

Clonburris, SDZ, T3
Landscape Strategy
and Design Statement

September 2022
for

CAIRN



CONTENTS

Page 3

1.0 Introduction

Site Context
Clonburris SDZ Planning Scheme

Page 9

2.0 SDZ Planning Requirements & Response to Requirements

Page 16

3.0 Landscape Proposals

Key Objectives
Key Landscape Objectives
Circulation Hierarchy
Landscape Masterplan
Green Infrastructure
Materials Strategy
Boundary Treatment
Privacy Buffer and Front Gardens
Ecology & Bio-Diverse Habitats
Communal Amenity Space
Approach to existing hedgerows

Page 28

4.0 Landscape Details

Streetscape
Northern Linear Park – Railway

Page 33

5.0 Materials

Hardworks Palette
Softworks Palette

Page 41

6.0 Ecological measures

Approach to existing Hedgerows
New Hedgerow Planting
New Habitats

To be read with Landscape Drawings (See Document Issue Sheet – Appendix 2)

1.0 INTRODUCTION

1.0 INTRODUCTION - SITE CONTEXT

Development Description

The development will consist of the construction of 157 no. dwellings on a site of c.3.45 hectares in the Clonburris South-West Development Area of the Clonburris Strategic Development Zone (SDZ) Planning Scheme 2019 as follows:

- A) 81 no. houses comprising 4 no. 2-bedroom houses, 65 no. 3-bedroom houses and 12 no. 4-bedroom houses (all 2-no. storey with associated private open space and car parking);
- B) 76 no. apartment units consisting of 26 no. 1-bedroom and 50 no. 2-bedroom units within Block 1 (4 no. storeys);
- C) Vehicular access will be provided from the permitted street under SDZ21A/0022 and the permitted Clonburris Southern Link Street (SDZ20A/0021) and R113 (Fonhill Road) to the east;
- D) All ancillary site development works including footpaths, landscaping boundary treatments, public and private open space areas, car parking (170 no. spaces) and bicycle parking (170 no. spaces), single-storey ESB sub-stations, bin and bicycle stores and all ancillary site development/construction works.

Context

The lands are in proximity of the Fonhill Railway station, local services and amenities. The main railway line between Dublin and Kildare forms the northern boundary of the site. Open spaces and parks will be an important feature of this sustainable community. The Planning Scheme is consistent with current guidance, strategies and policies at national, regional and local level, including the SDCC Development Plan 2016-2022 and the 'Clonburris SDZ – Parks & Landscape Strategy'.

Topography, Natural Heritage and Vegetation

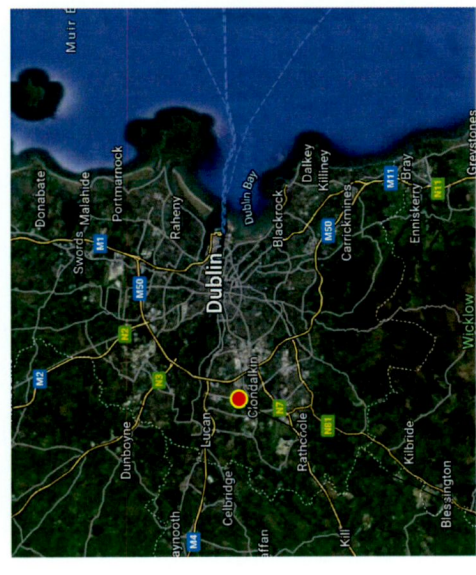
The site is mainly flat, raising slightly to the north, with only some small ditches inside existing hedgerows. The site is dominated by grassland habitats and meadows with existing hedgerows crossing from the south to the north and along the railway on the northeast corner of the site. Level differences are marginal and occur naturally along the hedgerow lines. Drainage ditches are associated with the hedgerows. The hedgerows within T3 are part of a connection between the railway line and Grand Canal ecological corridors.

Archaeology and Cultural Heritage

There is one Recorded Monument situated within the site. Its an enclosure dating from the Early Medieval Period. The presence of further archaeological sites is possible, due to the continuous presence of human activity dating back to the Neolithic Period around Clonburris

Climate

The site is exposed to the westwardly winds, particularly off the nearby Dublin Mountains and is partially exposed to the winds off the sea. Site planning should mitigate such exposure to create a pleasant living environment and public realm.



The SDZ location



The SDZ location

Application Site T3

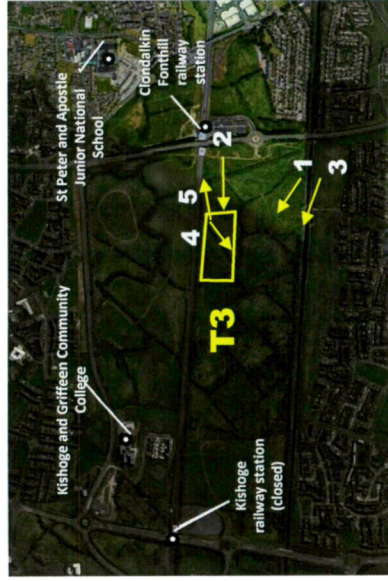


Hedgerows and treelines within the Clonburris SDZ lands

1.0 INTRODUCTION - SITE CONTEXT

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

Site Photographs



Application Site T3



View 1 : Existing open field vegetation



View 2 : Clondalkin Fonthill railway station looking West-South-West



View 3 : Underneath R113 bridge over Grand Canal looking North-West



View 4 : Existing Hedgerows and Treelines



View 5 : Existing Irish rail drain looking east.

Street Network

The street network that has been developed for the CLONBURRIS SDZ forms an integral part of this Planning Scheme's movement framework. It provides the basic physical framework for a new structure of urban blocks and open spaces.

On the block T3 there are basically two very intimate street types intended (see table 2.2.1):
 > local streets and homezones

Table 2.2.1 | Street Hierarchy, Alignment and Speed

Street Typology	Primarity	Examples	Alignment & Centre Line	Design Speed
Arterial Streets	Primary	Existing: Adamstown Avenue (L1058); Thomas Omer Way (L1059); Grange Castle Road (R136); & Fonthill Road North (R113). Proposed: None proposed.	Fixed	Neighbourhood: 30 - 50 km/h Urban Centre: 30 - 40 km/h
Link Streets	Secondary	Existing: Lock Road (R120); Lucan- Newlands Road (L1015); Griffioen Avenue (L5582); & Hayden's Lane (part). Proposed: Internal east-west & north-south Link Streets.	Fixed	Neighbourhood: 30 - 50 km/h Urban Centre: 30km/h
Local Streets	Tertiary	Existing: Hayden's Lane (part) & Lynch's Lane. Proposed: Internal Local Streets & Homezones/Intimate Local Streets.	Flexible*	Neighbourhood: 15 - 30 kph Urban Centre: 15 - 30 kph

*With exception of streets with frontages prescribed under Section 3 (Development Areas)

Figure 2.1 | Full Street Hierarchy

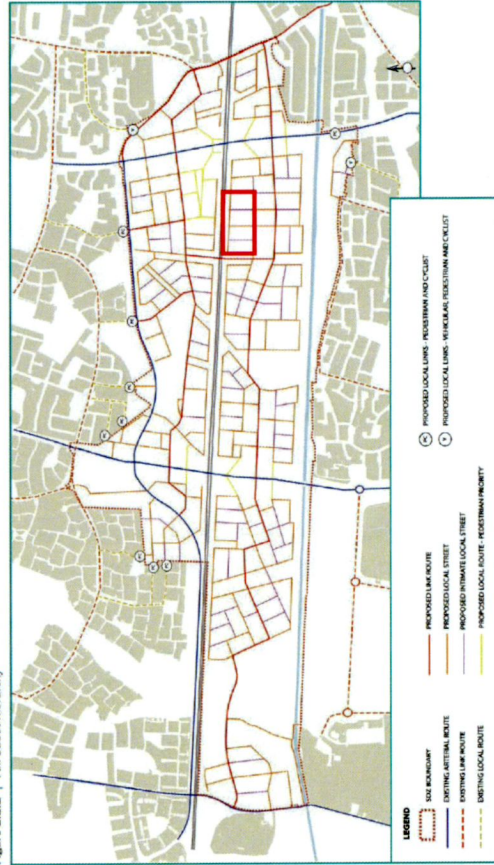


Figure 2 : Full Street Hierarchy; Clonburris SDZ Planning Scheme 2019

1.0 INTRODUCTION - CLONBURRIS SDZ PLANNING SCHEME

Green Infrastructure Network

The developments on T3 should identify and protect, where possible, the existing green infrastructure elements. These elements will create recognizable neighbourhoods and character.

A new network of green spaces will interconnect with the existing green infrastructure. These will be parks, swales, open spaces, hedgerows and a green bridge.

This network, spanning over the entire SDZ area, will be adapted and scaled to each different tile.

On T3 the preservation and enhancement of the existing hedges along the railway and its connection to the south is important. Other green links to connect the area to the local park south of the local street no. 12 and to the canal must be integrated.

SUDS, interconnected tree pits and permeable paving will support the green network all over the development site and will capture surface water.



Figure 3 : Green infrastructure; Clonburris SDZ Planning Scheme 2019

CLONJURRIS SDZ, T3, SOUTH DUBLIN COUNTY



Figure 4: PLACEMAKING, MOLA architects for CAIRN Homes, Green and Blue Infrastructure

2.0 SDZ Planning Requirements & Response to
SDZ Requirements

To ensure the quality and consistency of design throughout the development, overarching principles are set out in the SDZ Planning Scheme, May 2019 for the future residential, social, economic and environmental development.

The following table shows the different objectives and requirements listed in the planning scheme, who have an impact in the future landscape design, public and private open space and ecology.

