

Kellystown

Local Area Plan
January 2021



Kellystown

Local Area Plan

Adopted by Council 11th January 2021

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E Executive Summary

Purpose of the Local Area Plan

A Local Area Plan (LAP) is a statutory document prepared in accordance with Part II, Section 20 of the Planning and Development Act 2000 (as amended). As a statutory document, the Planning Authority and An Bord Pleanála must take account of the provisions of the LAP when considering an application for planning permission for development. The provisions of a draft LAP may also be taken into consideration.

The purpose of an LAP is to examine a specific area in detail, identifying and analysing the various issues affecting the area and then setting principles and objectives for its future development. An LAP is valid for six years from the date of adoption by the Council. Its validity may be extended, in year 5 of the LAP for a further 5 years, if deemed appropriate by a resolution of the Council.

Where there is any discrepancy between the LAP and the relevant statutory Development Plan, the written statement and corresponding maps and appendices of the Development Plan in force at the time will take precedence.

Fingal County Council is responsible for the preparation and adoption of an LAP for Kellystown. The Local Authority is also overseeing another consultation process to examine route options for a road in the area (Kellystown road). The two consultations i.e. the LAP and Route Options ran concurrently.

Public Consultation

Pre-draft public consultation, which included a Strategic Issues Paper, was held in 2019 and informed the Draft LAP. Public consultation on the Draft Plan was between 17th September and 6th November 2020. Taking account of COVID 19, the consultation period exceeded the statutory requirements and included extensive awareness raising through a range of platforms including a number of display locations throughout the County, print media, social media, radio, virtual meetings, webinars and leaflet drops.

Policy Context

The policy context for Kellystown is framed by national, regional, and local policy objectives with the Fingal Development Plan 2017-2023 providing the most detailed objectives for Kellystown and the local area. The LAP lands are zoned in the Development as either Residential Area 'RA' or Open Space 'OS'.

Existing Settlement

Kellystown is located approximately 1.5 km south-west of Blanchardstown Town Centre, 1.8 km south-west of Blanchardstown Main Street and 9.8 km north-west from O'Connell Street, Dublin. The subject lands are situated directly south of the Royal Canal and the Dublin-Maynooth Railway Line and between Porterstown Road and Diswellstown Road to the east and Clonsilla Road (R121) to the west.

Vision Statement

The vision statement for Kellystown is as follows:

The vision for Kellystown is to promote the development of a distinctive, sustainable, high quality new residential quarter, connected to the neighbouring suburbs of Clonsilla and Carpenterstown. Kellystown will provide a sustainable residential community, comprising a choice of high quality new homes, with a mix of dwelling types, size and tenure based around a new civic square that incorporates local services with new schools, public open space and access to high capacity public transport links.

The LAP outlines key objectives for the sustainable development of the lands in relation to:

- New residential development;
- Infrastructural investment including the new Kellystown Link Road;
- Pedestrian, cyclist and vehicular movement;
- Development of a central civic square;
- Education and community uses;
- Public open space and recreation areas; and
- Water and drainage

The LAP identifies 3 no. Development Areas with specific objectives for each:

- Eastern Development Area (DA1): Approx. 14.9 ha (gross)
- Central Development Area (DA2): Approx. 7.4 ha (gross)
- Western Development Area (DA3): Approx. 10.23 ha (gross)

Proposed Residential Densities

Kellystown has the capacity to accommodate circa 1,055 - 1,583 additional residential units in the identified Development Areas. The overall density of development proposed is considered appropriate having regard to the Sustainable Residential Development in Urban Areas-Guidelines for Planning

Authorities (May 2009) as well as the need to respond to significant demand for new housing in the residential market. A range of densities are supported across the Development Areas, from lower density at the Central Development Area of the LAP area to higher densities at the Eastern and Western Development Areas.

Education and Community

The LAP proposes the provision of a new primary school and secondary school in the heart of the Central Development Area. The LAP will provide for the relocation of St. Mochta's Football Club with new full sized soccer pitches along with new sports facilities in the form of a multi-use games areas (MUGAs) that will be utilised by the new schools. It is envisaged that these amenities will be available to the wider community outside of school usage. The LAP will also promote and encourage the development of mixed-use services appropriate to serve the residents of Kellystown.

Green and Blue Infrastructure

The term 'green and blue infrastructure' is used to describe the interconnected networks of land and water all around us that sustain environmental quality and enrich quality of life. The LAP includes objectives for the protection and enhancement of green and blue infrastructure in Kellystown under the following headings:

- Biodiversity;
- Parks, Open Space and Recreation;
- Sustainable Water Management;
- Archaeological and Architectural Heritage; and
- Landscape.

Parks, Open Space and Recreation

Under the Fingal Development Plan 2017-2023, the southern portion of the LAP lands is zoned as Open Space 'OS'. A key component in the development of a successful, sustainable LAP is the provision of high quality accessible open space. Key goals for the Open Space area include provision of a new neighbourhood park, the relocation of St. Mochta's Football Club and multi-use games areas (MUGAs).

Phasing of Development

The phasing of development will ensure the delivery of upgrades to physical, community and social infrastructure, in tandem with the provision of new housing and the resultant population



increase. The phasing schedule seeks to provide community infrastructure, such as schools and open space, in the earlier phases of development in order to create a high quality living and working environment. The development of the LAP lands shall be delivered in a phased basis as follows:

- Phase 1: Eastern Development Area (DA1)
- Phase 2: Central Development Area (DA2)
- Phase 3: Western Development Area (DA3)

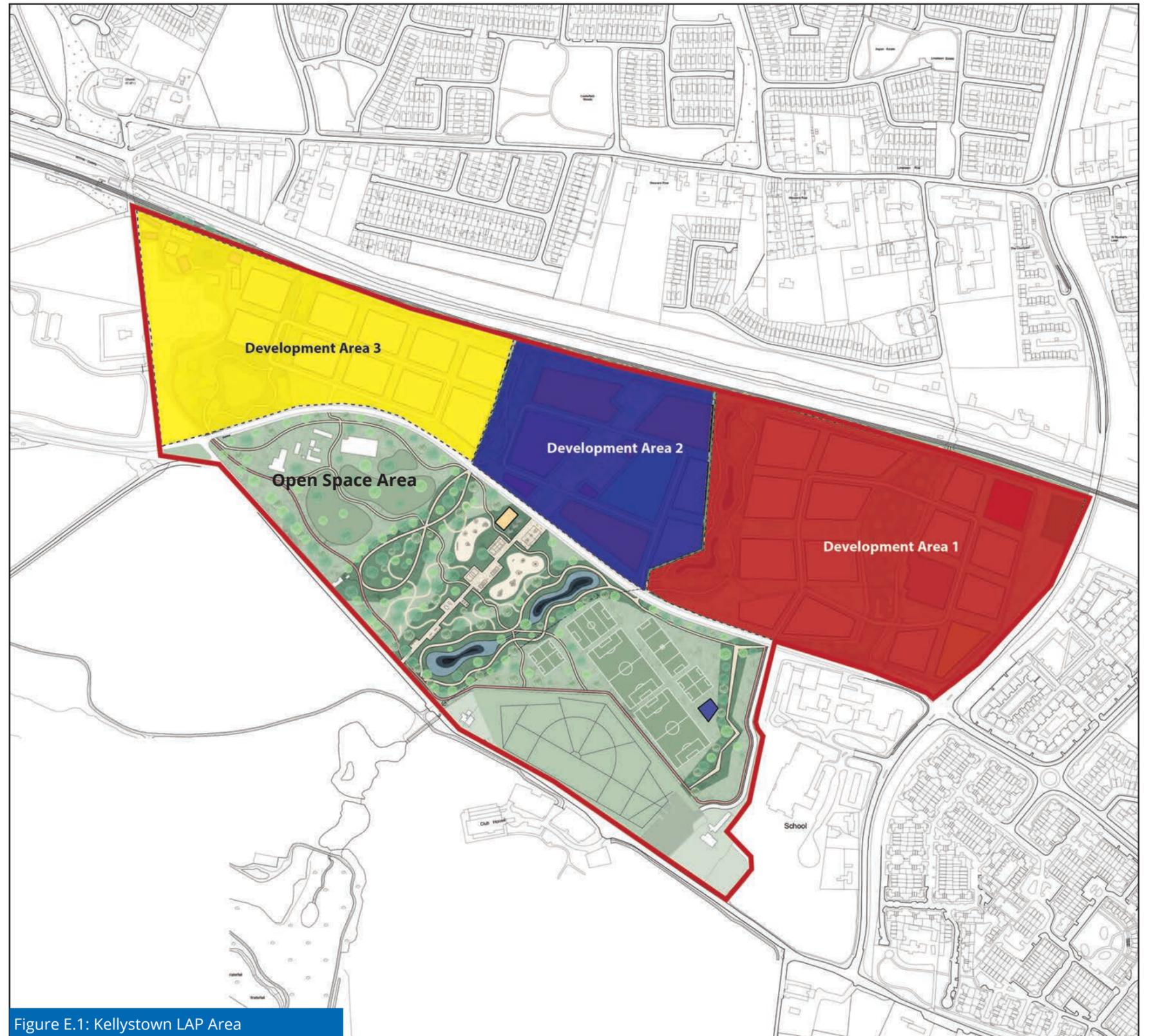


Figure E.1: Kellystown LAP Area

Sustainable Growth

- Establish a framework for the coordinated, phased and sustainable development of the Kellystown LAP lands.
- Delivery of sustainable mixed-use development within 3 no. identified Development Areas that supports a new urban neighbourhood and its future population.
- Support the delivery of new residential development within each Development Area that is characterised by mixed housing typologies that supports a range of household sizes, and which is accompanied by associated community and physical infrastructure.
- Provide for development that sensitively integrates into the existing landscape setting and which also seeks to protect and enhance landscape characteristics.
- Promote best practice in the sustainable design of new buildings and the reduction in their carbon footprint through higher energy performance.

Creating Communities

- Development of a centrally located Civic Square that provides a mix of educational, community, commercial and religious uses along with associated public open space areas that will support local needs.
- Ensure the proposed Civic Square comprises a high level of soft landscaping and is finished to a high standard in order to provide functionality for a wide range of community-related uses.
- Provision of a new primary school and a new secondary school within the Central Development Area.
- Ensure the proposed multi-use games areas (MUGAs) and playing pitches in the public open space area are available for use by the wider community.

Green & Blue Infrastructure

- Mitigate the potential for flood risk by incorporating SuDS features such as water butts, rainwater harvesting, blue/green roofs and permeable paving into new development.
- Improve the amenity of the Royal Canal by providing a riparian corridor for the enjoyment of residents and visitors that is free from development.
- Take advantage of the opportunities created by the requirement to incorporate SuDS features to ensure that these areas enhance the landscape quality of the area.
- Provision of a signature green and blue corridor field boundary along the western boundary of the Neighbourhood Park.
- Protect water quality by ensuring that new development is designed so that water runs through at least one SuDS feature before discharge.

Movement & Transport

- Facilitate the development of a new urban neighbourhood that is well connected, walkable and accessible and actively encourages the use of sustainable modes of transportation.
- Delivery of the Kellystown Link Road as a key piece of physical infrastructure.
- Promote and encourage increased levels of pedestrian and cyclist movement within all Development Areas with less reliance on the private car for journeys.
- Support accessible public transport systems for the elderly and mobility impaired, as well as making it possible for older people to use personal forms of transport.

Parks, Open Space & Recreation

- Creation of a large area of public open space that is characterised by the provision of formal and informal areas of recreation.
- Delivery of a Neighbourhood Park measuring a minimum area of 8 hectares situated within the public open space area that will provide for informal recreation activities.
- Relocation of St. Mochta's Football Club to the public open space area.
- Encourage best practice and sustainable design in the development of high quality accessible public spaces.

Table 1: Key goals of the LAP



1 Introduction

1.0 Statutory Context

A Local Area Plan (LAP) is a statutory document prepared in accordance with Part II, Section 20 of the Planning and Development Act 2000 (as amended). As a statutory document, the Planning Authority and An Bord Pleanála must take account of the provisions of the LAP when considering an application for planning permission for development.

The LAP has examined the study area in Kellystown in detail, identifying and analysing the various issues affecting the area and then establishing and setting principles for its future development. LAP's prepared in consultation with the local community and other stakeholders create opportunities to strengthen and enhance local areas. When prepared for new greenfield areas, they provide the opportunity for the creation of sustainable communities and placemaking.

Objective PM13 of the Fingal Development Plan 2017-2023 states as follows regarding LAPs:

"Prepare Local Area Plans for areas designated on Development Plan maps in co-operation with relevant stakeholders, and actively secure the implementation of these plans and the achievement of the specific objectives indicated".

The LAP lands at Kellystown accommodate two zoning objectives: RA - Residential Area to "provide for new residential communities subject to the provision of the necessary social and physical infrastructure" and OS - Open Space to "preserve and provide for open space and recreational amenities".

1.1 Geographic Context

Kellystown is located approximately 1.5 km south-west of Blanchardstown Town Centre, 1.8 km south-west of Blanchardstown Main Street and 9.8 km north-west from O'Connell Street, Dublin. The subject lands are situated directly south of the Royal Canal and the Dublin-Maynooth Railway Line and between Porterstown Road and Diswellstown Road to the east and Clonsilla Road (R121) to the west. Luttrellstown Road, a country thoroughfare, frames the lands to the south. Diswellstown Road to the east offers an access point for vehicular and pedestrian traffic to cross the canal and railway line without traversing via a level crossing. The R121/Clonsilla Road (a well-trafficked route), defines the boundary of the lands to the west and is part of a network of roads linking Blanchardstown to Lucan. Figure 1.1 identifies



Figure 1.1: Kellystown LAP Area - Location Context

the geographical context of the Kellystown LAP lands.

1.2 Purpose of the Local Area Plan

This LAP establishes a framework for the planned, coordinated and sustainable development for the Kellystown area. The LAP will take effect for a period of 6 years following adoption (2021-2027), which may be extended for an additional 5 year period (in the fifth year) as provided for under the *Planning and Development Act 2000* (as amended). The LAP seeks to achieve a high quality, distinctive, well connected and highly sustainable residential area, coupled with a range of open space amenities.

1.3 Why a Local Area Plan for Kellystown?

It is a requirement of the Fingal Development Plan 2017-2023 to prepare an LAP for Kellystown. The Kellystown LAP area represents a significant land bank along the Dublin-Maynooth railway line. Rail services along this line are due to undergo a substantial upgrade in the coming years as the line is electrified and the frequency of services increase. The adjoining area of Carpenterstown has been largely developed over recent decades and there are limited additional opportunities for new residential development. With demand for housing in the Dublin area significantly outstripping supply, there is a requirement to develop high quality communities in well-connected locations. The purpose of the LAP is to ensure that new development is of an appropriate density and scale, is carefully planned and thought out, and highly sustainable.

1.4 Consultation

A series of preparation and consultation stages were taken in advance of the Kellystown Local Area Plan, including Pre-Draft Consultation and publication of a Draft LAP.

Pre-Draft Consultation

A Strategic Issues Paper was prepared and published to help inform pre-draft publication consultation, which took place in June 2019. A number of key issues were raised which helped to shape and inform the Draft LAP.

Draft LAP

A Draft LAP was published and consultation took place between 17th September and 06th November 2020. A total of 109 no. submissions were received during this period of public consultation including submissions from prescribed bodies, landowners, community groups, organisations and individual members of the public. Print media and social media were also

used extensively. The issues raised in the submissions have informed the making of the Local Area Plan together with a series of other consultations with stakeholders. The draft Local Area Plan was also available for viewing in a number of public offices and locations throughout Fingal. The content of the Draft LAP was also informed by other key requirements, such as Flood Risk Assessment, baseline ecological surveys and Strategic Environmental Assessment and Appropriate Assessment Screening.

1.5 Baseline Ecological Surveys

The following Objective* for the preparation of the Kellystown LAP informed the ecological surveys:

- Provide a study of the trees, hedgerows and other features of biodiversity value suitable for retention and a programme agreed with the Council’s Biodiversity Officer as to how these features can be protected or improved and the biodiversity value of the Canal maintained or improved.

The following surveys were undertaken to meet the above requirements:

- Habitat and flora survey of subject lands;
- Hedgerow Appraisal Survey;
- Bat Survey - two transects between June to September; and
- Bird Survey (included during hedgerow survey fieldwork).

The above baseline surveys are contained in Appendix 1 and have informed the Green Infrastructure recommendations and objectives set out in the LAP.

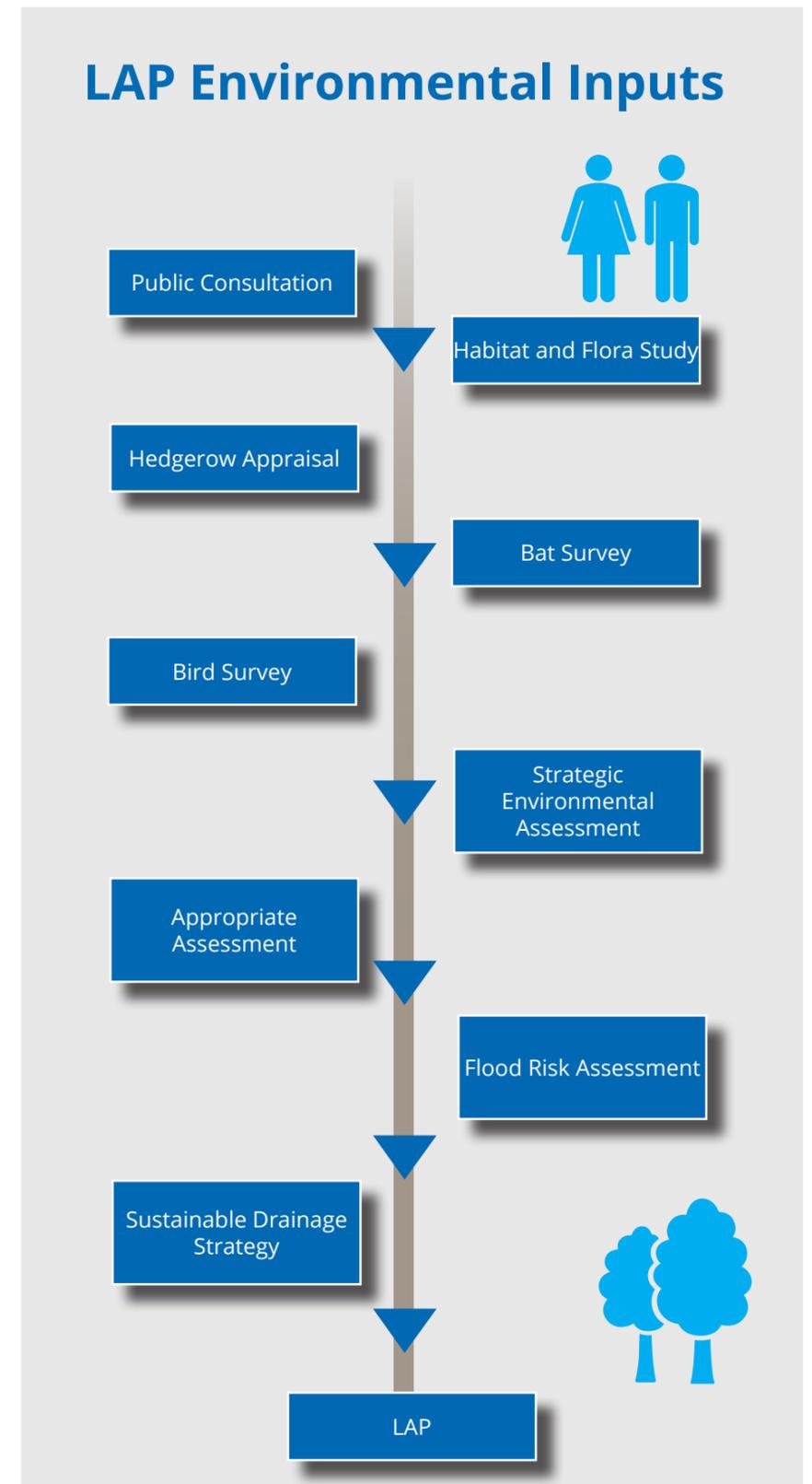
*This Objective is contained on page 104 of the Fingal County Development Plan 2017-2023, relating to Kellystown.

1.6 Environmental Assessments

A number of environmental assessments have been undertaken to assess any possible impacts arising from the LAP. A copy of the Environmental Assessments are contained within the appendices.

1.6.1 Strategic Environmental Assessment (SEA)

A screening exercise was carried out in relation to whether a Strategic Environmental Assessment (SEA) is required for the Local Area Plan (Directive 2001/42/EC). The SEA Screening Report was sent to the Environmental Protection Agency, the relevant Government Departments and to adjoining local



authorities, seeking comment. A copy of the SEA Screening Report and a summary of the responses received is included as Appendix 3 of this document. The screening exercise for SEA concluded that a full Strategic Environmental Assessment was not required, given the nature and scale of development proposed and its potential impacts.

1.6.2 Appropriate Assessment (AA)

In addition to the Strategic Environmental Assessment, it is also a requirement to undertake an Appropriate Assessment (AA) screening regarding possible impacts of the LAP on Natura 2000 sites as required under the EU Habitats Directive. The screening exercise concluded that a full Appropriate Assessment was not required. The AA Screening document is contained in Appendix 4.

1.6.3 Sustainable urban Drainage Systems (SuDS) Analysis

A Surface Water Management Plan (SWMP) comprising both a Flood Risk Assessment and a Sustainable Drainage Strategy has been developed for Kellystown by McCloy Consulting on behalf of Fingal County Council (see Appendix 2). The SWMP identifies various recommendations and measures that should be employed, taking account of the existing surface water infrastructure in place across the LAP lands. The SuDS strategy for Kellystown sets out a hierarchy of SuDS techniques, that when employed in combination, work together to form a coherent and effective strategy. The recommendations for Kellystown incorporate a range of source controls including:

- Source controls - water butts, rainwater harvesting, permeable pavements, green/blue roofs, green walls, filter drains and soakaways;
- Site controls - swales, bioretention areas/ modified planters, and detention basins; and
- Possible regional controls - ponds and constructed wetlands.

These SuDS measures shall, where feasible, be incorporated into the development in line with appropriate sustainable drainage practices and provide for limiting run-off rates and site, source and regional controls.

1.6.4 Flood Risk Assessment

In accordance with the 'Planning System and Flood Risk Management Guidelines for Planning Authorities' (DoEHLG, 2009) and Circular PL02/2014, (August 2014), the preparation of the LAP was the subject of a Strategic Flood Risk

Assessment (SFRA), which was also completed by McCloy Consulting Engineers. The SFRA incorporates commentary and recommendations to guide future development, which must comply with the objectives of the assessment to ensure impacts on water quality and increased flood risk are avoided. The SFRA and Sustainable Drainage Strategy are included at Appendix 2.

2 Legislative Context

2.0 Introduction

The preparation of this LAP has been guided by EU Directives, the National Planning Framework, the Regional Spatial and Economic Strategy for the Eastern and Midland Region and by the Fingal Development Plan 2017-2023, in addition to various Government policy documents and guidelines. The need to promote sustainable development is clearly articulated in the aforementioned documents and has been central to the preparation of this LAP. Sustainable development refers to “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

2.1 National Planning Framework

The National Planning Framework (NPF) is the long-term strategic planning framework that will guide national, regional and local planning and investment over a 25 year period. The NPF has a statutory basis and is accompanied by a sister document, the National Development Plan 2018-2027 (NDP). The NDP is a 10 year strategy for the capital investment of almost €116 billion. Together, the NPF and NDP comprise Project Ireland 2040.

The NPF recognises the importance of the Eastern and Midland Region as a major source of growth in the Country over the next 20 years and states as follows in this regard:

“The Eastern and Midland part of Ireland will, by 2040, be a region of around 2.85 million people, at least half a million more than today”.

As the population of the Region grows, so too will the need for additional resources in the form of housing, employment, infrastructure and transport.

The NPF goes on to state that:

“The significant influence of Dublin and the cross border network extends to the county towns and other settlements within the north-eastern regional area as well as to Fingal and parts of County Meath. In identifying opportunities for leveraged employment and sustainable population growth, development must be supported by enhanced connectivity, quality of life, strengthened urban cores and more compact housing in urban settlements. This is to protect and manage the strategic capacity of transport infrastructure and to ensure that the distinctiveness of settlements and rural areas is maintained”.

2.2 Regional Spatial and Economic Strategy

The RSES for the Eastern and Midland Region aims to support the implementation of Project Ireland 2040 by providing a long-term strategic planning and economic framework for the development of the Region. In this regard, the RSES includes an integrated land use and transportation strategy for Dublin: the Metropolitan Area Strategic Plan (MASP). The RSES also recognises Fingal as one of the fastest growing counties in the Region with a growth rate of 23% from 2006 to 2016.

Strategic residential and employment development corridors are identified as part of the MASP, with the North-West Corridor (Maynooth/Dunboyne commuter line and DART expansion) being relevant to the LAP lands at Kellystown. The continued development of Hansfield linked to the future development of the Barnhill and Kellystown landbanks to the south and east will assist in contributing to a long-term population capacity of 37,000 additional people in the North-West corridor as identified in the MASP. In total, the MASP envisages a population of 1.65 million in the metropolitan area by 2031, an increase of 250,000 people or 18% from 2016.

2.3 Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) 2009

The guidelines for Planning Authorities aim to support the development of sustainable communities through the incorporation of best practice standards and by providing a coordinated approach to the delivery of infrastructure and services.

The document states as follows regarding land located along public transport corridors:

“The State has committed very substantial investment in public transport under the Transport 21 capital programme (subsequently the Capital Investment Programme). To maximise the return on this investment, it is important that land use planning underpins the efficiency of public transport services by sustainable settlement patterns – including higher densities – on lands within existing or planned transport corridors. The phasing of proposed major residential development in tandem with new public transport infrastructure/ services (as in the case of the Adamstown Strategic Development Zone) should be considered”.

2.4 Section 28 Guidelines for Planning Authorities

The Guidelines for Planning Authorities have been prepared

and issued by the Department of Housing Planning and Local Government (previously Environment, Community and Local Government) under Section 28 of the Planning and Development Act 2000 (as amended) to guide best practice planning and development.

Local Area Plan Guidelines

The guidelines set out best practice for the preparation of new LAPs. The main aims of the guidelines are to:

- Highlight best practice and improve the quality of LAPs;
- Improve community and institutional participation in the process of preparing or amending local area plans; and thereby
- Enhance the co-ordination and provision of essential public infrastructure within the planning process.

The Kellystown LAP has been prepared in accordance with the LAP guidelines, as well as all other applicable guidelines issued under Section 28.

Urban Development and Building Heights (December 2018)

The Urban Development and Building Heights, Guidelines for Planning Authorities, seek to promote and support increased building height and density in locations with good public transport accessibility in support of compact growth as advocated in the NPF. The scale and density is likely to vary depending on location e.g. City Centre, suburban, etc.

2.5 Transport Strategy for the Greater Dublin Area 2016-2035

The Transport Strategy for the GDA provides a framework for the planning and delivery of transport infrastructure and services up to 2035. Smarter Travel, A Sustainable Transport Future 2009-2020, also seeks to promote sustainable development, by reducing emissions, through the promotion of cycling, walking and sharing car journeys.

The strategy acknowledges that the increased use of the existing asset of the Maynooth Line would have many advantages. Consequently, it is proposed to extend DART to Maynooth by electrifying this line and by removing the level crossings. The DART expansion programme is a cornerstone of the strategy*.

*The Dart Expansion Programme relates to a much wider area beyond the Kellystown area and comprises a number of constituent elements to expand the heavy rail capacity, frequency, and connectivity in Dublin City Centre and throughout the Greater Dublin Area. This project is being overseen by the National Transport Authority (and Irish Rail) and is distinct from the Local Area Plan being prepared by Fingal County Council for Kellystown.

2.6 Fingal Development Plan 2017-2023

The Fingal Development Plan 2017–2023 is the statutory framework for the County which sets out the Council’s policies and objectives for development over the Plan period. The Development Plan seeks to develop and improve, in a sustainable manner, the social, economic, environmental and cultural assets of the County. The Local Area Plan has had due regard to all relevant policies and objectives set out in the Development Plan.

2.6.1 Core Strategy

The Planning and Development (Amendment) Act 2010 introduced the requirement for an evidence based ‘Core Strategy’ to be included in Development Plans. The purpose of the Core Strategy is to require local authorities to identify and reserve appropriate areas of land in suitable locations to meet the housing and population targets set out for the Region. LAPs prepared by the local authority must be consistent with the allocations set out in the Core Strategy.

Under the Core Strategy, Fingal is classified into two areas being the Core Area and the Metropolitan Area (as per Variation No.2 to the Development Plan). The Metropolitan Area is closest to Dublin City and includes Swords and Blanchardstown, which are the largest population centres in Fingal. Kellystown is located within the development boundary of Blanchardstown which is classed as a Key Town and a Metropolitan Consolidation Area in the RSES which aligns with the Fingal Development Plan 2017-2023. The Development Plan sets out that Blanchardstown will continue to perform the role as one of the County’s primary development centres during the Plan period and is a key location for housing, enterprise and retail development.

The anticipated number of additional units in Kellystown are calculated as follows:

Identified Development Areas:

- Development Area 1: Approximately 571 - 857 no. units
- Development Area 2: Approximately 119 - 179 no. units
- Development Area 3: Approximately 365 - 547 no. units
- Total units: Approximately 1,055 - 1,583 no. units

The identified yield is likely only to be realised over a period longer than the statutory time period of the LAP and that of the Fingal Development Plan 2017-2023.

2.6.2 Land Use Zonings

Under the Fingal Development Plan, land in Kellystown is zoned Residential Area ‘RA’ and Open Space ‘OS’ (see Figure 2.1).

The RA zoning objective seeks to:

“Provide for new residential communities subject to the provision of the necessary social and physical infrastructure”.

The Vision Statement for the RA zoning seeks to:

“Ensure the provision of high quality new residential environments with good layout and design, with adequate public transport and cycle links and within walking distance of community facilities. Provide an appropriate mix of house sizes, types and tenures in order to meet household needs and to promote balanced communities”.

The OS zoning objective seeks to:

“Preserve and provide for open space and recreational amenities”.

The Vision Statement for the OS zoning seeks to:

“Provide recreational and amenity resources for urban and rural populations subject to strict development controls. Only community facilities and other recreational uses will be considered and encouraged by the Planning Authority”.

2.6.3 Zoning of Adjacent Lands

The zoning objectives in relation to lands adjacent to the LAP area include High Amenity ‘HA’ and Community Infrastructure ‘CI’.

The HA zoning objective seeks to:

“Protect and enhance high amenity areas”.

The Vision Statement for the HA zoning seeks to:

“Protect these highly sensitive and scenic locations from inappropriate development and reinforce their character, distinctiveness and sense of place. In recognition of the amenity potential of these areas opportunities to increase public access will be explored”.

