first twelve months aftercare period to encourage dense growth.

Amenity grassland shall be cut to an even height four to eight times during the first twelve months to encourage dense growth.

Grass shall be healthy, and at the end of twelve months provide a sward of even height and density appropriate to the grade of grass.

The landscape shall be reviewed quarterly during the twelve months and any defects made good immediately thereafter.

Protect foliage of all plants during applications of herbicides. No plant, foliage or stem, shall be directly sprayed, even in winter. Any plants affected by herbicide shall be replaced.

Water all planting as necessitated by dry weather. Apply water as a fine spray, to moisten full depth of root run. Avoid washing or compaction of the soil surface.

Trees will be fitted with irrigation bags during the initial 2 year establishment period.

A minimum of forty eight hours before the initial cut, remove surface stones over 35mm diameter. If the surface is stoney, roll with a light roller to firm grass and to bed-in any remaining stones.

When the amenity grassland sward reaches 125mm in height cut so as to leave 50mm growth.

To encourage sward development, continue to cut amenity grassland sward to 50mm as and when sward reaches 150mm in height.

All landscape areas shall be maintained free from debris, including free from all aftercare debris.

Following the two year aftercare period all landscape areas will be maintained by suitably qualified and approved landscape contractor / or parks department of FCC.

Communal open space will be maintained under the control of a dedicated management company.

## Appendix 1: Bird Survey

**Winterbird Survey of Lands at Moortown,  
Swords,  
Co. Dublin  
December 2023 to January 2024.**



**Fig 1.** View of typical habitat looking towards Swords Community School.

Photos by John Fox.

Report prepared by John Fox

January 2024

## Background.

Brady Shipman Martin commissioned a winter bird survey of lands at Moortown, Swords, Co Dublin, as outlined on the map at fig 2. The lands are located at the western edge of Swords town. The lands can be accessed by a gate at the northwestern corner of the lands from the R125 Rathbeal Road. The lands are bounded on the north by the R125 Rathbeal Road. To the west they are bounded by a recently constructed or under construction housing development and Swords Community College. To the South and east they are bounded by existing housing estates. The lands are primarily of arable farmland now in a fallow state. The lands are difficult to walk as recent farming practices have created a very uneven surface over most of the area. It was probably sown for potatoes or similar when last farmed.

There is a small area of rank grassland in the northeastern corner of the lands which appears not to have been farmed recently. This area also contains some areas of hard standing and bonfires appear to have lit here recently.

There is a stream that crosses the lands, but it is heavily overgrown and therefore mostly inaccessible and not visible.

The lands are divided into 5 fields which are separated from each other by mature hedgerows that contain a variety of native plant species and some semi-mature trees. The boundaries to the lands themselves are made up of similar hedgerows in most areas however there is an area along the northern boundary that is separated from the Rathbeal road only by a timber fence.



Fig 2. Aerial Photo indicating extent of survey lands.

The primary objective of the survey was to gathering information on the birds using the lands.

This report presents the result of a bird surveys conducted on 1<sup>st</sup> of December 2023 and 3<sup>rd</sup> of January 2024. Just two visits were made to the land to record the birds present. Each visit was for a duration of about two hours. The survey area is about 23.5Ha.



**Fig 3.** View of the unmanaged rank area to northeast of the lands.

### Methods.

The site was visited twice, once on 1<sup>st</sup> of December 2023 and again on 3<sup>rd</sup> of January 2024. Each visit was for a duration of about 120 minutes. The visits were made in the late morning and early afternoon.

The lands were scanned from various points with 42x10 binoculars. The hedgerows were walked slowly, any birds heard or seen were identified, when possible, their behaviour noted, numbers counted and their locations plotted on aerial photography. Transects were also walked across open areas of the lands to look and listen for any birds that might be present away from the hedgerows.

### Results.

A total of 30 bird species were recorded on the lands (Table 1). These are all common and widespread birds species of Ireland. They include four Red-listed and five Amber-listed species. (Gilbert et al 2021).

The red listed species were Kestrel, Snipe, Meadow Pipit and Yellowhammer. A single female Kestrel was seen hovering over the central area on the lands. Up to three Snipe were flushed during a single visit. No more than one Meadow Pipit was detected during any visit. Yellowhammers were seen during both visits with flock a of six observed along the hedge to the western

boundary close to the southwestern corner of the lands. Single or two birds were also found along hedgerows in other parts of the lands.