SDZ Planning Scheme Framework		
Site characteristics	Site conditions & requirements	Guidance
<p>2.1.6 Residential Development Standards Dwelling Size & Private Amenity Space Table 2.1.9 / Minimum Space Standards for Houses</p>	<p>Private amenity space for houses (terraced – including town houses, semi-detached and detached) shall be located behind front building lines and should be defined, screened/bound and sited in accordance with the recommendations of Quality Housing for Sustainable Communities Guidelines (2007).</p> <p>One Bedroom : Private Open Space 48 sq.m Two Bedroom : Private Open Space 55 sq.m Three Bedroom : Private Open Space 60 sq.m Four Bedroom or more : Private Open Space 70 sq.m</p>	<p>Ensure and integrate enough private open space in the design</p>
	<p>2.1.6 Residential Development Standards Dwelling Size & Private Amenity Space Table 2.1.10 / Minimum Space Standards for Apartments</p> <p>It shall be provided in the form of gardens, patios, balconies, winter gardens or roof gardens. High quality communal open space shall also be provided in schemes that include apartments. Communal open space should ideally take the form of a garden within the courtyard of a perimeter block for each apartment scheme.</p> <p>Studio - Private Open Space 4 sq.m One Bedroom - Private Open Space 5 sq.m Two Bedroom - Private Open Space 7 sq.m Three Bedroom - Private Open Space 9 sq.m Four bedroom or more - Private Open Space 12.5 sq.m</p>	<p>Ensure and integrate enough space in the design</p>
<p>2.2 Movement and Transport</p>		
<p>2.2.3 Pedestrian and Cycle Movement</p>	<p>> Cycling and walking shall be encouraged throughout the SDZ lands with the creation of a network of dedicated and street integrated pedestrian and cyclist routes. > All streets within the SDZ lands shall be designed for pedestrian and cyclist movement. > Streets will also connect with and be augmented by dedicated strategic pedestrian and cycle routes (see Section 2.3 – Green and Blue Infrastructure) that will permeate open spaces, parks, urban spaces and linear green spaces. > All pedestrian and cycle routes shall be designed to be safe and accessible in accordance with DMURS, Building Regulations and the NTA's National Cycle Manual (2011). > Some Local Streets will comprise Home Zones or Intimate Local Streets in the form of fully shared surfaces for the integrated movement of vehicles, pedestrians and cyclists in quieter residential areas. > Junctions between Homezones and Link Streets should also be filtered to prioritise pedestrian and cyclist through access.</p>	<p>Ensure connectivity for pedestrians and cycles between different tiles</p>
<p>2.2.4 Street Network and Vehicular Movement Local streets</p>	<p>> The indicative street sections provided in the SDZ planning scheme will be respected. Widths of Carriageways, Footpaths and Verges will be in accordance with the SDZ requirements 2. Homezones are integrated into the design, respecting the Street hierarchy scheme from the SDZ. Raised tables indicate priority for pedestrians crossing.</p>	<p>The indicative street sections provided in the SDZ planning scheme will be respected. Widths of Carriageways, Footpaths and Verges will be in accordance with the SDZ requirements 2. Homezones are integrated into the design, respecting the Street hierarchy scheme from the SDZ. Raised tables indicate priority for pedestrians crossing.</p>
<p>2.2.5 Parking Bicycle Parking Standards</p>	<p>Secure bicycle parking shall be provided throughout Clonburris and shall be designed in accordance with the NTA's National Cycle Manual (2011).</p>	<p>Incorporate into design</p>

2.3 Green and Blue Infrastructure			
<p>2.3.1 Introduction</p> <ul style="list-style-type: none"> > protect, enhance and develop and interconnected green and blue infrastructure network of parks, open spaces, hedgerows, grasslands, protected areas, rivers and streams for amenity and recreation, biodiversity protection, flood management and adaptation to climate change; > To retain and improve key landscape and ecological features such as hedgerows, the Grand Canal; natural open spaces and sustainable urban drainage systems; > To incorporate new elements of Green and Blue Infrastructure such as tree planting, parks and movement of biodiversity and people and to strengthen the overall Green Infrastructure network; > To support native plant and animal species and encourage corridors for their movement; > To seek to retain hedgerows, aquatic habitats and established tree lines wherever possible. 	<p>Ensure connectivity to Green Infrastructure</p> <p>Incorporate into design</p> <p>Use as site characteristic</p> <p>Ensure proximity and access to playspace</p>	<p>The existing hedgerow and ecological buffer zone along the Railway is retained, protected and supplemented to ensure protection of wildlife. See Arborists and Ecologists Report. Additional native planting of new hedgerows provide new habitats and will reinforce the ecological buffer. Wildflower planting and meadow planting along the shared path will provide food for mammals and insects.</p>	
<p>2.3.2 Green Infrastructure Network</p> <ul style="list-style-type: none"> > the existing green infrastructure elements on the lands including green open spaces, hedgerows, large trees, watercourses and other natural physical features as these are a strong part of the lands history and will define the character of areas and help to create attractive neighbourhoods. > New green spaces will be interconnected with existing green infrastructure to form multifunctional corridors and hubs [...] along the Grand Canal [...] through existing and proposed Parks, along the railway line, through existing hedgerows and over the green bridge and connecting into existing green spaces outside the SDZ lands. > Local level green infrastructure corridors shall be provided along the new urban structure of streets and spaces (i.e. trees, tree lines, swales margins). > These blue and green spaces will take the form of parks, open spaces, constructed wetlands, swales, tree planting, hedgerows, parks, permeable paving, green roofs [...] 	<p>Consider in scheme design.</p> <p>Respect constraints.</p>	<p>The existing hedgerow along the railway will be maintained and enhanced. Additional planting will increase the quantity of linear meters for the hedge.</p> <p>A new hedgerow is proposed along the western bridge and cycle link.</p> <p>These will provide a connectivity to the south and along the railway.</p>	
<p>2.3.2 Green Infrastructure Network</p> <p>Grand Canal</p>	<p>NA</p>	<p>NA</p>	
<p>2.3.2 Green Infrastructure Network</p> <p>Sustainable Urban Drainage Systems</p>	<p>Incorporate into design</p> <p>Use as site characteristic</p>	<p>A SUD strategy is incorporated in the landscape design.</p> <p>Bioretention areas are integrated in the streetscape and will provide different planting features.</p> <p>Permeable paving for all parking spaces to infiltrate surface water.</p> <p>Public Trees provide tree pits for drainage discharge.</p> <p>A swale between the shared path and the northern Local street for surface water discharge.</p>	

2.8 Built Form and Design		
<p>2.8.4 Topography, Street Interface and Urban Grain</p>	<ul style="list-style-type: none"> > Development should therefore be laid out and designed in a manner that circumvents the need for retaining walls and blank frontages > pedestrian streets and the urban squares a gradient change of between 1 in 33 (or 3%) shall be targeted > all surfaces should be smooth and continuous with a gentle slope while avoiding, where possible, steps in level > Building entrances must be level with the adjoining footpath or public space > All streets and spaces shall benefit from passive surveillance especially at street corners > Where dwellings front the street edge, privacy strips/short gardens that range from 1 to 3 metres in depth should be considered particularly along Local Streets 	<p>Incorporate into design</p> <p>Use as site characteristic</p> <p>All ground floor apartments are accessible via separate footpaths without additional steps or steep ramps</p>
<p>2.8.10 Design of Parking and Loading Car Parking</p>	<ul style="list-style-type: none"> > Parking shall not dominate streetscapes and should be carefully considered as part of the overall public realm in terms of layout, surface treatment and landscaping > All on-street parking shall be broken up, landscaped and designed according to street typology in line with the measures set out under DMURS (2013) > on-street parking shall be broken up into a series of bays separated by planted build outs. 	<p>Incorporate into design</p> <p>Parallel parking along the streets will be broken up every 2 spaces and perpendicular parking every 5 spaces by a street tree to provide a diverse streetscape.</p>
<p>2.8.11 Street Planting, Furniture and Materials Street Planting</p>	<ul style="list-style-type: none"> > Street trees should be considered as an integral part of the street environment in accordance with DMURS (2013) with the size of species selected proportionate to the width of the street. Larger species should therefore be planted along Arterial and Link Streets and smaller species along Local Streets > Streets should be generously planted at frequent intervals to soften the impact of parking and strong building frontages at intervals of 14 – 20 metres. > Street trees should be planted in areas such as medians, verges and build outs. > Street trees should also be augmented by planting within privacy strips along residential streets. > In the interest of biodiversity and place making, reduced spacing between street trees should be considered where appropriate and achievable 	<p>Incorporate into design</p> <p>The distance between all street trees is not exceeding 20m. Homezones and zones next to terraced houses are planted with small - medium sized trees of mostly native species. Local streets with medium sized trees. Constructed tree pits with combined root space provide enough space for a future healthy development of the trees. Feature trees and groups of trees are planted along the northern shared path and near the apartment block to highlight special interest zones.</p>
<p>2.8.11 Street Planting, Furniture and Materials Materials and Finishes</p>	<ul style="list-style-type: none"> > hierarchical approach to the application of materials and finishes > Where lower design speeds are desirable along Local Streets and within urban centres, changes in the colour and/ or texture of the carriageway should be used > For shared surface streets such as homezones, material and finishes such as paving or imprinted materials should be used to slow traffic and indicate that the carriageway is an extension of the pedestrian domain > Similar finishes shall also be utilised for pedestrianised streets 	<p>Incorporate into design</p> <p>Couloured tarmac is proposed for homezones and raired tables to indicate pedestrian priority.</p> <p>The choice of materials will be aligned with the choice of the adjacent tiles to provide a uniform design throughout the SDZ development.</p>
<p>2.8.11 Street Planting, Furniture and Materials Street Furniture</p>	<ul style="list-style-type: none"> > Landscape Plans shall seek to limit clutter. > Street furniture should be placed within a designated zone such as a verge and items should be selected from a limited palette that promotes visual cohesion. 	<p>Incorporate into design</p> <p>The choice of street furniture will be aligned with the choice of the adjacent tiles to provide a uniform design throughout the SDZ development.</p>
<p>2.8.12 Boundary Treatment</p>	<ul style="list-style-type: none"> > boundary treatment to front gardens and privacy strips for residential schemes should be unobtrusive and should allow for good passive surveillance. > may comprise low planting, low masonry walls, low timber fencing or low metal railings with heights of no more than 1.2 metres. > Rear boundaries between gardens should be demarcated appropriately and robustly with maximum heights of 2 metres. > Timber fencing is promoted between rear gardens with the exception of those that interface with the public realm (streets and public spaces) where boundary treatment shall comprise appropriately rendered masonry walls with a minimum height of 1.8 metres and maximum height of 2 metres. > Rear boundaries to communal gardens/spaces should also be demarcated through appropriate hedging or fencing. 	<p>Incorporate into design</p> <p>The apartment block ground floor terraces are framed and protected by 1.2 m high clipped hedges. Additional low shrub planting provides a minimum of 1.2m privacy strip for the ground floor apartments and terraced houses.</p> <p>1.2m high hedges separate the private front gardens from public realm.</p> <p>Rear garden boundaries consist of 1.8 m high timber fencing with concrete base. Hedgehow wholes provide connectivity for the faune.</p> <p>Public realm facing garden boundaries consist of 1.8m high brick rendered walls.</p>