The CI zoning objective seeks to:

“Provide for and protect civic, religious, community, education, health care and social infrastructure”.

The Vision Statement for the CI zoning seeks to:

“Protect and promote an inclusive County, accessible to all members of the community, facilitating the sustainable development of necessary community, health, religious, educational, social and civic infrastructure. A wide range of different community facilities, civic facilities and social services exist within the County ranging from those of regional importance such as education and health facilities, to those of local and neighbourhood importance such as places of worship, community centres and childcare facilities. It is important to facilitate the development and expansion of such services in order to deliver a quality environment whilst improving the quality of life for all”.

Much of the land in Clonsilla and Carpenterstown is zoned RS - Residential and TC - Town and District Centre.

The RS zoning objective seeks to:

“Provide for residential development and protect and improve residential amenity”.

The TC zoning objective seeks to:

“Protect and enhance the special physical and social character of town and district centres and provide and/or improve urban facilities”.

2.6.4 Local Objectives

The Development Plan includes the following map based local objectives within the Kellystown LAP area:

Local Objective 130

Prepare a feasibility study on the location of a road bridge, crossing the Royal Canal and the Dublin-Maynooth railway, connecting north to the Ongar road. This location shall be determined in advance of, or part of, the adoption of the Local Area Plan for lands at Kellystown.

Local Objective 137

Preserve the existing pedestrian and vehicular right of way at



2 Legislative Context

the level crossing at Porterstown.

Local Objective 144

Protect the rural character and setting of the Luttrellstown Road and enhance its use for pedestrians and cyclists.

Local Objective 146

Provide for a burial ground of up to 4 hectares within the Kellystown area. This site is to be identified as part of, or in advance of, the adoption of Kellystown LAP.

Local Objective 147

Provide integrated school and community/recreational facilities which may be developed in advance of the LAP.

Additionally, the Development Plan includes a number of map based Specific Objectives pertaining to Kellystown. These are as follows:

- Proposed School;
- Traveller Accommodation;
- Indicative Cycle/Pedestrian Route;
- Road Proposal; and
- Protect & Preserve Trees, Woodlands and Hedgerows.

There is a protected structure (RPS No. 945 The Gables) and a recorded monument (DU013-018 Ring Barrow) identified within the LAP lands.

Objective BLANCHARDSTOWN 18

Prepare and/or implement the following Local Area Plans and Masterplans during the lifetime of this Plan:

- Kellystown Local Area Plan (see Map Sheet 13, LAP 13.C).

Kellystown Local Area Plan

- Provide for a programme for the phasing of construction of residential and commercial development in tandem with the delivery of transport, recreational, community and educational infrastructure;
- Facilitate the development of a new railway station on the existing Dublin-Maynooth line at Porterstown if required;
- Facilitate re-location of St. Mochta's Football Club grounds to a new site north of the Luttrellstown Road. This new site will be in addition to a proposed 8 hectare public park;
- Provide pedestrian and cyclist access routes to the subject lands

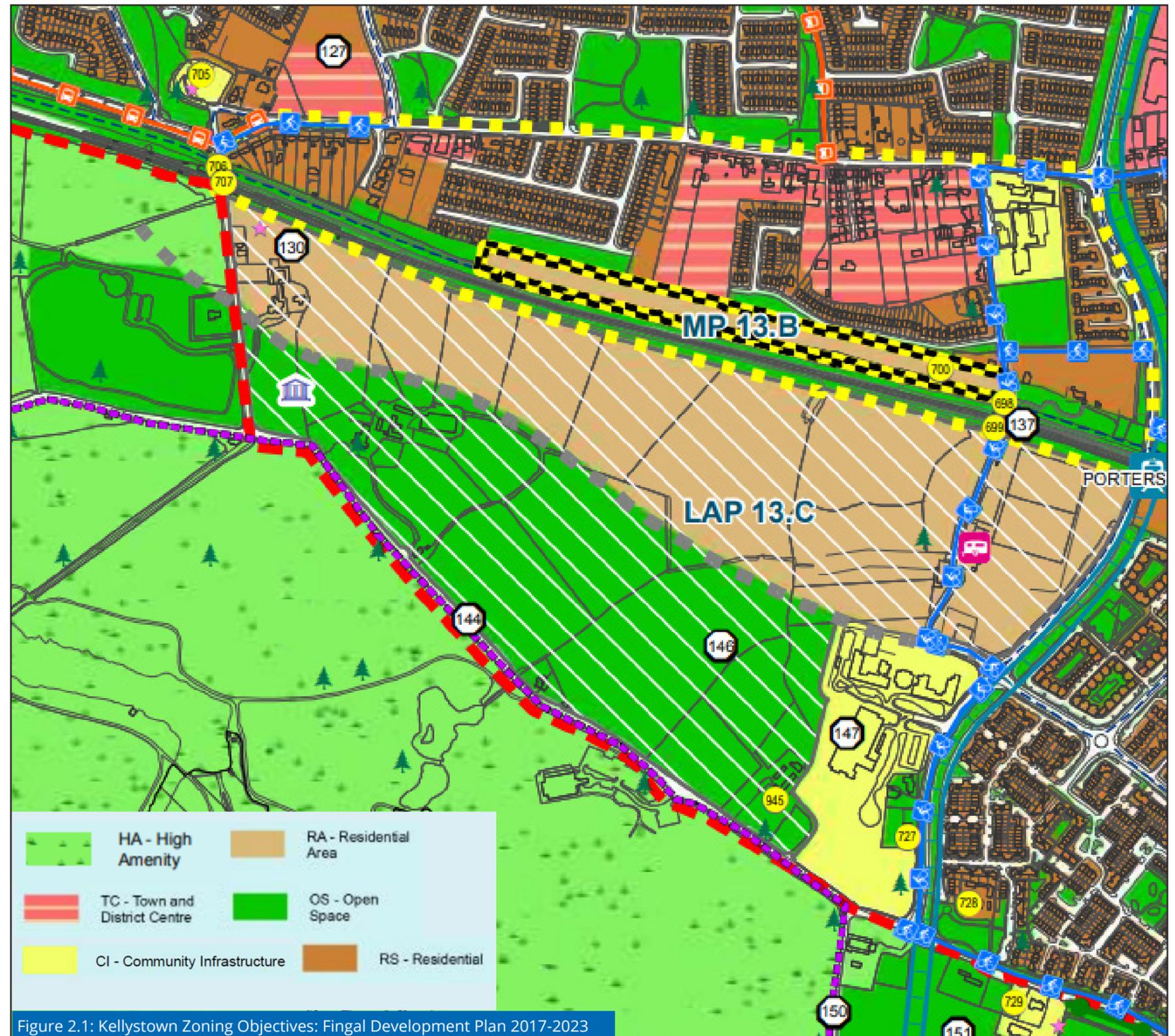


Figure 2.1: Kellystown Zoning Objectives: Fingal Development Plan 2017-2023

- from the Riverwood/Carpenterstown area;*
- *Create a new neighbourhood public park of a minimum of 8 hectares. This park shall be linked to Porterstown Park, Luttrellstown Road and Beech Park by dedicated pedestrian and cyclist facilities;*
 - *Protect the rural character and setting of Luttrellstown Road and enhance its use for pedestrians and cycling; and*
 - *Provide a study of the trees, hedgerows and other features of biodiversity value suitable for retention and a programme agreed with the Council's Biodiversity Officer as to how these features can be protected or improved and the biodiversity value of the Canal maintained or improved.*

3 Environmental Issues and Opportunities

3.0 Introduction

Existing development in the Kellystown LAP area primarily comprises of undeveloped greenfield land currently in agricultural use: actively managed agriculture and pasture land. The remaining land comprises dispersed rural housing consisting of vernacular houses such as Greenmount House and its estate, and residential dwellings and Traveller accommodation on Porterstown Road, Luttrellstown Road and Clonsilla Road. St. Mochta's Football Club is also located on Porterstown Road to the east and is included within the LAP boundary.

3.1 Landscape Character

The LAP lands are located within the designated 'River Valleys/ Canal' landscape character type as defined in the Development Plan. The Royal Canal Corridor, along with the Tolka and Liffey valleys are the main landscape features in this classification.

The Development Plan acknowledges that the canal and its corridor provide valuable habitat for fish and other species. In addition to its biodiversity value as a proposed Natural Heritage Area (pNHA), the contribution that the many bridges and other structures associated to the County's architectural heritage is also acknowledged. The River Valley/Canal character type is categorised as having a high value in the Development Plan due to its the visual and recreational qualities.

The entire LAP area is located within the 'Highly Sensitive Landscape' designation. A Highly Sensitive Landscape is likely to be vulnerable to change whereas a landscape with a low sensitivity is likely to be less at risk from change.

3.2 Historic Character

There are eight Protected Structures of architectural and historical interest within or adjoining the LAP boundary. These buildings and sites are included on the National Inventory of Architectural Heritage owing to their contribution to various categories of special interest: architectural; historical; archaeological; artistic; cultural; scientific; social; or technical. The Protected Structures are as follows:

- RPS No. 698 - Keenan Bridge located at the Royal Canal/ Porterstown Road. This is a late 18th century single-arched stone road bridge over the Royal Canal.
- RPS No. 699 - Keeper's Cottage located on the Porterstown Road. This is a mid-19th century Rail Keeper's Cottage at rail

crossing.

- RPS No. 700 - Former Clonsilla School located on Porterstown Road. This is a mid-19th century three-storey former school building.
- RPS No. 706 - Callaghan Bridge located at the Royal Canal/ Clonsilla Road. This is a late 18th century single-arched stone road bridge extending over the Royal Canal at the Clonsilla Train Station.
- RPS No. 707 - Clonsilla Signal Box & Overbridge located at the Clonsilla Road/Clonsilla Train Station. A mid-19th century signal box and cast-iron pedestrian overbridge at Clonsilla Train Station. The station building itself was demolished and replaced by a modern structure.
- RPS No. 727 - Home Villa located on Porterstown Road. This is a four-bay two-storey 19th century former presbytery.
- RPS No. 944a - Royal Canal. Late 18th century man-made canal, including the tow paths, the canal channel with its stone and earth banks, and the canal locks (10th, 11th and 12th Lock).
- RPS No. 945 - The Gables located at Luttrellstown Road. As per the description contained within the Development Plan's Record of Protected Structures, this is a detached three-bay single-storey mid-19th century house with distinctive advanced gabled-fronted bays added in late 19th century.

The following Recorded Monument is located to the north-western corner of the LAP lands:

- DU013-018 - Ring Barrow located beside the railway line at Greenmount. The Archaeological Survey of Ireland describes the monument as three conjoined circular features, comprising external bank (av. dims. Wth 2.5m; H 0.6m), internal fosse (av. dims. Wth 2m; D 0.25m) and raised interiors (av. ext. diams. 1.1m). Test excavation on one of the features (Licence No. 06E0348) suggested that it is a type of barrow and by inference, that the other two circular features belong to the same monument typology (Lynch 2006).

Luttrellstown Demesne plays an important role in the heritage of Kellystown. It is located outside of the LAP area, on the southern side of the Luttrellstown Road. Luttrellstown Castle is protected under the Fingal Development Plan 2017-2023 (RPS No. 723) and described as:

- *"Early 19th century Gothic house, incorporating remains of 17th century mansion (including outbuildings, gate lodges, follies,*

gates & gate piers)".

Luttrellstown Demesne is also a designated Architectural Conservation Area (ACA) in the Development Plan. Section 81 of the Planning & Development Act 2000 (as amended) states that ACA's are designated in order to preserve the character of a place, area, group of structures or townscape that is either of special architectural, historical, archaeological, artistic, cultural, scientific social or technical interest or value or that contributes to the appreciation of a protected structure.

3.3 Existing Built Form

The following roads characterise the existing form of development within the LAP lands and contribute to its character and setting:

Clonsilla Road

The dwellings located on Clonsilla Road vary from single storey rural cottages with various outbuildings/sheds, to larger two-storey detached dwellings. Building setbacks are varied. There are six entrances off the Clonsilla Road: 4 no. dwellings; Beechpark; and the Beechpark allotments.

Luttrellstown Road

There are a number of entrances off Luttrellstown Road comprising 4 no. dwelling entrances; Luttrellstown Golf Course carpark entrance and service entrance; and the Luttrellstown Castle Demesne entrance to the south of the LAP lands. No consistent building line is in evidence.

Porterstown Road

There are 4 no. access points off Porterstown Road comprising of 1 no. dwelling; St. Mochta's Football Club; St. Brigid's halting site and a vacant farm yard. There is also an entrance to Scoil Choilm Community National School at the southern end of Porterstown Road where it links to the new link road. Again, building setbacks are varied.

3.4 Water & Wastewater

The Irish Water Capital Investment Programme includes the Greater Dublin Drainage Project which seeks to provide a new regional wastewater treatment facility and the associated infrastructure to serve the growing population of the Dublin area. Irish Water forecasts that the completion date of 2024 may be subject to change.



Section 7.2 Water Services in the Development Plan includes a Statement of Policy to:

"liaise and cooperate with Irish Water to ensure the delivery of the proposed Capital Investment Plan 2014-2016 (or any updated plan) or any other relevant investment works programme of Irish Water that will provide infrastructure to increase capacity to service settlements and to jointly investigate proposals for future upgrades of treatment plants and participate in the provision of a long term solution for waste water treatment for the Greater Dublin Area".

There is a storm outfall sewer/open drain which runs across the LAP lands from Porterstown Road to Luttrellstown Road (connecting the Royal Canal to the Luttrellstown Demesne).

3.5 Greater Dublin Drainage (GDD) Project

The GDD Project is a regional wastewater project designed to serve the Greater Dublin Area by augmenting the Ringsend Wastewater Treatment Plant. The project includes, *inter alia*, an orbital sewer with pumping stations at Blanchardstown and Baldoyle. The sewer will divert wastewater from the southern areas of Fingal to a new treatment plant at Clonsilla. The GDD Project will have the capacity to treat wastewater for up to half a million people in County Dublin and parts of Kildare and Meath to 2050. An Bord Pleanála granted planning permission for the GDD Project in November 2019*.

* The Board's grant of planning permission was subsequently challenged and by judgment dated 24th November 2020, the High Court quashed the Board's grant of planning permission. The High Court will consider the matter of consequential orders arising from this judgment in March 2021.

3.6 Telecoms and Electricity/Gas Network

The National Broadband Plan 2012, 'Delivering a Connected Society', set out the main considerations in the development of broadband/internet infrastructure across Ireland.

"The Plan sets out the strategy to deliver high speed broadband throughout Ireland. Specifically, it will facilitate broadband download speeds of 70Mbps with a minimum of 40Mbps generally available and 30Mbps in harder to reach rural areas".

The goals outlined in the National Broadband Plan were designated under 2012 standards. Since then, however, technological advancements in the broadband industry have increased the demand for even higher internet connectivity speeds. Kellystown is close to large urban centres such as Clonsilla, Castleknock and Blanchardstown and is serviceable in terms of broadband and telecommunications infrastructure.

Electricity and gas are widely available in all parts of the nearby urban centres of Clonsilla, Castleknock and Blanchardstown. As such, it is envisaged that there are sufficient telecoms, gas and electricity services to support new development in this area.

3.7 Flood Risk Management

A Strategic Flood Risk Assessment (SFRA) was undertaken to inform the preparation of the LAP. This LAP should be read in conjunction with that assessment, which makes a series of recommendations to ensure the proper management of water and drainage infrastructure into the future. It is an objective of this LAP to ensure the implementation of the recommendations set out in the SFRA. The SFRA is included in Appendix 2.

3.8 Road Network

The Kellystown lands are bounded by the Royal Canal and Dublin-Maynooth railway to the north; Diswellstown Road to the east, Clonsilla Road (R121) to the west and Luttrellstown Road to the south.

All roads experience relatively high traffic volumes throughout the day, particularly in the morning and evening peak commuter periods. Traffic surveys undertaken in 2018 indicate that the overbridge at Diswellstown Road is the most heavily utilised crossing point in both the AM peak and PM peaks.

The majority of the Plan area is undeveloped with the exception of the continuation of Diswellstown Road which gives access to Luttrellstown Community College and Scoil Choilm Community National School, and Old Porterstown Road which connects the site and St Mochta's Football Club to Clonsilla Village via the Porterstown level crossing.

In terms of the wider road network, the Kellystown LAP is well connected to the National Network M50, N3 and N4.

3.9 Proposed Road Objective

The Development Plan incorporates a roads objective for a new Link Road through the Kellystown LAP lands connecting Diswellstown Road to the east and Clonsilla Road (R121) to the west. The alignment of this road, as shown on the current Development Plan, is indicative and subject to detailed design. The delivery of this road will be subject to Fingal County Council identifying a preferred route, with an Emerging Route Options Report informing the LAP.



Figure 3.1: Dublin-Maynooth Railway Line

3 Environmental Issues and Opportunities

3.10 Rail Network

The nearest train station to Kellystown lands is Clonsilla, located at the Callaghan Bridge on Clonsilla Road to the north-west of the LAP site. The frequency of services from Clonsilla to Docklands (Dublin) is currently approximately 2 no. services during the peak hour.

The Sligo/Maynooth rail line provides commuter services from Maynooth to Dublin City Centre, with a lower frequency service extending to Longford and Intercity services provided to Sligo. Through a recently constructed branch line, commuter services are now also provided to Hansfield, Dunboyne and the M3 Parkway.

The DART Expansion Programme is an integral part of the National Transport Authority's Transport Strategy for the Greater Dublin Area 2016-2035. The DART Expansion Programme seeks to achieve increased service frequencies to support the existing and future demand for rail travel. In order to achieve the planned increase in service frequencies, the DART Expansion proposes to close level crossings along the Maynooth railway line. This will include the closure of the existing level crossings at Ashtown, Coolmine, Porterstown, Clonsilla, Barberstown and Blakestown. The DART Expansion Programme recommends new vehicular bridges (with pedestrian and cyclist facilities) to the east of the site at Coolmine and to the west of the site at Barberstown. It is also sought to provide new pedestrian/cyclist bridges at Clonsilla and Porterstown to facilitate development in this area.

3.11 Pedestrian and Cycle Links

The cycle and pedestrian network in Kellystown is currently limited. There is no specific provision for cyclists, who have to cycle on-road amongst vehicular traffic, and footpaths for pedestrians are limited and somewhat disjointed. The development of a number of large landholdings in the LAP lands, as set out in this LAP, provides the opportunity to significantly improve the existing pedestrian and cyclist network.

3.12 Recreational Amenity and Open Space

Currently, there is limited active open space provision within the LAP boundary. However, there are a number of other recreational amenities located in the surrounding area. St. Mochta's Football Club is located within the LAP lands. Luttrellstown Golf Club, Castleknock Golf Club, Castleknock Celtic and a range of clubs and leisure facilities at Westmanstown are also located nearby.

The Strawberry Beds is also an important recreational area in the vicinity of Kellystown.

The Development Plan includes an objective to facilitate the relocation of St. Mochta's Football Club grounds *"to a new site north of the Luttrellstown Road"*.

Kellystown can benefit from the open space associated with the Royal Canal and Beech Park, including a playground. Additionally, a neighbourhood park including urban farm and dog park is proposed under the LAP in line with the Development Plan objective for Kellystown to *"create a new neighbourhood public park of a minimum of 8 hectares. This park shall be linked to Porterstown Park, Luttrellstown Road and Beech Park by dedicated pedestrian and cyclist facilities"*.

The development of the LAP lands represents a significant opportunity, both to expand passive open space amenities and to introduce active open space uses.

3.13 Education and Community Facilities

There are currently two primary schools and one post primary school which serve the Kellystown area: *St. Mochta's National School* located on Porterstown Road and *Scoil Choilm Community National School* on Porterstown Road and *Luttrellstown Community College* on Porterstown Road. The Development Plan has a Specific Objective for a Proposed School in the western portion of the LAP lands.

3.14 Issues and Opportunities

The preparation of the LAP offers a range of opportunities to improve the quality of life within Kellystown. The development of new residential, open space, community and local centre uses and amenities within the Plan lands have the potential to improve the liveability of the settlement for both existing and future residents.

Kellystown has the potential to become a new sustainable neighbourhood, with high quality residential uses benefitting from the proximity to high-capacity transport links and natural amenities.

The identified issues and opportunities are listed in Table 3.1.



Issues	Opportunities
<p>Traffic Management Parts of the existing road network around Kellystown are constrained and congested at peak times.</p>	<ul style="list-style-type: none"> • It is an objective of the Development Plan to provide a new Link Road between the Clonsilla Road and the Porterstown/Diswellstown Road. • Maximise rail linkages. • Reduce the need for local car journeys within the LAP lands by improving walking and cycling infrastructure.
<p>Walking and Cycling Infrastructure Kellystown currently lacks dedicated walking and cycling infrastructure, with the Diswellstown Road being the only road in the vicinity where adequate facilities exist.</p>	<ul style="list-style-type: none"> • Improve pedestrian and cyclist facilities on the surrounding road network. • Provide a network of walking and cycling tracks throughout the new Development Areas to enable residents to get around the LAP lands, including to the local centre, schools, and neighbourhood park without using main roads. • Ensure that the opportunity exists to connect the LAP lands to the wider area, including to Clonsilla Village.
<p>Civic Centre Kellystown currently has no local retail and/or services provision. The nearest shops and services are located in Clonsilla Village.</p>	<ul style="list-style-type: none"> • Create a high quality civic space and new retail units including a local shop. • Provide for a local centre with neighbourhood shop, small-scale retail and local services e.g. pharmacy or laundrette. • Provide opportunities for people to meet and to gather in the proposed civic space. • Provide opportunities for local events/community gatherings.
<p>Educational Facilities While Scoil Choilm Community National School and Luttrellstown Community College are located adjacent to the LAP lands, additional schools are required to support the growing population in the area.</p>	<ul style="list-style-type: none"> • Provide a new permanent national school in Kellystown to serve the growing population of the LAP lands. • Provide a new permanent secondary school in Kellystown to serve the growing population of the LAP lands. • Provide additional sporting facilities to serve the new schools as well as the existing local schools and future community.
<p>Trees and Vegetation Kellystown's existing landscape forms a key part of the identity and character of the LAP lands. Future development should integrate the landscape into its design.</p>	<ul style="list-style-type: none"> • Ensure that new development incorporates high quality landscaping as a key feature, both in quantity and quality of design, that fosters biodiversity and provides for the enjoyment of residents. • Require the retention of existing trees and vegetation wherever possible.
<p>Recreational Amenity and Open Space While Kellystown is surrounded by high amenity landscape and sits within largely undeveloped land, dedicated open space for recreational purposes is limited.</p>	<ul style="list-style-type: none"> • Provide new sporting facilities in the form of multi-use games areas (MUGA) within the southern portion of the LAP lands (zoned for Open Space). • Facilitate shared usage of the proposed sporting facilities to allow the wider community to benefit from increased opportunities for physical activity. • Provide a new neighbourhood park which will incorporate an urban farm and dog park. • Provide for the re-location of St. Mochta's FC.
<p>Royal Canal The Royal Canal is an underutilised asset. The provision of high quality pedestrian and cyclist links would provide for enhanced recreational amenities and increased usage.</p>	<ul style="list-style-type: none"> • Provide a riparian corridor along the Royal Canal, including through the new Development Areas which will be maintained for the enjoyment of residents and visitors to the LAP lands.

Table 3.1: Environmental Issues and Opportunities



4 Climate Change and Environmental Sustainability

4.0 Introduction

According to the Environmental Protection Agency (EPA) 'climate' can be described as 'average' weather over a period of time. The term 'climate change' refers to a significant change in average weather, such as temperature, rainfall, or wind over a prolonged period (decades or longer).

While climate does change over time due to natural factors, the difference in recent decades has been the rapidity of change and the contribution that human activities have been making to this change. In this regard, the Intergovernmental Panel of Climate Change (IPCC), of which Ireland is a part, commented as follows:

"Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic (produced by humans) greenhouse gas emissions".

4.1 Climate Change

There are various predictions for the effects of climate change in the future, with moderate predictions indicating an increase in rainfall intensity, an increase in base river flow and an increase in sea-levels. However, the latest Special Report (October 2018) produced by the Intergovernmental Panel on Climate Change (IPCC) and prepared at the request of governments which signed the 2015 Paris Agreement, including Ireland, indicates that warming caused by human activities is speeding up and that global emissions need to fall more quickly than envisaged. According to the IPCC Special Report, in order to keep global temperatures from exceeding the 1.5oC levels contained in the Paris Agreement 2015, emissions will need to drop by 45% from 2010 levels by 2030.

4.2 Future Predictions

There are various predictions for the effects of climate change in the future, with moderate predictions indicating a 10% increase in rainfall intensity, a 20% increase in base river flow and a sea level rise of 500mm by the year 2100.

Climate predictions are constantly under review as the science develops, new research is undertaken, and climate modelling becomes more refined and accurate. This LAP proposes a series of proactive measures to assist in addressing the climate change challenge.

4.3 National Policy Context

The Climate Action and Low-Carbon Development - National Climate Policy in Ireland document sets out the national position as follows:

National climate policy in Ireland:

- Recognises the threat of climate change for humanity;
- Anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future;
- Recognises the challenges and opportunities of the broad transition agenda for society; and
- Aims, as a fundamental national objective, to achieve transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050.

National Planning Framework (NPF)

The NPF is based around 10 National Strategic Outcomes, the following of which are of particular relevance to Kellystown:

- Compact Growth;
- Sustainable Mobility; and
- Transition to a Low Carbon and Climate Resilient Society.

Report of the Joint Committee on Climate Action (March 2019)

The joint Committee on Climate Action is a cross-party group of T.D's and Senators, the goal of which is to identify and recommend key mitigation and adaptation measures in the form of concrete actions designed to put Ireland on a path toward achieving European and International greenhouse gas emissions targets and to achieve the national goal of decarbonisation by 2050.

In identifying appropriate measures, the Committee considered a range of inputs, including the recommendations of the Citizen's Assembly, national policy and expert advice.

The Committee produced its Report in March 2019 which contained recommendations across a range of sectors such as energy, agriculture, built environment and transport while also including new legislative measures, transitional arrangements, engagement and education. While many of the above elements will be applicable to the LAP to some degree, those concerning the built environment and transport are the most relevant.

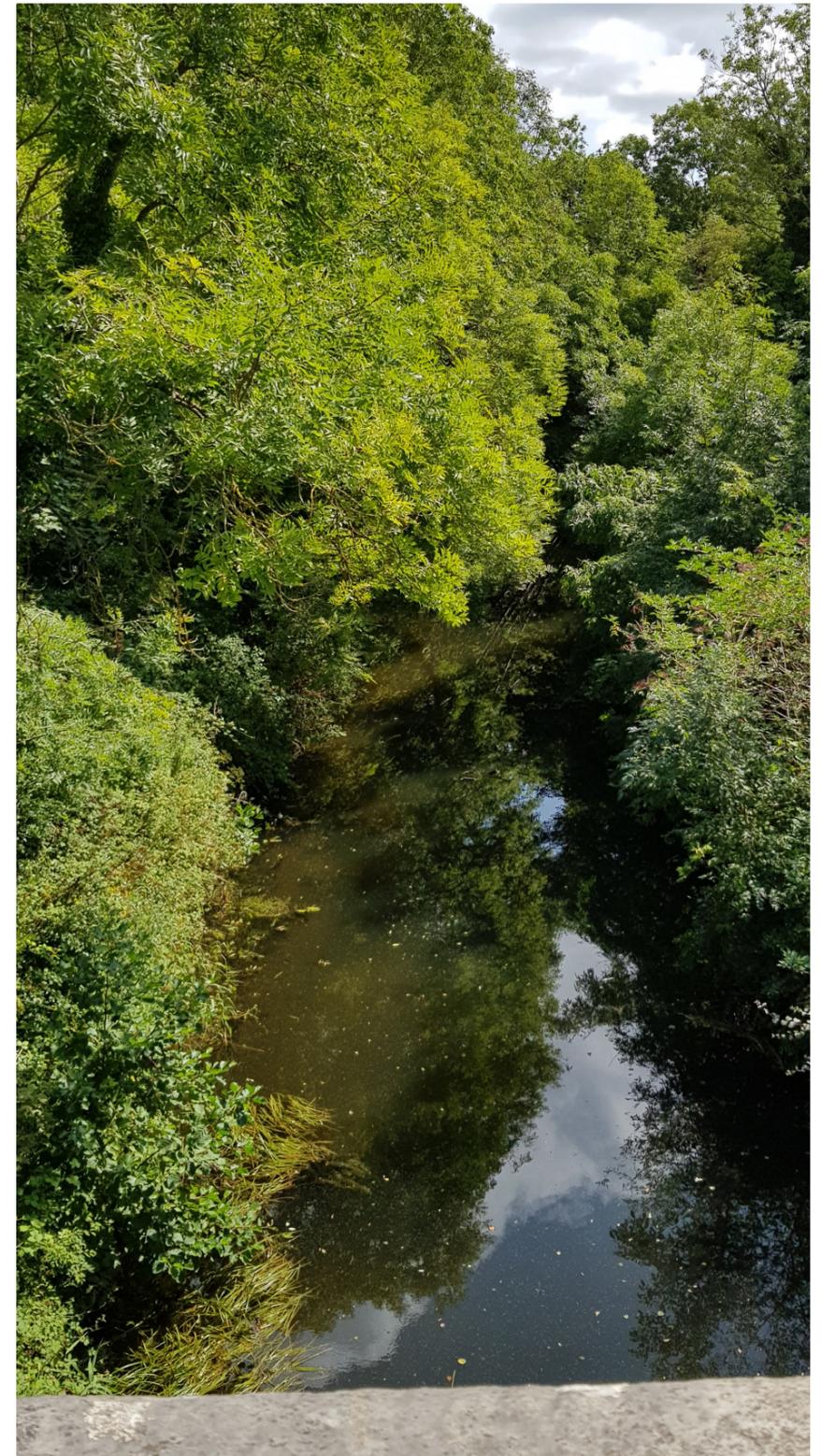


Figure 4.1: Royal Canal

Building Regulations

New building design in the LAP lands shall reflect the need to ensure that development occurs in a sustainable manner having due regard to the necessity to produce designs that accord with national sustainability and energy conservation policies and targets. The energy and environmental performance requirements for new buildings under the Building Regulations will need to be incorporated in all new buildings in the LAP Plan area. All buildings in the Plan area should also incorporate environmentally sustainable design principles in their design and construction.

4.4 Planning and Development

A key challenge for planning and development going forward will be to minimise greenhouse gas emissions. The following measures can help to contribute to achieving this goal:

- The construction of 'A' rated and 'NZEB' (nearly zero energy buildings) that are highly energy efficient; and
- Integration of transportation and land use planning to increase development densities adjacent to existing and planned public transport corridors.

