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LANDSCAPE ARCHITECTS

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Document Issue Register

Client Name:	Cork County Council.
Project Title:	Residential Development, Broomfield, Middleton, Co. Cork

Project No.:	626
Issue Date:	04/02/2025
Current Revision:	-
Issue By:	JC

Distributed To	F.A.O
Walsh Design Group	Michael Walsh

Revision Issue Date							
D	04						
M	02						
Y	24						

Doc No.	Document Name	Size	Stage	Scale
P626-101	Existing Situation Plan	A1	P	1:300
P626-102	Landscape Masterplan	A1	P	1:300
P626-103	Planting Plan	A1	P	1:300
P626-104	Boundary Plan	A1	P	1:300
P626-105	Landscape Details	A1	P	1:20
	Landscape design and green infrastructure statement	A4	P	

Revision History							
	-						
	-						
	-						
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Stage Key:
D – Draft, P – Planning, Pc – Planning Compliance, T – Tender, C – Construction
Revision Key
- First Issue

Registered Landscape Architect

FILE: C:\USERS\LAURA\ONEDRIVE - DAVE RYAN\SHARED DOCUMENTS - DRLA\02_PROJECTS\2024 PROJECTS\626_WDG_BROOMFIELD_MIDLETON\01 WORKING\01 PLANNING\P626.DWG PLOTTED: 05/02/2025 10:10 BY USER: LAURA

Legend

Site Boundary
See Architects Site Plan

Existing Ash Tree within hedgerow to be retained & protected

Existing Hedgerow to be retained

Existing Bramble and Scrub vegetation to be cut back to line of perimeter hedgerow

Proposed RPA (Root Protection Area), see Landscaoe proposals for protection fence during construction

Photo view, see images below
Images taken on site by DRLA on 30-08-2024

1

Notes:
This drawing is to be read in conjunction with all other Landscape Architects, Architects and Engineers drawings


View 1


View 2


View 3


View 4

Root protection area indicated thus reflecting the fact that most of the root system of this tree will be contained within the earthen bank of the hedgerow.

Mature Hawthorn (Crataegus monogyna) within hedgerow

Multi-stemmed Ash (Fraxinus excelsior)

Line of Hawthorns (Crataegus monogyna) Mature hedgerow

Mature Hawthorn (Crataegus monogyna) within hedgerow

Existing Bramble and Scrub vegetation to be cut back to line of perimeter hedgerow

Existing hedgerow with mixed native species

Pasture field (agricultural use)

1

2

3

4

Issue/Rev. no.	Description	Date	Sign	Chk'd

Client: **Cork County Council**
Project: Residential Development
Broomfield West, Midleton,

Drg Title: Excisting Situation Plan
Stage: Planning

Drg. No.: P627-102
Scale: 1:300@ A1
Date: 4th February 2025
Drawn By: JC Checked by: DR

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12 Barrington Street
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0 meters 5 10 15 20 25 30

W N E S Winter Summer

Registered Landscape Architect

FILE: C:\USERS\DRLA\DAVE RYAN\DRLA - DOCUMENTS\02_PROJECTS\2024 PROJECTS\626_WDG_BROOMFIELD_MIDLETON\01 WORKING\01 PLANNING\P626.DWG PLOTTED: 04/02/2025 16:33 BY USER: DRLA

Legend

- Site Boundary offset 1m for clarity
- Existing trees to be retained
- Existing embankment and hedgerows to be retained
- Existing Bramble and Scrub vegetation to be removed
- Proposed Tree planting, 1.5mØ bark mulch to base, see plant list on drawing no.P626-102 appropriate tree pit to construction stage detail (AcE)
- Proposed Bioretention Tree planting, See Engineers drawings. see plant list on drawing no.P626-102 (Bpu)
- Proposed native hedge planting in preprepared trench of imported BS3882 quality topsoil, see plant list on drawing no.P626-102
- Proposed Clipped hedge to 1m height planting in preprepared trench of imported BS3882 quality topsoil, see plant list on drawing no.P626-102
- Proposed pollinator friendly shrub and perennial planting in 450mm of imported BS3882 quality topsoil, bark mulch on completion. see plant list on drawing no.P626-102
- Proposed well kept lawn to private gardens and to playing pitch surfaces, sown / rolled turf on 150mm depth of topsoil.
- Proposed general purpose amenity grassland in public areas, sown on 75mm minimum depth of topsoil.
- Proposed wildflower meadow, naturally generated from on site seed bank
- Proposed Bioretention raingarden and planting in public areas, see plant list on drawing no.P626-102
- Proposed Raingarden in private back gardens, see plant list on drawing no.P626-102
- Proposed native woodland field layer planting, see plant list on drawing no.P626-102
- Proposed native woodland edge planting, see plant list on drawing no.P626-102
- Nature play area surface e.g. play grit with retaining structure and mounding to perimeter, fall heights not to exceed 300mm
- Proposed Bound gravel pedestrian path min.2m wide
- Proposed Cast-In-Situ Concrete footpaths, min. 2m wide in public areas. Min. 1m wide to house perimeter
- Proposed Block paving to private patios, e.g. Manhatten setts 600x150x80mm, laid in stretchere bond, mixed colour 80% Graphite and 20% Oat by Tobermore or similar approved
- Proposed Permeable Block paving to private parking areas e.g. Hydropave pedesta, colour charcoal, by Tobermore or similar approved
- Proposed Block paving to private parking areas e.g. Fusion, 200x100x80mm, laid in a stretcher bond, colour Charcoal, by Tobermore or similar approved
- Proposed Block paving to e.g. Fusion, 200x100x60mm, laid in a stretcher bond, colour silver, by Tobermore or similar approved
- Proposed Pedestrian footpath and cycle path, see Engineers drawings
- Proposed Tar and beige Chip homezone/ shared surface finish
- Proposed Earth mounding approx. 500mm in height, gradients not exceeding 1:3 for ease of maintenance. To be marked out by LA on site
- Proposed HC2000S Seat By Hartecast or similar approved.
- Proposed nature play elements e.g. logs, boulder and stepping stumps
- Proposed grass swale, see detail on drawing no. P626-105. See Also Engineers drawings

Notes:
This drawing is to be read in conjunction with drawings no. P626-101 Existing Situation Plan, P626-103 Planting Plan, P626-104 Boundary Plan, P626-105 Landscape Details and all Architects and Engineers drawings.

For Boundary treatments see drawing P626-104 Boundary Plan and Engineers and Architects Boundary drawings.

For Plant list See drawing no P626-103
For Retaining walls refer to Engineers drawings.

Biodiversity Net Loss and Gain

Name		Quantity Retained	Net Removal	Proposed Planting	Net Gain
Existing Woodland Retention		0m²			
Existing Woodland Removal			0m²		
Proposed Woodland				805m²	
					805m²
Existing Tree Retention		3no.			
Existing Tree Removal			0 no.		
Proposed Trees				70 no.	
					70 no.
Existing Hedgerow Retention		849 m²			
Existing Bramble area Removal			1064 m²		
Proposed Native Hedgerows				1188 m²	
					124 m²
Proposed Shrub, Perennial, raingarden and bulb planting				979m²	
					979m²

Note: No scaled measurements to be taken from this drawing, written dimensions only. Scales are indicative only and can vary with different printing and photocopying methods. This is not a construction document.
Further specification, measurements and levels can be provided at Tender or Construction phases as required by the client.