2.9 Services, Infrastructure and Energy Framework	
2.9.5 Surface Water Drainage and Sustainable Urban Drainage System (SUDS)	<p>Incorporate into design</p> <p>A swale along</p>
2.10 Landscape and Open Space	
2.10.2 Proposed Open Spaces	<p>NA</p> <p>There is no requirement for public open space for the application site – this is provided in the adjacent local park. An extensive buffer zone is provided along the railway and the new bridge next to apartment block A.</p>
2.10.2 Proposed Open Spaces Parks and Landscape Strategy	<p>Provide a landscape report.</p> <p>Provide a BMP</p> <p>Refer to pages 16-26 for the Landscape Strategy for T3. Refer to separate document prepared by a qualified ecologist for the BMP.</p>
2.10.3 Hierarchy of Open Spaces	<p>Ensure connectivity to Green Infrastructure.</p> <p>No strategic open space, local park and squares or urban squares exist on T3. Greenways to provide access to the different strategic open spaces in adjacent tiles are incorporated in the design via homezones with treelines, a local green corridor along apartment block A.</p>
2.10.3 Hierarchy of Open Spaces Strategic Open Spaces	<p>NA</p>
2.10.3 Hierarchy of Open Spaces Local parks and squares	<p>Ensure connectivity to Green Infrastructure.</p> <p>No local park exists on T3. Greenways to provide access to the ecological corridor along the railway and access to the parks to the south (local Park and Canal) are incorporated in the design via homezones with treelines, a local green corridor along apartment block A.</p>

<p>2.10.3 Hierarchy of Open Spaces Strategic Routes and local links</p>	<ul style="list-style-type: none"> > provide opportunities to link a network of open spaces to all the neighbourhoods and opportunities for habitat conservation. > To provide routes connecting strategic open spaces. > To incorporate existing strategic corridors. > To accommodate strategic routes. > To provide for strategic movement routes. > To protect and enhance biodiversity. > Strategic cycle and pedestrian routes. > Regular rest and amenity areas. > Sensitive lighting. > Protection and enhancement of hedgerow. 	<p>Ensure connectivity to strategic open spaces and other adjacent tiles.</p> <p>Incorporate into the design.</p>	<p>Greenways to provide access to the ecological corridor along the railway and access to the parks to the south (local Park and Canal) are incorporated in the design via homezones with treelines, a local green corridor along apartment block A.</p> <p>Pedestrian and cyclist connections via homezones and the western cycle link are provided to access public open spaces in the other tiles of the SDZ area (see Figure 5).</p> <p>The existing hedgerow along the railway will be maintained and enhanced and will be a support for the east west connection along the railway with a shared pedestrian and cycle path.</p>
<p>2.10.3 Hierarchy of Open Spaces Strategic Routes and local links Railway Ecological Corridor</p>	<ul style="list-style-type: none"> > provides an uninterrupted corridor for commuting between various habitats > The design of the railway ecological corridor shall be in accordance with the PLS and BHP for the Planning Scheme. > protect and incorporate high value natural heritage features including watercourses, wetlands, grasslands, woodlands, mature trees, hedgerows and ditches > enhance the biodiversity and ecological character of the pNHA > Appropriate access to the northern tow path of the Grand Canal shall be carefully designed, in particular, access to areas of greatest sensitivity shall be avoided > he plan shall also include details of hard and soft landscaping, proposed planting and sensitive lighting > The landscape plan shall address the varying topography of the SDZ lands and shall have regard to the pNHA and the Protected Species using this corridor. > new planting of hawthorn and blackthorn species 	<p>Consider in scheme design.</p> <p>Ensure connectivity.</p> <p>Protect, enhance and incorporate into design.</p>	<p>The existing hedgerow along the railway will be maintained and enhanced and will be a support for the east west connection along the railway with a shared pedestrian and cycle path.</p> <p>On T3 the existing hedgerow along the railway provides an ecological corridor. It will be maintained and enhanced. Additional planting will provide more hedge connected habitats and additional variety of species.</p>
<p>2.11 Biodiversity and Natural Heritage</p>		<p>Consider in scheme design.</p> <p>Respect constraints.</p>	<p>New habitats are integrated in the landscape design along the ecological corridor next to the railway, with new meadows, wildflowers, small ponds and new hedgerow planting. They will provide a more diverse pattern of habitats for the local fauna and flora.</p>
<p>2.11.2 Biodiversity and Natural Heritage Features Grand Canal</p>	<ul style="list-style-type: none"> > In order to ensure the continuity of the character of the northern tow path as an ecological corridor, access to the northern tow path of the Grand Canal shall be carefully designed, in particular, access to areas of greatest sensitivity shall be avoided. > Appropriate access to the northern tow path shall be carefully designed based on site specific characterises and sensitivities (including lighting design, new planting of hawthorn and blackthorn species) and shall be set out in the Landscape and Parks Strategy (LPS). > Lighting should be avoided in sensitive wildlife areas and light pollution, in general, should be avoided. > Further lighting along the northern bank shall be restricted and shall be based on the sensitivities of bat species using the northern bank. 	<p>NA</p>	<p>NA</p>
<p>2.11.2 Biodiversity and Natural Heritage Features Ecological Corridors</p>	<ul style="list-style-type: none"> > The rail line essentially provides an uninterrupted corridor through countryside, through an array of habitats and could be used by a large number of species for commuting between various habitats. > All development proposals should seek to enhance biodiversity and avoid or minimise loss of existing habitats and wildlife corridors. 	<p>Incorporate into design</p> <p>Use as site characteristic</p> <p>Ensure connectivity to green infrastructure</p>	<p>The existing hedgerow along the railway will be maintained and enhanced. Additional planting will provide more hedge connected habitats.</p> <p>Additional ponds and meadows will provide a larger diversity of habitats than today.</p>

<p>2.11.2 Biodiversity and Natural Heritage Features Ecological Corridors</p>	<p>> The rail line essentially provides an uninterrupted corridor through countryside, through an array of habitats and could be used by a large number of species for commuting between various habitats. > All development proposals should seek to enhance biodiversity and avoid or minimise loss of existing habitats and wildlife corridors.</p>	<p>Incorporate into design Use as site characteristic Ensure connectivity to green infrastructure</p>	<p>The existing hedgerow along the railway will be maintained and enhanced. Additional planting will provide more hedge connected habitats. Additional ponds and meadows will provide a larger diversity of habitats than today.</p>
<p>2.11.2 Biodiversity and Natural Heritage Features Hedgerows</p>	<p>> The Hedgerow/treeline habitat linking the Grand Canal Corridor and the Rail corridor should be retained where possible > Where these hedgerows cannot be retained, a new hedgerow network composed of the same species shall be planted along roadways within the development. > Where possible, trees along the boundary of the SDZ lands be protected and retained. > A Method Statement for the construction, planting regime and species selection of both 'dry' and 'wet' hedgerows shall be provided with all planning applications for developments within 10m of existing hedgerows along the barony boundary, the Grand Canal [...]</p>	<p>Incorporate into design Use as site characteristic Ensure connectivity to green infrastructure</p>	<p>Some existing north-south hedgerows can't be retained. Additional hedge planting along the railway will enhance the east-west ecological corridor and a new hedge along the western bridge will provide connectivity to the south. The overall length of hedgerows will be similar to the existing. (see table page 42)</p>
<p>3 Character Areas and Development Areas</p>			
<p>Table 3.3.3</p>	<p>> To provide locally accessible open spaces of local and strategic importance; > To prioritise pedestrian and cyclist movement and to provide for bus services along the avenue; > Sensitive designed pedestrian access points to the Grand Canal;</p>	<p>Ensure connectivity</p>	<p>No park or local public open space is needed for T3. Pedestrian and cyclist connections are provided to access public open spaces in the other tiles of the SDZ area (see Figure 5).</p>

3.0 LANDSCAPE STRATEGIES

3.0 LANDSCAPE STRATEGIES – KEY OBJECTIVES

The Landscape Strategy for the T3 site aims to create a coherent environment for the future users & residents. The scheme has been designed to encourage walking and cycling, to protect and enhance the green and blue infrastructure. Attractive user experience objectives are embedded into the design.

The following pages describe the landscape scheme in detail and explain how the vision for T3 residential development is being implemented in conformity to CLONURRIS SDZ Objectives; through sustainable approach to biodiversity, public realm, pedestrian, cycle, user and visitor experience.

The public realm / landscape components, which contribute to the character of the place are depicted on the below image and can be categorised into the following:

- Network of pedestrian and cycle linkages and communal amenity spaces
- A shared cycle and pedestrian path along the railway to the northern boundary of the site
- Linkages to and through the development via Homezones and large footpaths in Local Streets
- A new ecological corridor along the bridge to the west of the development with an integrated cycle lane – Cappagh Greenlink
- Communal amenity spaces for Apartment Block 01

- Street frontages & private amenity areas
- Frontage along the southern local Street and connection to the Cappagh Park (part of T1)
- Frontage to the link street to the west
- Internal courtyards for apartment block 01 with social areas and play features
- Ecological features
- Ecology buffer corridor along the railway to the north with a reinforced and new hedgerow planting along Cappagh Greenlink and the railway
- Wildflower and meadow planting
- Native species for the majority of Trees, hedgerows and shrub planting
- Rainwater management via a SUDS measures in public space



Figure 5 : Landscape Masterplan

3.0 LANDSCAPE STRATEGIES – KEY LANDSCAPE OBJECTIVES

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

LEGEND

- Linear Green Link
- Ecological Buffer
- Street Frontage / Private Amenity
- Semi-Private Amenity

The landscape strategy and masterplan delivers quality and amenity through the above spatial objectives.

The individual objectives are presented on the following pages.



Figure 6 : The key landscape areas

① The hedgerow and buffer zone along the railway, creating a significant ecological corridor, habitat and landscape feature.

② A local Green Link with a shared pedestrian and cycle path will create a strong feature to connect the development with the rest of the SDZ lands and provide easy and secure access to the Clondalkin railway station and local park.

③ Housing elevation, front garden and tree lined streets along the Cappagh Local Park.

④ Homezones with shared surface provide calm streetscapes and a secure connection to Cappagh Park and further south to the Canal. Attractive housing frontages with trees integrated into public and private space.

⑤ Semi-private Courtyards providing doorstep play and recreation areas close to the apartment blocks.

Individual elements are illustrated over the following pages and in the Landscape Drawings

T3 creates a distinctive and intimate scaled residential area within the SDZ planning area. The scheme achieves density, infrastructure and parking and retains the north boundary as an ecological buffer zone, yet still provides the space for amenity, trees and greenery – a social and private residential area.



LEGEND

-  Local Street
-  Intimate local Street / Homezone
-  Cycle route
-  Pedestrian Routes
-  Semi-Private, Gated Access Walkway



Green Streets & Parking



All of the routes are universally accessible.

ACCESSIBILITY & CONNECTIVITY

The proposed development is traversed by a series of easily accessible linkages. It is bounded by two homezones to T1 to the south and Cappagh Park.