In addition to combating climate change, the above measures also help to improve quality of life in the shorter term by:

- Improved air quality;
- Active lifestyles and improved health outcomes; and
- Warmer homes and reduced energy costs.

4.5 Low Carbon Development

The following are important solutions to help achieve low carbon development:

Electric Vehicles (EV)

Electric vehicles (EVs) offer an increasingly realistic solution to the challenge of reducing the transport sector's Greenhouse Gas Emissions, increasing the use of renewable energy in transport and reducing reliance on imported fossil fuels. In May 2017, the Government approved and published the National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030. This policy framework sets an ambitious target that by 2030 all new cars and vans sold in Ireland will be zero emissions (or zero emissions capable).

A key challenge for the role out of wholly electric vehicles, or for plug-in hybrids, is the presence of the necessary charging

infrastructure both domestic and non-domestic environments. The facilitation of home charging in new residential development is critical to the roll out of EVs and the necessary infrastructure should be put in place to ensure that all car parking spaces either have EV charging points or can be upgraded for EV charging in future.

Heat Pumps

Heat pumps are increasingly being used in new build development, as well as an option for retrofit. A heat pump is a device that transfers heat from a source (such as from the soil or a water body) to a heating or hot water system. As the heat produced is greater than that equivalent amount of electricity used to operate the device, it is a highly efficient method for space heating/hot water heating. Heat pumps generally fall into the following categories:

- Air source heat pumps;
- Ground source heat pumps; and
- Water source heat pumps.

Heat pumps, where suitable for installation, can save occupants significant cost on heating bills as well as reducing carbon emissions as compared to alternative systems such as electric storage heaters and gas fired central heating (GFCH), although the source of the energy generated for use in the heat pump is also a factor.

4.6 Climate Change Mitigation and Adaptation Objectives of the LAP

The following are objectives of the LAP:

- Limit the use of new fossil fuel based heating systems in public buildings, including schools;
- Investigate the feasibility of using a district heating system, particularly in the case of public and community buildings;
- Where possible, new buildings should be net energy producers in order to offset inefficiencies in older building in the network; and
- Ensure that appropriate infrastructure is put in place during the initial design and construction phase of new development to ensure that electric vehicle charging can be facilitated within car parking/share car parking locations.

4.7 State of the Environment Report

The State of the Environment Report - Ireland's Environment,

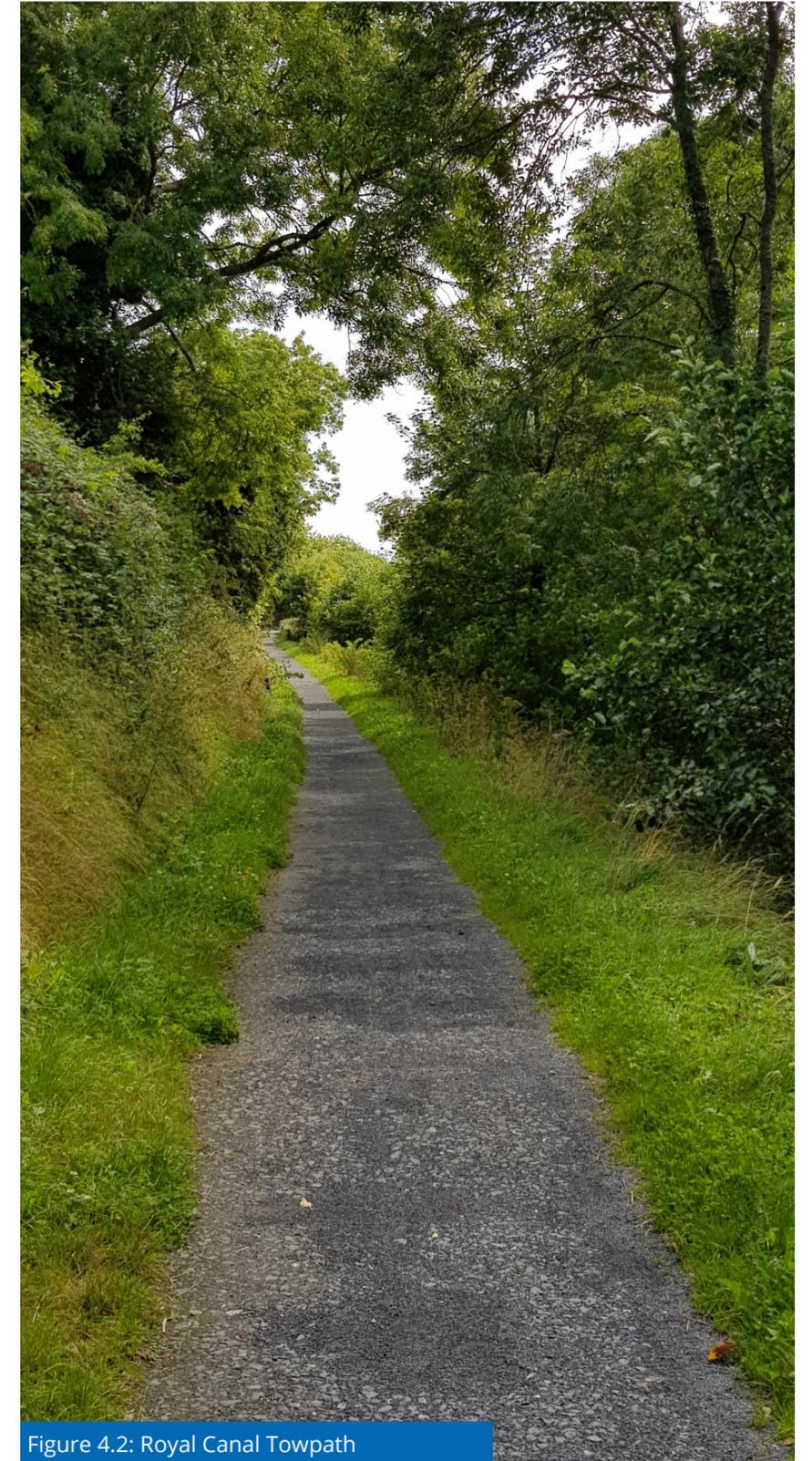


Figure 4.2: Royal Canal Towpath

4 Climate Change and Environmental Sustainability

published by the EPA every four years, sets out the following seven key environmental actions:

1. Environment Health & Wellbeing: Recognition of the benefits of a good quality environment to health and wellbeing;
2. Climate Change: Accelerate mitigation actions to reduce greenhouse gas emissions and implement adaptation measures to increase our resilience in dealing with adverse climate impacts;
3. Implementation of Legislation: Improve the tracking of plans and policies and the implementation and enforcement of environmental legislation to protect the environment;
4. Restore & Protect Water Quality: Implement measures that achieve ongoing improvements in the environmental status of water bodies from source to the sea;
5. Nature & Wild Places: Protect pristine and wild places that act as biodiversity hubs, contribute to health and wellbeing and provide sustainable tourism opportunities;
6. Sustainable Economic Activities: Integrate resource efficiency and environmental sustainability ideas and performance accounting across all economic sectors; and
7. Community Engagement: Inform, engage and support communities in the protection and improvement of the environment.

It is a general objective of this LAP to support the achievement of the above key environmental actions and those of the any subsequent State of the Environment reports.

The Fingal Development Plan 2017-2023 is underpinned by the principles of sustainable development, climate change adaptation, social inclusion and high quality design. Furthermore, Fingal County Council's Climate Change Action Plan 2019-2024 contains 133 actions covering five key action areas of Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management. Fingal County Council is committed as a priority to encourage and promote more sustainable development through energy end use efficiency in building design; increasing the use of renewable energy and developing an appropriate urban form.

4.8 LAP Approach to the Promotion of Efficiency and Energy Performance in Buildings

The energy and environmental performance required for new buildings under the Building Regulations is expected to improve rapidly over the lifetime of the LAP with the Climate Action and

Low Carbon Development Act 2015 seeking to transition to a low carbon, climate resilient and environmentally sustainable economy by 2050. New building design in the LAP lands shall reflect the need to ensure that development occurs in a sustainable and sensitive manner giving due recognition to the necessity to produce a design which accords with national sustainability and energy conservation policies and contributes to the creation of appropriate urban form. Fingal County Council will seek to ensure that all development in the LAP lands will contribute positively towards reduced energy consumption and the associated carbon footprint. This will be achieved by:

- Ensuring that development proposals demonstrate reduced energy consumption in their design and construction;
- Ensuring that development proposals incorporate, where possible, alternative energy technologies;
- Promoting the retrofitting of existing housing stock and other existing buildings to reduce energy demands; and
- All buildings in the Plan area should incorporate environmentally sustainable design principles in their design and construction.

4.9 Electric Bicycles

Electric bicycles, or E-bikes, provide assistance to the rider through an integrated electric motor and rechargeable battery, are becoming an increasingly popular transport option as the technology develops. E-bikes have a number of benefits as follows:

- Encourage those which may not have utilised a push-bike to cycle, potentially reducing car trips;
- Enable those of a broader range of abilities to cycle; and
- Allow people with a range of abilities to increase the distance that they are likely to undertake by bike.

Given the opportunity for e-bikes to encourage more people to cycle, they also have the potential to not only reduce car journeys, but also to contribute to improved health outcomes for people who would not have used a traditional push bike to cycle.

E-bike producers are currently experimenting with dedicated e-bike charging stations. Given Kellystown's location along the Royal Canal Corridor, Kellystown has the potential to accommodate such a facility. Should the technology prove feasible, favourable consideration shall be given to e-bike

charging stations.

4.10 Objectives

The LAP supports and promotes the principle of Sustainability in the development of Kellystown LAP lands by requiring compliance with the following objectives:

Objective 4.1

Development shall strive to reduce the energy and water demand through measures which include the following:

- Promoting walking and cycling by providing for safe, attractive pedestrian and cycling routes;
- Provision of electric vehicle charge points and promotion of e-bike infrastructure;
- Promoting the retention of existing trees and hedgerows where possible and providing for new planting to augment or replace existing, ensuring that the planting has maximum biodiversity value;
- Maximisation of natural daylight;
- Maximisation of passive solar gain for solar thermal water heating and electricity production;
- Exploring the potential for incorporating wind energy (e.g. wind turbines and wind spires) or other renewable energy systems, such as combined heat and power (CHP);
- Intelligent and energy efficient heating, cooling and ventilation systems;
- Reduced water use through rainwater harvesting and recycling of rainwater and in-building grey water treatment systems;
- Use of materials with low embodied energy; and
- Careful consideration of building orientation, form, massing and fenestration to make the most of passive solar gain for heating and cooling.

Objective 4.2

Ensure high standards of energy efficiency in existing and new residential developments in line with good architectural conservation practice and the promotion of energy efficiency and conservation in the design and development of new residential units.

Objective 4.3

Promote the use of renewable energy in all developments.

Objective 4.4

Promote the principles of biodiversity by conserving existing

indigenous hedgerows and trees and by introducing green routes through the LAP lands.

Objective 4.5

Promote and facilitate the development of small scale renewable energy facilities within the LAP lands (such as wind turbines, spires, solar) where such development does not have a significant negative impact on the landscape and the amenities of property adjacent. All new wind energy developments shall comply with national guidance and the Fingal Development Plan.

Objective 4.6

Facilitate and promote walking and cycling as an alternative to the private car by the delivery of an integrated network and safe and attractive pedestrian and cycle routes throughout the LAP lands providing access to community and recreational amenities.

Objective 4.7

Promote the retention of existing trees and hedgerows where possible and provide for new planting to augment or replace existing, ensuring that the planting has maximum biodiversity value.

5 Vision and Development Strategy

5.0 Introduction

The vision and development strategy for Kellystown is intended to guide its long term future growth through articulation of how the LAP lands will look, function and feel. The vision statement is based on community consultation (undertaken May-July 2019) and an analysis of the key opportunities and challenges for Kellystown.

5.1 Vision Statement

The vision for Kellystown is to promote the development of a distinctive, sustainable, high quality new residential quarter, connected to the neighbouring suburbs of Clonsilla and Carpenterstown. Kellystown will provide a sustainable residential community, comprising a choice of high quality new homes, with a mix of dwelling types, size and tenure based around a new civic square that incorporates local services with new schools, public open space and access to high capacity public transport links.

Future development in the area will be guided by the policies and objectives set out in this LAP, as well as by the policies and objectives of the Fingal Development Plan.

5.2 Achieving the Vision

Kellystown will offer a good quality of life to its residents and balance the need for additional housing, with community, economic, cultural, educational and recreational facilities. The LAP seeks to create a place with a strong sense of community and to build on its existing identity by incorporating valuable existing elements of the built and natural environment. It is an objective of the LAP to develop new housing in tandem with infrastructural improvements including improved pedestrian and cycle connectivity, as well as enhanced public transport links.

5.3 Placemaking

Placemaking is a multi-faceted approach to the planning, design and management of neighbourhoods and public spaces. Fingal County Council will ensure the development of sustainable communities by supporting the development of adequate housing, retail, leisure, and employment uses, quality public realm, community facilities, design and standards and open space throughout the County. The Local Area Plan for Kellystown represents a unique opportunity to create a sustainable community by adhering to the principles of placemaking.

The five main themes to achieve a successful and sustainable place are as follows:

- 1. Sustainable Communities:** delivery of appropriate housing typologies and associated facilities through phased programmes of development; active encouragement and promotion of walking, cycling and public transport as alternative modes of transport to the private car;
- 2. Public Realm:** facilitating an appropriate public realm programme that will enhance the visual quality of the future urban environment;
- 3. Sustainable Design and Standards:** promoting high standards in construction and design that will ensure durability over the long term, including maximising the use of renewable forms of energy;
- 4. Open Space:** delivering a variety of formal and informal open space and play areas for residents and visitors to enjoy that will enhance the amenity of the LAP lands; and
- 5. Community Infrastructure, Facilities and Services:** ensuring that the appropriate level of infrastructure, facilities and services are delivered in tandem alongside housing to ensure a co-ordinated development approach.

Each of the five themes have been incorporated throughout the LAP for Kellystown.

5.4 Development Framework and Land Use Strategy

The Development Framework and Land Use Strategy for Kellystown is driven by the desire to create a new and connected community and more compact forms of urban growth around a green axis of open spaces and natural features. The LAP proposes a number of key features and approaches in order to achieve this.

5.4.1 New Local Centre

The framework includes a new Local Centre as a focal point for community, education and local business uses, centred around a new civic square at the centre of the LAP lands. The civic square itself forms an anchor point on a north-south axis permeating into the open space lands, neighbourhood park and beyond.

Strategic Aims and Principles:

- Development of a new civic square which includes schools, places of worship and community uses;
- Encourage a mix of local commercial and local employment

and training opportunities; and

- Establish community focal points for people to socialise and enjoy recreational/leisure activities and facilities.

5.4.2 Integrated Land Use and Transport Planning

The development framework for the LAP seeks to deliver an exemplar sustainable development that provides future residents with a range of travel choices. Of significant importance to the design framework is the enhancement to, and creation of, pedestrian and cyclist linkages, enabling Kellystown to be a permeable community.

The Kellystown lands are located along the Dublin-Maynooth Rail Corridor, with Clonsilla Rail Station located just outside the LAP boundary on Clonsilla Road. The DART Expansion Programme will enable the operation of increased service frequencies to support the existing and future demand for rail travel. Improved rail services will be beneficial for Kellystown and will offer an alternative to the private car for future residents

Furthermore, it is an objective of the Development Plan and this LAP to provide a new Link Road between the Clonsilla Road and the Porterstown/Diswellstown Road.

Strategic Aims and Principles:

- Support infrastructural investment to ensure safe pedestrian and cyclist movements throughout the area in tandem with enhanced traffic management measures including facilitating the provision of improved pedestrian/cycle access to public transport and local schools;
- Seek to address the physical barrier created by the railway line and Royal Canal by investigating the potential for a new pedestrian and cyclist crossing to connect to the heart of Clonsilla Village;
- Improve pedestrian and cyclist connectivity, amenity, convenience and safety throughout the LAP lands;
- Maximise the benefits of the investment in the electrification of the Dublin-Maynooth railway line by locating higher density housing adjacent to Clonsilla railway station; and
- Support the provision of the new Kellystown Link Road.

5.4.3 Housing

The Kellystown LAP provides an opportunity to progress the sustainable development of a large, greenfield area for housing on a public transport corridor. In this regard, higher



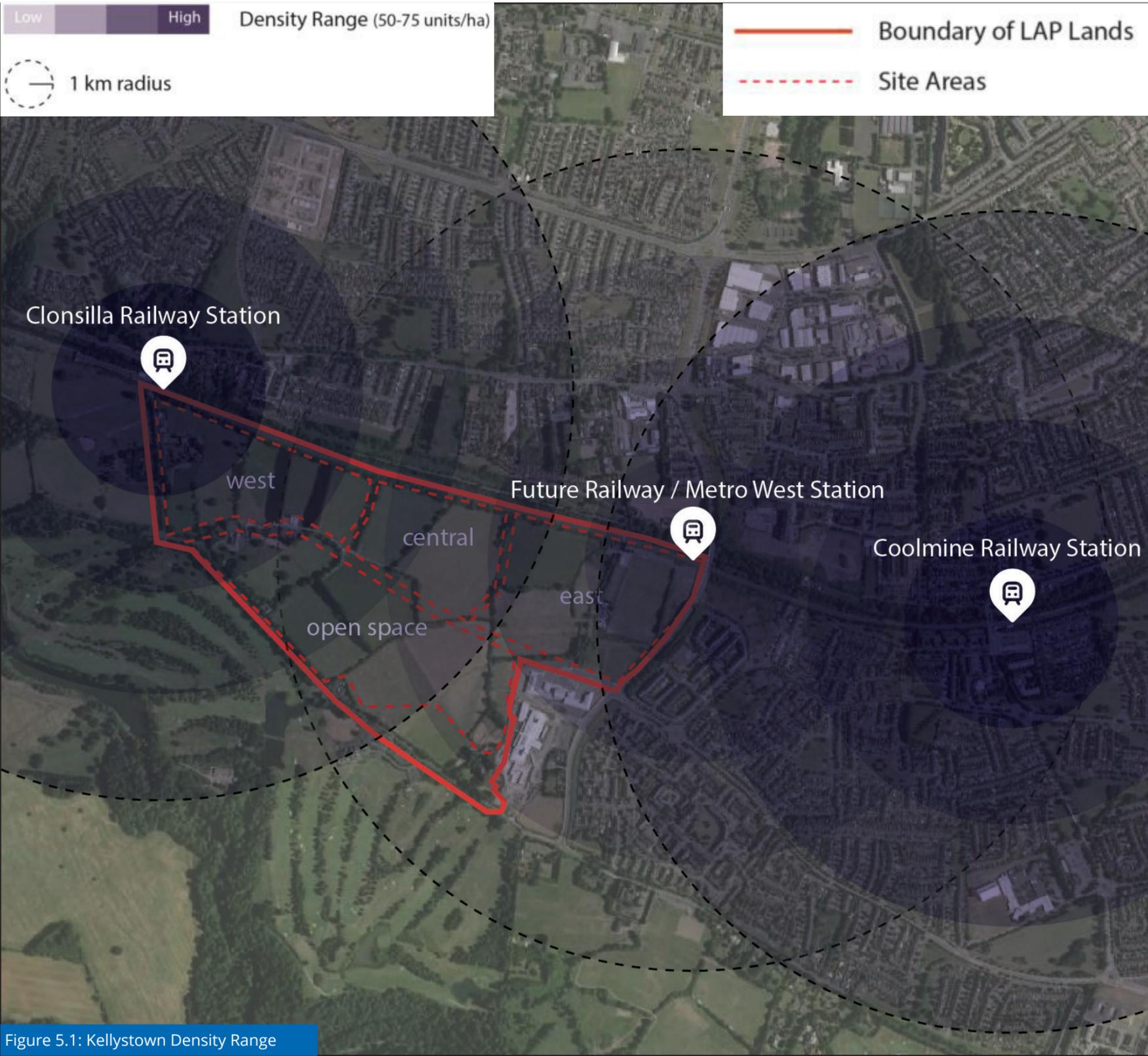


Figure 5.1: Kellystown Density Range

density figures are envisaged in Development Area 1 (Eastern Development Area) and Development Area 3 (Western Development Area), being closest to existing rail stations, with further opportunities for gateway and landmark buildings to pierce the urban grain at key nodes (see Figure 5.1).

Housing tenure, density and building heights have been informed by local demographics, taking account of national and regional guidance on compact urban settlements and integrated transport approaches.

- Strategic Aims and Principles:**
- Provide for three Development Areas which will each have a distinct character for residents and visitors, incorporating the reuse of existing building stock where feasible;
 - Support the development of a new residential quarter comprising high quality homes, with a mix of dwelling types, sizes and tenure. The development of new housing will be delivered in tandem with supporting community and physical infrastructure;
 - Accommodate a variety of dwelling types, tenure and sizes to suit a range of household sizes, differing needs and varying levels of income in accordance with the Council's Housing Strategy, including new social housing as per Part V of the Planning and Development Act 2000, as amended, and special housing needs, senior citizen housing and improving existing Traveller accommodation; and
 - Residential, commercial and community buildings provided in all Development Areas shall be of a modern, high quality architectural design with appropriate external finishes creating distinct character areas and neighbourhoods. The public realm shall similarly be designed and finished with high quality materials and shall provide cohesive connectivity between the Development Areas.

5.4.4 Green and Blue Infrastructure

The design framework has been informed by the existing receiving environment and large expanse of zoned open space within the LAP boundary. Extensive survey work on natural features, hedgerows and desire lines have helped shape a series of green corridors to enhance and better link networks of open spaces working with local biodiversity and to create new levels of permeability within the LAP lands and adjoining areas. A blue corridor is also a key feature of the LAP, running north to south along existing field boundaries incorporating existing

water features and acting as a key element of the Kellystown SuDs masterplan.

The design framework also includes a tailored open space strategy not only in terms of a hierarchy of spaces but also potential future design features for active and passive recreation. An important part of achieving this entails the relocation of St. Mochta's Football Club from its current location on Residential Area (RA) zoned lands in proximity to the rail corridor to lands zoned for Open Space (OS). This has been carefully considered having regard to the proximity to existing and future schools, accessibility and green and blue corridors.

Strategic Aims and Principles:

- Protect and enhance the existing natural amenities of Kellystown together with improving access to established and proposed amenity areas through designated green routes.
- Create a 'green axis' at the centre of the lands which will link residential development to areas of high quality public open space;
- Protect and enhance valuable existing hedgerows and treelines, which should be integrated into future development proposals in order to foster biodiversity, create a sense of place and distinctive identity; and
- Maximise the opportunities provided by the natural environment for biodiversity and improved amenities.

5.4.5 Open Space and Public Realm

The design framework for Kellystown has been informed by the large portion of land to the south of the LAP area which are zoned 'OS' - Open Space.

The LAP proposes active open space in Kellystown in the form of St. Mochta's Football Club which will be relocated from its current grounds, as well as the provision of additional Multi-Use Games Areas (MUGAs) which will be located in the Open Space zoned lands to the south. The additional MUGAs will be available for the use of the schools and for the community.

It is an objective of the LAP to provide a Neighbourhood Public Park within the southern portion of the LAP lands. The park will be primarily passive in nature, with a focus on providing a space for people to socialise and gather as well as to walk, jog and experience nature. In contrast to the active open space

provision, the neighbourhood park will facilitate more informal activities rather than formal sporting events. It is envisaged that the character of the park will be in keeping with the existing environment in this area, with the addition of walking trails, picnic spaces, and potential for a coffee shop and event spaces in close proximity to these amenities.

Strategic Aims and Principles:

- Support the development of open space/recreational land;
- Provide for a new neighbourhood park;
- Facilitate the relocation of St. Mochta's Football Club grounds and the provision of additional MUGAs for the enjoyment of the local community;
- Creation of a green axis at the centre of the lands linking residential development to the areas of high quality public open space;
- Protect and enhance existing key amenities including hedgerows and tree lines which should be integrated into future development proposals;
- Ensure that development proposals comply with the requirements of the Surface Water Management Plans prepared for the LAP lands;
- Enhance the amenity value of the Royal Canal for passive recreation;
- Facilitate the provision of links between the Royal Canal Way and the Liffey Valley Greenway throughout the Kellystown lands; and
- Provide a blue corridor running north to south along existing field boundaries incorporating existing water features and acting as a key element of the Kellystown SuDs strategy.

5.4.6 Social and Community

The Department of Education & Skills has confirmed that it requires sites to be set aside in Kellystown for both a new primary school and a new secondary school. The design framework for Kellystown has taken this requirement into consideration. It is anticipated that the primary school will cater to c. 400 pupils (with the ability to expand further), while the proposed secondary school will accommodate c. 1,000 pupils. The LAP identifies that the new schools should be located within the Central Development Area (DA2) and should frame the proposed central open space. It is an objective of the LAP to promote the co-location of education, childcare and young adult learning.

The LAP lands also includes the site of the approved Kellystown

cemetery located immediately north of Luttrellstown Road. The development site is located on the Open Space zoned land and is an objective of the Fingal Development Plan 2017-2023 with regard to the Kellystown LAP. The permitted cemetery will include 500 memorial plots and 500 niches in columbarium walls. A carpark for 117 no. parking spaces will also be provided to serve this facility with access provided from an extension to the roadway serving Scoil Choilm Community National School. A key challenge for the LAP is to ensure permeability between the burial ground and the rest of the LAP lands.

Strategic Aims and Principles:

- Support the development of a civic square which centres around educational and community uses to support local needs;
- Establish community focal points for people to socialise, gather and enjoy recreational facilities;
- Facilitate improved permeability between the burial grounds and the adjoining areas of open space; and
- Examine the feasibility of providing for a new pedestrian/cyclist bridge as part of development proposals within the Central Development Area to provide for direct access to Clonsilla Village.

5.4.7 Heritage

There are eight Protected Structures of architectural and historical interest within or adjoining the LAP boundary. These buildings and sites are included on the National Inventory of Architectural Heritage owing to their contribution to various categories of special interest: architectural; historical; archaeological; artistic; cultural; scientific; social; or technical. Additionally there is a Protected Monument (DU013-018 - Ring Barrow) located within Development Area 3 (Western Development Area).

Strategic Aims and Principles:

- Protect, enhance and raise awareness of the archaeological heritage and environmentally significant assets of the lands by 'showcasing' key assets;
- Protect and enhance the built and natural heritage of the Royal Canal and ensure that development within its vicinity is sensitively designed and does not have a detrimental impact on its character;
- Promote the sympathetic maintenance, adaptation and re-use of historic building stock and encourage the retention of the original fabric of such properties;



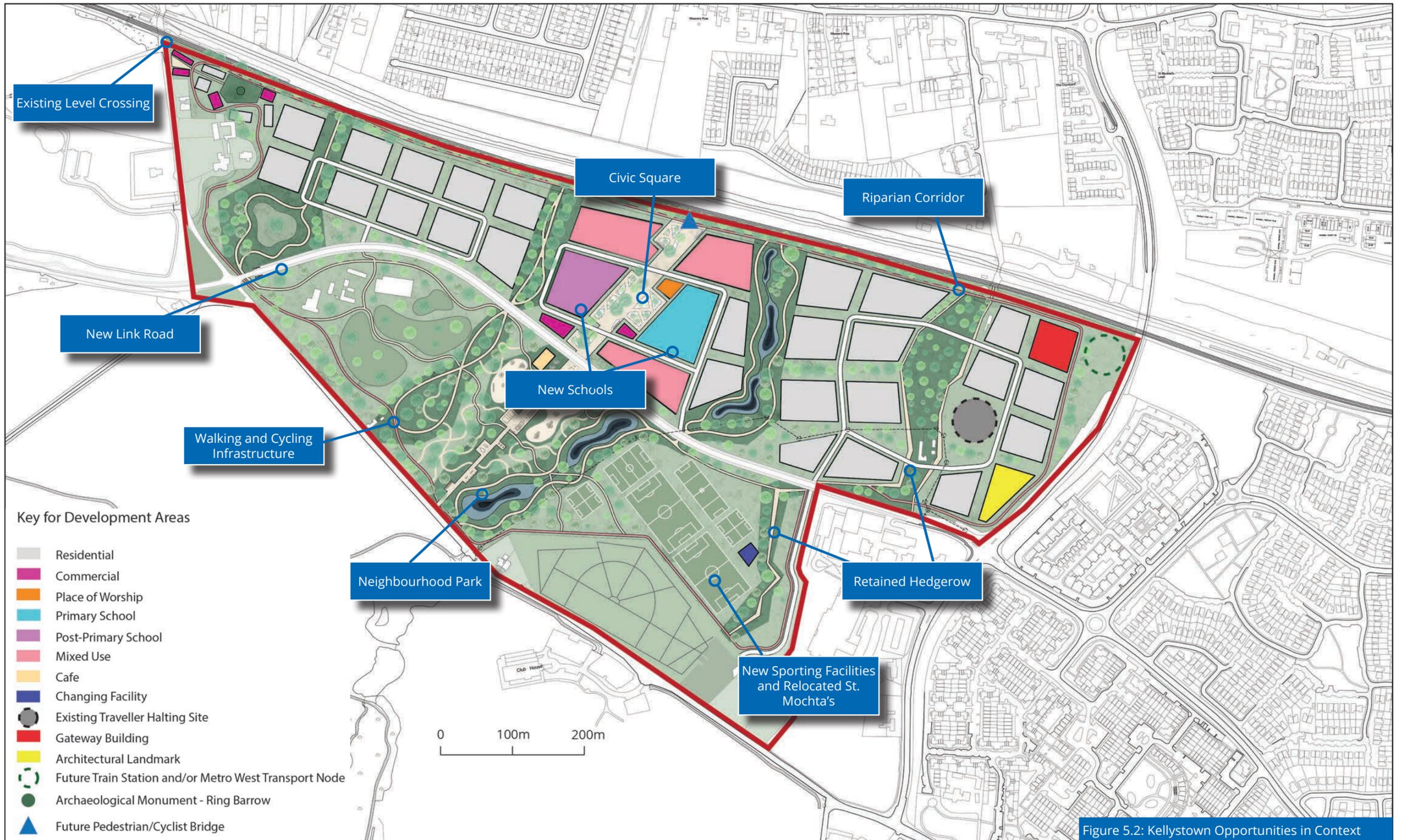


Figure 5.2: Kellystown Opportunities in Context

Protect all archaeological sites which are listed in the Record of Monuments and Places and all sites and features of archaeological and historic interest discovered subsequent to the publication of the Record of Monuments and Places; and

- All proposals for development in the vicinity of archaeological sites and features shall comply with the requirements of the Department of Culture, Heritage and the Gaeltacht.