0 meters 5 10 15 20 25 30

W N E S Winter Summer

Issue/Rev. no.	Description	Date	Sign	Chk'd

Client: **Cork County Council**
Project: Residential Development
Broomfield West, Midleton,

Drg Title: Landscape Masterplan
Stage: Planning

Drg. No.: P626-102
Scale: 1:300@ A1
Date: 4th February 2025
Drawn By: JC Checked by: LF

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Registered Landscape Architect

Legend

- Site Boundary offset 1m for clarity
- AcE — Proposed Tree planting, 1.5mØ bark mulch to base, see plant list
- Bpu — Proposed Bioretention Tree planting, see planting Plan, See Engineers drawings
- Proposed native hedge planting in preprepared trench of imported BS3882 quality topsoil, see plant list
- Proposed Clipped hedge to 1m height planting in preprepared trench of imported BS3882 quality topsoil, see plant list
- Proposed pollinator friendly shrub and perennial planting in 450mm of imported BS3882 quality topsoil, bark mulch on completion
- Proposed well kept lawn to private gardens and to playing pitch surfaces, sown / rolled turf on 150mm depth of topsoil.
- Proposed general purpose amenity grassland in public areas, sown on 75mm minimum depth of topsoil.
- Proposed wildflower meadow, naturally generated from on site seed bank, see plant list
- Proposed Bioretention rain garden and planting, see plant list
- Proposed native woodland edge planting, see plant list
- Proposed native woodland field layer planting, see plant list
- Proposed raingardens in private gardens, see plant list. See Engineers drawings.

Notes:
This drawing is to be read in conjunction with drawings no. P626-101 Existing Situation Plan, P626-102 Landscape Plan, P626-104 Boundary Plan, P626-105 Landscape Details, and all Architects and Engineers drawings.

Plant List

Clipped hedge to 1m height - planted in a double row at 0.3m spacings, 0.25-0.30m b/r, 1+2, (469Lin.m 3126no. plants)

Name	Quality	%	Quantity
Ilex crenata	60-90cm	50	1563
Taxus baccata	60-80cm	50	1563

Proposed native hedgerow planting - Double row of mixed native hedging, at spacings of 0.3m (365 lin. m. = 2,433 no. plants)

Name	Quality	%	Quantity
Feathered transplants:			
Crataegus monogyna	60-90cm 1+1	80	1946
Corylus avellana	60-90cm 1+1	5	122
Sambucus nigra	60-90cm 1+1	5	121
Prunus spinosa	60-90cm 1+1	5	121
Ilex aquifolium	60-90cm 1+1	5	122

Tree Planting - as per locations shown

Code	Name	Quality	Quantity
Extra heavy standards and Semi-Matures, rootballed, 3-4 times transplanted:			
AcE	Acer campestre 'Eslrijk'	18-20cm girth	5
Me	Malus 'Evereste'	14-16cm girth	8
Ps	Pinus sylvestris	200-250cm high	7
PaP	Prunus avium 'Plena'	18-20cm girth	2
SaS	Sorbus aucuparia 'Sheerwater seelding'	18-20cm girth	16
Qr	Quercus robur	20-25cm girth	11

Bioretention Tree planting

Code	Name	Quality	Quantity
Extra Heavy Standard, rootballed, 3X times transplanted, Clearstem to 1.8m:			
Ag	Alnus glutinosa	16-18cm girth	10
Bpu	Betula pubescens	16-18cm girth	11

Proposed Woodland Edge mix planting planted in a random mix at 1m spacings 316 no. plants (316m^2)

Name	Quality	%	Quantity
Field grown saplings and feathered transplants:			
Cornus sanguinea	1+1 40-60 cm	10	32
Corylus avellana	1+1 40-60 cm	15	47
Crataegus monogyna	2+0 60-90 cm	5	16
Euonymus europaeus	1+1 90-120 cm	15	47
Malus sylvestris	1+1 60-90 cm	5	16
Prunus padus	1+1 60-90 cm	5	16
Prunus spinosa	1+1 60-80 cm	5	16
Rosa canina	1+1 30-40 cm	5	16
Viburnum opulus	1+1 40-60 cm	15	47
Container Grown			
Ilex aquifolium	CG C2 40-60 cm	5	16
Hedera helix	p9 20-30 cm	15	47

Proposed Woodland Field Layer - Woodland Field Layer species with wildlife benefits, Container grown, planted at spacings of 3/m² (Area 163 m² = 489No. Plants)

Name	Quality	%	Quantity
Blechnum spicant	C3 60-80 cm	10%	49
Carex pendula	C2 40-60 cm	35%	171
Dryopteris felix mas	C2 40-60 cm	10%	49
Lonicera periclymenum	C2 60-80 cm	5%	24
Luzula sylvatica	C1.5 30-40 cm	40%	196

Proposed naturally generated Wildflower meadow - Wildflower meadows to be naturally generated from on site seed bank with no additional seeding. Meadows against roadsides to be mown every 6 weeks with less frequent mowing in all other areas.

Shrub and perennial planting - 599 m^2 to be planted at approx. 3/m² spacings, total 1,797 no. plants, plants, to be 2 or 3 Litre container grown. Plants proposed to reach maximum 900mm in height, average height 600mm. All plants chosen from the All Ireland Pollinator Plan (AIPP) Plants to be selected from the following list (refer to AIPP for replacments if required): *Anemone, Berberis 'darwinii', Echinops, Echinacea purpurea, Euonymus europaeus, Ground cover roses, Helenium, Lamium maculatum, Lonicera, Mahonia, Nepeta, Perovskia, Persicaria, Rosmarinus officinalis, Viburnum tinus, Nepeta, Sarcococca hookeriana, Salvia, Sedum, Stachys 'byzantina', Viburnum opulus 'Nanum'.* Decorative bark mulch on geotextile layer to be applied on completion of planting scheme.

Bioretention/Raingarden planting - to be 2-5 Litre container grown. Container grown shrubs to be grouped in naturalistic swathes of odd numbered groups of no less than 3 and no greater than 12. Scheme to include plants tolerant to drought and occasional flooding

Bioretention/Raingarden planting - Public areas:
355m2 - to be planted at 4/m2, total 1,420 no. plants: Alchemilla mollis , Aster frikartii 'Mönch', Bergenia cordifolia, Geranium Rozanne, Hemerocallis 'Burning Daylight', Hellenium 'Moreheim beauty', Rudbeckia fulgida 'Yellow Goldstar', Monarda didyma, Stachys byzantina, Iris siberica, Calamagrostis brachytricha, Carex pendula, Viburum opulus nanum, Cornus sanguinea

Raingarden planting - Private Gardens:
57m2 - to be planted at 3/m2, total 171 no. plants,: Alchemilla mollis , Aster frikartii 'Mönch', Geranium Rozanne, , Hellenium 'Moreheim beauty', Rudbeckia fulgida 'Yellow Goldstar', Iris siberica, Carex pendula,

Planting Programme

Notes: Trees and hedges to be planted during the first dormant season (September through to March or when rootballed stock becomes available for sale) after practical completion issued for each phase of work. Shrubs to be planted during the nearest spring or Autumn planting season after practical completion. Any scrub or hedge removal to take place outside bird nesting season (1 March to 31 August)
This plant list was created in accordance with All Ireland Pollinator Plan, no changes to be made without LA approval. High percentage (75%) of plants to be attractive to pollinators, this number includes a minimum of 35% herbaceous perennials in the mix, a generous portion of which should be suited to spring and late autumn flowering.