A shared east-west path along the railway connects T3 with the Clondalkin railway station, T2 and T4.

All of the above routes are universally accessible.





Main footpaths to be at least 2.50m wide and unobstructed.

Figure 7 : Circulation scheme from the SDZ translated for T3

3.0 LANDSCAPE STRATEGIES – PARKS AND STRATEGIC OPEN SPACE

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

LEGEND

-  Local Park and Strategic Open Space
-  Ecological Buffer
-  Pedestrian Linkages to join public open space
-  Application Site

Public Open Space Provision

No local park or strategic open space is part of the application site T3.

The public open space will be delivered as part of T1 which is in the same development area and adjacent to the site.

Cappagh Park is accessible within a short walking distance from all houses.

Homezones throughout T3 provide easy access to this park and further to the south to join the grand Canal park.



Figure 8 : Access to Parks and public open space



The landscape masterplan sets out to deliver **well-connected and diverse open spaces for people and nature.**

The soft landscape strategy has been annotated to summarise some of the principal roles that planting plays across the scheme.

Street Tree planting distance

All street trees will be planted within a maximum distance of 18m.

Smaller trees are reserved for smaller scale Homezones.

Feature trees will highlight special interest points like the future bridge underpass or the apartment block frontage.

Figure 9 : Future green infrastructure for T3

LEGEND

VEGETATION

	Echidna Bush Thicket with additional native hedgerow planting
	Semi-mature Feature Trees
	Medium/Large Street Trees
	Medium Street Trees
	Large Shrubs
	Species rich meadow greening incorporating additional native grasses to ecology corridor
	Wildflower planting
	Native Hedge planting
	Formal Hedge Planting
	Grass - Public realm
	Private grass
	Bulb Planting
	Communal / Private Low / Medium Homezone Shrubs, Climbers and Perennials
	Low maintenance Perennials and Ornamental Grass
	Swale Planting
	Biodiversity Area



3.0 LANDSCAPE STRATEGIES – MATERIALS STRATEGY

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

The landscape masterplan sets out to deliver a **robust, usable, accessible, legible public realm**.

The materials strategy below shows the layout of the materials described in chapter 5.

Please refer to legend for information of the type and specification of materials proposed.



Figure 10: Materials strategy



3.0 LANDSCAPE STRATEGIES – BOUNDARY TREATMENT

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

This plan illustrates the different proposed boundaries.

Hedgehog holes in back garden walls and garden gates with a void of 10 cm underneath will provide a permeability for the fauna.

Chestnut paling or a similar fence along the Railway ditch will indicate the development limit and prevent access to the ditch, until the new planted hedgerows grow dense.



Figure 11: Boundary treatment



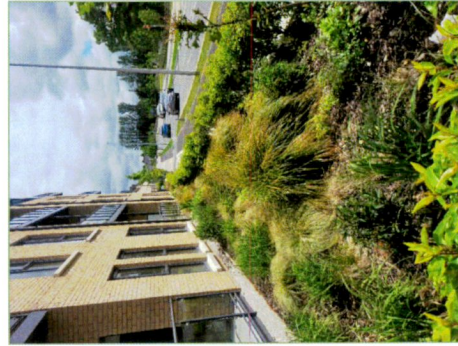
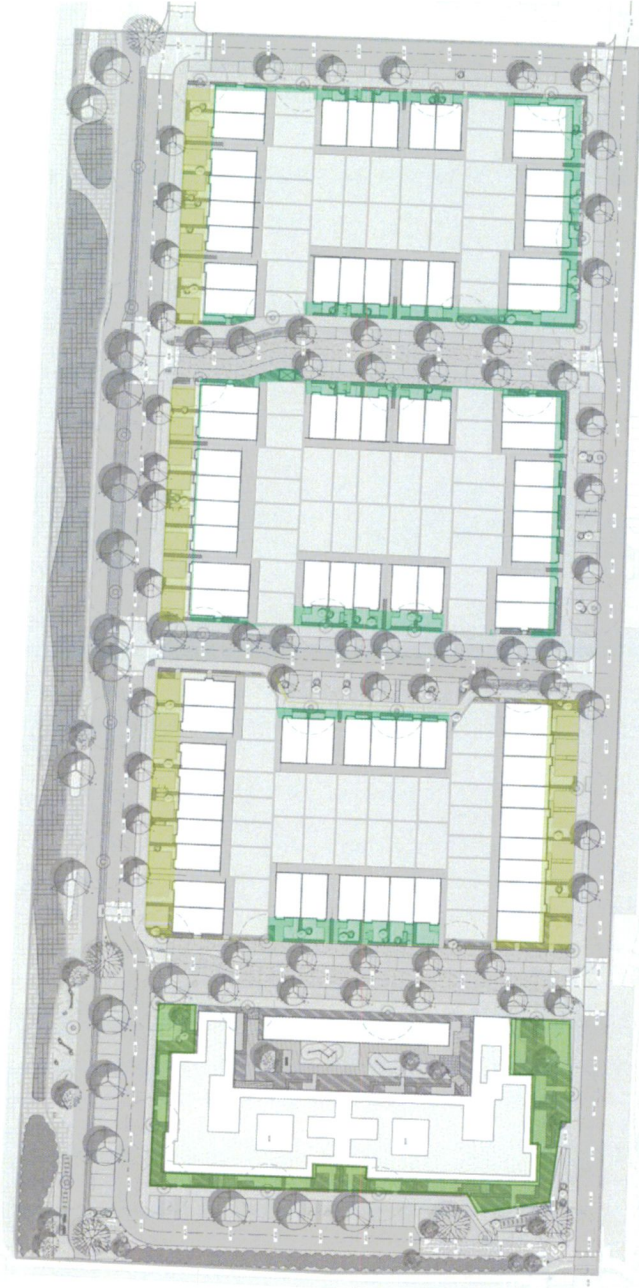
3.0 LANDSCAPE STRATEGIES – PRIVACY BUFFER AND FRONT GARDENS

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

A 1.2m high hedge around the ground floor terraces will provide privacy for the residents.

Other parts of the apartment block surroundings will be densely planted with shrubs and ornamental grass.

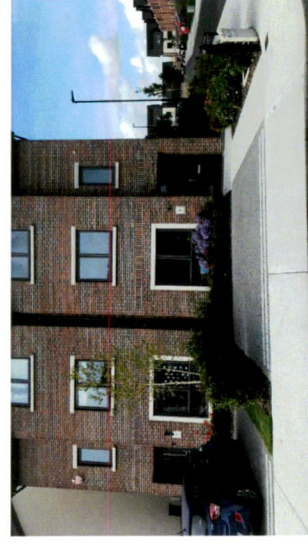
NATIVE SHRUB, HEDGE AND TREE PLANTING IN GENERAL, INCLUDING POLLINATOR FRIENDLY SPECIES



Privacy strips in front of the apartment block with small hedges and shrubs



Planted Frontgarden with medium shrubs



Hedgerow planting to structure parking in Frontgardens



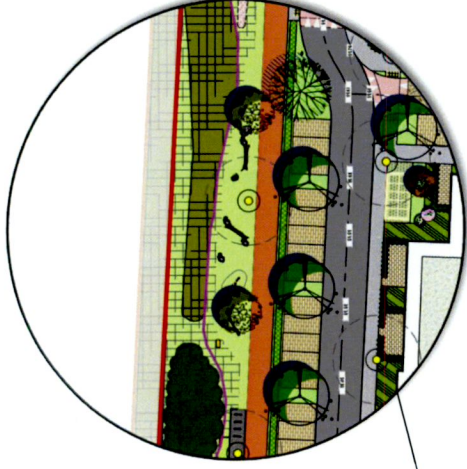
Figure 12: Privacy buffer treatment

3.0 LANDSCAPE STRATEGIES – ECOLOGY & BIO-DIVERSE HABITATS

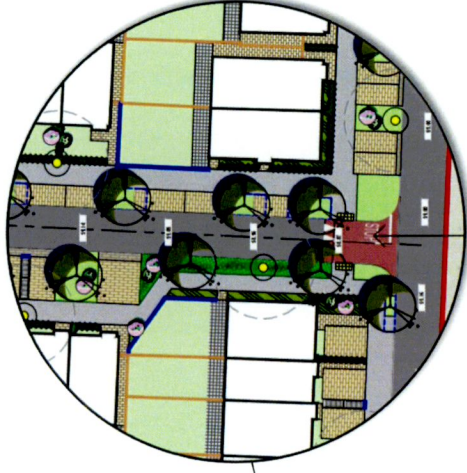
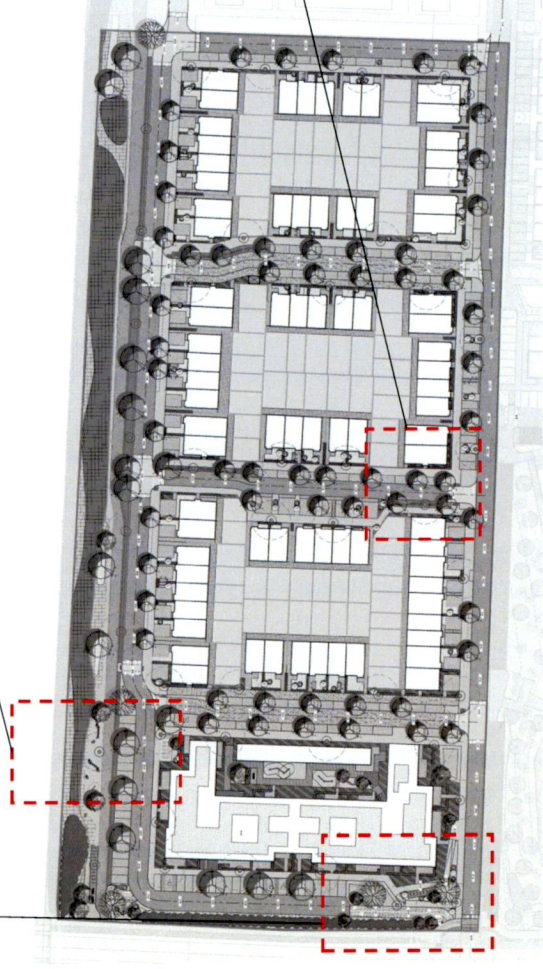
CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY



Planting of a new hedgerow with native species (Blackthorn, Holly, Spindle, Wild Cherry...), with intermittent wildflower planting along the new bridge



Ecology Corridor, enhancing of existing hedgerow and scrub, introduction of new native hedgerow species (Blackthorn, Holly, Spindle, Wild Cherry...), with intermittent trees, meadow/ wildflower planting and informal play area



Raingarden and Bioretention Areas with native planting and pollinator friendly species