5.5 LAP Development Areas

The proposed approach to the three identified Development Areas is set out in Section 6. The LAP promotes best practice architectural solutions for the overall development and is a long term strategy for the sustainable development of Kellystown, with a diversity and mix of uses to create a place where a balance is achieved between the natural and built environment.

Existing features, including treelines and hedgerows have been used to define the development areas, as has the underlying land use zoning and the proposed alignment of the Kellystown Link Road. The proposed phasing of the LAP also relates to the defined Development Areas, as set out in Section 6. The Development Areas are set out below and identified in Figure 5.3:

- 1. Development Area 1 (DA1) Eastern Development Area:** Approximately 14.9 hectares (gross)
- 2. Development Area 2 (DA2) Central Development Area:** Approximately 7.4 hectares (gross)
- 3. Development Area 3 (DA3) Western Development Area:** Approximately 10.23 hectares (gross)

5.5.1 Eastern Development Area (DA1)

The Eastern Development Area (DA1) is bounded by the Royal Canal to the north; Porterstown Link Road to the east; Luttrellstown Community College and Scoil Choilm Community National School to the south, alongside the alignment of the proposed Kellystown Link Road; and Development Area 2 to the west, with the boundary delineated by mature hedgerow. The entire Development Area is zoned RA - Residential.

The land currently accommodates St. Mochta’s Football Club, St. Brigid’s Halting Site, a small number of dwellings and agricultural/pasture land.

5.5.2 Central Development Area (DA2)

The Central Development Area (DA2) is bounded by Development Areas 1 and 3 to the east and west respectively, with the boundaries delineated by existing hedgerows in both cases. The northern boundary is defined by the Dublin-Maynooth railway line/Royal Canal and the southern boundary by the alignment of the Kellystown Link Road. The lands are currently managed for agricultural purposes. The entire Development Area is zoned RA - Residential Area.

5.5.3 Western Development Area (DA3)

The Western Development Area (DA3) is bounded by the R121 to the west, the Dublin-Maynooth Railway Line/Royal Canal to the north, Development Area 2 to the east, and by the proposed alignment of the Kellystown Link Road to the south. The lands are located adjacent to Clonsilla Railway Station and the associated railway crossing. The lands currently accommodate a number of dispersed dwellings including Greenmount House.

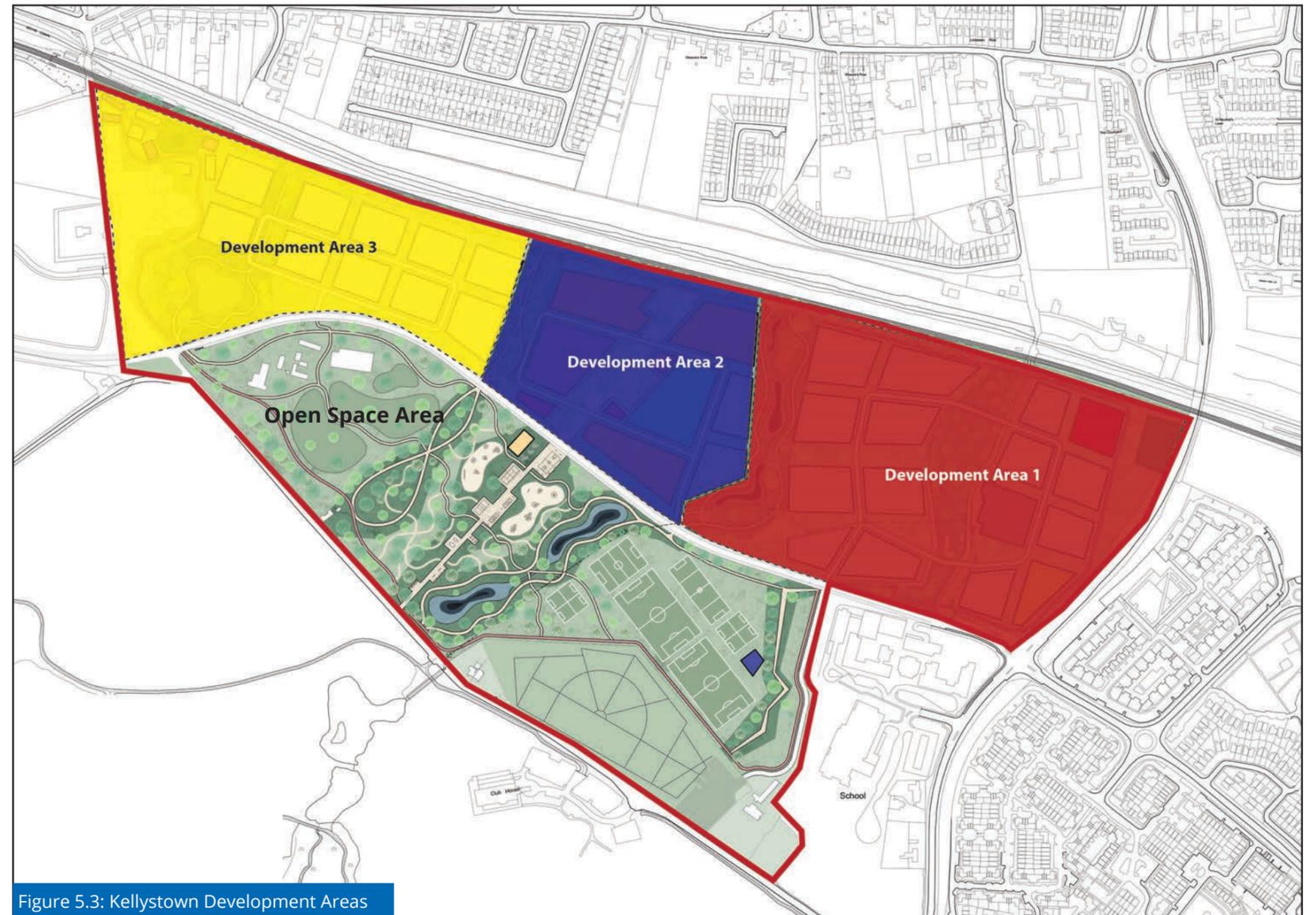


Figure 5.3: Kellystown Development Areas

6 Development Areas

6.0 Introduction

The LAP sets out the approach for each Development Area with a series of objectives for its development. An indicative layout plan (see Figure 6.1) is also provided for each, demonstrating one approach as to how the stated objectives could be achieved.

While each of the stated objectives must be incorporated into future development proposals in the interests of promoting the proper planning and sustainable development of the LAP lands, the layouts presented herein are not intended to be highly prescriptive. Rather, there are a range of possible designs/layouts that could satisfy the stated objectives and it is not the purpose of the LAP to preclude the possibility of high quality, innovative design proposals being brought forward through the development management process.

Planning applications in each Development Area must include a statement demonstrating how design proposals incorporate the relevant objectives set out in the LAP and how the proposals will result in a high quality development which responds to its context and setting. Notwithstanding the objectives presented in the LAP, all relevant standards of the Development Plan must also be complied with in all schemes proposed within the Development Areas and on other sites which are brought forward for development within the LAP lands.

Universal Design relates to the design and management of buildings and spaces so that they can be readily accessed, understood and used by everyone regardless of their age, size, ability or disability. An environment (or any building, product or services in that environment) should be designed to meet the needs of all people who wish to use it. This approach also promotes social inclusion and can eliminate or reduce the need for expensive changes or retro fits to meet the needs of particular groups at a later stage.

The importance of a universal design approach is supported throughout this LAP and across a number of wide-ranging objectives.

6.1 General Guiding Principles

The following are the overall objectives for Kellystown, grouped thematically, that shall inform all future proposals for the LAP lands, both in the public and private domain:

Objective 6.1

Ensure that proposals for development shall demonstrate

variation in residential streetscapes to create distinctive neighbourhood identities.

Objective 6.2

Provide high quality housing having regard to the Planning Guidelines on Sustainable Residential Development in Urban Areas, the Fingal Development Plan development standards and the design principles as set out in this LAP.

Objective 6.3

A detailed Design Statement for all developments shall accompany all planning applications within the LAP boundary, the components of which shall be informed by the requirements of this LAP.

Objective 6.4

Provide high quality development at appropriate densities in close proximity to Clonsilla Rail Station in order to maximise the benefits of investment in rail infrastructure.

Objective 6.5

All developments shall incorporate the principles of universal design and energy efficiency.

Objective 6.6

All developments shall protect archaeological sites and monuments which are listed in the Record of Monuments and Places and Record of Protected Structures in accordance with legislation; all sites and features of archaeological interest discovered subsequently; and shall promote best practice in the conservation and management of archaeological resources.

Objective 6.7

Protect recorded archaeological sites and their settings from inappropriate development that would adversely affect or detract from the monuments whilst at the same time enabling the sustainable development of the LAP lands. The identified archaeological Ring Barrow in the Western Development Area (DA3) shall be incorporated into the future development layout proposals as open space provision on the lands.

Objective 6.8

Ensure archaeological remains are identified and fully considered at the earliest stages of the development process to protect the resource and facilitate appropriate design.

Objective 6.9

Any and all required archaeological investigations including geophysical survey, archaeological assessment and excavation and archaeological monitoring shall, in consultation with the Department of Culture, Heritage and the Gaeltacht, be undertaken by a suitably qualified archaeologist under licence from the Department and at the developer's expense.

Objective 6.10

Identify opportunities for heritage interpretation to encourage awareness of Kellystown's rich historical past.

Objective 6.11

New development shall seek to preserve and retain existing quality trees and hedgerows of amenity value, as identified in Section 8 Blue and Green Infrastructure and in Objective 8.8.

Objective 6.12

Align pedestrian and cycle links to capture views to local features (natural and built) and incorporate opportunities for overlooking and passive surveillance insofar as possible.

Objective 6.13

Create safe and attractive pedestrian and cycle routes with high levels of legibility and permeability connecting the lands to local amenities and the adjoining areas of Clonsilla and Carpenterstown.

Objective 6.14

Ensure buildings/features of a high-quality design are provided on the approach roads to the Kellystown LAP lands.

Objective 6.15

All new street and estate names shall be in Irish or bilingual and shall reflect meaningful local names or references.

Objective 6.16

Require that proposals for new retail/commercial development are designed to the highest architectural standards and promote an awareness of good shopfront design ensuring that new shopfronts do not visually detract from the character of the LAP lands.

Objective 6.17

Ensure that all proposals for new retail and commercial developments respect the character and scale of the LAP lands.



Figure 6.1: LAP Indicative Layout Plan

6 Eastern Development Area

6.2 Introduction

The Eastern Development Area (DA1) is approximately 14.9 hectares in area (gross) and is located to the eastern portion of the LAP lands, bound by Diswellstown Road to the east, Scoil Choilm Community National School to the south and the railway line/Royal Canal to the north. The Eastern Development Area consists of multiple landholdings and is characterised primarily by its agricultural and recreational uses. The Eastern Development Area currently comprises St. Mochta's Football Club and existing Traveller accommodation at St. Brigid's Lawn, as well as one private residential dwelling. The remaining site consists of agricultural land. Access to the land is currently achieved via the Diswellstown Road and Porterstown Road.

6.2.1 Approach to the Development Area

The Eastern Development Area has been designed to accommodate a new high quality residential quarter. The goal of this Development Area is to provide a range of housing unit types that would support a diverse and changing community. The design approach will incorporate a strong urban form consisting of a series residential blocks, linked through an internal road network incorporating home zones with one access point onto the new Kellystown Link Road (emergency access will also be required).

The location of the Development Area adjacent to existing residential development on the eastern side of the Diswellstown Road such as Annfield and Woodbrook, as well as to the recent primary and post-primary educational developments to the south of the Development Area, make it ideal to be developed as the first phase on the LAP lands.

In line with Development Plan Zoning Objectives and Local Objectives, there is a requirement to relocate St. Mochta's Football Club from where it currently exists to a new site within the LAP lands next to the cemetery and in close proximity to existing and proposed schools. The relocation of the club grounds should be carried out at the earliest possibility in order to activate the lands for residential development. Note: the relocation of the St. Mochta's Football Club grounds will not discharge the Class 1 and Class 2 Open Space requirements associated with the redevelopment of the site for residential purposes.

There is a possibility that a portion of the land at the extreme north-eastern part of the site (next to Diswellstown Road) may

be the location of a future train station and/or future Metro West transport node. As such, the land use in this area must be of a temporary nature, of a material which do not require strong foundations and which can be removed without causing any impact on the surrounding developed land.

The Eastern Development Area shall also provide a key Gateway Building at the corner of Diswellstown Road and the new Kellystown Road, whereby the building will act as a landmark for the area through high-quality architectural design and appropriate height.

A green pedestrian and cyclist route will run along the perimeter of the Development Area as well as through the internal streetscape. This will link up with the pedestrian and cyclist routes along the new Kellystown Road and green corridor along the Royal Canal.

The existing Travellers' accommodation site at St. Brigid's Lawn will be expanded and upgraded as part of this Development Area in line with the Fingal County Council Traveller Accommodation Programme.

6.2.2 Key Objectives

The following are Key Objectives for Development Area 1:

- DA 1.1** Provide for the relocation of St. Mochta's Football Club to an appropriate site in the Open Space Area in the southern portion of the LAP land bank in close proximity to the existing schools campus. The relocated facilities shall be constructed and finished on site by the developer to a suitable standard to be agreed with Fingal County Council prior to the re-development of the existing St. Mochta's Football Club site;
- DA 1.2** Provide for the upgrade of the existing Traveller accommodation site and its services;
- DA 1.3** Promote and encourage increased levels of pedestrian and cycle connectivity between the subject lands and the surrounding areas through the provision of new pedestrian and cyclist links;
- DA 1.4** Provide for a mixed typology of high quality residential units including apartments, duplexes and townhouses;
- DA 1.5** Existing trees, hedgerows, field boundaries shall be protected and retained as far as is practicable in any development proposal. Existing hedgerows shall incorporate blue/green corridors and swale corridors for the protection of biodiversity and for SuDS;
- DA 1.6** One vehicular access to the site will be from the new

Kellystown Link Road, with all internal road networks to be home zones or local access roads only. An emergency access will also be required;

DA 1.7 The access road through the Development Area shall provide for street trees in appropriately designed tree pits and grass margins;

DA 1.8 Provide for temporary land uses to the north-east portion of land in order to preserve the land for a future transport node at this location;

DA 1.9 The Eastern Development Area shall incorporate all new Irish Rail infrastructure resulting from any amendments to the level crossing;

DA 1.10 Provide for a gateway building of high-quality design, architectural expression and appropriate height to the north-east block of the development area;

DA 1.11 Provide for a small-scale commercial unit on the ground floor of one block, which has future potential to revert to residential accommodation if required. This commercial unit can act to support the residential development in the Eastern Development Area (DA1) prior to the development of a local centre as part of the Central Development Area (DA2);

DA 1.12 Provide appropriate drainage infrastructure in accordance with the requirements of the Fingal County Council Drainage Department and as set out in this LAP;

DA 1.13 Ensure passive surveillance of green route including that associated with the Royal Canal;

DA 1.14 Ensure the preservation of trees and hedgerows as set out in Section 8 of this LAP;

DA 1.15 The upgrading of the Kellystown Road/Diswellstown Road junction shall be carried out in Phase 1 with the timeframe and specifications to be agreed in advance with the Planning Authority; and

DA 1.16 Review the accommodation needs of residents of St. Brigid's lawn and refurbish and upgrade the existing halting site to provide upgraded service units (including heating systems) in line with the requirements of the Traveller Accommodation Programme 2019-2024.

Development Area Characteristics	
Gross area	14.9 hectares
Net Development Area	11.4 hectares
Density range (gross)	38-57
Density range (net)	50-75
Approximate unit range	571-857
Community Infrastructure	Green Routes



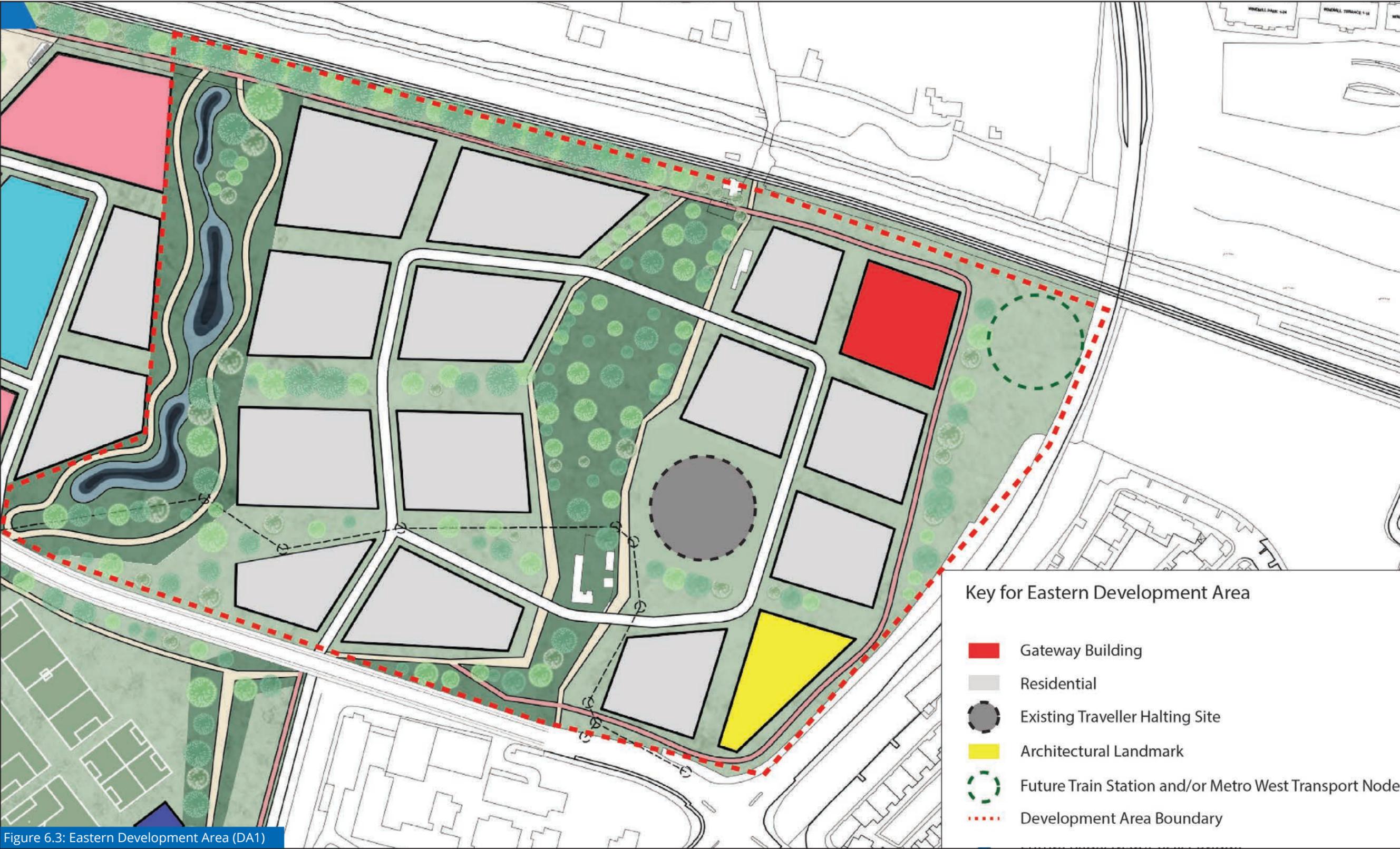


Figure 6.3: Eastern Development Area (DA1)

6 Central Development Area

6.3 Introduction

The Central Development Area (DA2) is approximately 7.4 hectares in area (gross) and is located between the Kellystown Link Road and the railway line/Royal Canal, between the Eastern and Western Development Areas (DA1) & (DA3) respectively. The Development Area consists primarily of a single landholder and is currently characterised by high-end agricultural uses. Access to the land is currently achieved via Lutrellstown Road to the south.

6.3.1 Approach to the Development Area

The Central Development Area will form the ‘heart’ of Kellystown and will provide a range of important amenities to support day-to-day life in the area to consist of a local centre, a primary and secondary school, a central open space/civic square as well as residential development. Access to the lands will be achieved from the proposed Kellystown Link Road.

An appropriately sized local centre is supported on the lands to provide for everyday shopping facilities and other local facilities and services (e.g. newsagent, doctor, pharmacy, hairdresser, etc.). It is anticipated that weekly shopping activities will be undertaken at the nearby Blanchardstown Shopping Centre or within the nearby centre of Clonsilla which provides for Level 4 retail provision. The local centre should be:

- Developed in an urban village format;
- Connected into and accessible from the proposed civic square and surrounding street network in a seamless manner;
- Include residential or commercial uses (including office) over ground floor commensurate with land uses permitted on the underlying land use zoning;
- Provide a mix of uses that include both daytime and evening opening hours, insofar as possible;
- Facilitate remote working/community hubs to support local employment in the area;
- Include limited car parking (primarily walk-up custom); and
- Commercial parking/loading to be provided to the rear of buildings.

The civic space shall be attractively landscaped, incorporate bicycle parking and outdoor seating and have a high quality finish to encourage patronage. Limited vehicular parking will be facilitated in this area (but not within the civic space). Buildings shall generally be arranged in a perimeter block

pattern providing a strong edge and supervision.

A new primary school and a new secondary school will be located around the civic square to support the growing population in this area. The schools will be developed in association with the Department of Education & Skills.

A green pedestrian and cyclist route will connect the Development Area into the proposed amenity/buffer space proposed along the southern bank of the Royal Canal/Rail Corridor. This route will also connect the proposed civic square into the neighbourhood park to the south, on the opposite side of the Kellystown Link Road.

6.3.2 Key Objectives

The following are Key Objectives for Development Area 2:

DA 2.1 Provide for a local centre to serve the future population of Kellystown (c. 2,500 sq.m net retail space) to include a number of smaller units to accommodate comparison retail and/or retail services;

DA 2.2 Provide a high quality public civic space of c. 0.25 hectares centrally within the development area. This area shall not accommodate car parking;

DA 2.3 The civic square shall be landscaped to a high standard and finish. The civic square shall be suitable for use for a variety of functions facilitating community gatherings and for use by pupils of nearby schools;

DA 2.4 Ensure the timely roll-out of permanent school facilities by the Department of Education and Skills in line with the principles of proper planning and sustainable development by providing for the development of a new primary school and a new second-level school on the LAP lands in tandem with housing development and population growth in the Kellystown lands. A new primary school to serve the eastern development area shall be a priority in tandem with the development of a new residential quarter;

DA 2.5 Facilitate the development of a community centre operated by the local authority within the LAP lands which may be co-located and planned on the same campus as a new school;

DA 2.6 The proposed public open space shall be designed and constructed to incorporate high quality finishes and landscaping and shall be overlooked by adjoining residential development in the interests of passive surveillance. There shall be clear delineation between public and private areas;

DA 2.7 Promote and encourage increased levels of pedestrian and cycle connectivity between the subject lands and the surrounding areas through the provision of new pedestrian and cyclist links;

DA 2.8 Provide for a mixed typology of high quality residential units including apartments, duplexes and townhouses;

DA 2.9 Existing trees, hedgerows, field boundaries shall be protected and retained as far as is practicable in any development proposal. Existing hedgerows shall incorporate blue/black corridors and swale corridors for the protection of biodiversity and for SuDS;

DA 2.10 One vehicular access to the site shall be taken from the new Kellystown Link Road, with all internal road networks to be home zones or local access roads only. An emergency access shall also be provided;

DA 2.11 Examine the feasibility of providing for pedestrian and cycle links between the Central Development Area and Clonsilla Village via a new pedestrian/cyclist bridge over the Royal Canal;

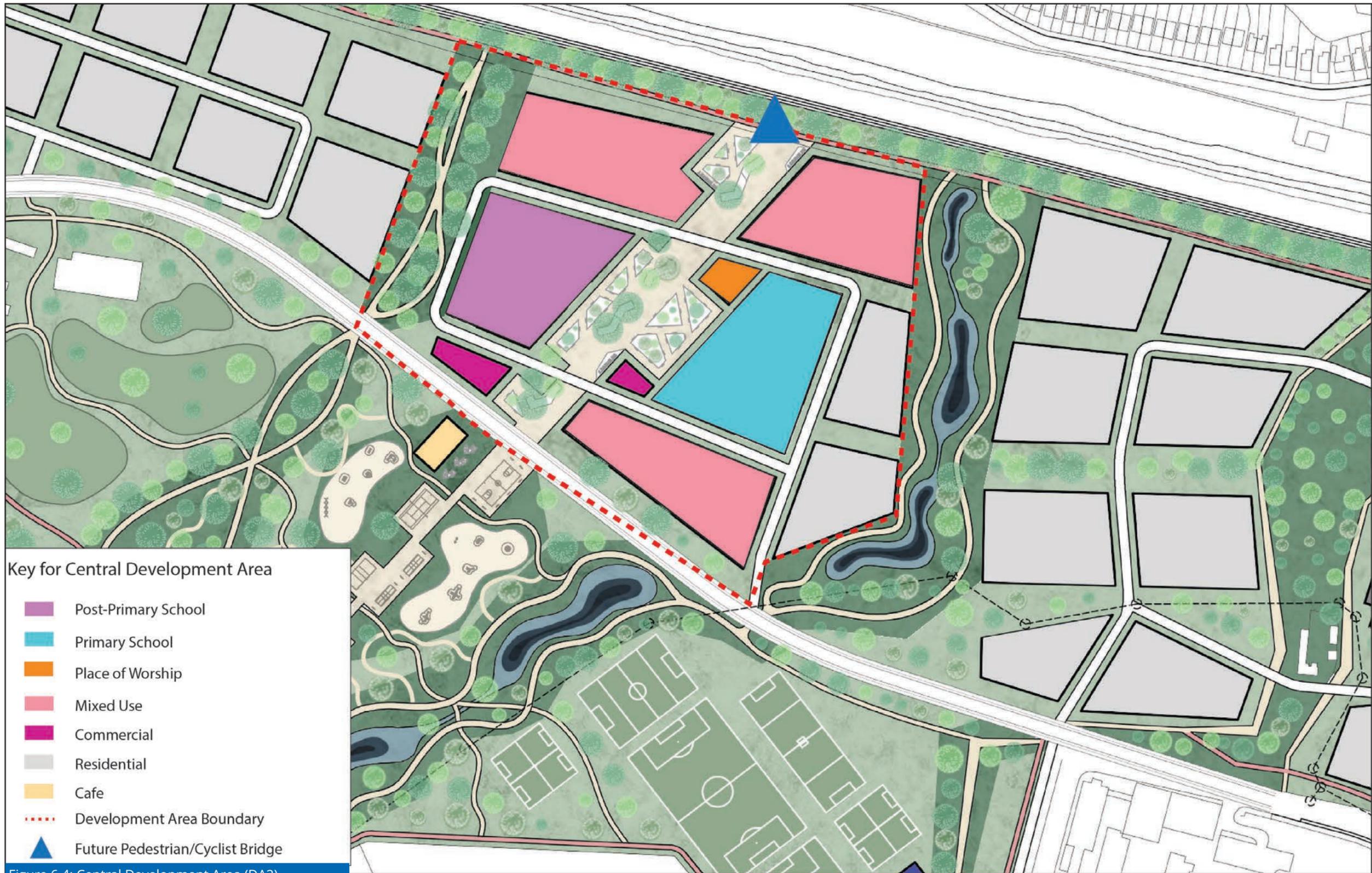
DA 2.12 The access road through the Development Area shall provide for street trees in appropriately designed tree pits and grass margins;

DA 2.13 Provide appropriate drainage infrastructure in accordance with the requirements of the Fingal County Council Drainage Department and in accordance with this LAP;

DA 2.14 Ensure passive surveillance of green route including that associated with the Royal Canal; and

DA 2.15 All Class 1 open space generated by residential development proposals in the Central Development Area shall be provided in the Open Space zoned lands to the south or as agreed with the Planning Authority.

Development Area Characteristics	
Gross area	7.4 hectares
Net Development Area	2.4 hectares
Density range (gross)	16-24
Density range (net)	50-75
Approximate unit range	119-179
Community Infrastructure	Primary School Secondary School Civic Square Local Centre Green Route Pedestrian Bridge



Key for Central Development Area

- Post-Primary School
- Primary School
- Place of Worship
- Mixed Use
- Commercial
- Residential
- Cafe
- Development Area Boundary
- Future Pedestrian/Cyclist Bridge

Figure 6.4: Central Development Area (DA2)



6 Western Development Area

6.4 Introduction

The Western Development Area (DA3) is approximately 10.23 hectares in area (gross) and is located to the west of the LAP lands, bounded by the R121 to the west, the proposed Kellystown Link Road to the south, the railway/Royal Canal to the north and the Central Development Area (DA2) to the east. The Development Area consists of multiple landholdings, the largest being associated with Greenmount House. The lands are currently characterised by agricultural uses and dispersed rural style housing fronting the R121. Access to the land is currently achieved via the R121.

6.4.1 Approach to the Development Area

The Western Development Area is intended to accommodate a new high quality residential quarter at an appropriate density given its proximity to Clonsilla Railway Station. The design approach will incorporate a strong urban form consisting of a series of residential blocks, linked through an internal road network incorporating home zones with one access point onto the proposed Kellystown Link Road.

The Western Development Area accommodates the only identified archaeological monument within the LAP lands and one of only a few sites in West Fingal. The site consists of a Ring Barrow which indicates an ancient burial ground. Given the significance of the site, it is an objective of the LAP that the site be preserved in situ and be incorporated into the future open space provision of the lands.

While a single vehicular route into the lands is proposed (and an emergency access), it is an objective of the LAP to maximise pedestrian and cyclist movements through and around the Development Area. Given the proximity of the lands to Clonsilla Railway station, it is anticipated that a significant volume of pedestrians and cyclists will transition through the area. Connections are therefore proposed to the R121, the Kellystown Link Road, the proposed route along the Royal Canal/Rail Corridor and into the adjoining Development Area. The LAP takes into consideration and will accommodate any future amendments to rail services and level crossings.

6.4.2 Key Objectives

The following are Key Objectives for Development Area 3:

DA 3.1 Provide for a high quality residential area adjacent to Clonsilla Railway Station providing strong urban form and

promote densities commensurate to the proximity to a railway station as per Section 28 Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (May 2009) and any subsequent Guidelines;

DA 3.2 Ensure a high level of pedestrian and cyclist connectivity through the lands to connect Clonsilla Railway station to the surrounding area;

DA 3.3 Provide for a mixed typology of high quality residential units primarily comprising apartments and duplexes;

DA 3.4 Existing trees, hedgerows and field boundaries shall be protected and retained as far as is practicable in any development proposal and must comply with the requirements as set out in Section 8 of this LAP;

DA 3.5 One vehicular access to the site will be from the new Kellystown Link Road (and 1 no. emergency vehicular access), with all internal road networks to be home zones or local access roads only;

DA 3.6 The access road through the Development Area shall provide for street trees in appropriately designed tree pits and grass margins;

DA 3.7 In consultation with the Department of Culture, Heritage and the Gaeltacht the site shall be subject to all required archaeological investigations which shall be undertaken by a suitably qualified archaeologist under licence from the Department and carried out prior to the commencement of development on site;

DA 3.8 Incorporate existing archaeological heritage (Ring Barrow) into public open space;

DA 3.9 A detailed Visual Impact Assessment shall accompany the planning application and should demonstrate how the proposal responds to the identified archaeological feature.