Note: No scaled measurements to be taken from this drawing, written dimensions only. Scales are indicative only and can vary with different printing and photocopying methods. This is not a construction document.
Further specification, measurements and levels can be provided at Tender or Construction phases as required by the client.

0 meters 5 10 15 20 25 30

N W E S Winter Summer

Issue/Rev. no.	Description	Date	Sign	Chk'd

Client: **Cork County Council**
Project: Residential Development Broomfield West, Midleton,

Drg Title: Planting Plan
Stage: Planning

Drg. No.: P626-103
Scale: 1:300@ A1
Date: 4th February 2025
Drawn By: JC Checked by: LF

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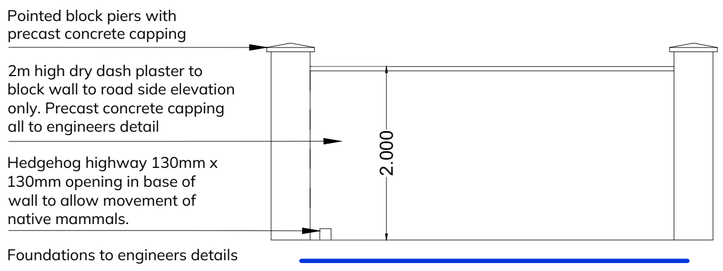
Registered Landscape Architect

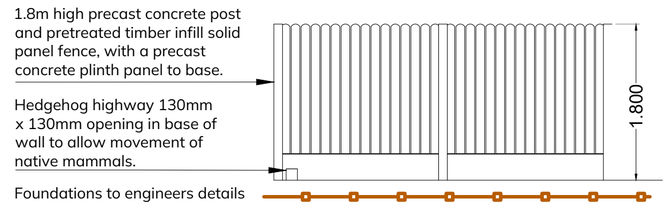
Legend

- Boundary 1 - Proposed 2m high concrete Block wall, capped and rendered on all road facing sides.
- Boundary 2 - proposed 1.8m high concrete post and timber panel fencing, with side gates as illustrated to match.
- Boundary 3 - Proposed 1.1m high Galvanized flat bar railing to ground floor apartment gardens
- Boundary 4 - Proposed new 1.8m high concrete post and concrete panel fence to front of existing hedgerow
- Boundary 5 - Proposed new 1.8m high wire mesh fence to front of existing hedgerow
- Boundary 6 - Proposed new 1.1m high weld Mesh fence
- Boundary 7 - Proposed 1.1m high brick parapet to top of retaining wall, 215mm wide, soldier-course capping. See Architects drawings for brick colour and specifications.

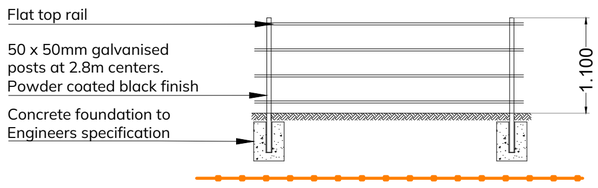
Notes:
This drawing is to be read in conjunction with drawings no. P626-101 Existing Situation Plan, P626-102 Landscape Plan, P626-103 Planting Plan, P626-105 Landscape Details and all Architects and Engineers drawings. For Plant list See drawing no P626-103. For Retaining walls refer to Engineers drawings.



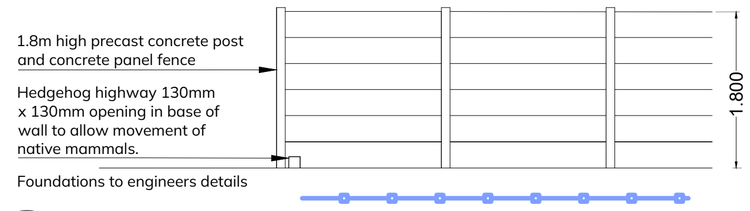
Boundary 1 - 2m high Concrete block wall
Scale 1:50 @A1



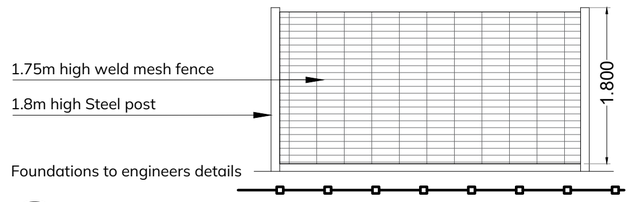
Boundary 2 - 1.8m high Concrete post and plinth fence with timber infill panels
Scale 1:50 @A1



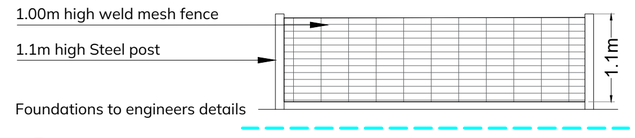
Boundary 3 - 1.1m high Flat top railing to front garden boundaries
Scale 1:20 @A1



Boundary 4 - 1.8m high Concrete post and plinth fence with concrete infill panels
Scale 1:50 @A1



Boundary 5 - 1.8m high wire mesh fence
Scale 1:50 @A1



Boundary 6 - 1.1m high wire mesh fence
Scale 1:50 @A1

Issue/Rev. no.	Description	Date	Sign	Chk'd

Client: **Cork County Council**
Project: Residential Development
Broomfield West, Midleton,

Drg Title: Boundary Plan
Stage: Planning

Drg. No.: P626-103
Scale: 1:300@ A1
Date: 4th February 2025
Drawn By: JC Checked by: LF

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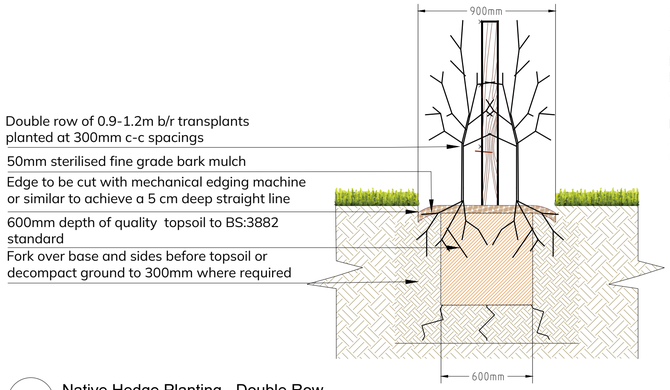
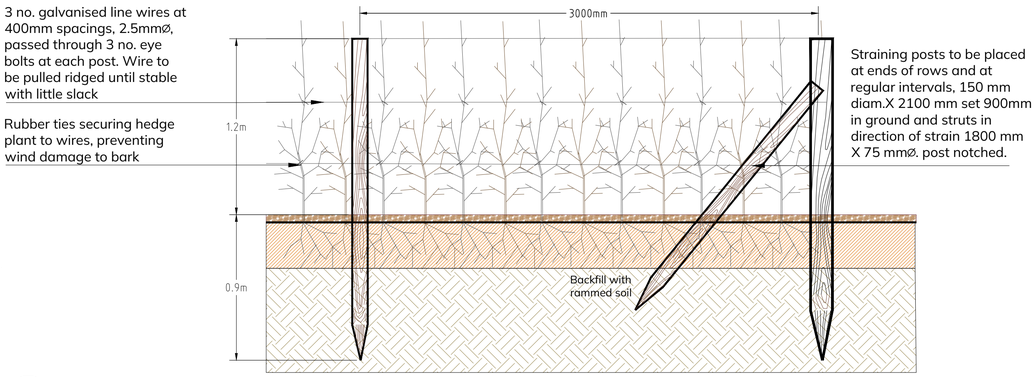
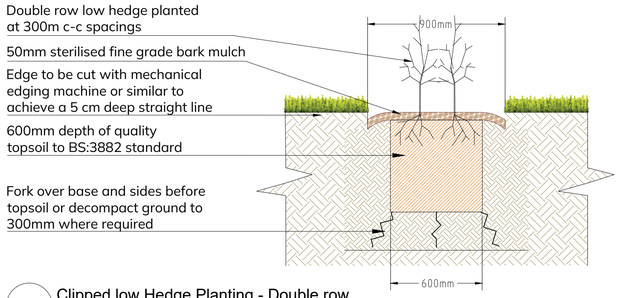