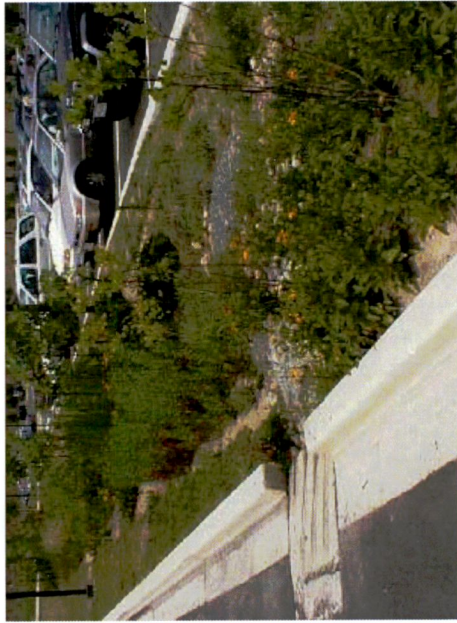
4.0 LANDSCAPE DETAILS – STREETSCAPE

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

Private Gardens

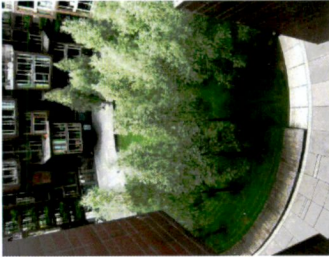


Mixed native planting and small trees in private front gardens Reinforce the green character of the streets



Bioretention Areas, in addition to their water retention purpose, add to the streetscapes with different textures and colours in planting

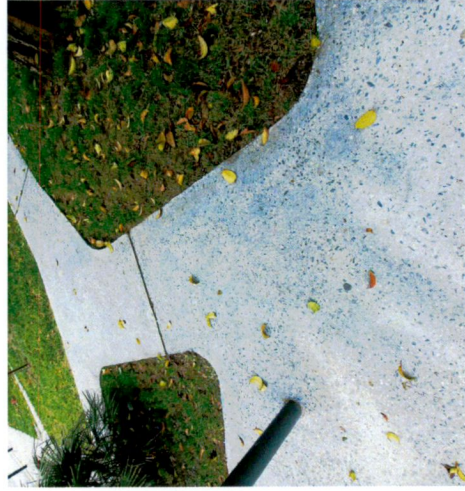
Apartments



Simple elements will be used in courtyards - trees, lawns, paths and a place to park a bike – as shown in Malmo’s Western Harbour (above left) and in the University Halls in Orestad, Copenhagen (above right)



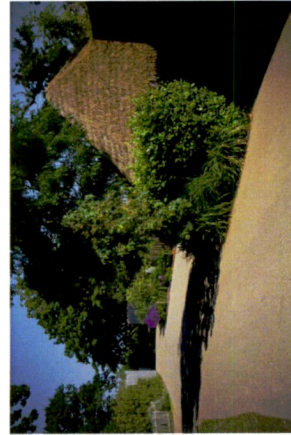
Steel / timber benches in planting



Exposed aggregate concrete



Kilsaran Newgrange setts or similar

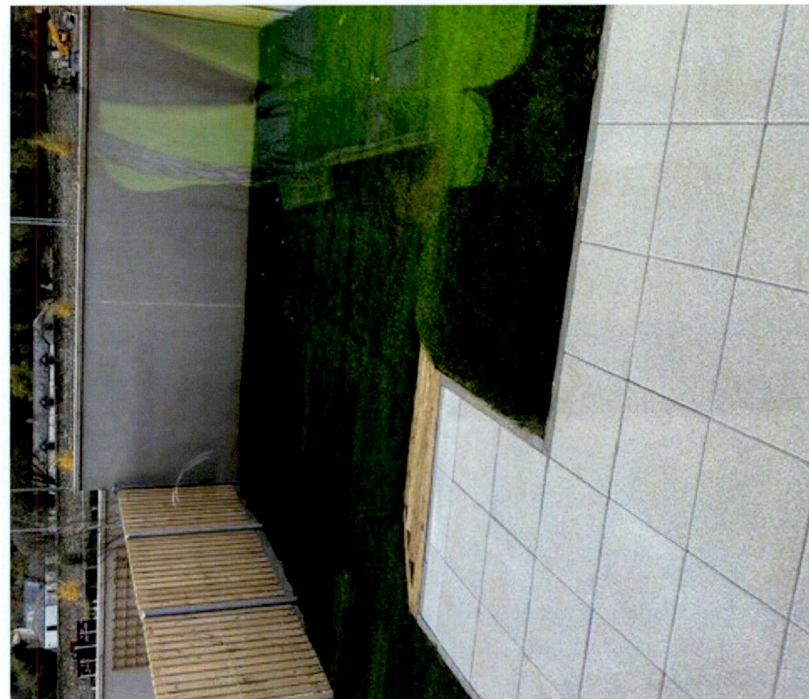
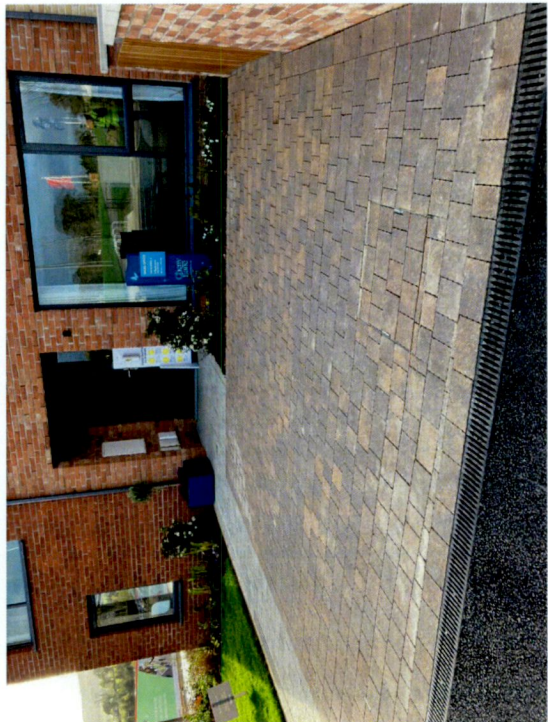


SIAC Duracolour Buff Asphalt or similar

5.0 MATERIALS

Front garden driveways

Permeable concrete block paving to front garden driveways



Rear patios / terraces

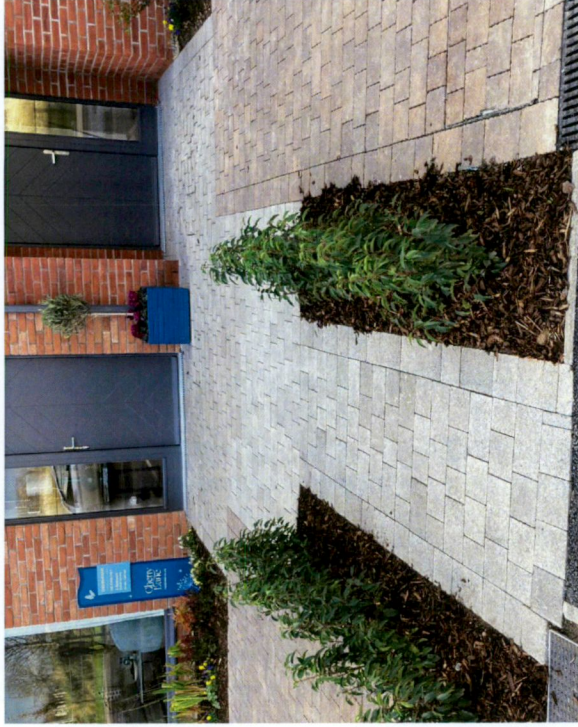
Concrete textured flags

5.0 MATERIALS – HARDWORKS PALETTE

CLONJURRIS SDZ, T3, SOUTH DUBLIN COUNTY

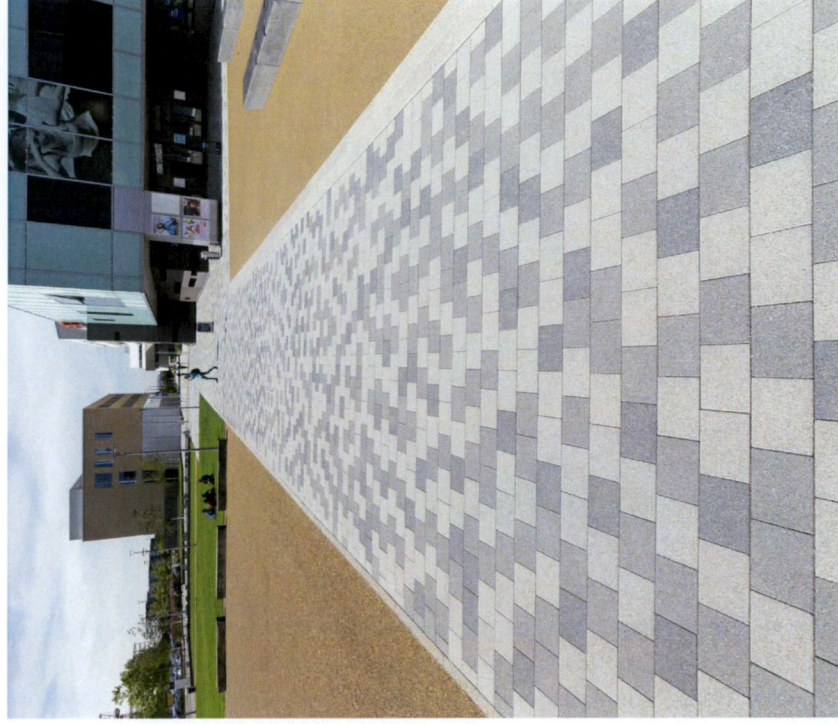
Access paths

Concrete block paving



Apartment block entrance

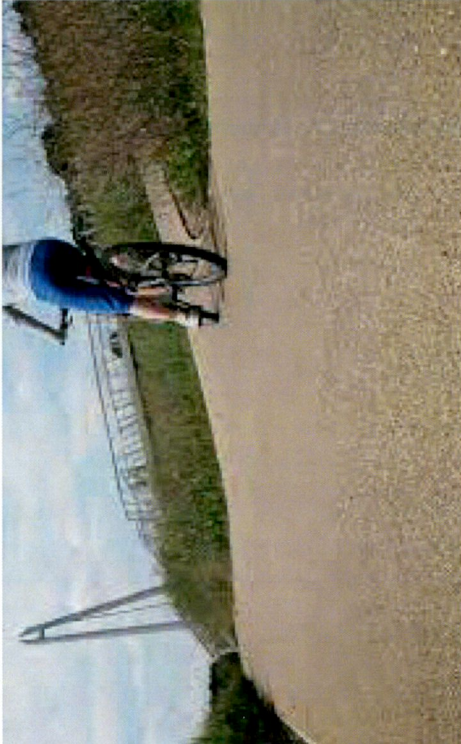
Concrete paving



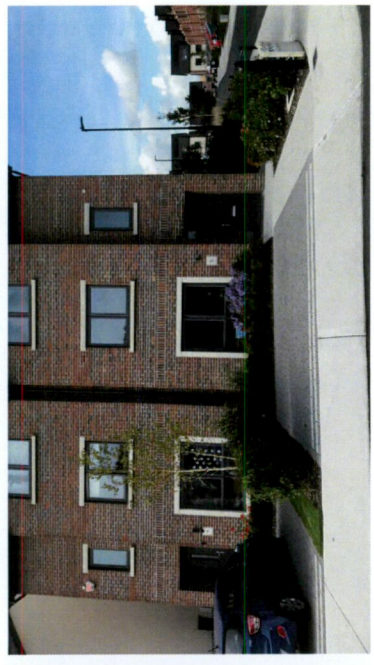
Public footpaths
Brushed concrete



Shared cycle and pedestrian path
Coloured tarmac



Front Garden shrub planting



Streetscape planting



TREE PLANTING STRATEGY – CONSTRUCTED TREE PIT

Figure no. 12 illustrates trees to be taken in charge located between parking bays. These trees require a different planting and drainage strategy due to the circumstances of their location.