DA 3.10 Provide an appropriate level of public open space to serve residential schemes as per the requirements of the Development Plan;

DA 3.11 Explore the sensitive re-use of Greenmount House in consultation with the Fingal Conservation Office;

DA 3.12 Ensure passive surveillance of green route including that associated with the Royal Canal; and

DA 3.13 All Class 1 open space generated by residential development proposals in the Western Development Area shall be provided in the Open Space zoned lands to the south or as agreed with the Planning Authority.

Development Area Characteristics	
Gross area	10.23 hectares
Net Development Area	7.3 hectares
Density range (gross)	36-53
Density range (net)	50-75
Approximate unit range	365-547
Community Infrastructure	Green Route Open Space incorporating Ring Barrow





Figure 6.5: Western Development Area (DA3)

7 Movement and Transport Strategy

7.0 Introduction

This chapter sets out a Movement and Transport Strategy for the Kellystown LAP. Aligned with the overall vision for the LAP, the strategy seeks to deliver an exemplar sustainable development, providing future residents with a range of travel choices. The strategy is aligned with the key strategic proposals set out in the National Transport Authority's (NTA) Greater Dublin Area Transport Strategy 2016-2035 and supports the delivery of the transport objectives of the Fingal Development Plan.

7.1 Relevant Planning and Policy Documents

This section contains a summary of the main planning guidelines and documents that are relevant to the Kellystown LAP in terms of movement and transport.

[National Planning Framework](#)

The National Planning Framework (NPF) outlines the new strategic planning and development strategy for the whole of Ireland and all its regional centres for the next 20 years. The document co-ordinates national, regional and local authority policies and activities through one central strategy.

NPF key enablers for growth in Fingal and Dublin Metropolitan Area that are relevant to Kellystown, are as follows:

- Delivering key rail projects including DART Expansion and MetroLink;
- Developing a more efficient bus system, with better orbital connectivity and integration with other transport networks;
- Delivery of a Metropolitan cycle network; and
- Improving access to Dublin Airport, including improved public transport access, connections from the road network from the west and north and (in the longer-term) consideration of heavy rail access to facilitate direct access from the rail network in the context of potential electrification.

[Transport Strategy for Greater Dublin Area 2016-2035 - DART Expansion Programme](#)

The NTA's Transport Strategy for the Greater Dublin Area 2016-2035, proposes a number of key infrastructure measures, which include DART Expansion, MetroLink, Luas, GDA Cycle Network and BusConnects. These schemes, which will support the delivery of an environmentally sustainable low-carbon public transport system, will ensure that public transport can meet the significant growth in passenger demand in the Eastern Region by 2040.

The Dart Expansion Programme is a scheme separate to the LAP but the outcomes of the proposed programme of works will have a bearing on the area, as the Kellystown lands are bounded by the Dublin-Maynooth railway line to the north and the rail station at Clonsilla is in close proximity to the development lands.

The LAP has been designed with a degree of agility to factor in any changes in public transport in the area.

The DART Expansion Programme comprises a number of constituent elements to expand the heavy rail capacity, frequency, and connectivity in Dublin City Centre and throughout the GDA, and to transition to a more sustainable traction power supply. The DART expansion programme will enable the operation of increased service frequencies to support the existing and future demand for rail travel.

[Fingal Development Plan 2017-2023](#)

The following Fingal Development Plan Local Objectives are applicable to the LAP lands with regards to movement and transport:

- **Objective 130***: Prepare a feasibility study on the location of a road bridge, crossing the Royal Canal and the Dublin-Maynooth railway, connecting north to the Ongar Road. This location shall be determined in advance of, or part of, the adoption of the Local Area Plan for lands at Kellystown;
- **Objective 137**: Preserve the existing pedestrian and vehicular right of way at the level crossing at Porterstown; and
- **Objective 144**: Protect the rural character and setting of the Luttrellstown Road and enhance its use for pedestrians and cyclists.

[Objective 130](#)

To fulfil the requirement of Objective 130, the Planning Authority as part of an examination of proposals for Kellystown Road, has undertaken a two-stage options assessment to determine the preferred route. This included the preparation of a Stage 1 Route Options phase which identified a do- nothing option together with nine alternative route options. The emerging preferred route- Option 3 providing for a crossing of the Royal Canal and the Dublin Maynooth Rail line at Barberstown provides the optimum location for the required road bridge and

*As part of concurrent examination of proposals for Kellystown Road, the location of a road bridge crossing the Royal Canal and the Dublin-Maynooth railway that connects north to the Ongar Road is being determined.

an appropriate link with approved strategic road infrastructure - Barnhill Ongar road which will serve the developing areas of Barnhill and Hansfield SDZ as well as the wider hinterland.

In addition to the above, the Development Plan requires that the following elements are provided as part of the Kellystown Local Area Plan:

- Facilitate the development of a new railway station on the existing Dublin-Maynooth line at Porterstown if required;
- Provide pedestrian and cyclist access routes to the subject lands from the Riverwood/Carpenterstown area; and
- Create a new neighbourhood public park of a minimum of 8 hectares. This park shall be linked to Porterstown Park, Luttrellstown Road and Beech Park by dedicated pedestrian and cyclist facilities.

Another element included in the Development Plan is the provision of a Link Road connecting the Diswellstown Road Extension to the proposed Ongar Barnhill Distributor Road. Consultants were commissioned by Fingal County Council to identify the preferred route for the proposed Kellystown Road Scheme. The LAP is informed by the preferred road alignment.

The Development Plan objectives outlined above have been addressed by the LAP, with relevant requirements included in the Movement and Transport Strategy Objectives at the end of this section.

[Maynooth Line Transport Study](#)

Irish Rail and the National Transport Authority have recently completed a Transportation Assessment of the traffic impacts of closing the levels crossings on the Maynooth railway line, as required by the DART Expansion Programme. The objective of the Transport Assessment was to recommend the appropriate level of bridge crossings required to facilitate the needs of pedestrians, cyclist and vehicular traffic, both now and in the future. The report recommended the construction of new vehicular bridges (with pedestrian and cyclist facilities) at Ashtown, Coolmine and Barberstown. The report also recommended the provision of new pedestrian/cyclist bridges at Clonsilla and Porterstown to facilitate development in this area.

With respect to Development Plan Objective 137 (*To preserve the existing vehicular right of way at Old Porterstown Road level*

crossing), the findings of the Maynooth Line Transport Study report have concluded that there is no need to retain a vehicular right of way at this location. The Kellystown Draft LAP continues to support Objective 137 of the Fingal Development Plan.

With regards Development Plan Objective 130 (Prepare a feasibility study on the location of a road bridge, crossing the Royal Canal and the Dublin-Maynooth railway, connecting north to the Ongar road), the Maynooth Line Transport Study concluded that the crossing of the Railway line and Canal at Clonsilla should accommodate pedestrians and cyclist only at this location. To facilitate vehicular movements traversing the railway line to the west of Kellystown, a new grade separated crossing is proposed at Barberstown. This crossing will link the Kellystown link Road to the proposed Ongar Barnhill Distributor Road.

7.2 Key Goals and Opportunities

The Movement Strategy for the Kellystown LAP seeks to improve transport linkages, make better use of the existing rail and bus network and encourage active travel (walking and cycling) in order to promote a more sustainable way of living. To achieve this central aim, the LAP is built upon the following opportunities:

- **Rail:** Maximise opportunities for travel by rail by promoting higher density developments in walking distance of Clonsilla station; delivering safe and attractive pedestrian and cycle routes to available train stations and establishing appropriate parking standards which discourage unnecessary car travel;
- **Bus:** Maximise opportunities for travel by bus by facilitating ease of access for buses through the site; and providing safe walking and cycling routes to high frequency services; and
- **Walking and Cycling:** Maximise opportunities for travel by walking and cycling by promoting a mix of uses that reduces the need for travel by car; developing a network of permeable streets that priorities the needs of pedestrians and cyclists; reducing barriers to movement through the provision of crossings and bridges; and facilitating external walking and cycling connections to places of interest.

7.3 Demand for Travelling

The Movement and Transport Strategy, and the Objectives established within this chapter, are supported by a two-tiered modelling assessment:

- **Tier 1 Strategic Modelling:** The NTA's East Regional

Model (ERM) was used to identify the multi-modal travel characteristics of the proposed development i.e. where are people travelling to/from? What mode of transport are they using?

- **Tier 2 Local Modelling:** A Local Area Model (LAM) developed for the area surrounding the Kellystown LAP lands was used to assess the impact of the development on the operation of the local road network.

The following sections provide an overview of the main findings from the modelling assessment. The full set of results are provided in Appendix 5 along with a glossary of key terms used throughout this chapter.

Tier 1: Strategic Modelling

This analysis used the National Transport Authority's Regional Modelling System (RMS), in particular, the ERM which covers the Greater Dublin Area. The ERM is a strategic multi-modal transport model representing travel by all the primary surface modes – including, walking and cycling (active modes), and travel by car, bus, rail, tram, light goods and heavy goods vehicles.

The model has been used to assess the full development in Kellystown (based on approx. 1,200 dwellings), along with wider growth forecasts for 2027, including areas in close proximity to the LAP lands (e.g. Barnhill, Ashtown, Hansfield SDZ), in combination with various strategic transport schemes (e.g. DART Expansion, BusConnects, GDA cycle network plan).

The model takes account of increased rail services along the Maynooth Rail Line as per the provisions of the Maynooth Line Transport Study prepared by Irish Rail and the NTA.

The ERM analysis provides information on the overall number of trips generated by the Kellystown development (Trip Generation), where these trips are travelling to/from (Trip Distribution) and the likely number of journeys made by rail, bus, car, bike or foot (Mode Share). The main results of the analysis are summarised below.

Trip Generation and Mode Share

Figure 7.1 'Origin Mode Share' outlines the volume and percentages of traffic leaving the Kellystown development by car, public transport (PT) and active (walking and cycling) modes. In summary:

- The Kellystown development will generate approximately 2,800 person trips in the AM peak period (07:00 – 10:00);

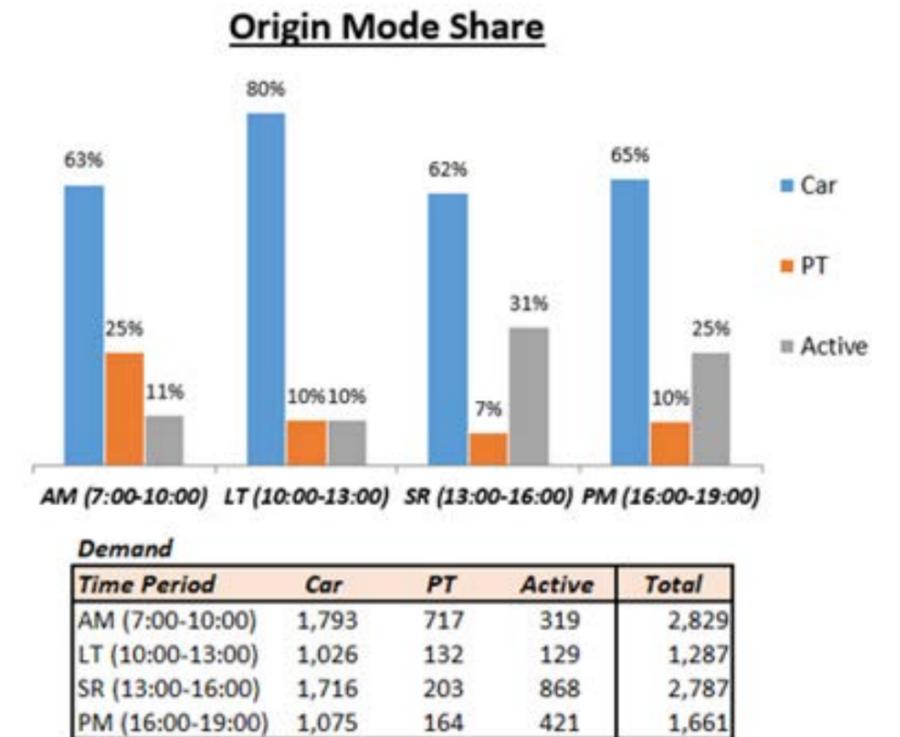


Figure 7.1: Origin Mode Share

- The car mode share is 63%, which equates to approx. 625 car trips exiting Kellystown in the AM peak hour (08:00 – 09:00);
- 25% of trips leaving Kellystown in the AM peak will use public transport – with the majority of these trips travelling on rail towards the city centre via the upgraded DART Expansion Network;
- The Active (Walking & Cycling) mode share is relatively high in the AM and SR (School Run 13:00 – 16:00) time periods reflecting children and parents travelling to nearby schools situated in the LAP; and
- Active mode share is also relatively high for trips leaving Kellystown in the PM (16:00 – 19:00) peak (25%). The modelling analysis indicates that a significant number of trips leaving Kellystown in the PM are travelling locally, and therefore, could be undertaken by walking or cycling.

Trip Distribution:

The Trip Distribution analysis provides information on where people leaving/entering the Kellystown development are travelling to/from. For the purpose of this analysis, the

Greater Dublin Area was divided into a number of sectors (areas bounded in red in Figure 7.2 "Trips Leaving Kellystown – AM Peak") to represent the overarching pattern of travel for residents of Kellystown. This figure illustrates the percentage of people leaving Kellystown in the AM peak period (07:00 – 10:00) travelling to each of these analysis sectors. Similar figures have been created for trips travelling to Kellystown in the AM, along with trips entering/Leaving the development in the PM peak period and these are presented in Appendix 5.

In summary:

- 52% of trips leaving Kellystown in the AM Peak travel within the N3/N4/M50 boundary area;
- 9% of trips remain within the Kellystown development, primarily consisting of travel to school;
- 17% of trips in the AM peak travel towards Dublin City Centre;
- Of these city centre trips, 88% are undertaken using Public transport – primarily using the upgraded DART Expansion Network; and
- Approximately 61% of all trips leaving Kellystown in the PM peak are travelling locally to areas such as Clonsilla, Coolmine and Blanchardstown for shopping, visiting friends etc.

Tier 2: Local Modelling

The Local Area Model (LAM) prepared for the Maynooth Line Transport Study has been used to test the impact of the future development at Kellystown on the local road network, focusing on:

- Flow Contribution: The amount of traffic generated by Kellystown using each of roads surrounding the development; and
- Change in Junction Delay: Overall change in delay at key junctions, when compared to a 'No Development' scenario.

Flow Contribution

The Flow Contribution analysis provides an insight into the key roads used by traffic leaving/entering Kellystown. Figure 7.3 'AM Origin Contribution Flows' illustrates the percentage of overall traffic on each road link that has originated from Kellystown in the AM peak period. The results indicate that:

- The highest contribution of trips are on local roads adjoining the LAP lands including the Diswellstown Road, the R121

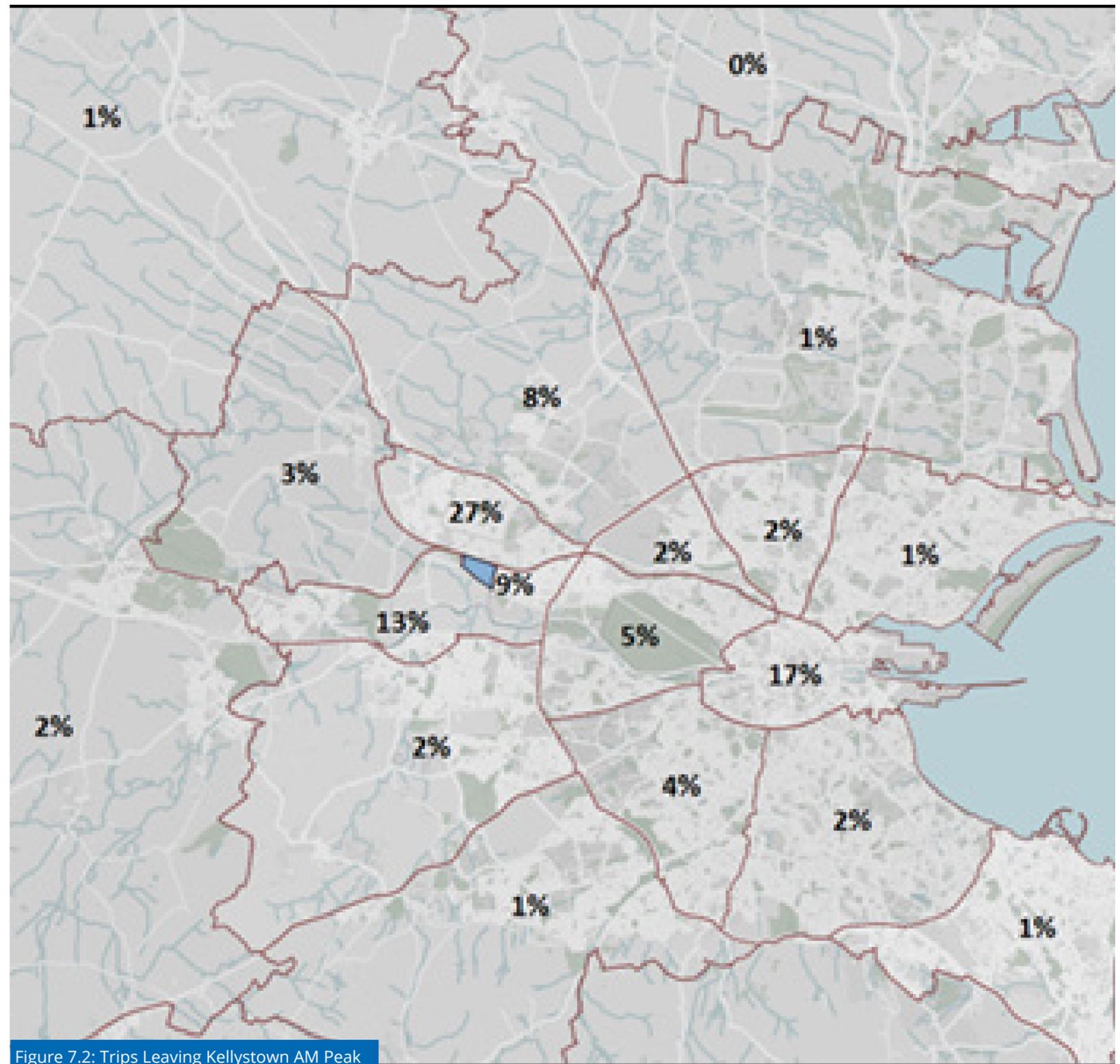


Figure 7.2: Trips Leaving Kellystown AM Peak



7 Movement and Transport Strategy

- and Blanchardstown Road South;
- Traffic originating at Kellystown has a very minor contribution (<5%) to overall traffic on the main strategic national roads in the area i.e. the N3, N4 and M50; and
- The Kellystown development has a very minor contribution to the Luttrellstown Road, with traffic using the proposed Kellystown Link Road instead.

Junction Impacts

This analysis compares the overall delay at junctions on the local road network for the forecast year 2027 with, and without, the Kellystown development in place. Figure 7.4 “Junction Delay (Seconds) – Kellystown full development vs No development” illustrates the total change in delay (in seconds) for the scenario with Kellystown fully developed (“Full Development”) when compared to a scenario with no development at Kellystown (“No Development”).

The results indicate a relatively minor increase in delay for the majority of junctions on the local road network due to the Kellystown development. The provision of a new high capacity road link connecting Kellystown to Barnhill and Ongar (Ongar-Barnhill Distributor Road) will cater for westbound traffic from the proposed development. To the immediate east of Kellystown, the Diswellstown Road/Kellystown Link Road junction experiences a significant increase in delay, and further mitigation measures will be required to improve its performance as part of the development of the Kellystown LAP.

Modelling Analysis Conclusions

The modelling analysis indicates that a significant proportion of trips to/from Kellystown in the AM (36%) and PM (35%) peak periods are undertaken by sustainable modes i.e. walking, cycling and public transport. In particular, the DART expansion upgrades and the close proximity of Clonsilla train station, support the use of public transport with the majority of trips (88%) to Dublin City Centre undertaken by rail.

It is important to note that the presented mode shares are not a target but a reflection of the potential mode share for the site based on the provided infrastructure. Given the proximity of the site to existing and future bus and rail services, the substantial investment in walking and cycling infrastructure and proposed supporting mobility management and parking demand management measures; it is envisaged that a greater level of sustainable trip making will take place at Kellystown.

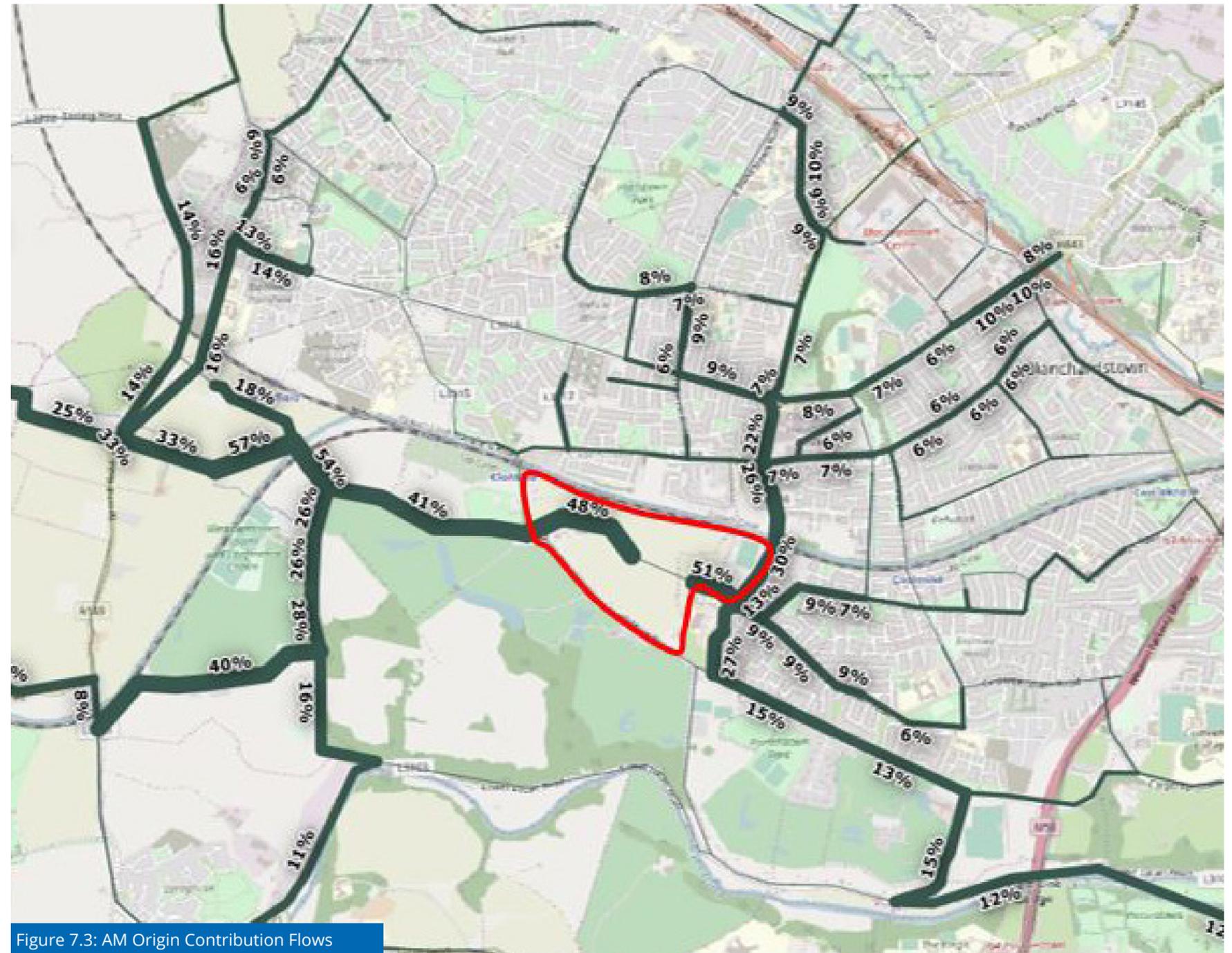


Figure 7.3: AM Origin Contribution Flows

Traffic leaving the Kellystown development has a very minor contribution (<5% of overall flows) to the N3, N4 and M50, and as such, should not significantly impact on the performance of these key strategic roads.

The overall junction delay analysis indicates that the development at Kellystown will have a very minor impact on the performance of the majority of junctions on the local road network. The Diswellstown Road/Kellystown Link Road junction is the most significantly impacted when compared to a scenario where no development is undertaken at Kellystown. This junction, which is adjoining the LAP lands, it is recommended that it be upgraded in Phase 1 as part of the development of the Kellystown LAP to accommodate the safe passage of all road users.

7.4 Road Street Hierarchy

The Kellystown lands are bounded by the Royal Canal and Dublin-Maynooth railway to the north; Diswellstown Road to the east, Clonsilla Road (R121) to the west and Luttrellstown Road to the south.

Diswellstown Road and Clonsilla Road experience relatively high traffic volumes throughout the day, particularly in the morning and evening peak commuter periods. Traffic surveys undertaken in 2018 as part of the Maynooth Line Transport Study indicates that the overbridge at Diswellstown Road is the most heavily utilised crossing point in both the AM peak and PM peaks with two-way flows of 1,573 and 1,647 vehicles respectively.

The majority of the plan area is undeveloped with the exception of the continuation of Diswellstown Road (which gives access to the Scoil Choilm Community National School); and Old Porterstown Road which connects the site and St Mochtas Football Club to Clonsilla Village via the Porterstown level crossing.

In terms of the wider network, the Kellystown LAP is well connected to the National Network M50, N3 and N4, as shown in Figure 7.5.

The main vehicular link to the lands will be the proposed Kellystown Link Road. There will be two access points, one from the existing junction Diswellstown Road / Diswellstown Extension Road and a second one from a new junction with the

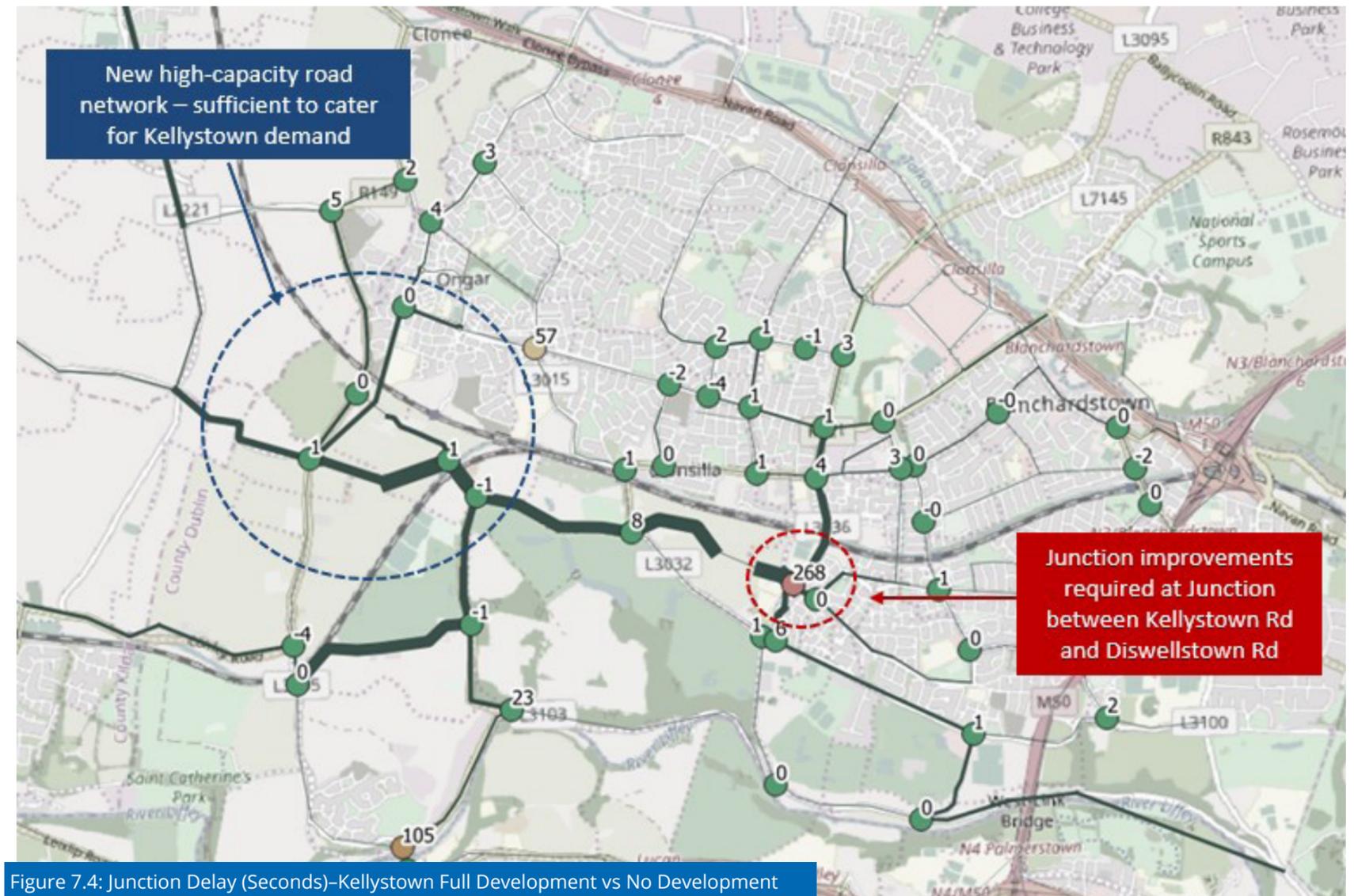


Figure 7.4: Junction Delay (Seconds)-Kellystown Full Development vs No Development

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realignment of the Clonsilla Road- R121. Both junctions will be full movement traffic signalised junctions.

In addition, the LAP is incorporating the access road to the proposed cemetery as included in the Part XI drawings of *Proposed construction of Kellystown Cemetery and Access Road (off Diswellstown Road) on lands in Kellystown.*

Street Hierarchy

The internal road network serving the Kellystown LAP will be designed in accordance with the Design Manual for Urban Roads and Streets 2013 (DMURS). This Manual provides guidance relating to the design of urban roads and streets focusing on sustainable modes of transport, safeguards for vulnerable users and promoting a sense of place. DMURS is complemented by the National Cycle Manual (NTA 2011). The street classification system as per DMURS is defined as follows:

- Arterial Streets – Distributor Roads
- Link Streets – Collector Routes
- Local Streets – Access Routes

In the Kellystown LAP, the proposed routes are predominately Local Streets with the Kellystown Link Road being a Link Street. Figure 7.10 shows the internal road hierarchy and the main roads connected to the site.