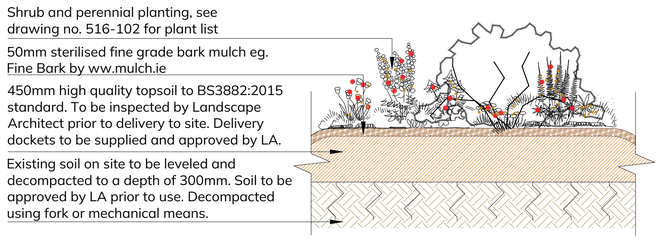
Native Hedge Planting - Double Row
Scale 1:20 @A1



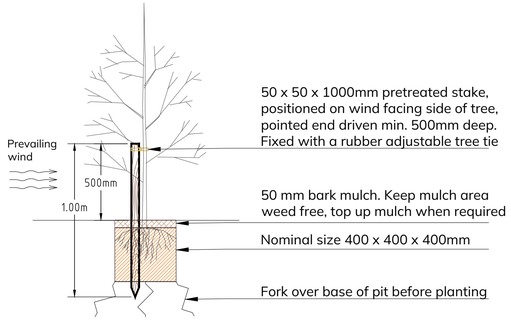
Native Hedge Planting - Elevation
Scale 1:20 @A1



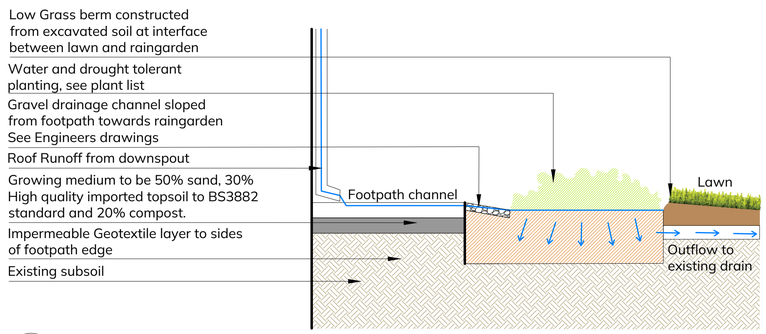
Clipped low Hedge Planting - Double row
Scale 1:20 @A1



Pollinator Friendly Shrub and Perennial Planting in Bark Mulch
Scale 1:20 @A1



Transplants, whips and feathered tree planting detail
Scale 1:20 @A1



Raingarden Planting in private gardens
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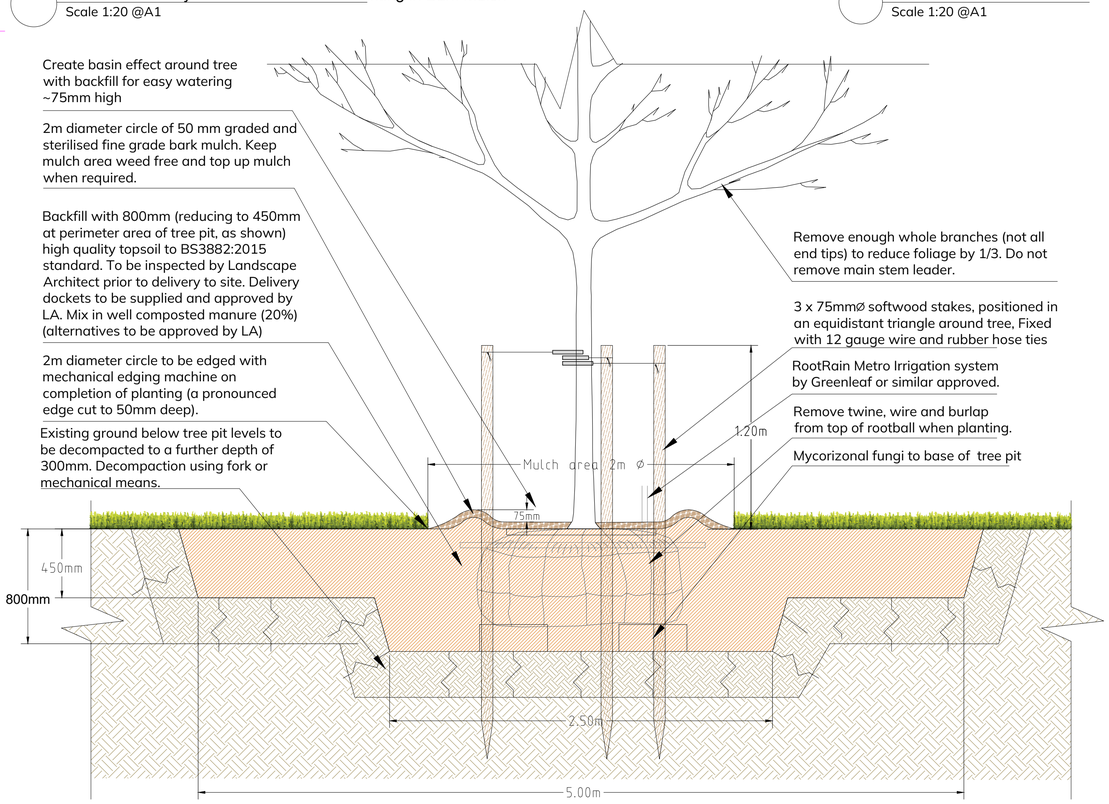
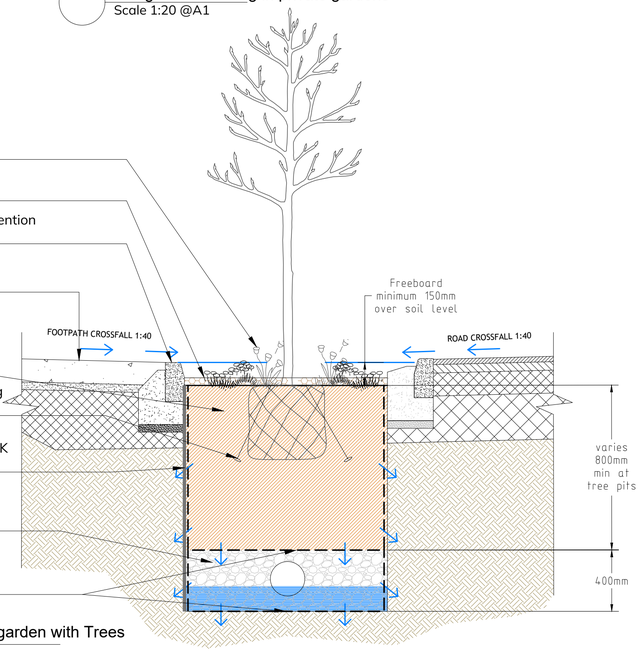