The introduction of the constructed tree pits, coupled with permeable paved driveways allow for trees to be planted in constricted environments where without it, they would go under tremendous stress due to lack of proper drainage and underground spatial structure.

Structural Soil, is a two-part system comprised of a rigid stone that meets engineering requirements for a load-bearing paving base, and a quantity of uncompacted soil that supports tree root growth.

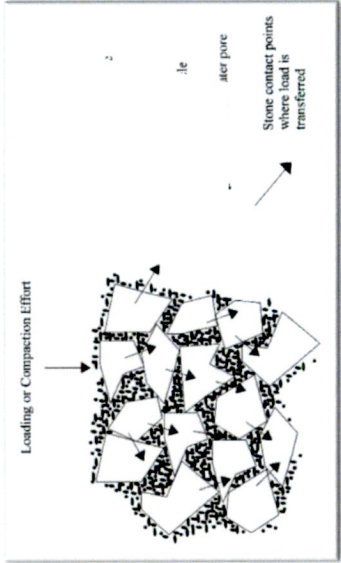
This constructed tree pit has two major elements that work together to achieve paving stability and tree root growth:

- The primary component of this soil system is a uniformly sized, highly angular crushed stone.
- The second component of the system is a soil which fills the voids in the stone. As long as care is taken to not add too much soil to the mix, which would prevent the stone structure from forming, the soil in the voids will remain non-compacted and root penetrable.

Depending on the expected size of the tree, a minimum of 16 cubic meters should be considered for the constructed tree pit to be installed.

NOTES

1. Tree to have a clear stem height of 2000mm.
2. Tree Support - Deadman anchoring system attached to concrete structure with four high tensile wires, root-ball protection and ratchet strap.
3. Irrigation
 - a) 100mm diameter perforated flexible plastic drainage pipe positioned as shown around rootball.
 - b) Stainless steel access cover
 - c) Size: 100x100mm.
4. Tree pit surfacing - varies
5. Tree pit
 - a) Structural soil - proprietary product. Composition: 20-40mm crushed rock with soil installed in 165mm layers. Slow-release fertiliser 100 g/m² is applied on each structural layer.
 - b) Loosening of subsoil to a depth of 200mm
7. Aerating bearing layer
 - a) 50mm crushed stone, 8-12mm in size
 - b) 500mm crushed stone, 35-70mm in size
 - c) Galvanised steel air inlet on 50mm dB04 harcore
 - d) Cast iron access cover
 - e) Grade: B125
8. Paved Surface (permeable), depth varies
9. Precast concrete retaining structure. Size: 80mm thick section
10. Root barrier membrane to protect utility ducts in structural soil.
11. Tree stem protection - Willow wrap
12. Geotextile membrane



Structural Soil is designed to provide increased soil volumes for tree roots under pavements. It can and should be used under preferably permeable and expandable surfaces, parking areas, and low-use vehicular roads where water can permeate through the paving porous joints and infiltrate into the structural soil below.

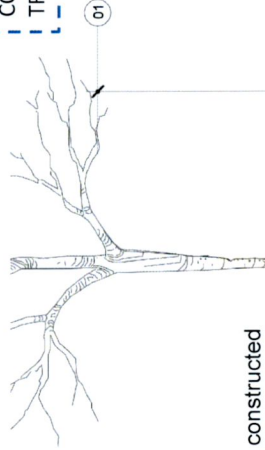
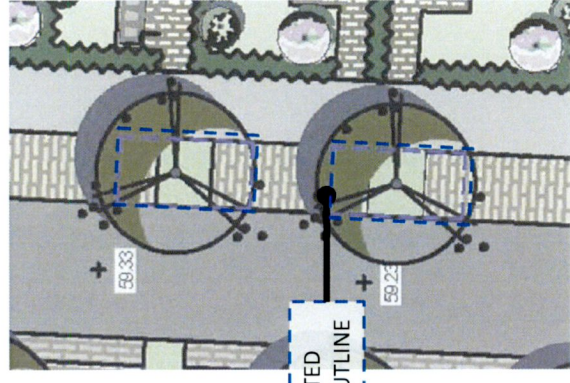
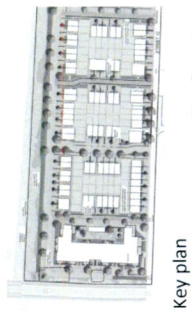
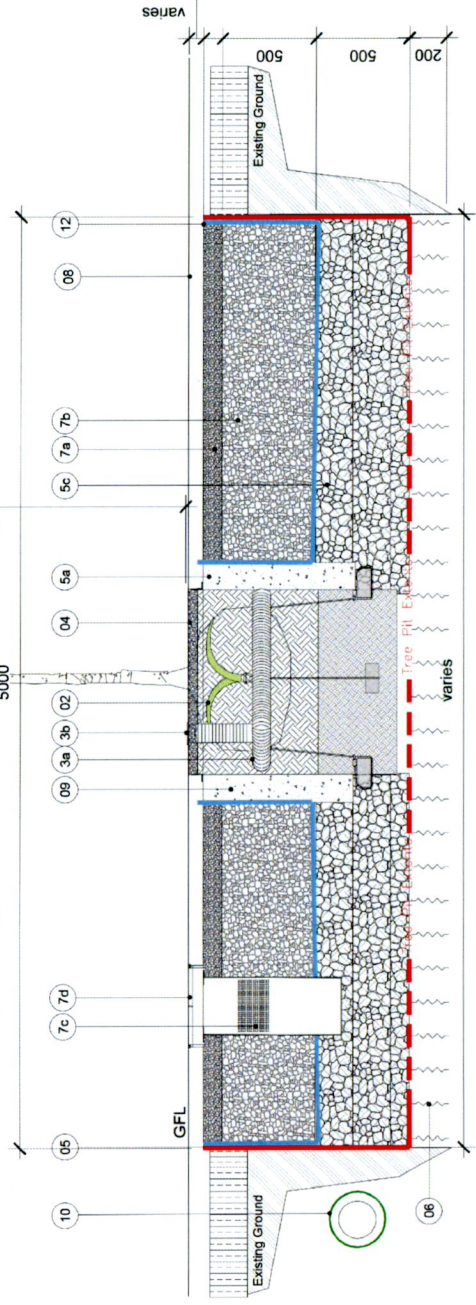


Figure 12: Example of a constructed tree pit detail

Tree pit strategy – Structural soil



Street Trees

Local Street – Medium trees



Proposed Street Trees - Local Streets
Planted in mixed species groups
Medium trees
Acer campestre 'Eisrijk' 14-16cm gth, 4-6m ht
Betula pendula 14-16cm gth, 4-6m ht
Sorbus aucuparia 14-16cm gth, 5-6m ht
Tilia cordata 'Greenspire' 16-18cm, 5-6m ht *
Ulmus 'Lobel' 16-18cm, 5-6m ht



Acer campestre



Betula pedula



Sorbus aucuparia



Pyrus calleryana
'Chanticleer'

Intimate Local Street / Homezone – Small to Medium Trees



Proposed Street Trees - Homezones
Amelanchier lamarckii 8-10cm, 3-4m ht
Crataegus monogyna 8-10cm, 3-4m ht
Pyrus 'Chanticleer', 14-16cm, 3-4m ht
Sorbus aria 'Lutescens', 14-16cm, 3-4m ht
Sorbus aucuparia*, 12-14cm, 2.5-3.5m ht



Prunus var.



Crataegus monogyna



Amelanchier lamarckii

Feature Trees



Fagus sylvatica



Tilia cordata



Pinus sylvestris



Quercus robur



Alnus glutinosa



Populus tremula

Ecological Corridor Treeline enhancement

Shrubs and Hedges

Hedgerow Mix – 60-90cm at 5/lin.m:



Fagus sylvatica



Crataegus monogyna



Prunus spinosa



Ilex aquifolium



Crataegus monogyna



Prunus spinosa

Typical Low Shrub planting – typically 2L pot size at 4/sq.m:



Aster novi-beigii



Berberis 'Amstelveen'



Carex spp.



Ceanothus 'Blue Mound'



Spiraea japonica

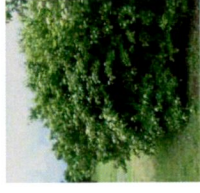


Lavendula angustifolia



Hypericum 'Hidcote'

Typical Medium Shrub planting typically 3L pot size at 3/sq.m or individual specimens :



Cornus sanguinea



Rosa Noaschee



Fuchsia 'Riccantoni'

6.0 Ecological measures

6.0 ECOLOGICAL MEASURES - APPROACH TO EXISTING HEDGEROWS

Proposed Approach to Existing Hedgerows

This section outlines the proposed approach to existing hedgerows on site.

1.1 Existing hedgerows on site

The planning area is characterized by existing hedgerows. The SDZ scheme demands the protection and development of these wherever possible or to replace them. It is proposed to retain and supplement the existing hedgerow along the Railway and to create a new ecological buffer along the bridge next to apartment block B. The hedgerow will be managed in accordance with Arborist' recommendations for appropriate hedgerow management.