Kellystown Link Road

The Kellystown Link Road will be the access point to the lands and the Main Avenue in the Kellystown LAP. It will act as a spine dividing the open spaces, parks, sport pitches, cemetery, and football club on the southside of the LAP lands with the residential area, neighbourhood centre and schools to the north.

The recommended speed limit for the road is 50kph. It is proposed to provide a limited number of vehicular access points to the residential areas in order to balance the important strategic function of this road with the need to facilitate ease of access for pedestrian and cyclists crossing the road. The three proposed vehicular accesses will be cycle friendly roundabouts as per the National Cycle Manual and reflecting international best practice. To reduce the severance by the Link Road, a number of pedestrian/cyclist crossings will be provided along the pedestrian desire lines.



The cycle friendly roundabouts and pedestrian crossings are located approximately 100-200m apart, which will serve as a traffic calming measure to reinforce speeds of 50kph and below. Figure 7.6 shows a typical roundabout example.

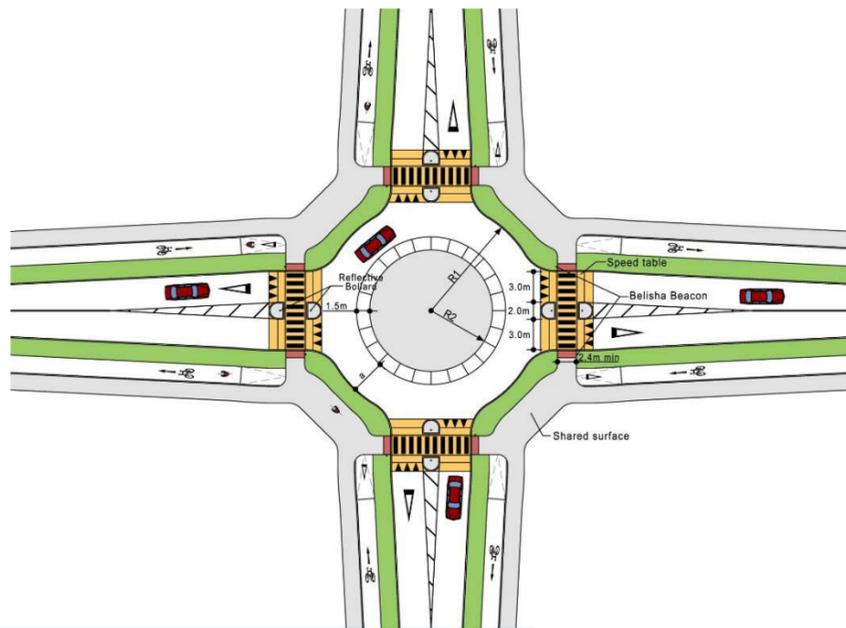


Figure 7.6: Typical Cycle-Friendly Roundabout

Along the Kellystown Link Road, it is proposed to provide a segregated cycle track on both sides of the road, protected by a verge area. A typical cross section is indicated in Figure 7.7 below.

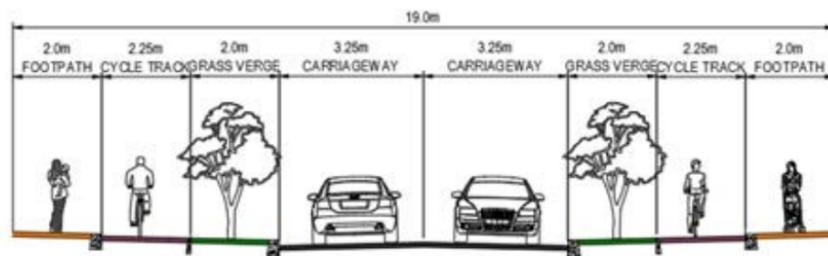


Figure 7.7: Typical Road Cross Section

Local Streets – Access Roads

It is proposed to provide three vehicular accesses to the residential areas. The typical cross section of these internal streets will be a 6m wide carriageway, 2m wide verge, 3m wide footpath and on-street car parking at certain locations, alternating with landscape and street furniture. The proposed speed limit is 30kph which will allow cyclists to share the road space with general traffic. Direct access to individual properties can be gained to and from these streets.

In order to facilitate emergency access and filter permeability from the Link Road, it is proposed to provide a secondary access to the three development areas. These accesses will be closed to general traffic by removable bollards while maintaining at least 1.5m separation to allow for pedestrian and cyclist access.

The alignment of the local streets has been designed in order to preserve the existing tree edge rows and facilitate an appropriate block size.

The LAP has factored in the closure of the Old Porterstown Road level crossing and the creation of a walking and cycling bridge over the railway at this location. Vehicular access to the existing properties along the Old Porterstown Road will be provided along the proposed Kellystown Link Road and the proposed access road to Development Area 1.

In addition, the local access road to the car park cemetery will be provided on the south eastern border from the Kellystown Link Road. The access road indicated in the LAP is as per the Part XI drawings for the cemetery. There is a dedicated footpath on the western side along the road.

Local Streets – Shared Surface Residential Streets

The rest of the streets within the development will be shared surface residential streets. Shared surface streets have no kerb or level difference to segregate pedestrians and vehicles. These roads are designed to prioritise the movements of pedestrians and cyclists and are reinforced by physical measures (such as planting/street furniture etc.) which help promote lower vehicular speeds and create a safe environment encouraging on-street activity. The vehicular access to these roads will be limited to residential access only.

Through the planning process, it will be important to demonstrate that the shared streets are designed in accordance

with the requirements of the Design Manual for Urban Roads and Streets, and that the street design meets the requirement of Fingal County Council’s approved palette of construction materials.

7.5 Public Transport
Irish Rail

The Sligo/Maynooth rail line provides commuter services from Maynooth to Dublin city centre, with a lower frequency service extending to Longford, and Intercity services provided to Sligo. Through a recently constructed branch line, commuter services are now also provided to Hansfield, Dunboyne and the M3 Parkway.

The Clonsilla Railway Station borders the western side of the subject lands and the Coolmine Station is situated 800 metres from the eastern side of the site. The Maynooth railway line provides a direct service to the city centre serving Connolly Station and the Docklands, the frequency is currently approximately 2 services during the peak hour.

As mentioned, the DART Expansion Programme will enable the operation of increased service frequencies to support the existing and future demand for rail travel.

The LAP has reviewed the impact of the proposed measures on all transport modes, ensuring strong linkages are provided to neighbouring communities, particularly for those travelling by walking or cycling.

Bus

Currently, there are two routes that serve the Kellystown area. Dublin Bus Route 37 operates from Baggot St./Wilton Terrace to Blanchardstown Centre via Castlenock. The service operates three times during the peak hour. Go Ahead Ireland Route 239 operates from Blanchardstown Shopping Centre to Liffey Valley Shopping Centre via the Clonsilla level crossing. The service operates approximately once per hour throughout the day in each direction, with one service in each of the AM and PM peaks.

As part of the Bus Connects programme, it is proposed that the Route 239 will be replaced by a new Route 252. The 252 will follow a very similar route to the 239, and it is envisaged that it will operate via Clonsilla level crossing. As such, the proposed routing for service 252, and the potential impact on

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its operation of closing the Clonsilla level crossing will need to be considered.

BusConnects route B2 along Clonsilla Road is a high-frequency route (10-15min) from Clonsilla to City Centre and UCD. As the Kellystown LAP develops and the demand for travel increases, it is envisaged that additional buses will be provided to serve the site. Fingal County Council will work closely with the NTA to ensure the future public transport needs of the site are met.

In addition, Blanchardstown has been identified as a major interchange point serving numerous high frequency and local feeder bus routes. The Kellystown LAP will facilitate the provision of walking and cycling routes to the interchange.

7.6 Walking and Cycling Network

The LAP seeks to provide an integrated network of continuous and safe pedestrian/cyclist routes, connecting the LAP lands to the wider community. Please refer to Figure 7.11.

External Walking and Cycling Links

The GDA Cycle Network Plan (NTA) proposes to implement a number of secondary and feeder pedestrian/cycle routes in Clonsilla, Carpenterstown and Blanchardstown. These routes include the Royal Canal Way to the north of the LAP lands and a secondary route along the Diswellstown Road to the east of Kellystown lands.

Fingal County Council, in conjunction with the NTA and Waterways Ireland, proposes to extend the urban greenway along the Royal Canal tow path up to the Fingal County boundary between Castleknock, Blanchardstown, Coolmine, Clonsilla and Hansfield. The Emerging Preferred Route for the scheme went on public consultation in early 2019.

In addition, to the south of the Kellystown lands, lies the Liffey Valley Greenway linking Parkgate Street in the City Centre to Chapelizod and Lucan. The development of the LAP lands provides a unique opportunity to link these two major urban greenways through a series of safe and attractive cycle routes through Kellystown.

As mentioned, the Fingal Development Plan requires the provision of walking and cycling links from the Kellystown lands to the Riverwood/Carperstown Area, as well as the need to provide walking and cycling links from the lands to Porterstown



Figure 7.8: Bus Connects Routes

Park, Luttrellstown Road and Beech Park.

It is an objective of the LAP to provide the required pedestrian and cyclist links to/from the LAP lands to these external destinations' points, including Clonsilla Village, Blanchardstown Centre, the train stations, external schools, parks and neighbourhood areas.

LAP Internal Walking and Cycling Links

The internal links of the Kellystown LAP have been designed to maximise permeability for pedestrians and cyclists. Pedestrian and cyclist facilities are provided along the road network in addition to a series of interweaving greenways.

The comprehensive pedestrian and cyclist network connects the residential areas with schools, parks, sports facilities and the neighbourhood centres.

The internal links of the Kellystown LAP have been designed to maximise permeability for pedestrians and cyclists. Pedestrian and cyclist facilities are provided along the road network in addition to a series of interweaving greenways. In addition, filtered permeability for cyclists and pedestrians will be provided between the three main development areas where it will not be feasible to drive from one development area to the other without exiting onto the Kellystown Road, however it will be feasible to walk or cycle internally between the cells via a series of internal paths and greenways.

Cycle Streets

Typically found in residential areas, cycle streets are roads on which cyclists have priority over cars and overtaking is not permitted. As described in the Sustrans Handbook for cycle-friendly design, the street design should encourage cyclists to assume priority, with drivers of motor vehicles behaving as “guests”. The design elements of the cycle street typically include a 30kph speed limit or less, traffic calming, cycle priority at road crossings, highly visible cycle surface markings and coloured surface paving.

Given the potential volume of cyclists attending the schools, it is recommended that a cycle street be provided along the Access Road to the proposed schools. The cycle street will form part of the wider network of segregated cycle tracks and green routes, thereby providing safe and continuous links from the schools to all residential areas.

7.7 Parking Strategy

Residents Car Parking

The Kellystown LAP offers an opportunity to deliver a sustainable development providing future residents with a range of mobility choices and a reduced dependence on private car travel. The Fingal Development Plan sets out the residential parking standards for cars and bicycles for new developments. However, the car parking standards are a norm provision and reduced levels are encouraged in areas well served by public transport, walking and cycling.

In addition, the Development Plan indicates that within new developments, especially places of work and education, the car parking standards should be limited. Consequently, the car parking standards are split into Zone 1 (which allows fewer car parking spaces) and Zone 2 (which allows a higher number of

car parking spaces). Zone 1 applies to areas which are:

- Within 1600m of DART, Metro, Luas or BRT (existing or proposed);
- Within 800m of a Quality Bus Corridor; and
- Zoned MC, Major Town Centre.

The western edge of the Kellystown LAP is adjacent to Clonsilla Rail Station.

The Design Standards for New Apartments – Guidelines for Planning Authorities published by the Department of Housing, Planning and Local Government in March 2018, state that for developments “*comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances.*” For Build to Rent developments the guidelines stipulate the default car parking standards should be “*minimal or significantly reduced*”. The guidelines also state that bicycle parking should be provided at a rate of 1 no. per bedroom. This compares to the Development Plan standard of one per unit.

Based on both sets of guidelines and given the walking and cycling accessibility, as well as proximity to high frequency public transport services, a reduced car parking ratio is considered appropriate for Kellystown LAP. Providing reduced car parking will have benefits in terms of minimising car use; increasing the physical activity of future residents; safeguarding the environment; improving air quality and road safety outcomes; and maximising the use of available space.

The detailed level of car parking provision will be determined at planning application stage based on dwelling type and a detailed assessment of modal split and car ownership trends. It is important that any spaces provided do not promote car usage and are accompanied with appropriate supporting mobility management measures. Consideration should be given to the provision of basement car parking in higher density residential schemes.

Mobility Management is a concept to promote sustainable transport and manage the demand for car use by changing travellers’ attitudes and behaviour. The aim of mobility management is to reduce demand for and use of private cars by increasing and promoting the attractiveness and practicality of other modes of transport. Mobility Management



Figure 7.9: Cycle Street

Plans (MMPs) in workplaces, education establishments and residential developments can have a significant impact on the travel choices of employees, students and residents.

All future residential applications at Kellystown will need to be accompanied by a MMP setting out proposed measures to support reduced car dependency and an uptake in sustainable travel options.

On-Street Car Parking

The quantum of on-street car parking across the site will be optimised based on the proposed mix of land use whilst balancing the need to deliver a high-quality public realm. This will facilitate short-term visitor parking and commercial users in the neighbourhood centre. Facilities should be available on-street and off-street for electric car charging points in line with the objectives of the Development Plan and Climate Change Action Plan.

Bicycle Parking

Residential bicycle parking will be provided above the ratio outlined in the Development Plan to encourage more sustainable trip making. The bicycle parking shall be secure and sheltered, and where located at basement level, will be accessed via a segregated cycle access. Sheffield stands will be provided at street level closer to the schools, retail and open spaces. The LAP will facilitate appropriate parking spaces for cargo bikes within the Plan lands.

Public Car Parks: School Parking/Set Down

It is proposed to provide two public car parks to serve the park, open spaces, sports facilities and the schools. Both car parking spaces will be accessible via the Kellystown Link Road and will

7 Movement and Transport Strategy

share facilities for the different uses outlined.

In line with Fingal County Council's approach to school traffic management - which aims to improve road safety and air quality around schools - it is proposed to provide a shared parking facility, at a desirable and feasible walking distance (500m) from the schools. The provision of these park & stride facilities will help to reduce congestion at the school gates, improve road safety for vulnerable road users and help support an increase in active travel modes (i.e. walking and cycling) to school.

In order to accommodate both the primary school and secondary school drop off / collections in the car parking area, it is recommended that staggered entry/exit times are co-ordinated to minimise traffic volumes. The car parking design will need to accommodate spaces for park & stride and lay-bys for set down only. The secondary students and older primary students will be encouraged to use the set down facilities within the remote car park, whilst it is proposed the younger primary students and their parents/carers will use the park and stride facilities.

An approximate number of required car parking spaces has been determined by calculating the number of students (first 4 years of primary school, approx. 300 students), vehicular trips (number of students divided by occupancy of 1.3) and target mode share (45% car mode share in line with the smarter travel national targets), with this analysis indicating that a maximum of 100 spaces should be provided within the car park. Future school planning applications will be required to re-assess the quantum of car parking for the planned school and prepare Travel Plan targets in association with the Department of Education & Skills.

It is proposed that the number of car parking spaces serving the Open Spaces is within the range of 70-80 spaces, in line with the car parking ratio (number of spaces / park area) in the nearby FCC Parks, i.e. Millennium Park and Beechpark in Clonsilla. The relocation of St. Mocha's Football Club to the Open Space Area will require the provision of car parking to serve the members of the club and visitors. Access will be via the access road to the Cemetery.

School Streets

Increased traffic associated with the school drop off can cause significant congestion, air quality and road safety problems

within urban areas across Ireland. The School Streets Initiative typically takes the form of a temporary closure of a street (or section of a street) to vehicular traffic during school drop off and pick up times - in order to reduce school gate congestion, improve air quality and facilitate young children to safely walk, cycle, scoot or park and stride to and from school.

School Streets initiatives have been successfully introduced across Europe and the UK with positive impacts on health, safety and level of activity. In 2019, Fingal County Council implemented Ireland's first School Streets project at St. Oliver Plunkett's School in Malahide. Initial results from Ireland's first School Street pilot in Malahide are largely positive, with reductions in air pollutions and increases in sustainable travel mode share reported.

Given the co-location of primary and secondary schools within the LAP lands, it is recommended that a Schools Streets initiative be implemented at Kellystown. The potential location of the proposed Schools Street initiative is indicated on Figure 7.12 - LAP Parking Strategy.

The Schools Street initiative will be complemented by the park and stride sites and cycle street proposals outlined within this section of the LAP.

7.8 Movement and Transport Objectives

Objective 7.1

Ensure the streets and roads within the LAP are designed as per Design Manual for Urban Roads and Streets and the National Cycle Manual to function as urban streets and to accommodate multi-modal movements, create a sense of place and contribute to the public realm.

Objective 7.2

Deliver the Kellystown Link Road and necessary works, as required in the Fingal Development Plan.

Objective 7.3

Provide the access roadway to the cemetery as previously approved.

Objective 7.4

Ensure delivery of the appropriate road infrastructure in line with the LAP road hierarchy of streets to develop the lands to their full potential. The design should be in accordance with the

principles outlined in the Design Manual for Roads and Streets (DMURS) and the NTA's National Cycle Manual.

Objective 7.5

Provide safe walking and cycling links to Clonsilla Rail Station and liaise with Irish Rail in providing additional cycle parking at the station.

Objective 7.6

Provide appropriate pedestrian/cyclist facilities at the Porterstown level crossing.

Objective 7.7

Reserve an area within the LAP for potential development of a new railway station at Porterstown.

Objective 7.8

Examine the feasibility of re-routing 252 Bus Connects route via Kellystown Link Road.

Objective 7.9

Provide the necessary lands to develop enhanced bus waiting areas at bus stops, shelters and real-time passenger information.

Objective 7.10

Facilitate walking and cycling routes to the major interchange at Blanchardstown.

Objective 7.11

Provide pedestrian and cyclist facilities to connect Kellystown lands to:

- The neighbourhood areas Riverwood and Carperstown.
- Porterstown Park and Beech Park.
- Along the Luttrellstown Road

Objective 7.12

Facilitate the required lands to provide a link between the Royal Canal Way and the Liffey Valley Greenway throughout the Kellystown Lands.

Objective 7.13

To provide a comprehensive network of pedestrian and cyclist facilities with appropriate directional signage within the LAP lands, including crossings and cycling parking, as per the Walking and Cycling Facilities Map.

Objective 7.14

Examine the feasibility of providing a new pedestrian/cyclist bridge in the Central Development Area (DA2) to provide direct access to Clonsilla Village. The provision of the pedestrian/cycle bridge shall be provided by the developer.

Objective 7.15

Promote the provision of park & stride facilities at a desirable walking distance from the schools, in collaboration with the Department of Education and Skills.

Objective 7.16

Promote the provision of reduced parking standards for residential and commercial land uses.

Objective 7.17

Provide on-street and off-street car parking spaces for disabled drivers and family-friendly and age-friendly car parking spaces.

Objective 7.18

Provide on-street and off-street Electric Vehicle and cycle charging points and where feasible integrate charging facilities with proposed lighting infrastructure and/or street furniture.

Objective 7.19

Provide good quality bicycle parking facilities at key locations within the LAP lands such as the neighbourhood centre, the open spaces and schools.

Objective 7.20

Provide safe and secure bicycle parking for residents in line with Fingal Development Plan Standards.

Objective 7.21

Upgrade the Diswellstown Road / Kellystown Link Road junction in Phase 1 of the development, to accommodate the forecast growth of traffic from Kellystown, support the delivery of reliable public transport services and facilitate the safe movement of pedestrians and cyclists.

Objective 7.22

Minimise need for surface parking through innovative design and implementation of a Mobility Management Plan for all residential developments.

Objective 7.23

Ensure a universal design approach to the built environment including footpaths, roads, pedestrian crossing points and bus stops shelters to ensure access for all.

7 Movement and Transport Strategy

Figure 7.10: LAP Road Hierarchy

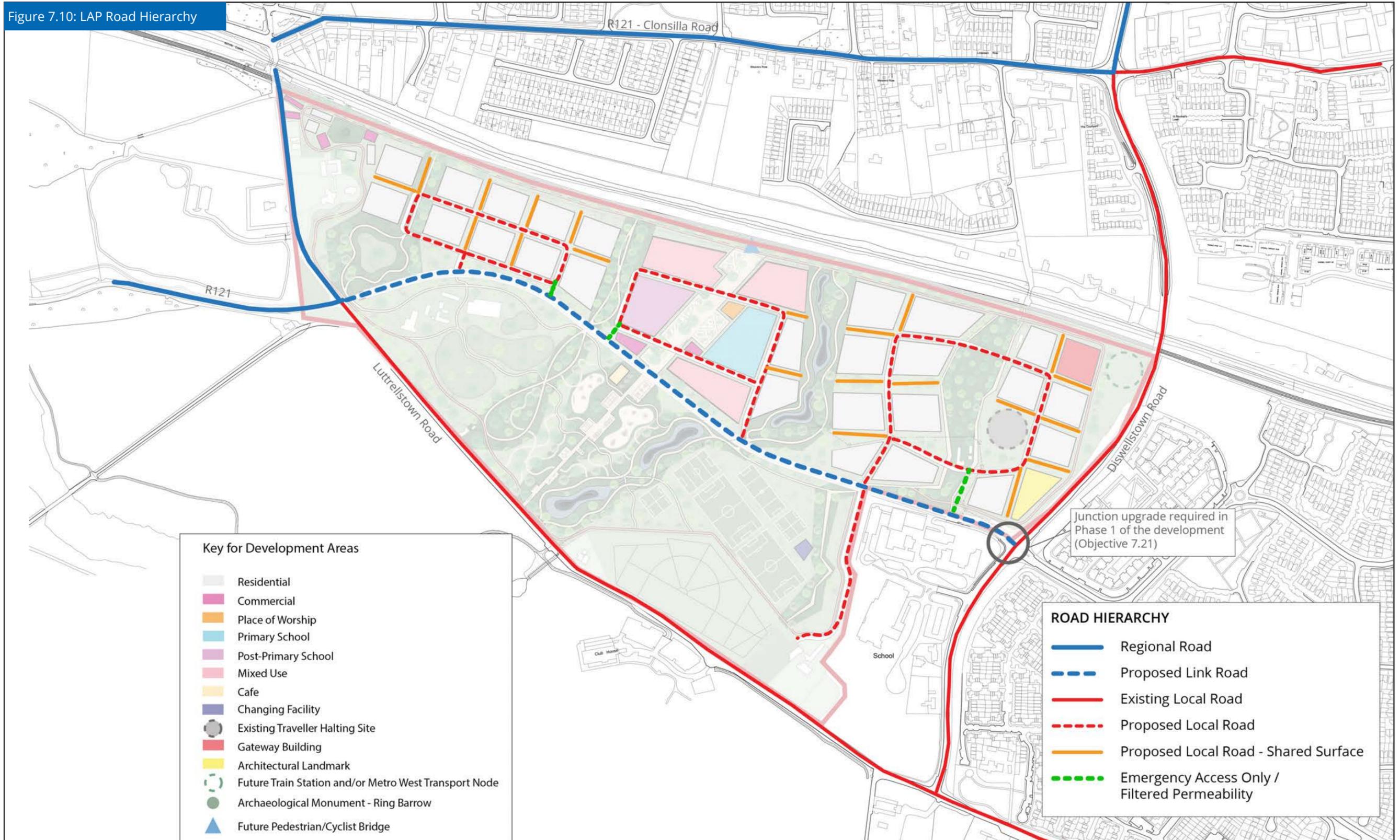


Figure 7.11: LAP Walking & Cycling Network

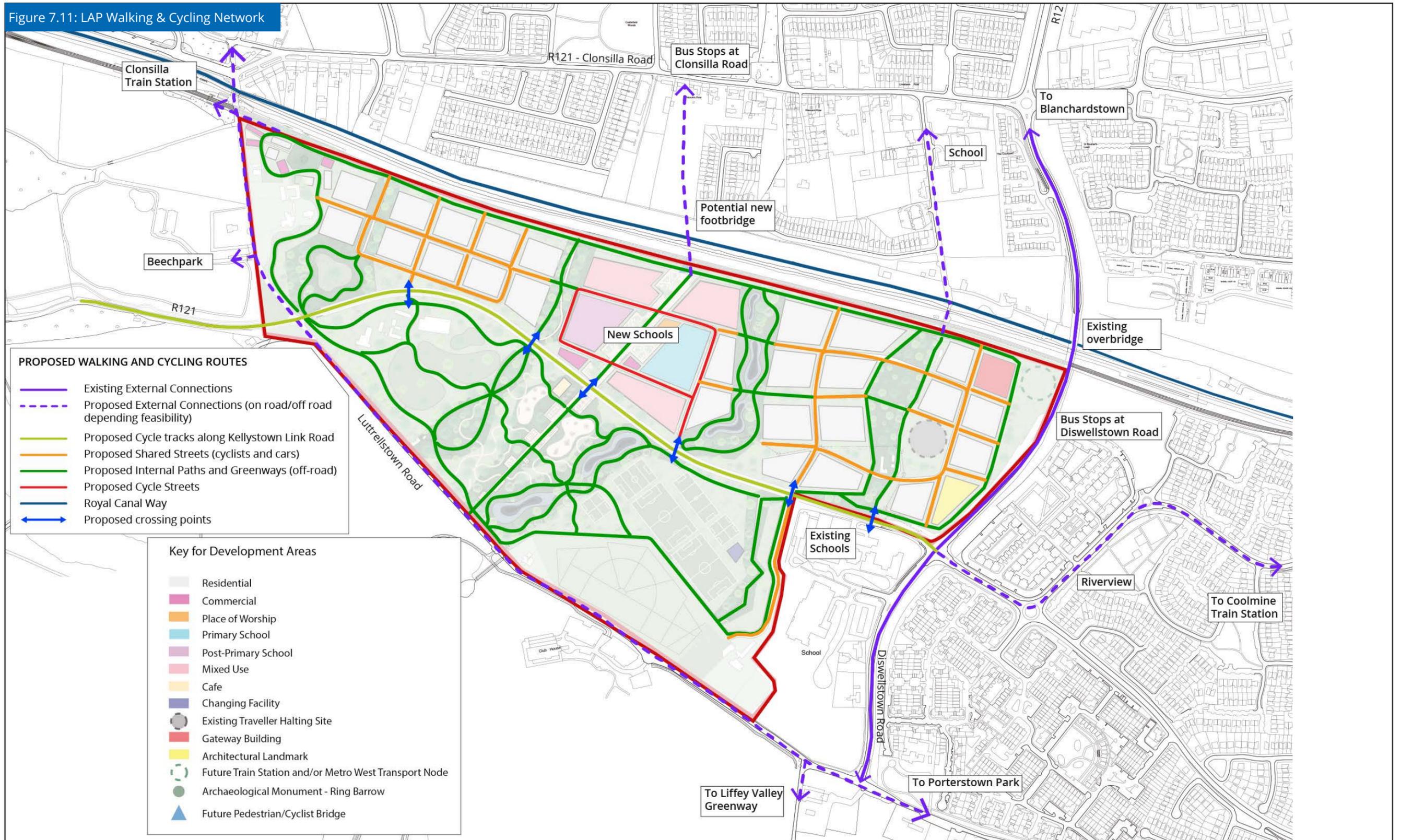
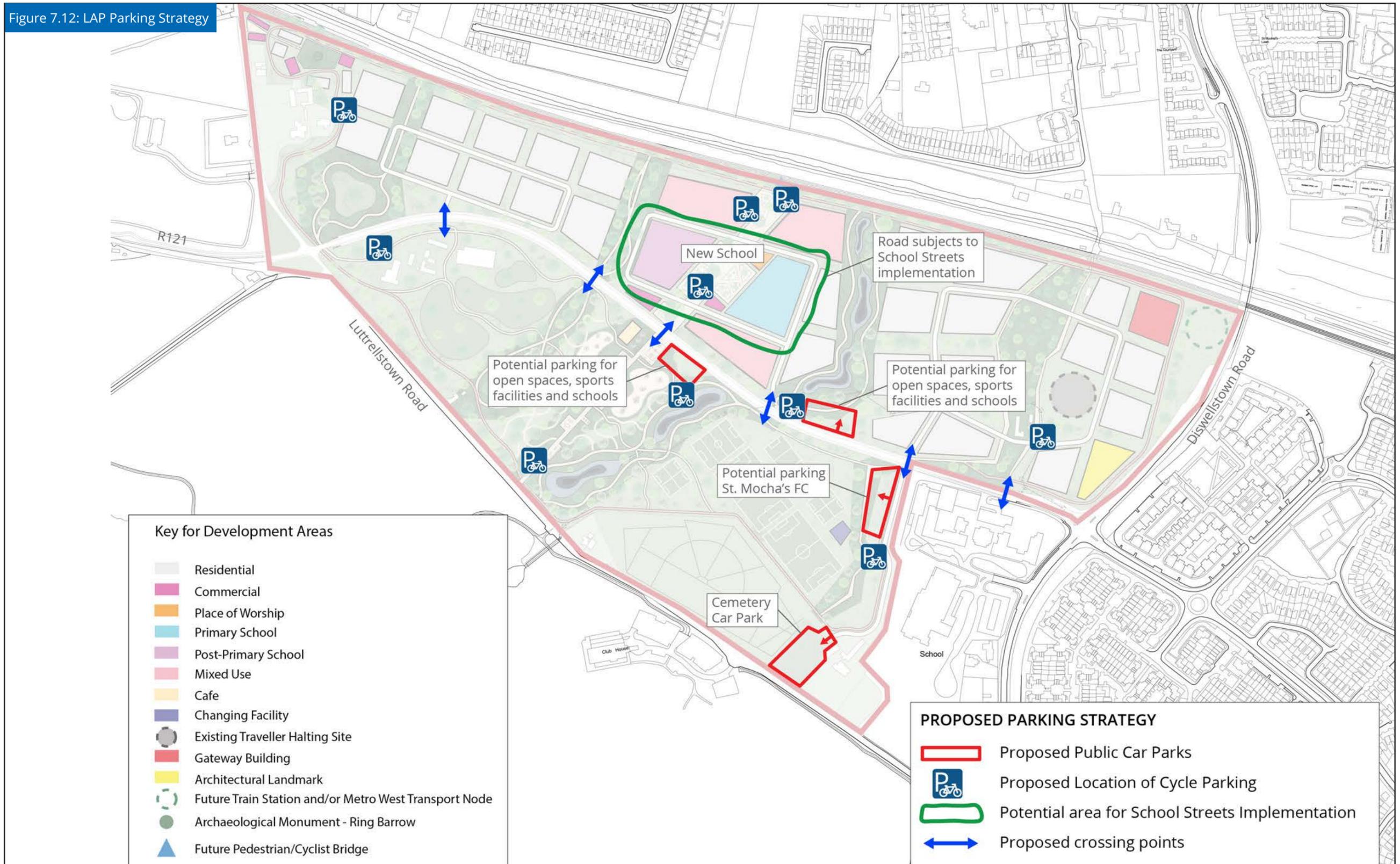


Figure 7.12: LAP Parking Strategy



8 Green and Blue Infrastructure

8.0 Introduction

'Green and blue infrastructure' describes the network of green spaces and natural elements such as open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, natural heritage and open countryside that intersperse and connect cities, towns and villages. These areas both sustain environmental quality and enrich the quality of people's lives through the provision of places for children to play, for people to meet and socialise, as well as a place for people to exercise. They also help to build resilient communities capable of adapting to the consequences of climate change.