Extra Heavy Standard Native Tree Planting
Scale 1:20 @A1



Roadside Bioretention Raingarden with Trees
Scale 1:20 @A1

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Issue/Rev. no.	Description	Date	Sign	Chk'd

Client: **Cork County Council**
Project: Residential Development Broomfield West, Midleton,

Drg Title: Landscape Details
Stage: Planning

Drg. No.: P626-105
Scale: 1:20@ A1
Date: 4th February 2025
Drawn By: JC Checked by: LF

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Registered Landscape Architect

Residential Development, Broomfield

LANDSCAPE DESIGN & GREEN INFRASTRUCTURE STATEMENT

DRLA LANDSCAPE ARCHITECTS

DRLA
LANDSCAPE ARCHITECTS

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Office - 061 590 001
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Project Title	Residential Development, Broomfield
Document Subject	Landscape Design & Green Infrastructure Statement
Client	Cork County Council
Location	Midleton, Co Cork
Issue Date	05/02/2025
Project Reference	626

Rev	Status	Author	Reviewer	Approver	Approver Signature	Date
01	Planning	LF	DR	DR		05/02/2025

1 FORWARD

This Landscape Design & Green Infrastructure Statement has been produced to describe the design intentions and rationale of the proposed landscape design for the Residential Development, Broomfield in Midleton, Co Cork. This document is to be read in conjunction with the following drawings and other submitted design proposals:

Residential Development, Broomfield Landscape Drawing Schedule			
Drawing Number	Drawing Title	Scale	Print Size
P626-101	Existing Landscape Situation Plan	1:300	A1
P626-102	Landscape Masterplan	1:300	A1
P626-103	Planting Plan	1:300	A1
P626-104	Boundary Plan	1:300	A1
P626-105	Landscape Details	1:20	A1

Contents

2 INTRODUCTION

2.1 SUBJECT DEVELOPMENT

Cork County Council seeks planning permission for development at Broomfield, Midleton, Co Cork.The proposed residential development consists of the construction of 45 no. residential units comprising of 27 no. two, three and four bedroom 2-storey houses and 18 no. one and two-bedroom duplex apartments. The development will include allocated on and off plot parking, new roads and pedestrian and cycle routes within the site, vehicular access to Broomfield West, public lighting, connection to utilities, landscaping, bin and bike storage, drainage and other ancillary works. An extract of the proposed landscape masterplan is included in Figure 1.

Figure 1 Extract of Landscape Masterplan

2.2 SITE CONTEXT

The proposed residential development is located in Broomfield, on the outskirts of Midleton, County Cork. The proposed development is located on a greenfield site to the north of Midleton town centre (Figure 1). A local road (L7360) runs along the eastern boundary and provides access to the site. This road has been recently upgraded. The site is bounded to the south and west by adjacent agricultural land and to the north by a new housing estate (The Steeples). Refer to drawing P626-101 Existing Situation Plan.

2.3 EXISTING VEGETATION

The proposed development occupies a greenfield site, located within the boundary of Midleton, Co Cork. The site occupies a portion of an existing agricultural field and was surveyed by an ecologist in November 2024. The survey identified three habitat areas and classified these in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000.)

The most extensive habitat consists of Improved amenity grassland (GA1) and is moderately diverse in species. This area also shows signs of disturbance from dogs and walkers.

The site's northern edge is comprised of three habitat classes in patches along the existing hedgerow boundary; Scrub (WS1) Hedgerow (WL1) and Dense bracken (HD1). The hedgerow is gappy but includes typical hedgerow species such as Hawthorn, Blackthorn and Elder. The hedgerow has not been maintained and is spreading into the field in patches of bracken, gorse and bramble scrub. There is a single Ash tree within the hedgerow outside the subject site boundary. Foxglove and nettle were found in the understorey.

The third area of habitat is the newly constructed earthen boundary to the eastern edge of the site, following the local road L7360. This was classified as Earth Bank BL2 and is being colonised by early successional and common grass species. Please refer to the Appropriate Assessment Screening report for additional detail.

2.4 SITE TOPOGRPAHY

Th The proposed development site covers an area of approximately 1.45ha. The site generally slopes southwest with a high point of approximately 57.88 m in the northeast of the site and the low point of approximately 41.62 m at its southwest boundary.

3 LANDSCAPE & GREEN INFRASTRUCTURE DESIGN STRATEGIES

This section details the proposals made for different landscape elements in response to the proposed development and the site context. The site has significant challenges in terms of the density of the proposed development, the existing sloped topography of the site and a wayleave that must be maintained to the north of the site.

3.1 RETAIN EXISTING MATURE ASH TREE

There is an existing mature Ash within the hedgerow of the northern boundary of the site that is in good condition and should be retained. While it is not growing within the site's boundary, without mitigation, the construction of the site would impact on the Ash tree.

Tree protection shall be implemented in accordance with *BS 5837 Trees in relation to design, demolition and construction*. A Tree Protection Plan shall be prepared at tender stage to include detailed drawings and specifications for barriers required to protect existing mature Ash tree to be retained and shall be included in all tender documentation relating to works on this site. Barriers or fences erected to protect trees must be erected in advance of any other works and shall be aligned to the extent of the Root Protection Area for each tree to be retained. All tree protection fencing shall be maintained on site for the duration of the works. No works, construction access routes or storage compounds shall be situated within the fenced areas for the duration of the works. Refer to drawing *P626-101 Existing Landscape Situation Plan* for information.

3.2 SUPPORT BIODIVERSITY

The landscape design aims to retain where possible areas of existing vegetation of value for biodiversity and to increase the extent and connectivity of habitats across the site. The planting palette is designed to support pollinators, taking guidance from the *All-Ireland Pollinator Plan*. Planting design for hedges is based on recommendations in *Irish Hedgerows: Networks for Nature and Conserving Hedgerows.* Woodland planting design is informed by *Management Guidelines for Ireland's Native Woodlands.* In addition, the planting design incorporates any recommendations from the ecologist's site appraisal.

3.3 PROVIDE SUDS LANDSCAPE FEATURES

Where feasible, soft landscape areas within the proposed scheme will be utilised for Nature Based Solutions (NBS) for Sustainable Drainage Systems (SuDS) such as grassed filtered

swales and bioretention rain gardens. Selected parking bays are to be finished with permeable paving. Refer to the engineer's drainage proposals for further details on site strategy for SuDS.

3.4 PROVIDE AND CONNECT DIVERSE HABITATS

The scheme aims to connect existing habitats as well as to provide new habitat types and increase habitat extents in the area. Native hedgerow planting is proposed to soften new boundaries, to connect to existing hedgerows and to connect habitats to each other. Areas of woodland edge planting are proposed in the northern portion of the site and inside the roadside boundary to soften the development in the landscape and to provide woodland habitat in the area. A mix of pollinator-friendly shrubs and perennials are proposed for the roadside bioretention raingardens.