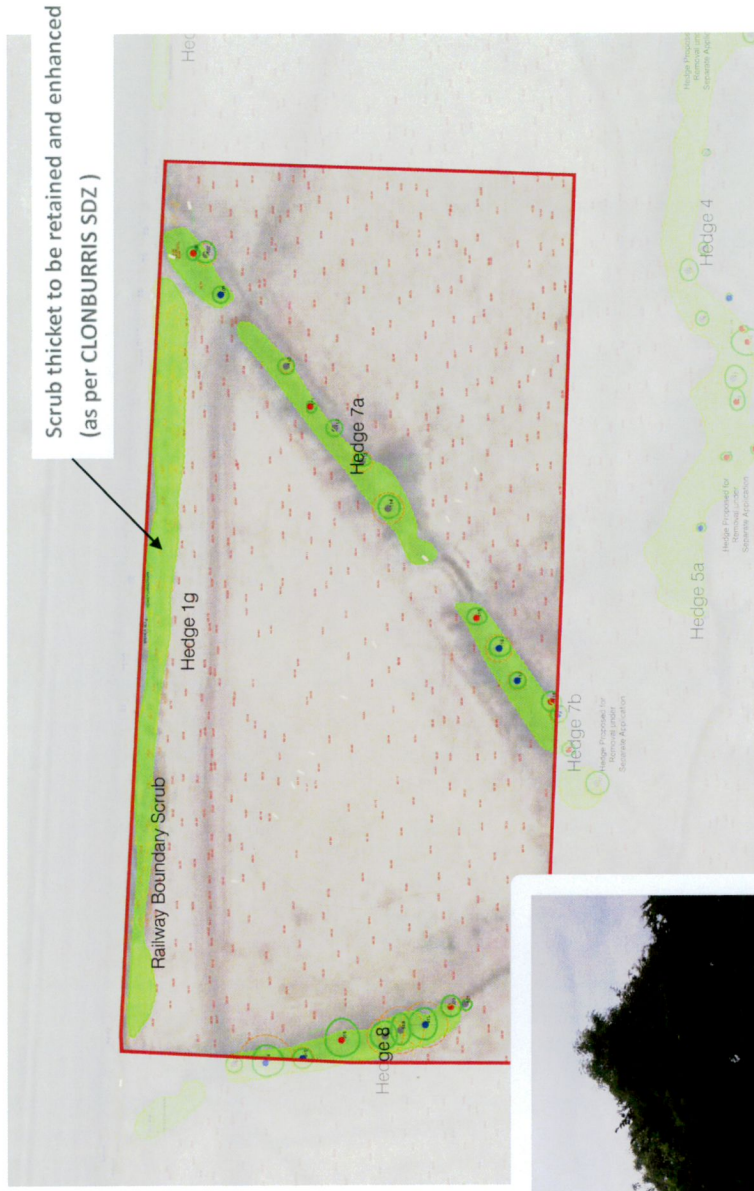


Figure 13: Existing Hedgerows on T3



View : Looking east along the railway, with existing hedgerow

	M length
Existing Hedgerows	420
Retained Hedgerows	185
New planted Hedgerows	246

The existing hedgerows are a strong part of the lands history, define the character and help to create attractive neighbourhoods.

The landscape concept provides new hedgerow planting along the railway and along the new bridge to the west of the tile.

These new plantings will increase the overall area dedicated for hedgerows for the application site, see table page 41.

Native species will provide food and habitat for the local faune.



Figure 14 : showing proposed new hedgerow planting

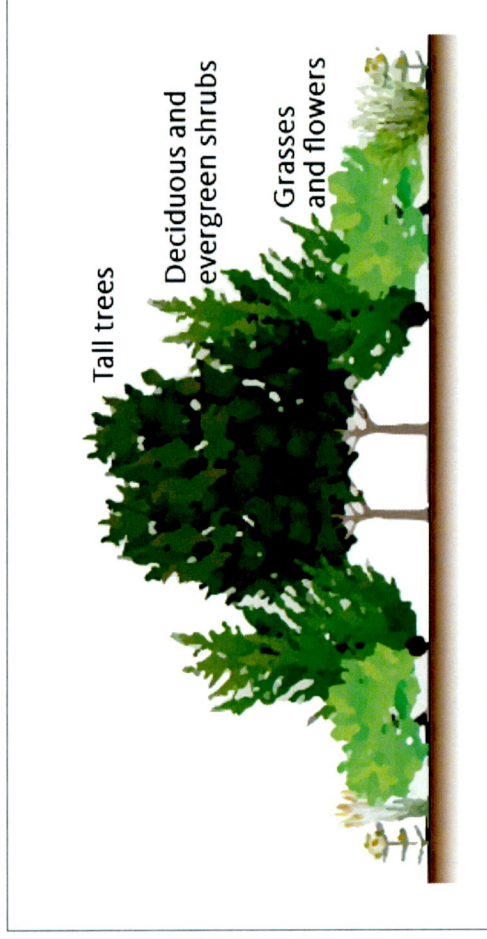


Figure 15: scheme showing an example for planting to obtain all different layers of a natural hedge

6.0 ECOLOGICAL MEASURES – NEW HABITATS

The landscape design includes the creation of new habitats along the railway ecological corridor.

- The existing ditch will be retained and protected with a chestnut paling fence
- New hedgerow planting provide shelter for insects and birds.
- Wildflower meadows offer food for insects.
- Bat and bird boxes fixed to larger trees offer housing.

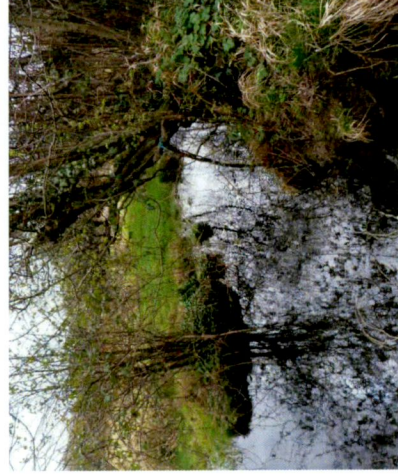
The Fauna survey prepared by *Ecological Solutions* in March 2021 and April 2022 showed the presence of the **common frog**

- Bioretention areas in the streetscape and additional frog breeding pools will be integrated in the ecological corridor along the railway and the western bridge.



Figure 15: showing the different habitat features integrated in the landscape design

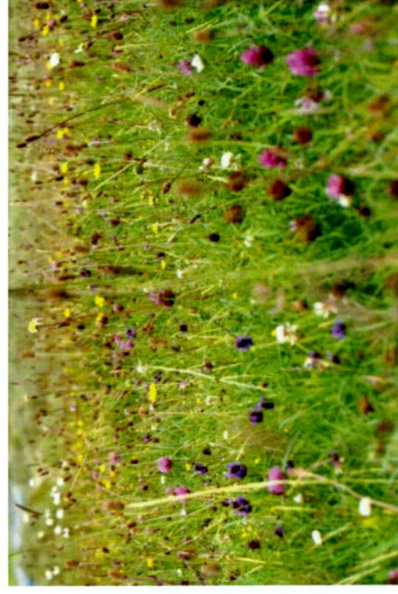
- Bat box
- Bughotel
- Pond and existing ditch



View of an existing pool on site

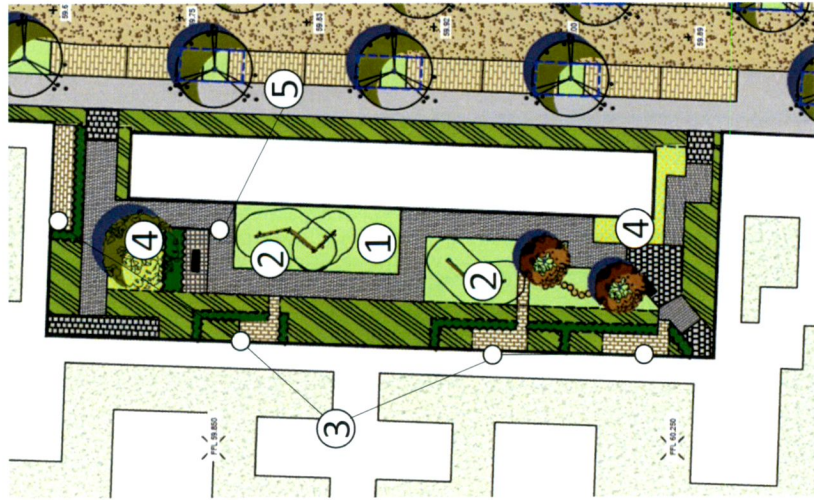


Bat house

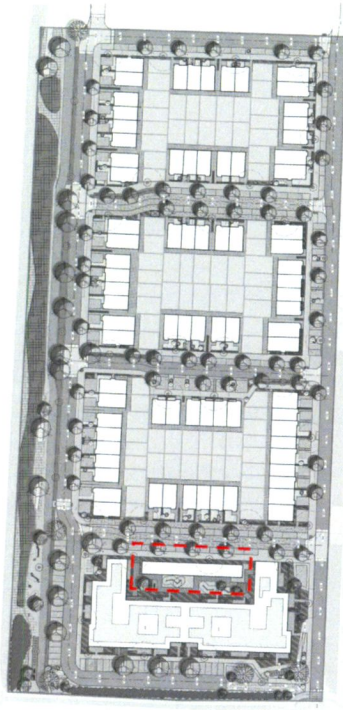
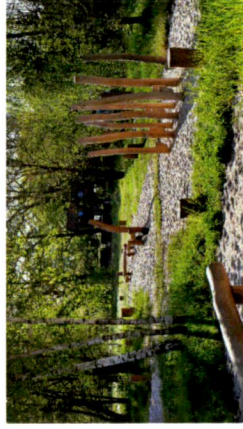
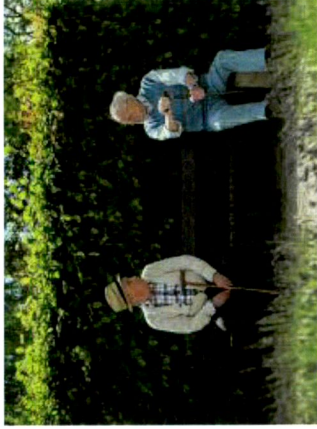


Wildflower Meadows

1. Main Communal Space - grassed open area
2. Natural Play elements
3. Private Terraces
4. Wildflowers
5. Social gathering space



Communal Open Space Requirements	Communal Open Space Provision
Block 01 : 26 no. 1-bedroom and 50 no. 2-bedroom units : 480 sqm	628 sqm



Communal Amenity Space and Playground

For Apartment Block 01 communal open space will be provided for the use of residents and within a short walk of each entrance. This green space will be well overlooked and inviting with clearly defined edges and space for informal passive and active recreation. The space will be framed with formal hedges and trees to provide a more manicured appearance closer to the buildings. These spaces will be simple and robust spaces that are easy to maintain and allow a range of uses.