Common Name	BTO Code	Species	Activity	Estimated Maximum Numbers Detected
Buzzard	BZ	<i>Buteo buteo</i>	Hunting, Soaring	1 bird
Sparrowhawk	SH	<i>Accipiter nisus</i>	Hunting	1 bird (male)
Kestrel	K.	<i>Falco tinnunculus</i>	Hunting	1 bird (female)
Herring Gull	HG	<i>Larus argentatus</i>	In Flight	Fly over only
Woodpigeon	WP	<i>Columba palumbus</i>	Foraging	15 birds
Snipe	SN	<i>Gallinago gallinago</i>	Foraging	3 birds
Meadow Pipit	MP	<i>Anthus pratensis</i>	Foraging	2 birds
Wren	WR	<i>Troglodytes troglodytes</i>	Foraging	5 birds
Dunnock	D.	<i>Prunella modularis</i>	Foraging	3 birds
Pied Wagtail	PW	<i>Motacilla alba yarrelli</i>	Foraging	1 bird
Robin	R.	<i>Erithacus rubecula</i>	Foraging	3 birds
Stonechat	SC	<i>Saxicola torquatus</i>	Foraging	2 birds
Song Thrush	ST	<i>Turdus philomelos</i>	Foraging	3 birds
Mistle Thrush	M	<i>Turdus pilaris</i>	Foraging	1 birds
Blackbird	B.	<i>Turdus merula</i>	Foraging	5 birds
Great Tit	GT	<i>Parus major</i>	Foraging	2 birds
Blue Tit	BT	<i>Parus caeruleus</i>	Foraging	3 birds
Long-tailed Tit	LT	<i>Aegithalos caudatus</i>	Foraging	4 birds
Magpie	MG	<i>Pica pica</i>	Foraging	2 birds
Rook	RO	<i>Corvus frugilegus</i>	Foraging	4 birds
Hooded Crow	HC	<i>Corvus corone cornix</i>	Foraging	2 birds
Starling	SG	<i>Sturnus vulgaris</i>	Foraging	1 birds
Goldcrest	GC	<i>Regulus regulus</i>	Foraging	1 bird
House Sparrow	HS	<i>Passer domesticus</i>	Foraging	1 bird
Chaffinch	CH	<i>Fringilla coelebs</i>	Foraging	4 birds
Linnet	LI	<i>Carduelis cannabina</i>	Foraging	Flocks of up to 5 birds
Lesser Redpol	LR	<i>Acanthis cabaret</i>	Foraging	1 bird
Goldfinch	GO	<i>Carduelis carduelis</i>	Foraging	Flocks of up to 8 birds
Reed Bunting	RB	<i>Emberiza schoeniclus</i>	Foraging	7 birds
Yellowhammer	Y.	<i>Emberiza citrinella</i>	Foraging	6 birds

**Table 1.** Text colour indicates species conservation status (Red, Amber, or Green listed).

The five amber listed species were Herring Gull, Starling, Goldcrest, House Sparrow and Linnet. Herring Gull were seen infrequently and only in flight over the lands. A single starling was observed just outside the site in the housing to the south of the lands. A single Goldcrest was observed along the hedgerow to the western boundary towards the

southwestern corner of the lands. A single House Sparrow was found along the eastern boundary hedge close to housing in that location. During the first visit a flock of 8 Linnets were found foraging in the northwestern corner of the lands close to the Rathbeal Road and a flock of 5 were seen in flight over the same area during the second visit.

Only two waterbird species were recorded, Herring Gull and Snipe. Herring Gull were only seen flying over the lands and were infrequent. Snipe were flushed from two of the fields during each visit with a maximum of 3 birds seen during one visit. The probability is that more Snipe were present but remained undetected.

No Brent Geese were observed during any of the visits and none of their droppings were found. There is however no suitable grazing habitat for them within the lands currently.

### Discussion.

The two visits were made when conditions were suitable for bird surveying however as both were winter visits, most birds would not be singing and therefore many may not have been detected.

Three species of birds of prey were detected but each were only seen during a single visit and were just of single birds. A male Sparrowhawk was observed hunting close to the northwestern boundary. A Buzzard was seen fly from a tree along the western boundary close to the Community College and cross the land to the east. A Kestrel was seen in flight hunting over the land close to the centre of the lands.

Woodpigeons were the most commonly detected species with small flocks seen foraging along hedgerows.

Song Thrush, Blackbird, Wren, Dunnock, Pied Wagtail, Robin, Stonechat, Song Thrush, Mistle Thrush, Blackbird, Great tit, Blue Tit, Long-tailed Tit, were occasionally detected along or close to hedgerows or in areas of scrub.

Three corvid species were detected these were Magpie, Rook and Hooded Crow. All were seen in small numbers only, usually along hedgerows.

Small flocks of finches such as Chaffinch, Goldfinch and Linnet were encountered in flight, perched along hedgerows or foraging in the fields themselves. A single Lesser Redpoll was seen in flight over the land close to the eastern boundary.

Reed Bunting was seen in flocks of up to seven birds usually in hedgerows or areas of scrub towards the southern boundary of the lands.

There appeared to be little amenity use of the lands however during the first visit a man was present exercising several dogs.





Fig 4. Typical habitats showing fallow farmland and hedgerows.

#### References.

Gilbert G., Stanbury A., & Lewis L. 2021. Birds of Conservation Concern in Ireland 2020-2026. Irish Birds, 43: 1-22. Birdwatch Ireland, Kilcoole Co Wicklow.

## Brady Shipman Martin

### **DUBLIN**

Mountpleasant Business Centre  
Ranelagh  
Dublin 6  
+353 1 208 1900

### **CORK**

Penrose Wharf Business Centre  
Penrose Wharf  
Cork  
+353 21 242 5620

### **LIMERICK**

11 The Crescent  
Limerick  
+353 61 315 127

[mail@bradyshipmanmartin.com](mailto:mail@bradyshipmanmartin.com)  
[www.bradyshipmanmartin.com](http://www.bradyshipmanmartin.com)