Figure 2: Native hedgerow connecting to Woodland field layer with semi-mature trees and a bioretention raingarden connectied to a roadside swale

Clipped hedges are proposed to delineate semi-private areas and to soften driveways and are composed of native Yew and ornamental Holly to provide winter greenery. Pockets of woodland field layer habits are proposed beneath semi-mature tree planting in three locations across the site. Pollinator-friendly perennials are proposed for the raingardens in private gardens.

3.5 PROVIDE FACILITIES FOR ACTIVE & PASSIVE RECREATION

To serve residents in the proposed development's residential area, the available open spaces are designed for both passive and active recreational use across generations.

To the north of the site is an area that cannot be developed due to existing services, proposed services and a wayleave. This area will be at a higher elevation than the rest of the site and will not have universal access for humans. This area has been divided into zones according to the depths of root growth permissible due to the services and wayleave. Within each zone the planting has been proposed to provide a mosaic of habitats that connect to the existing native hedgerow boundary. These habitats include semi-mature native trees in the northern-most corner, native hedgerow planting and naturally generated wildflower meadow. The area can be enjoyed passively as it will be visible from within the site and from the public road as an opportunity for biodiversity education. An information sign is proposed on the road-facing edge of the area detailing the value of the proposed habitats to biodiversity.

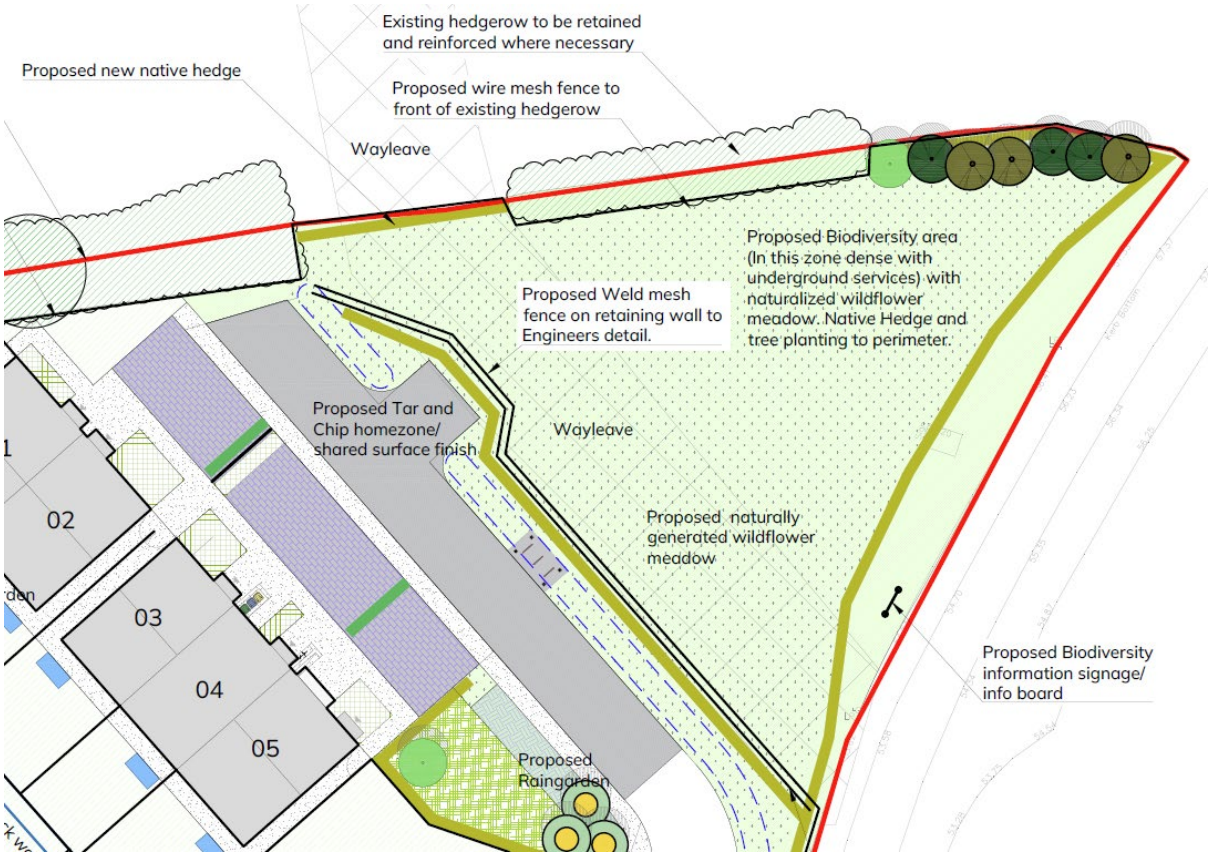

Figure 3 Proposed Biodiversity Area to North West of site for passive recreation and education

Within the developable area of the site, there are two landscape areas that afford opportunities for recreation; the area of open space outside units 22 to 27 and the area of open space between units 33 and 44.