The Fingal Development Plan 2017-2023 contains a statement of policy for the creation of integrated and coherent green infrastructure in the County that will:

"Ensure that areas and networks of green infrastructure are identified, protected, enhanced, managed and created to provide a wide range of environmental, social and economic benefits to communities".

8.1 Green Infrastructure Themes*

The Development Plan identifies five key themes to be addressed when considering the contribution that green infrastructure can make and these are as follows:

- Biodiversity;
- Parks, Open Space and Recreation;
- Sustainable Water Management;
- Archaeological and Architectural Heritage; and
- Landscape.

*The Development Plan states as follows regarding Green Infrastructure in LAPs: "A key objective of green infrastructure planning is that green infrastructure management and provision is integrated with plans for growth and development. The preparation of local area plans provides a key opportunity for the protection, management, enhancement and provision of green infrastructure which is fully integrated with new development. All local area plans will be required to provide for green infrastructure which addresses the objectives for the five GI themes".

*Objective GI18 further states as follows in this regard: "Require all Local Area Plans to protect, enhance, provide and manage green infrastructure in an integrated and coherent manner addressing the five GI themes set out in the Development Plan – Biodiversity, Parks, Open Space and Recreation, Sustainable Water Management, Archaeological and Architectural Heritage, and Landscape".

Key Goals:

- Improve the amenity of the Royal Canal/Rail Corridor by providing a riparian corridor for the enjoyment of residents and visitors;
- Retain existing treelines and hedgerows of value (defined herein) and incorporate into future development proposals;
- Sensitively integrate the identified Ring Barrow (DU013-018) into the future open space provision of the LAP lands;
- Protect and foster biodiversity by providing green routes that can facilitate fauna movement, running along identified treelines and hedgerows of value;
- Minimise the severing effect of the proposed Kellystown Link Road to biodiversity through the provision of appropriate mitigation measures;
- Improve the liveability of Kellystown by creating green links between open spaces and other key assets, such as existing and future schools; and
- Take advantage of the opportunities created by the requirement to incorporate SuDS features to ensure that these areas enhance the landscape quality of the area.

Reference	Title	Location	Description
RPS No. 698/ NIAH No. 11361004	Kennan Bridge	Royal Canal/Porterstown Road (outside LAP lands)	Late 18th century single-arched stone road bridge over Royal Canal.
RPS No. 699/ NIAH No. 11361005	Keeper's Cottage	Porterstown Road Railway Crossing (outside LAP lands)	Mid-19th century Rail Keeper's Cottage at rail crossing.
RPS No. 700/ NIAH No. 11361001	Former Clonsilla School	West of Porterstown Road (outside LAP lands)	Mid-19th century three-storey former school building.
RPS No. 706/ NIAH No. 11353003	Callaghan Bridge	Royal Canal/R121 (outside LAP lands)	Late 18th century single-arched stone road bridge over Royal Canal at Clonsilla Rail Station.
RPS No. 707/ NIAH No. 11353004	Clonsilla Signal Box & Overbridge	Clonsilla Railway Station (outside LAP lands)	Mid-19th century signal box and cast-iron pedestrian overbridge at Clonsilla Train Station. Station building demolished and replaced by modern structure.
RPS No. 727/ NIAH No. 11361008	Home Villa	Porterstown Link Road (outside LAP lands)	Four-bay two-storey 19th century former presbytery/parochial/curate's house.
RPS No. 944a	Royal Canal	Royal Canal	Late 18th century man-made canal, including the tow paths, the canal channel with its stone and earth banks, and the canal locks (10th, 11th and 12th Lock).
RPS No. 945/ NIAH No. 11361007	The Gables	Luttrellstown Road (within LAP lands)	Detached three-bay single-storey house mid-19th century house with distinctive advanced gabled-fronted bays added in late 19th century.
SMR No. DU013-018	Barrow - Ring Barrow	Adjacent to the Dublin-Maynooth railway line at Greenmount (within LAP lands)	Three conjoined circular features in paddock.

Table 8.1: List of Protected Structures & Recorded Monuments

Sheets 14-16 of the Fingal Development Plan map the key green infrastructure features of the County under the above themes. With regard to Kellystown, the following are key features:

- Protected Structures and Recorded Monuments as identified in Table 8.1;
- The entire LAP area falls within the 'Highly Sensitive Landscape' designation;
- The Royal Canal Greenway network which runs along the opposite (northern) side of the Royal Canal;
- Open Space Zoning, which covers the southern portion of the LAP lands (25.8 hectares);
- The Architectural Conservation Area (ACA) located to the south of the Luttrellstown Road, encompassing Luttrellstown Castle (Protected Structure RPS No. 0723);
- The Base Cycle Network that runs to the east of the LAP lands, along the Diswellstown Road; and
- Annex 1 Habitat mapping of the Royal Canal as well as much of the hedgerow network within the LAP land.

8.2 Biodiversity

The Development Plan sets out the requirements for the preparation of the Kellystown LAP including, *inter alia*, the following:

"Provide a study of the trees, hedgerows and other features of biodiversity value suitable for retention and a programme agreed with the Council's Biodiversity Officer as to how these features can be protected or improved and the biodiversity value of the Canal maintained or improved".

In response to the above requirement and to facilitate the preparation of the LAP, the following biodiversity studies have been prepared:

- Habitat and Flora Survey of subject lands;
- Hedgerow Appraisal Survey;
- Bat Survey - two transects between June to September 2019; and
- Bird Survey.

From a biodiversity perspective the fields and their boundaries have the potential to be species rich because of the mature and dense native hedgerows (some of which were recorded on the 1st Edition OS map series) and the grassland which would have represented dry calcareous grassland prior to grazing and current land management practices. Every effort should be made

to protect and maintain the hedgerows in future development proposals as they represent ecological corridors and important refuges for wildlife, performing a vital ecosystem function. Less intensive grazing and cessation of routine herbicide use would, over time, allow some of the characteristics of the grassland to recover.

The surveys carried out on site revealed the presence of fine mature ash on site, as well as areas that were evidently diseased. It is an objective of this LAP to manage the spread of Ash Dieback Disease insofar as possible. Where issues arise surrounding ash mortality, the following replacement species are recommended:

- Hawthorn
- Blackthorn
- Rowan
- Elder

- Holly
- Oak

The proximity of the lands to the railway line means that there is an ongoing risk of disease spread as well as the potential for the introduction of invasive alien species, such as Japanese Knotweed (*Fallopia japonica*) and Winter Heliotrope (*Petasites fragrans*). Regular surveillance and early intervention measures are essential to prevent the spread of such species. Snowberry (*Symphoricarpos albus*) was noted on site and although widely planted in Ireland in the past, has become highly invasive. Appropriate monitoring and maintenance will be necessary to address further spread.

The green infrastructure objectives of the LAP are informed both by the results of the baseline ecological surveys undertaken, as well as scientific research and good practice in the area of green and blue infrastructure.



8 Green and Blue Infrastructure

8.3 Landscape

As referred to, the entire LAP area falls within the 'Highly Sensitive Landscape' designation and is located within the 'River Valleys/Canal character type.

The Royal Canal (a protected structure) and its corridor provide valuable habitat for fish and other species and is a pNHA. This character type is further categorised as having a high value, due to the visual and recreation qualities contained therein. The Development Plan includes a number of principles for development in relation to highly sensitive landscape character type areas and includes the following:

- Field and roadside hedgerows should be retained. Proposals necessitating the removal of extensive field and roadside hedgerows should not be permitted;
- The retention and active management of trees and woodland blocks should be promoted;
- The use of trees and woodlands to contain new development should be encouraged. Strong planting schemes using native species, to integrate development into these sensitive landscapes, will be required. New planting needs to be carefully located and selected; and
- Establish riparian corridors free from new development along all significant watercourses in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from top of bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a 30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required.

Landscape Setting

Kelystown has a distinct boundary to the north, in terms of the Royal Canal and the Dublin-Maynooth railway line. The Diswellstown Road provides the boundary to the east, beyond which is suburban style housing in Carpenterstown. To the south and west, the lands are surrounded by high amenity zoned lands which provide a distinct break between Kelystown and other suburbs/settlements.

8.4 Archaeology and Architectural Heritage

Fingal's archaeological heritage is a non-renewable resource. As such, its protection is provided for under the National Monuments Acts 1930-2014 and the Planning & Development Act 2000 (as amended). The statutory instrument utilised under

the National Monuments Acts is the Record of Monument and Places (RMP) which comprises all sites and monuments that were known at the time of publication (1998). Monuments and archaeological sites identified subsequently are listed by the National Monuments Service, Department of Culture, Heritage and the Gaeltacht for addition to the RMP in the Sites & Monuments Record (SMR). The Development Plan requires that all sites and features of archaeological interest discovered subsequent to the publication of the Record of Monuments and Places are protected.

Objective CH03 of the Fingal Development Plan 2017-2023 states as follows:

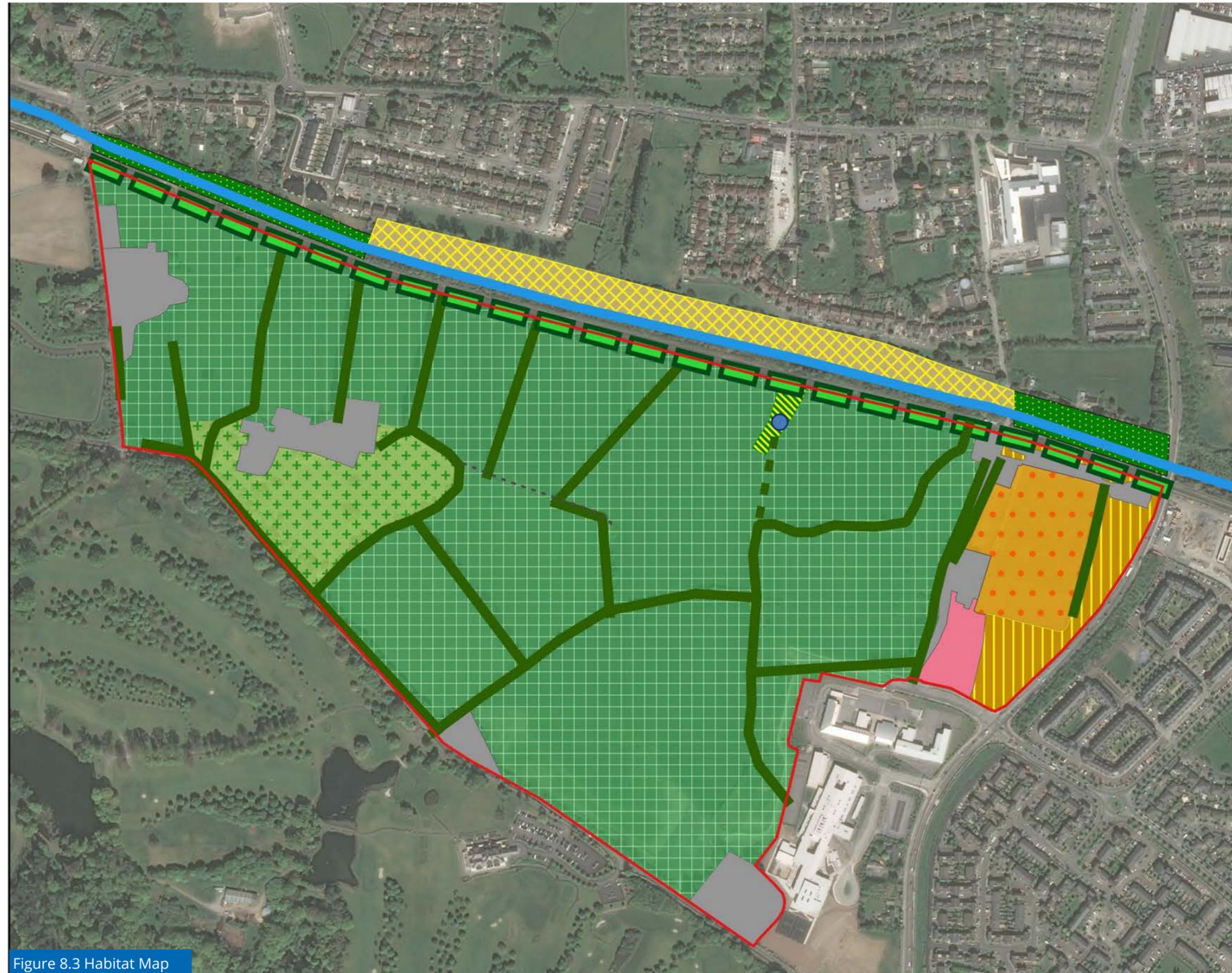
"Protect all archaeological sites and monuments, underwater archaeology and archaeological objects which are listed in the Record of Monuments and Places and all sites and features of archaeological and historic interest discovered subsequent to the publication of the Record of Monuments and Places and to seek their preservation in situ (or at a minimum preservation by record) through the planning process".

The LAP lands contain an archaeological site in the form of a Ring Barrow, as suggested by a series of three interconnected circular mounds located in the north-west portion of the LAP lands. The site consists of three conjoined circular features comprising an external bank with an average width of 2.5m and a height of 0.6m which is situated adjacent to the railway line at Greenmount. However, a site visit to the lands as part of the preparation of the LAP lands revealed that the location has been incorrectly mapped in both the Archaeological Survey of Ireland and by extension in the Development Plan mapping. The actual location is identified on Figure 8.6. The form of the feature indicates a burial mound.

Given the significance of the site, it is important that future development proposals are cognisant of the potential of sites in the vicinity to yield further archaeology. Indeed, the site visit revealed the presence of another circular anomaly approximately 40 metres to the south. It is an objective of this LAP that further archaeological investigations takes place prior to the commencement of development in this area and that the identified Ring Barrow be appropriately acknowledged and



Figure 8.2: Kennan Bridge on the Porterstown Road. Built 1790-1810 and a Protected Structure



Kellystown Local Area Plan

Habitat Map
September 2019

- Kellystown Site Boundary
- Habitats**
- BL3 - Buildings & Artificial Surfaces
- ED3 - Recolonising Bare Ground
- GA1 - Improved Agricultural Grassland
- GA2 - Amenity Grassland
- GS1 - Dry Calcareous Neutral Grassland
- GS2 - Dry Meadows & Grassy Verges
- WD5 - Scattered Trees & Parklands
- WN2 - Oak – Ash- Hazel Wood
- WN4 - Wet Pedunculate Oak – Ash Wood
- FW3 - Canal
- WD1 - (Mixed) Broadleaved Woodland
- WL1 - Hedgerow
- WL2 - Treelines
- FL8 - Artificial Lakes & Ponds
- Track

Figure 8.3 Habitat Map

8 Green and Blue Infrastructure

protected, potentially by being incorporated into an area of open space.

Royal Canal

The Royal Canal (Protected Structure - RPS No. 944a), as well as the various bridges and structures associated with the canal, are an integral part of the County's architectural heritage. Construction of the Royal Canal began in the late 18th century, with the Canal designed to facilitate freight and passenger transport between Dublin and the River Shannon. There is a range of physical assets associated with the canal along its length, including stone walls, bridges and locks. The key piece of physical infrastructure in the vicinity of the LAP lands, apart from the Canal itself, is the Callaghan Bridge at Clonsilla Station and the Kennan Bridge on the Porterstown Road.

Objective CH43 of the Development Plan states as follows regarding the Canal:

"Protect and enhance the built and natural heritage of the Royal Canal and ensure that development within its vicinity is sensitively designed and does not have a detrimental effect on the character of the Canal, its built elements and its natural heritage values and that it adheres to the Waterways Ireland's Heritage Plan 2016-2020".

Luttrellstown Demesne

Luttrellstown Demesne plays an important role in the heritage of Kellystown. The Demesne is located outside of the LAP area on the southern side of the Luttrellstown Road. Luttrellstown Castle is protected under the Development Plan (RPS No. 723) and described as:

"Early 19th century Gothic house, incorporating remains of 17th century mansion (including outbuildings, gate lodges, follies, gates & gate piers)".

Luttrellstown Demesne is also a designated Architectural Conservation Area (ACA).

The demesne consists of the historic house which can be hired for events, as well as a golf course.

8.5 Green Routes - Improving Accessibility and Creating Links

Green corridors are identified in the Development Plan as

linear open spaces along paths, water courses, planting or other natural features that provide opportunities for walking and cycling, informal recreation, and biodiversity and wildlife migration.

Green routes should be incorporated into all new large developments, in order to link areas of open space, as well as to create connections to places outside of the LAP lands, including Clonsilla, Carpenterstown/Castleknock, as well as westwards toward Beech Park.

The LAP facilitates the provision of a network of cycle and pedestrian routes, which have been selected based on their ability to (i) connect neighbourhoods within Kellystown to each other; (ii) ability to connect people in Kellystown to external routes; and (iii) their amenity value and deliverability. These routes are an integral component in the overall movement network, providing a sustainable way of moving/travelling around Kellystown.

The completion of these routes will be facilitated as part of the

proposed development of the LAP lands and will be integrated into the phasing programme outlined in Section 12. All routes within/adjacent to new residential areas should be directly overlooked to ensure a high degree of informal supervision and to encourage their use. The routes indicated shall be provided and constructed at the developer's expense and provided through the development management process.

Hedgerows and Treelines

All fields within the LAP area are enclosed by hedgerows and treelines. The study area supports approximately 5.66km of linear hedgerow and treelines. It is an objective of the LAP that the hedgerows and treelines of significant ecological and biodiversity value be retained and enhanced in future development applications.

Retained hedgerows on site should be managed to provide a diversity of structure along the hedgerow, that include tall sections over 5m in height as well as shorter sections, less than 3m in height. The varying structure in hedgerows is important for enhancing the role of this habitat in supporting a greater



Figure 8.4: Royal Canal



Figure 8.5 Valuable Hedgerows - Approximate Locations Identified

8 Green and Blue Infrastructure

variety of bird species.

The lands also contain three poplar treelines (H3, H4, H14). These have been recently planted (less than 40 years) and have low ecological value due to consisting of a monospecies and of narrow base with little ground flora. Given their species (matchstick poplar), age and height, they also have a propensity to snap in stormy weather. It is not a requirement of the LAP to retain the lines of poplars in future development proposals.

Manmade Pond

Associated with the infrastructure of the Royal Canal is a canal pond accompanied by surrounding woodland. The woodland is not present on the 1st edition Ordnance Survey map whilst the pond is marked. It is likely that the construction of the railway, closely after the Royal Canal construction, rendered this pond unusable for its original purpose to hold bricks and the mixed treeline developed around the pond. Based on a visual inspection, the pond has no obvious water supply in evidence. The pond is heavily shaded by the surrounding woodland and shows signs of nutrient enrichment with vegetation dominated by duckweed.

The pond should be managed as a pond for wildlife and a buffer of 5m is recommended to protect the pond from any development proposals. An aquatic survey would be beneficial to determine the current condition and use of the pond by wildlife and should inform any future management proposals.

Blue Infrastructure

The LAP proposes the provision of a signature Green and Blue Corridor field boundary along the western boundary of the proposed sports pitches/MUGAs (see Figure 8.7). A wide swale and pond necklace landscape treatment will be provided along this boundary that will accommodate Hedgerow 13, part of H8 and H7.

These ponds should be managed for wildlife. The bank slopes should vary in gradation with the development of marginal wetland habitats being facilitated along shallow graded slopes. Patches of wet woodland, wet scrub and marginal, emergent vegetation should be provided around the edges of the ponds. Wet woodland and scrub species should include native willow species (*Salix* sp.), and alder. The dominant emergent vegetation can include a range of species including *Carex rostrata*, *Carex paniculata*, *Typha latifolia*, *Phragmites australis*

and *Iris pseudacorus*. Optimum water depths for large sedges and reeds are up to 5 cm. Marginal wetland plant communities should be provided in areas that will not be susceptible to prolonged drying out.

Filter strips should be provided either side of new swales. The centre of the swale should be managed as a damp area and planted with hydrophilous species typical of the area. Only clean surface water runoff should be channeled into wildlife ponds.

Protection of Bats and other Wildlife

The following key principles for public lighting along Green Corridors (i.e. all retained and new hedgerows and treeline corridors) within the LAP should be implemented to reduce the potential negative impacts of lighting on wildlife:

- Where feasible a Central Monitoring System (CMS) for lighting should be used for all public lighting within the plan Area. This will facilitate the implementation of a variable lighting regime (VLR) to suit both people and wildlife within the plan Area;
- All external lighting should be downlighting and should be time limited where possible. Lighting should be avoided in sensitive wildlife areas and light pollution, should be avoided insofar as possible. Any additional nocturnal illumination of the canal corridor resulting from the development of the LAP should be kept to a minimum;
- As identified in Figure 8.5, maintain a “Dark Corridor” along the railway boundary treeline (H2), hedgerow H5, and the retained treelines associated with the wetland park (H7, H8, H13 and H16);
- There will need to be careful consideration of potential light spill onto the dark corridor and associated active open space infrastructure. There should be an avoidance of light closest to the wetland park area as this will represent a key mitigation measure as a commuting and foraging area for bats and other wildlife;
- Maximise the spacing between lights to reduce light intensity;
- Reduce light spill by directing light only where it is needed. The upward spread of light above the horizontal plane should be avoided. This will be achieved by installing low beam angle lights, less than 70 degrees above the horizontal plane;
- Blue-white short wavelength lights should be avoided; and

- Lights with a high UV content should be avoided.

Kellystown Link Road - Minimisation of severance effects

The proposed Kellystown Link Road will run from east to west across the LAP lands. While the road will undergo a formal planning process, any potential alignment of the road in keeping with the objective shown in the Development Plan will have a severance effect within the LAP lands. In order to minimise the effect on biodiversity, the following measures are proposed:

- Illumination associated with the road should be carefully considered and avoid excessive light spill as outlined above;
- In line with Transport Infrastructure Ireland Guidelines (2019) additional higher tree planting should be extended through the proposed street where it intersects with the existing hedgerow network to encourage higher flight by bats over these crossings. In particular, the following intersections

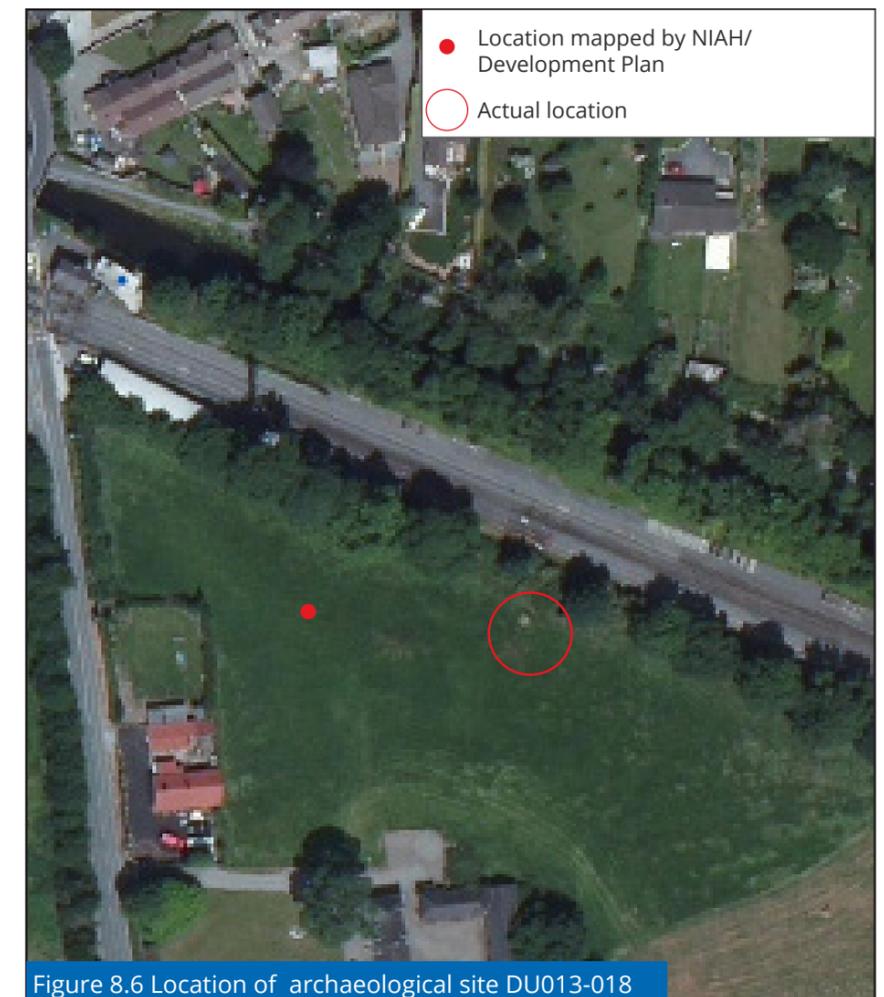


Figure 8.6 Location of archaeological site DU013-018

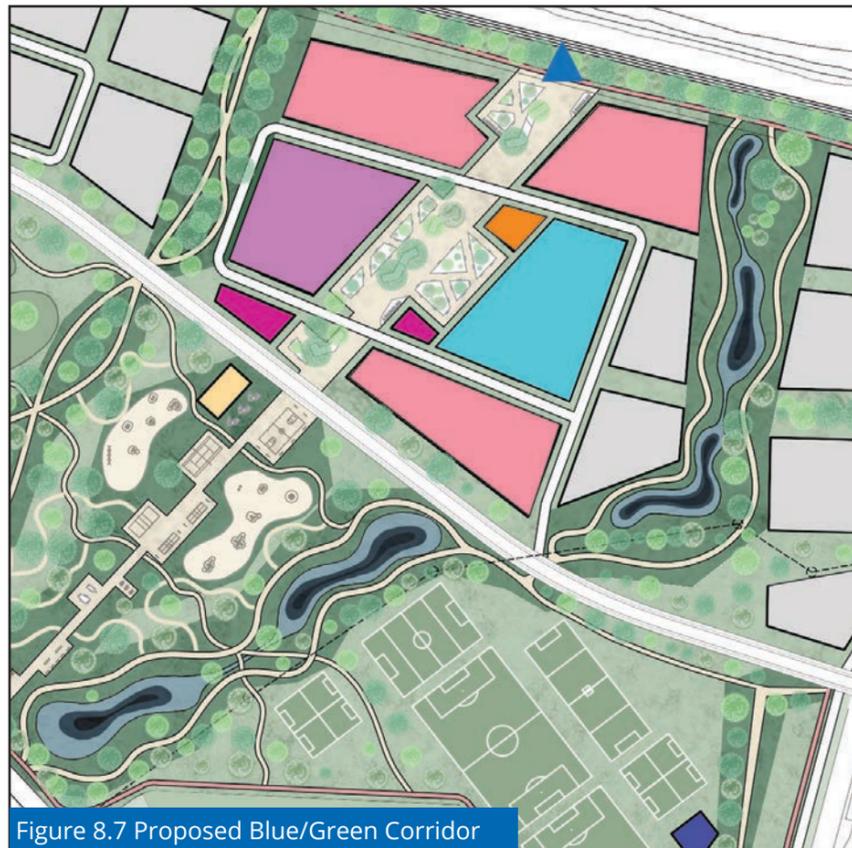


Figure 8.7 Proposed Blue/Green Corridor

with hedgerow is essential to both provide for additional tree planting and absence of light – H1, H5, H8, H12 and H13. Detailed design should consider the provision of green verges associated with these locations and comprising suitable tree planting of fast growing, native species. Tree planting on verges should commence in advance of road construction to allow the advance, establishment and growth of tree species along these verges;

- The feasibility of providing a mammal corridor shall be examined during the design stage of the Kellystown road at a point linking the northern and southern SuDs components to allow large mammals such as otters and badgers to travel through the plan lands from north to south (from the Royal Canal to the Liffey Valley via Luttrellstown Demesne);
- The installation of bat bricks as part of new buildings to provide for new bat roosting sites (as recommended in the Biodiversity for Low and Zero Carbon Buildings: A Technical Guide for New Build (RIBA and BCT 2010) shall be considered for properties located along the northern boundary of the Plan lands and in the vicinity of the riparian corridor and SuDs features; and

- The installation of swift boxes as well as nest boxes for house martin, swallow and sparrow, on new taller buildings shall be considered in all developments.

8.6 Green and Blue Infrastructure Objectives of the LAP

Below are the objectives for the delivery of green and blue infrastructure within the LAP area:

Objective 8.1

Promote the conservation and enhancement of biodiversity having regard to the policies and objectives of the Fingal Development Plan, the Fingal Heritage Plan and the Fingal Biodiversity Plan while allowing for appropriate development, access arrangements and recreational activity.

Objective 8.2

Ensure that proposals for the riparian corridor running along the Royal Canal/Rail Corridor make adequate provision for the protection of biodiversity and sustainable water management.

Objective 8.3

Protect existing trees and hedgerows within the LAP lands which are of amenity or biodiversity value as identified on Figure 8.5.

Objective 8.4

Incorporate identified trees and hedgerows into future development proposals in order to maintain and contribute to the landscape character of the area, insofar as practicable.

Objective 8.5

Conserve, protect and enhance existing trees and hedgerows within the LAP lands which form wildlife corridors and link habitats providing the stepping stones necessary for wildlife to flourish.

Objective 8.6

Require all development proposals within 30 metres of the Canal Pond to be accompanied by an Ecological Impact Assessment. This shall be prepared by a qualified Ecologist and in line with Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater and Coastal (CIEEM 2nd Edition, 2016).