The play area will be designed to act as instigator of interactive and informal play rather than a director of what that play will be and to inspire the imagination. It will include elements that invoke and entice children to play.

Furnishings & Surfaces:

Furnishings will be similar to what is illustrated in the images displayed with a both sculptural and interactive intent. The play area will have a woodchip surface and grass.

Safety:

All furnishings and surfaces within the children's play spaces will be to ISEN 1176/ISEN 1177 standards and meeting the RoSPA, NSC and other appropriate health and safety requirements. The play space has been designed around the Ready, Steady, Play! And Naps, Leaps and Neaps guidelines.

4.0 LANDSCAPE DETAILS

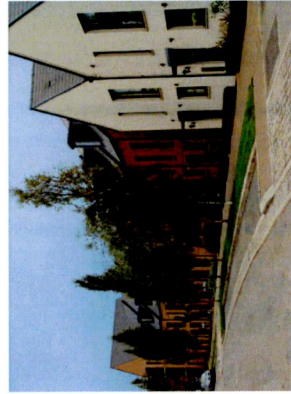
4.0 LANDSCAPE DETAILS – STREETSCAPE – LOCAL STREET

CLONURRIS SDZ, T3, SOUTH DUBLIN COUNTY

Streets will be lined with trees, and parking bays will be broken up with planting and hedges to create a green and leafy character to the streets.

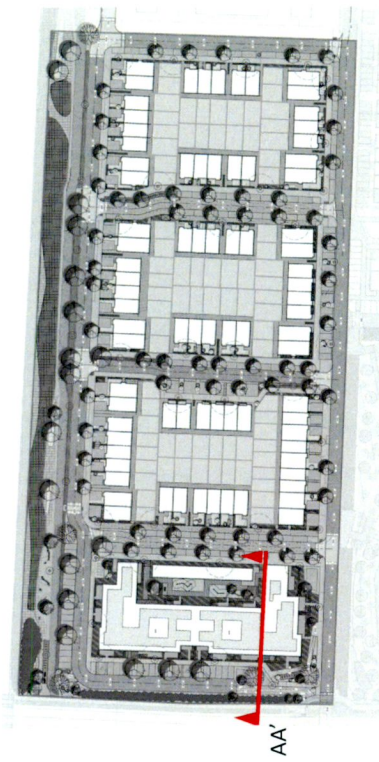
The key aspects of the design of the residential area:

1. Develop a linear green link to the north allowing all residents a short walk to public open space;
2. Ensure green spaces have a unified character, one that offers a simple planting palette, well maintained grass areas and bold structure;
3. Ensure local streets are sufficiently planted with street trees of suitable scale and stature that provide long lasting benefits over the next 100 years.

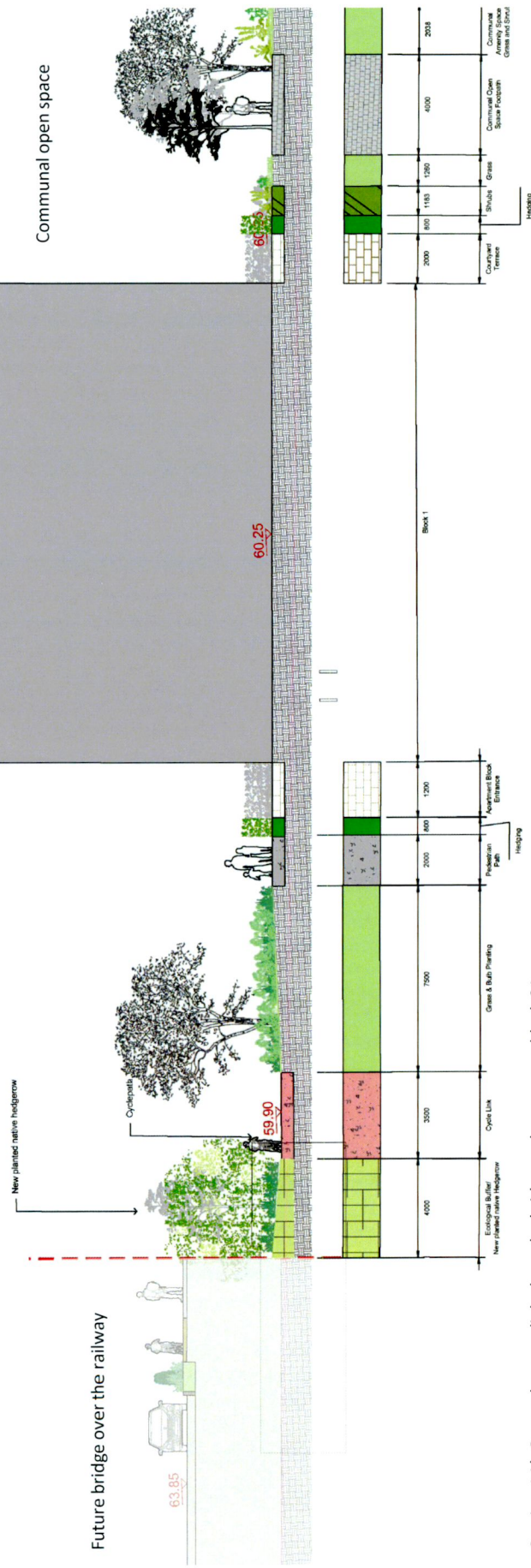


Tree planting with connected tree pits

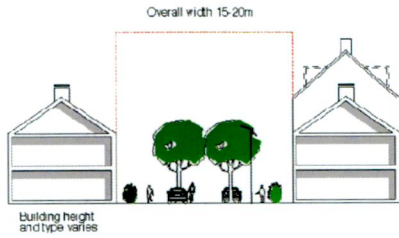
Green Streets & Parking



AA'



Section AA': Cappagh green link along the bridge and apartment block 01



All Homezones have off curtilage parallel parking with street trees on each side of the street to create a green and leafy character to the streets.

Coloured tarmac indicates the shared space for the street scape and priority for pedestrians.

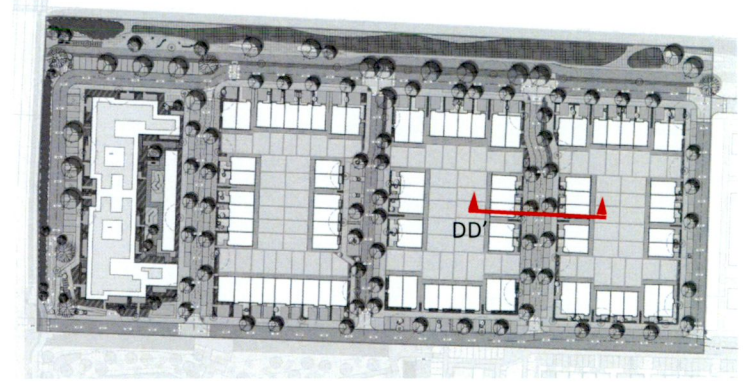
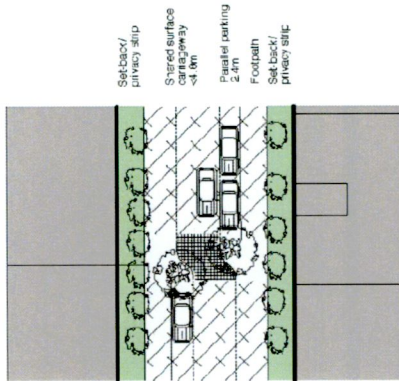
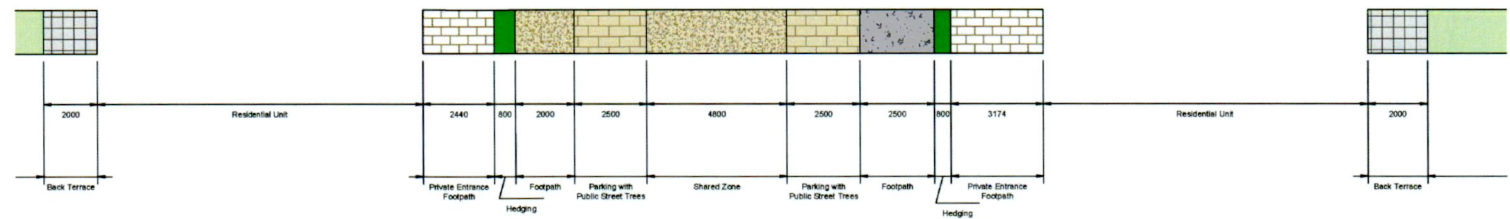
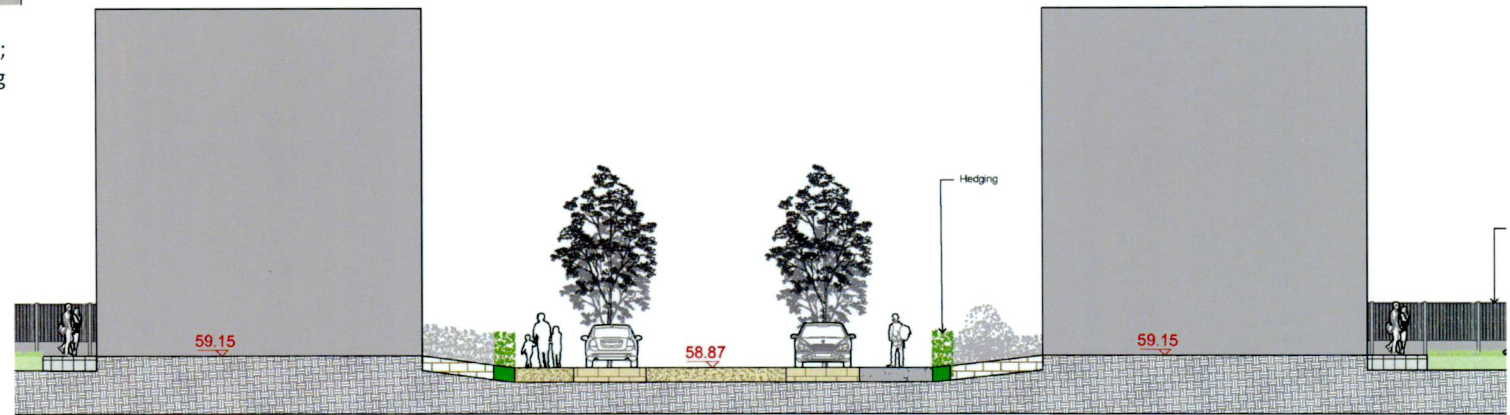


Figure 14 : Intimate scale street;
Figure 2.2.6 Clonburris SDZ Planning Scheme 2019



Section DD': Intimate local street / Homezone