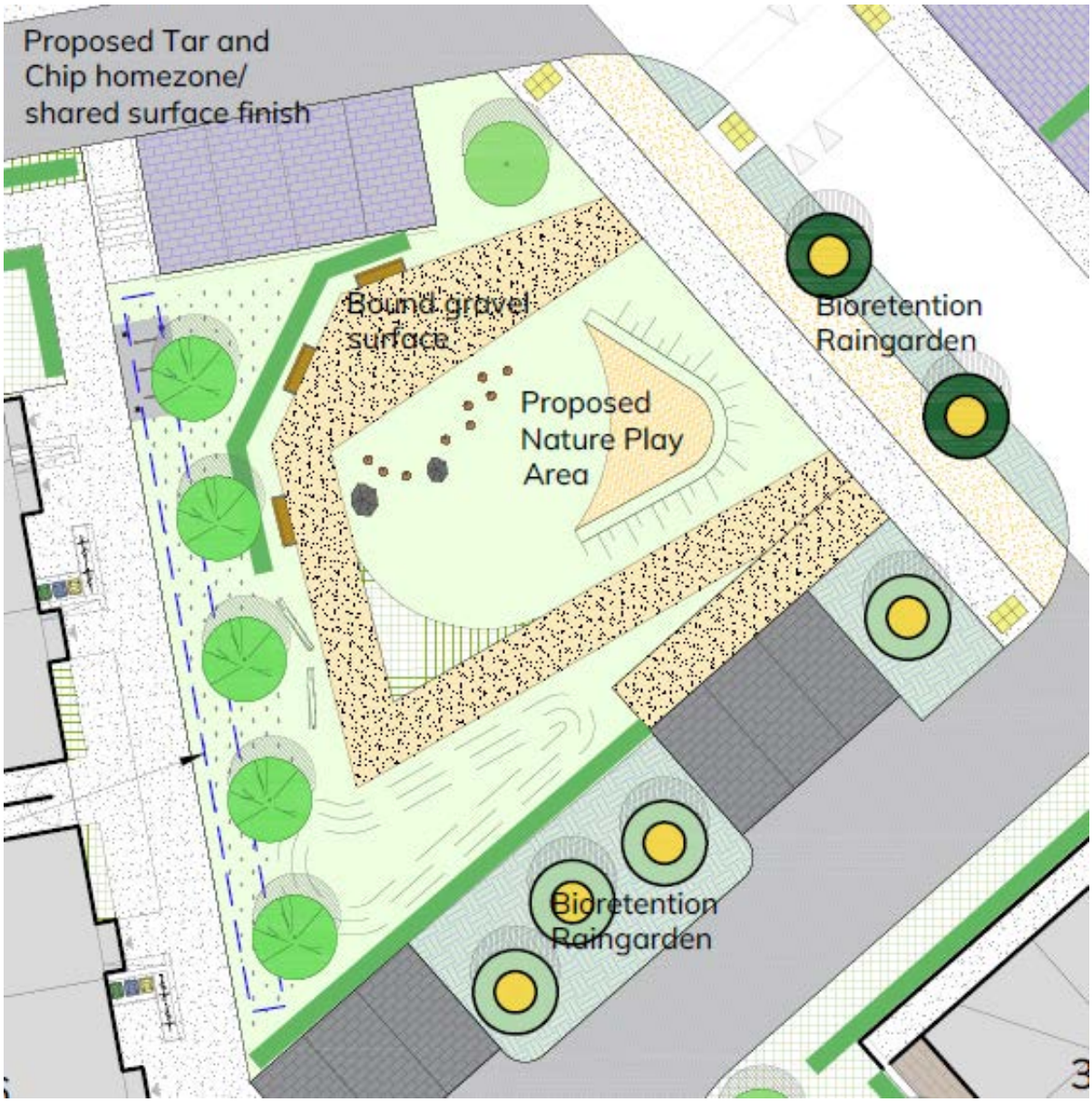

Figure 4: Open Space outside Units 22 to 27

Within each open space the landscape design objective is to provide opportunities for play for children and to provide seating for caregivers' oversight and for residents passive enjoyment of the outdoors. The structural planting of low clipped hedges and semi-mature tree planting along with earth mounding is designed to provide a sense of enclosure, a sheltered microclimate and to soften the visual environment.

Figure 5: Open Space between Units 33 and 44

Additional shrub and perennial planting is proposed to add visual interest and to support biodiversity in these areas. The grassed earth mounds provide opportunities for play. Other natural elements such as debarked logs, loose gravel, stepping stumps and boulders are also proposed to afford opportunities for play.

4 HARD LANDSCAPE MATERIAL SELECTION

The materials and fixtures proposed for the landscape are selected to complement the architectural proposals for the residential and commercial buildings in the scheme. Material selection is also informed by sustainability principles of the circular economy, life-cycle costs and of minimising the quantum of materials required.

4.1 SURFACES

The approach to hard landscape surface selection is informed by the principle firstly of 'Pave Less,' whereby the minimum areas required for circulation are provided to reduce soil coverage and stormwater runoff, in turn reducing the water management burden pf the site. Footway widths are kept to a minimum required for universal access and are constructed in poured concrete. Where feasible, parking bays are surfaced in permeable paving units with a finish to complement the proposed architectural finishes. Where supplementary circulation is provided through landscape areas, the surface finish is gravel to reduce impacts on tree roots and allow for stormwater permeability.

Surfaces in Tree Root Protection Area (RPA)

In order to retain the existing mature Ash and hedgerow on the northern boundary of the site, a specialised construction methodology is proposed for boundaries within the Root Protection Area (RPA) of trees and hedgerow to be retained. The boundary must be constructed minimise soil compaction and excavation in the RPA by using post and concrete panel fencing instead of concrete block wall boundaries. In addition, **all works in tree RPA areas must be carried out under the supervision of an appointed arborist**.

Safety Surfaces

Safety surfaces in both the Open Space and the Nature Play Area will be formed by play suitable wood chip e.g. Woodside Playground Wood Chip and shall be laid to recommended depths and in accordance with tender stage specifications.

4.2 SITE FURNITURE & FIXINGS

Seating

Seating proposed within amenity areas are high quality robust timber bench seats with back and arm rests, e.g. HC2000S hardwood seat by Hartecast with powder coated ductile iron frame.

Figure 6: HC2000S hardwood seat by Hartecast

Play Equipment

The following equipment is proposed in the Nature Play area:

- Stepping Logs
- Debarked tree balancing logs

Figure 7 Richter Spielgeräte Stepping Logs

4.3 BOUNDARIES

To reduce waste during construction and to limit the impacts on mature trees, the design proposes to retain as much as possible of the existing boundaries to the site.

Residential Boundary to Rear Gardens

The rear gardens of the residential units are proposed as 2 m high concrete block walls, capped, with piers at 3m intervals changes in direction, level and ends, and rendered on all public and road facing sides to match renders proposed to residential units.

Special Boundary Walls in Tree RPA Areas

Boundary walls to be constructed within the Root Protection Area (RPA) of trees to be retained are proposed to be constructed to minimise impacts on tree roots through the use of point foundations and no dig construction. Concrete post and concrete panel boundaries are proposed in these locations. **All works in tree RPA areas must be carried out under the supervision of an appointed arborist**.

Residential Garden Plot Boundaries

Concrete post and timber panel fences are proposed as plot boundaries to neighbouring residential unit rear gardens.

Boundary to Ground Floor Apartment Gardens

The ground floor simplex apartment gardens are proposed as flat bar railings to 1.1m height to delineate private space while allowing light to penetrate and to retain a visual lightness. The powder coated galvanised finished will be black to match proposed finishes to the balcony parapets.

Retaining Wall Parapets

Retaining walls that result in drops in excess of 600mm will require parapets to 1.1m as fall protection. These parapets are proposed to match the balcony parapets to the simplex apartments, with vertical bar powder-coated galvanised steel railings.

5 PLANTING DESIGN

5.1 PRINCIPLES

The planting selection has been designed to improve the green infrastructure within and in the vicinity of the proposed development. The design aims to provide a meaningful amenity space for the residents of the site as well as adding new planting to support biodiversity and to counter the loss of existing trees and vegetation. We have proposed a mix of native tree, woodland understorey and hedge planting, throughout the site as well as perennial and shrub planting to add visual interest and biodiversity value in smaller areas close to buildings.

The emphasis in the plant selection is on using species that support biodiversity and on grouping them in plant communities that provide a diverse range of habitats on the site. The planting palette is designed to support pollinators, taking guidance from the *All-Ireland Pollinator Plan*. Planting design for hedges is based on recommendations in *Irish Hedgerows: Networks for Nature and Conserving Hedgerows.* Woodland planting design is informed by *Management Guidelines for Ireland's Native Woodlands.* In addition, the planting design incorporates recommendations from the Ecological Assessment and the Arboricultural Impact Assessment.

Trees and Woodlands

Our proposals include for the retention of the existing Ash tree north of the site's boundary and the hedgerow on the northern boundary.

Across the site, semi-mature standard trees are proposed in both soft landscape and hard landscape areas. In soft landscape areas, the trees selected are native. In hard landscape areas and in raingardens, tree species are selected to withstand the more hostile conditions and to support biodiversity.

Areas of native woodland planting are proposed to the north of the site and inside the southern and eastern boundary to diversify habitat. There woodland edge mix proposed will support pollinators and provide cover for birds and mammals.

Native woodland understorey planting will be planted beneath the canopy proposed semi-mature trees in three pockets across the site to diversify planting in this area and to provide low-level cover.

The proposed tree planting has been reviewed with anticipated vehicular traffic within the development and we are satisfied that they will not impact on turning radii for trucks etc. The selected trees should be relatively low maintenance and we propose that in the long term a tree surgeon will assess their growth and health on a regular basis and lighten out crowns or clear stem accordingly.

Hedges and Hedgerows

An additional 325 linear meters of new native hedgerow planting is proposed to soften boundaries, to increase native planting and to connect existing and proposed habitats in the vicinity with a linear habitat. The native hedgerow selection is made to optimise habitat value and contains a majority percentage of Hawthorn supplemented by other flowering natives Wild Privet, Crab Apple, Wild Cherry, Bird Cherry, Blackthorn, Dog Rose and Guelder Rose to provide nectar and pollen for pollinators and invertebrates as well as food for birds and small mammals. The hedgerow mix also includes Hazel, Holly and Field Maple to provide food, cover and nesting sites for small mammals, birds and fungi as well as supporting pollinators.

Shrubs and Perennials

The proposed shrub and perennial planting palette has been selected in accordance with the All-Ireland Pollinator Plan plant list. Shrub and perennial planting will be supplied in 2-3 litre pots and planted at a density of 5no/ m^2. Planting beds in public facing areas will be finished with a 50mm layer of bark mulch. Plant species have been selected to enhance biodiversity and create habitat on the site.

5.2 PLANT LIST

Tree Planting in Soft Landscape Areas—Native Species

Key	Specification	Quantity
AcE	Acer campestre 'Eslrijk' 18-20cm girth	5
Bp	Betula pendula Multistemmed 2.5-3m high	6
Me	Malus 'Evereste' 14-16cm girth	8
Ps	Pinus sylvestris 200-250cm high	10
PaP	Prunus avium 'Plena' 18-20cm girth	3
SaS	Sorbus aucuparia 'Sheerwater seelding' 18-20cm girth	16
Qr	Quercus robur 20-25cm girth	12
Bp	Betula pubescens Br 12-14 cm Feathered 3.5-4.0m	16
Ps	Pinus sylvestris RB Feathered 175-200 cm Branching Head	3
Pa	Prunus avium RB 18-20 cm Feathered 3-3.5 m	4
Qr	Quercus robur RB 18-20 cm Feathered 2-2.5 m	7

Tree Planting in Tree Pits & Planting Beds

Small tree species planted within tree pits or roadside
planting beds and raingarden - as shown, root zone and tree protection to construction stage detail.

Key	Specification	Quantity
Ag	Alnus glutinosa 20-25cm girth	10
Bpu	Betula pubescens 18-20cm girth	9

Proposed Woodland Edge

Proposed Woodland Edge mix planting planted in a random mix at 1m spacings 636 no. plants (626m2)

Specification	**% Mix**	**Qty**
Field grown saplings and feathered transplants		
Cornus sanguinea 1+1 40-60 cm	10%	64
Corylus avellana 1+1 40-60 cm	15%	92
Crataegus monogyna 2+0 60-90 cm	5%	32
Euonymus europaeus 1+1 90-120 cm	15%	92
Malus sylvestris 1+1 60-90 cm	5%	32
Prunus padus 1+1 60-90 cm	5%	32
Prunus spinosa 1+1 60-80 cm	5%	32
Rosa canina 1+1 30-40 cm	5%	32
Viburnum opulus 1+1 40-60 cm	15%	92
Container Grown		
Ilex aquifolium CG C2 40-60 cm	5%	32
Hedera helix p9 20-30 cm	15%	94

Woodland Field Layer

Proposed Woodland Field Layer beneath tree canopy with wildlife benefits, Container grown, planted at density of 3/m^2 (Area 163 m sq) 489 nr. plants

Name	Quality	%	Nr
Blechnum spicant	C3 60-80 cm	10%	49
Carex pendula	C2 40-60 cm	35%	171
Dryopteris felix mas	C2 40-60 cm	10%	49
Lonicera periclymenum	C2 60-80 cm	5%	24
Luzula sylvatica	C1.5 30-40 cm	40%	196

Native Hedgerow

Proposed Native Hedge to soften boundary walls- Double row of mixed native species, at spacings of 0.3m (325 lin. m. = 2166 no. plants)

Name	Quality	%	Quantity
Feathered transplants:			
Acer campestre	60-90cm 1+1	15	326
Corylus avellana	40-60cm 1+1	5	108
Crataegus monogyna	60-90cm 2+0	30	651
Ligustrum vulgare	40-60cm 1+1	5	108
Malus sylvestris	60-90cm 1+1	5	108
Prunus avium	60-90cm 1+1	5	108
Prunus padus	60-90cm 1+1	5	108
Prunus spinosa	60-80cm 1+1	10	217
Rosa canina	30-40cm 1+1	5	108
Sambucus nigra	40-60cm 1+1	5	108
Viburnum opulus	40-60cm 1+1	5	
Container grown			
Ilex aquifolium	40-60cm C2	5	108

Raingarden planting

Bioretention/Raingarden planting - to be 2-5 Litre container grown. Container grown shrubs to be grouped in naturalistic swathes of odd numbered groups of no less than 3 and no greater than 12. Scheme to include plants tolerant to drought and occasional flooding

Bioretention/Raingarden planting - Public areas:

355m2 - to be planted at 4/m2, total 1,420 no. plants: Alchemilla mollis , Aster frikartii 'Mönch', Bergenia cordifolia, Geranium Rozanne, Hemerocallis 'Burning Daylight', Hellenium 'Moreheim beauty', Rudbeckia fulgida 'Yellow Goldstar', Monarda didyma, Stachys byzantina, Iris siberica, Calamagrostis brachytricha, Carex pendula, Viburum opulus nanum, Cornus sanguinea

Raingarden planting - Private Gardens:

57m2 - to be planted at 3/m2, total 171 no. plants,: Alchemilla mollis , Aster frikartii 'Mönch', Geranium Rozanne, , Hellenium 'Moreheim beauty', Rudbeckia fulgida 'Yellow Goldstar', Iris siberica, Carex pendula.

Shrub and perennial planting

Shrub and perennial planting - 567 m2 to be planted at approx. 3/m² spacings, total 1,701 no. plants, plants, to be 2 or 3 Litre container grown. Plants proposed to reach maximum 900mm in height, average height 600mm. All plants chosen from the All Ireland Pollinator Plan (AIPP) Plants to be selected from the following list (refer to AIPP for replacments if required): *Anemone, Berberis 'darwinii', Echinops, Echinacea purpurea, Euonymus europaeus, Ground cover roses, Helenium, Lamium maculatum, Lonicera, Mahonia, Nepeta, Perovskia, Persicaria, Rosmarinus officinalis, Viburnum tinus, Nepeta, Sarcococca hookeriana, Salvia, Sedum, Stachys 'byzantina', Viburnum opulus 'Nanum'.* Decorative bark mulch on geotextile layer to be applied on completion of planting scheme.

Wildflower meadow

Wildflower meadow - Generated from existing seedbank. No seeding required.

Note

This plant list was created in accordance with All Ireland Pollinator Plan, no changes to be made without LA approval. High percentage (75%) of plants to be attractive to pollinators, this number includes a minimum of 35% herbaceous perennials in the mix, a generous portion of which should be suited to spring and late autumn flowering.

Planting Programme

Notes: Trees and hedges to be planted during the first dormant season (September through to March or when root-balled stock becomes available for sale) after practical completion issued for each phase of work. Shrubs to be planted during the nearest Spring or Autumn planting season after practical completion. Any scrub or hedge removal to take place outside bird nesting season (1 March to 31 August)
Further amendments may be made to the plant list at construction stage depending on specific soil condition, availability and other factors.