Objective 8.7

Require all development proposals to demonstrate how the proposal will enhance biodiversity and avoid or minimise the

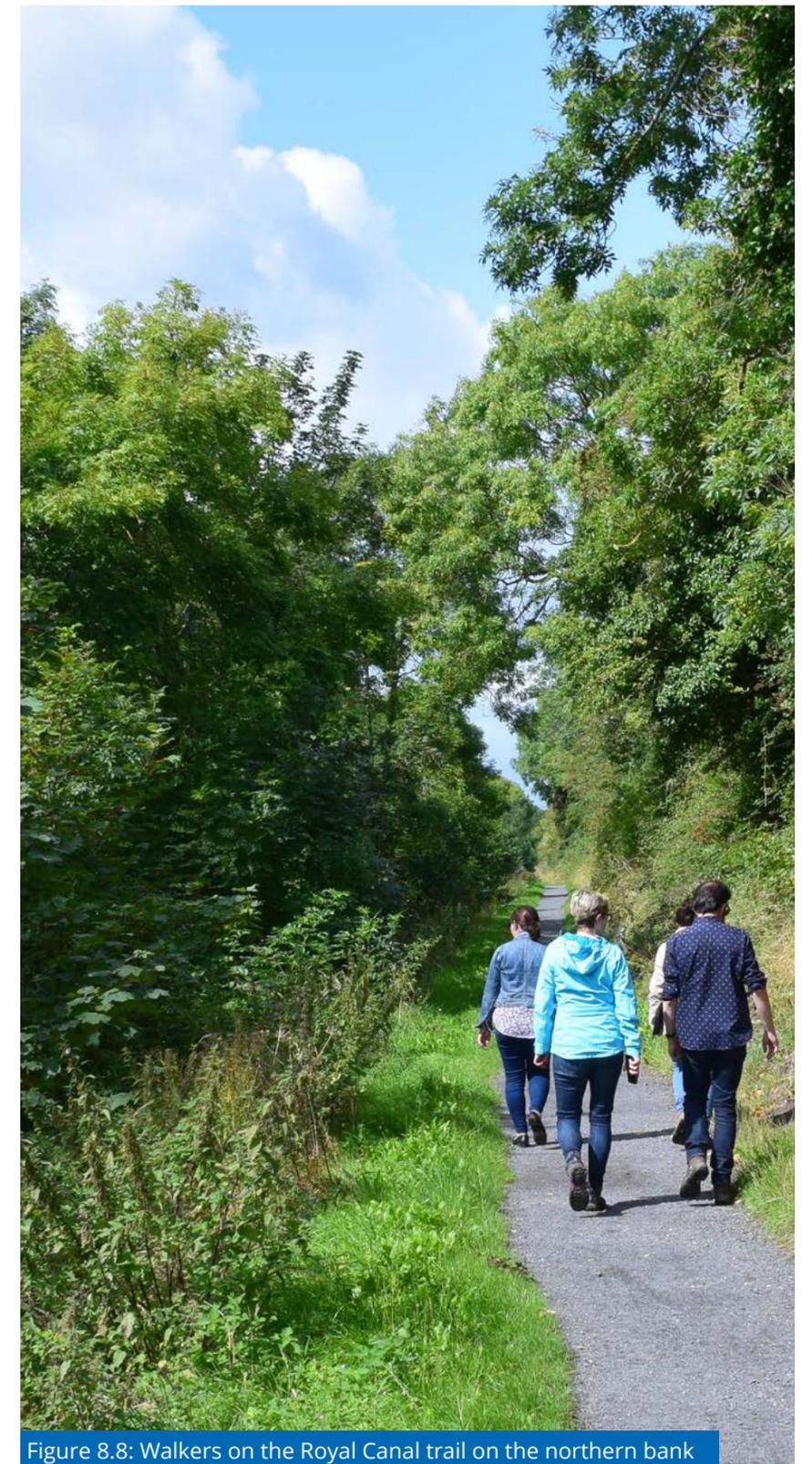


Figure 8.8: Walkers on the Royal Canal trail on the northern bank

8 Green and Blue Infrastructure

loss of existing habitat and wildlife corridors.

Objective 8.8

The following existing hedgerows/treelines, shown on Figure 8.5 shall be retained: H2, H5, H8, H12, H13, and H16, except where required to facilitate the construction of the Kellystown Link Road.

Objective 8.9

Retained hedgerows shall be maintained so that a diversity of hedgerow structure is provided, including tall and short section ($\leq 3\text{m}$) sections, with thick and dense cover at the base of the hedgerow. Gaps along hedgerows shall be minimised except to facilitate pedestrian access or visual permeability at appropriate locations.

Objective 8.10

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 development within 10m of existing hedgerows within the LAP lands.

Objective 8.11

A new pedestrian/cycle bridge shall be provided over the Canal from the Central Development Area (DA2), subject to a future feasibility study and necessary environmental assessments and shall be provided at the developer's expense.

Objective 8.12

Where new crossings of the Canal are proposed i.e footbridges/cycle bridges, they shall be designed so as to avoid fragmentation of linear habitats associated with the Royal Canal Corridor.

Objective 8.13

Where hedgerows cannot be retained, or will be severed, a new hedgerow network composed of the same species shall be planted along roadways within future development proposals.

Objective 8.14

The pond should be managed as a pond for wildlife and a buffer of 5m is recommended to protect the pond from any development proposals.

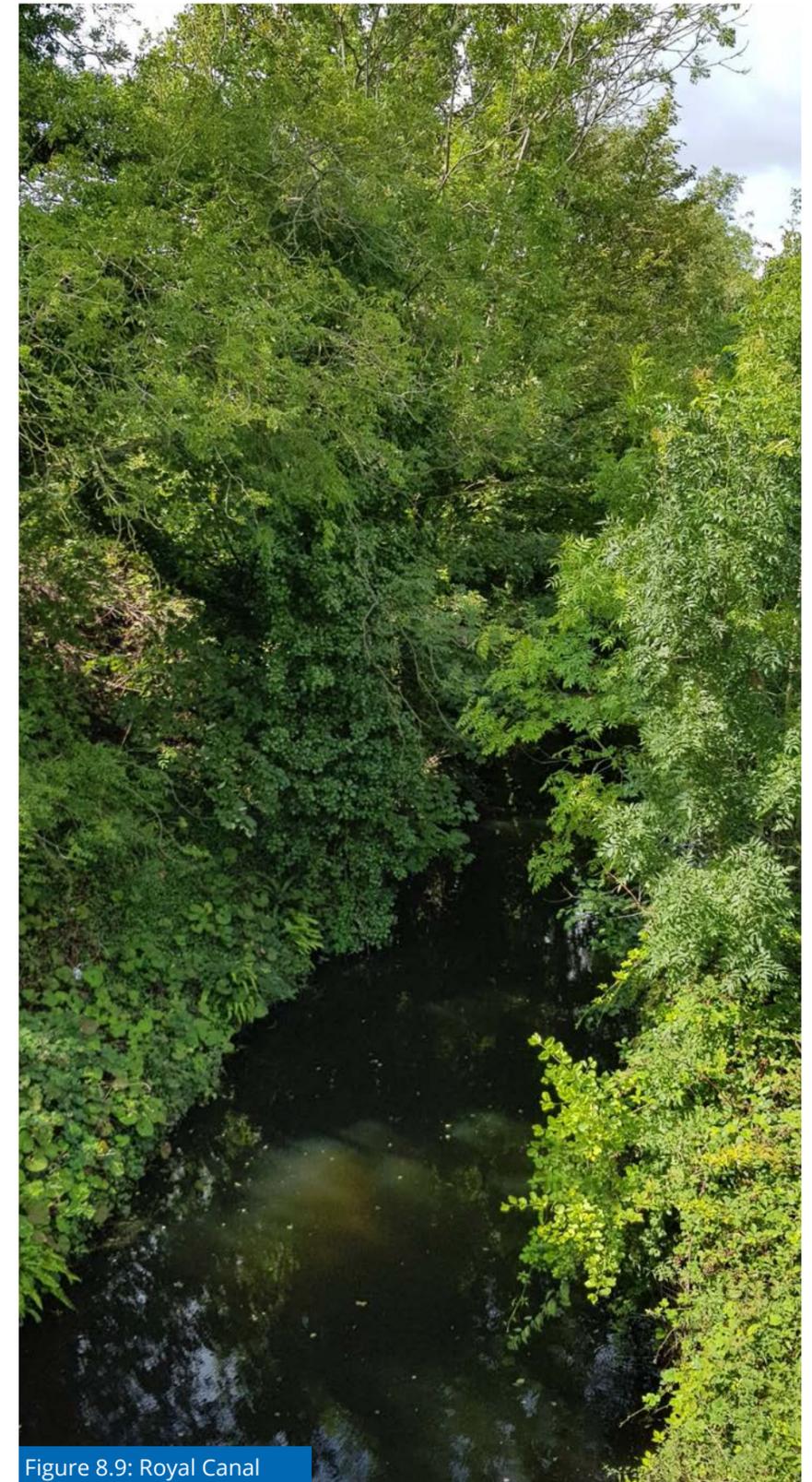


Figure 8.9: Royal Canal

9 Parks, Open Space and Recreation

9.0 Introduction

A key component in the development of a successful, sustainable LAP is the provision of high quality accessible open space. Such open space must be appropriately designed and conveniently located in order to serve the recreational requirements of the community and is a core element in the provision of high quality green infrastructure. The Fingal Development Plan has identified five basic principles of open space provision as follows:

- Hierarchy - types of open space & accessibility;
- Accessibility - distance from homes;
- Quantity - required size of open space areas, benchmarked to population;
- Quality - design and usability of open spaces; and
- Private Open Space - gardens and balconies.

Key Goals

- Provide for the relocation of the St. Mochta's Football Club from its current location to a suitable location within the 'OS' zoned lands;
- Provide a new neighbourhood park to the south of the proposed alignment of the Kellystown Link Road to facilitate informal recreational activities;
- Create an active and vibrant local centre based around a central civic space/pavilion area;
- Facilitate off-road movements around the LAP lands and to adjacent areas by providing a high quality green network of cycle and walking routes through the LAP area; and
- Ensure that a suitable range of amenities are available to people of all ages and abilities.

The benefits of open space to a community include:

- Social/family recreation;
- Contribution to sense of place and identity;
- Health benefits, including mood and well-being;
- Exposure to natural environments and education;
- Fostering biodiversity;
- Protection of cultural assets through their integration into open space areas;
- Water management;
- Economic benefits, including attracting businesses serving tourists and visitors e.g. Luttrellstown Castle;
- Lifestyle and quality of life benefits that enable businesses to attract and retain talent;

- Improvements to visual amenity;
- Off-road cycle and walking tracks to enable segregated movement of cyclists and pedestrians away from traffic corridors;
- Personal reflection and wellness; and
- Managing temperatures and water flows in an urban environment in the context of a changing climate.

9.1 Hierarchy and Accessibility

Table 9.1 is an extract from the Fingal Development Plan 2017-2023 and sets out the public open space hierarchy and accessibility standards. For all developments with a residential component a mix of public open space types should be provided where possible.

The Kellystown LAP seeks to provide a mix of open space across the hierarchy detailed in Table 9.1. Beginning with the provision of Pocket Parks, such amenities will be required within all Development Areas and shall contain constructed tree pits incorporating SuDs elements where appropriate. Constructed tree pits will also be required along key streets and pedestrian/

cycle links.

Kellystown is located within the 5km catchment of both Tolka Valley Regional Park and St. Catherine's Regional Park, which are both categorised as Class 1 open space. Phoenix Park, part of which lies within Fingal, is the largest enclosed public park in any capital city in Europe and located approximately 4 km from the LAP lands.

The Phoenix Park first opened to the public in 1747 and provides perhaps the most important open space area in the city. The park is home to the Zoological Gardens, Áras an Uachtaráin, and Victorian flower gardens as well as a herd of roaming deer. The park accommodates a range of both passive and active recreational pursuits such as walking, running, polo, cricket, hurling, and many more. It also accommodates a range of events throughout the year.

Tolka Valley Park comprises approximately 140 hectares and includes wetland areas, wildflower meadows, woodland and pedestrian paths throughout and follows the Tolka River Valley

Table 9.1 Open Space Hierarchy and Accessibility (Extract from Fingal Development Plan 2017-2023)

Type of Public Open Space	Areas	Accessibility from Homes	Note
Pocket Parks (Class 2 as per Development Contribution Scheme) Facilities for smaller children, but not necessarily formal play facilities. Have an important visual and social function also. Pocket parks must not be to the side or back of houses and must be adequately overlooked.	Between 500 sq m -0.2 hectares.	Every home within 150m walking distance	Provide pocket parks in all cases. No contributions in lieu.
Small Parks (Class 2 as per Development Contribution Scheme) Depending on their size, these will accommodate playground facilities, kick about areas, and passive recreation.	Between 0.2 – 2 hectares	Within 400m walking distance of homes.	
Local Parks (Class 1 as per Development Contribution Scheme) Accommodate playground facilities and a number of playing fields. Passive recreational and biodiversity areas will also be accommodated in these parks.	Between 2 hectares-20 hectares	400 metres	
Urban Neighbourhood Parks (Class 1 as per Development Contribution Scheme). A wide variety of facilities and uses can be provided here due to their size. Biodiversity areas will also be accommodated in these parks.	Between 20 hectares and 50 hectares	Within 1km	
Regional Parks (Class 1 as per Development Contribution Scheme) Provide for a large range of uses. Formal and informal play areas biodiversity areas and often a distinct attraction will be available on site.	Over 50 hectares	Within 5km	

*Areas not counted in the Open Space calculation include:

- Environmental Open Space i.e. incidental or narrow pieces of open space used for the preservation of trees and/or as a visual relief and screen planting e.g. along roads.
- Green corridors.
- Areas of open space under high voltage electricity lines.

for 8km from Mulhuddard to Ashtown. The pasturelands and playing fields of the upper section give way to woodlands, undulating fields and wetlands, providing varied landscapes and natural habitats for a wide range of fauna. The river valley is rich in plant and animal life, a haven for biodiversity within the city, and local history.

St. Catherine’s Park/Lucan Demesne is located approximately 3.5 km to the west of the LAP area and is spread across counties Fingal, Kildare, and South Dublin. It consists of approximately 80 hectares of woodland and grassland, with the River Liffey dividing the southern lands of South Dublin County Council from the remainder of the park. The park contains a pedestrian bridge over the river which facilitates pedestrian access between Leixlip and Lucan. The key recreational and amenity uses of the park includes walking trails, including dog walking, jogging, cycling and formal sport activities such as soccer, Gaelic football, cricket and canoeing.

Millennium Park is located to the north of the LAP lands along the R121. Its amenities include two all weather astro pitches, a children’s playground, dog off lead area, skatepark, and exercise stations.

Shackleton Gardens, which include an internationally famous plant collection, were acquired by Fingal County Council in 2018 with a view to opening them to the public as an important visitor attraction. Funding has since been advanced for works involving the rebuilding of large sections of the garden walls, upgrading of paths and the restoration of garden buildings. The Gardens were once considered the best-walled gardens in the country, with a unique collection of plants located within a 0.6 hectare walled garden.

9.2 Quantity

For all developments with a residential component, the overall standard for public open space provision is a minimum 2.5 hectares per 1,000 population. High quality public and private open space shall be provided in accordance with the provisions of the Fingal Development Plan.

9.3 Quality

Open space is required to be designed to a high specification. Particular emphasis will be placed on the quality and long term sustainability of open space and details of the proposed hard and soft landscaping of these spaces will be required at planning

application stage. Public open space shall be designed and laid out so as to be overlooked in order to reduce/eliminate anti-social behaviour through passive surveillance.

9.4 Sustainable urban Drainage Systems (SuDS)

Sustainable urban Drainage Systems (SuDS) offers a ‘total’ solution to rainwater management and must be included in all new developments. Properly designed and located SuDS features can be incorporated within and can complement the amenity and aesthetic value of open spaces. SuDS areas do not form part of the public open space calculation/provision except where they contribute significantly to the design and quality of the open space. This determination shall be at the

discretion of the Planning Authority. Proposals with regard to the provision of SuDS infrastructure are set out within the Water & Infrastructure Services Section.

9.5 Private Open Space

Private open space is a key component of residential development and has a significant impact on the quality of life of those occupying new dwellings. All new residential development shall provide private open space to a high standard and in accordance with the Fingal Development Plan.

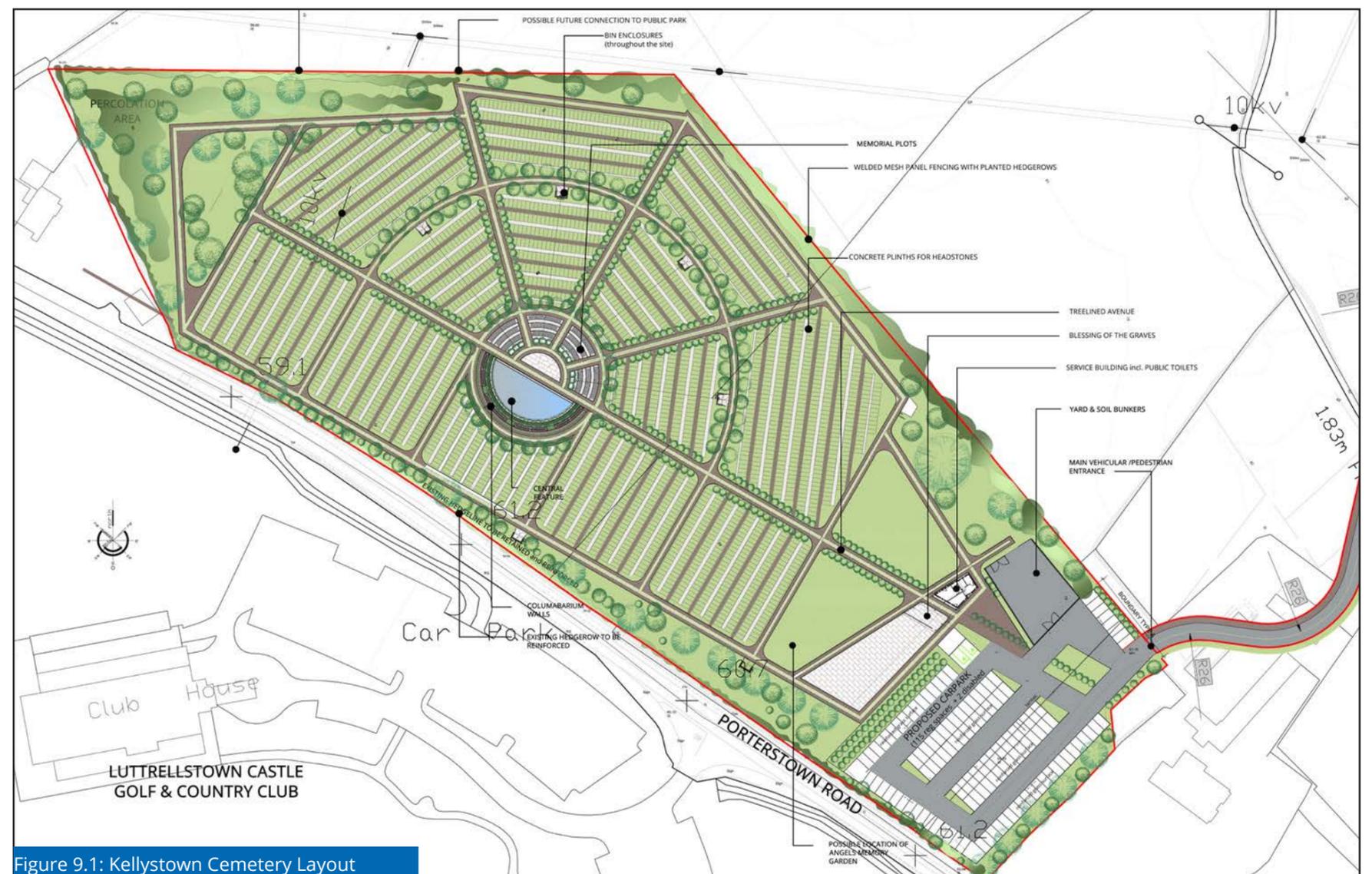


Figure 9.1: Kellystown Cemetery Layout

9 Parks, Open Space and Recreation

9.6 St. Mochta's Football Club

The importance of providing for active open space is acknowledged as a key component of supporting healthy lifestyles and communities. St. Mochta's Football Club, which has over 500 members and 25 football teams, is located within the LAP lands. Luttrellstown Golf Club, Castleknock Golf Club, and Castleknock Celtic are located nearby. The provision of active open space is important in terms of recreation and the health and well-being of nearby residents.

A requirement of the LAP is to facilitate the relocation of St. Mochta's Football Club to a new site north of the Luttrellstown Road. The proposed site is identified on lands immediately south of the Kellystown Road and to the west of the existing schools campus.

The relocation of St. Mochta's as part of re-development proposals on the existing club grounds shall not negate the requirement to fulfil all Class 1 and Class 2 open space requirements arising from the development and the football grounds shall not be accounted for as the required public open space provision for these LAP lands.

9.7 Zoning

The LAP lands contain a significant portion of 'OS' zoned lands at 25.8 hectares, or approximately 45% of the overall LAP area. The 'OS' zoning objective seeks to "preserve and provide for open space and recreational amenities".

The vision for the 'OS' land use zone is to "provide recreational and amenity resources for urban and rural populations subject to strict development controls. Only community facilities and other recreational uses will be considered and encouraged by the Planning Authority".

9.8 Existing Character and Usage

A mature hedgerow and trees along the northern boundary offers a defined visual barrier between the lands and Clonsilla village, located north of the Royal Canal. Luttrellstown Road, a country thoroughfare, frames the lands to the south. The lands at present are largely undeveloped and contain detached residential units and agricultural holdings.

The nine fields surveyed as part of the biodiversity survey correspond to improved agricultural grassland (GA1). Most of the fields are included within the curtilage of Kellystown House.

The standard management practice adopted on the estate is routine herbicide treatment of all hedgerow edges to prevent seed dispersal of noxious weeds such as docks.

9.9 Approved Burial Ground

Fingal County Council has commenced the development of a 3,000 burial plot cemetery on the LAP lands immediately north of the Luttrellstown Road. The development site is located on the Open Space zoned lands. The permitted cemetery will include 500 memorial plots and 500 niches in columbarium walls. A car park for 117 no. parking spaces will also be provided with access achieved from an extension to the access road to Scoil Cholim Community National School and Luttrellstown Community College. It should be noted that the permitted cemetery development, at present, does not provide for any permeability to the rest of the LAP lands.

9.10 Proposed Open Space

While the principal areas of new open space will be located within the 'OS' zoned lands, the development concept seeks to connect the residential components to the open space by ensuring connectivity and weaving open space elements through the residential areas, to create green neighbourhoods. Key pedestrian and cycle route improvements within the LAP lands will ensure a cohesive network of public open spaces is achieved for the benefit of all. Public open space will be provided with the aim of ensuring equitable access and catering to the needs of all members of the community, regardless of age or ability.

9.11 Open Space within New Development

New residential development will require appropriately located, well designed areas of high quality public and private open space. The quantum of public open space should comply in full with Development Plan requirements, must be of a high quality finish and design and must offer high levels of passive surveillance through design and siting of dwellings. An appropriately sized playground will be required on site as part of new residential development in accordance with Development Plan requirements and appropriate separation distances from all residential properties shall be maintained in accordance with the requirements of the Planning Authority.

9.12 Private Open Space

Private open space to serve the residential units will depend upon the mix and type of unit proposed and comply with Fingal

Development Plan standards, offering a high quality residential amenity to future residents.

9.13 Street Trees

Trees that form part of any landscaping plan along the proposed Kellystown Road must be provided in constructed tree pits. The road shall also accommodate a footpath and cycle path with trees located in suitably sized grass margins and shall be suitably lit.

9.14 Neighbourhood Park

The Development Plan includes the following objective for the Kellystown LAP lands:

"Create a new neighbourhood public park of a minimum of 8 hectares. This park shall be linked to Porterstown Park, Luttrellstown Road and Beech Park by dedicated pedestrian and cyclist facilities".

While the detailed design of the park will be subject to future planning process, it is recommended that the following elements be integrated into the park:

- A range of individual but linked play and recreation zones for all age groups;
- Provision of playgrounds;
- Active play areas to be situated within the north of the site, close to the proposed car parking to minimise travel distance within the park for families;



Figure 9.2: Coffee Shop with outdoor seating, Herbert Park, Dublin

- Informal and passive areas to include seating and picnic areas, areas for groups to gather or for small community events;
- Existing natural elements as well as traditional equipment to be used to create interesting spaces with varying character;
- Installation of walking and running tracks within the park and network of internal paths;
- Installation of an outdoor exercise area aimed at adults;
- Coffee shop and associated outdoor seating and public toilets; and
- Integration of public artworks to create visual interest and define the identity of the spaces.

The vision for the park is that of a range of interconnected spaces that is largely passive in nature, but with sufficient facilities to create enough activity and vitality to make it a centre point for the community.

9.15 Urban Farm

An Urban Farm is a highly managed rural oasis within the urban environment where people can come to learn about how food is produced and to encounter a range of animals. Urban farms typically incorporate:

- A range of commercial, community and educational events for people of all ages, such as how to grow your own food;
- Farmer's markets;
- Café/restaurant; and
- A range of animal enclosures.

Given the current and historical association of the lands with agriculture, the urban farm would be a suitable use and would help to define the character and identity of the area and to connect it to its history.

9.16 Dog Off Leash Park

The proposed dog off leash area, proposed within the western portion of the LAP lands, is designed to provide a safe and accessible space for residents and visitors to exercise their dogs. While the detailed design of the park is yet to be undertaken, the following elements should be considered:

- Incorporating different activity zones to enhance the play experience for dogs;
- An education/training zone where puppies can be taken to learn obedience training and to socialise with other young

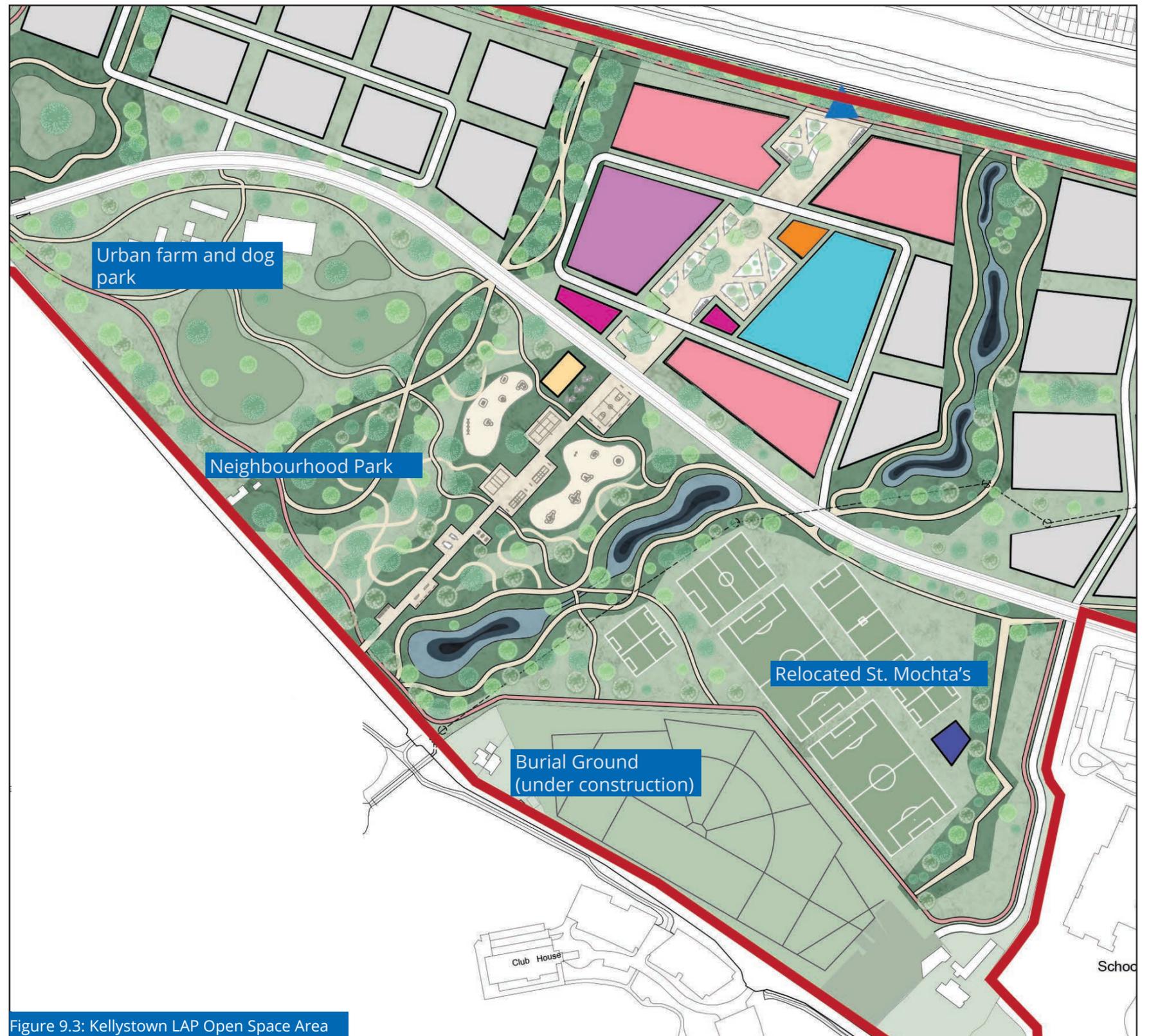


Figure 9.3: Kellystown LAP Open Space Area

9 Parks, Open Space and Recreation

- dogs;
- Small dog zone where smaller breeds can play safely away from larger dogs; and
- A runabout zone where dogs can run free within a stimulating environment.

9.17 Delivery

Recreational facilities will be delivered by a combination of appropriate financial contributions used to improve existing facilities within the 5km of the LAP lands, as well as by the provision of an 8 hectare park within the LAP lands and to facilitate the relocation of St. Mochta's Football Club. Funding for these facilities shall be by way of Financial Contribution, appropriate Development Contribution or through the development management process.

Class 1 open space generated by applications for residential development on the 'RA' Residential Area zoned lands shall be provided within the 'OS' Open Space zoned lands to the south or as agreed with the Local Authority.

9.18 Parks, Open Space and Recreation Objectives

The following are objectives of the LAP:

Objective 9.1

The Open Space Area shall accommodate a green route/corridor providing cycle and footpath facilities in parallel to Luttrellstown Road. The route shall provide for high quality pedestrian and cycle facilities, shall be tree lined, appropriately lit and afforded high levels of passive surveillance.

Objective 9.2

Provide for the relocation of St. Mochta's Football Club to the south of the proposed Kellystown Link Road. The new facility shall accommodate a similar range of facilities and pitches as currently provided for within the existing facility. The re-location, construction and completion of the facility shall be carried out by the developer to the specifications of the Planning Authority.

Objective 9.3

Provide a civic square within the Central Development Area (DA2). The civic square shall comprise 50% soft landscaping and be suitably landscaped and finished to a high standard in order to ensure its suitability for multi-functional usage.

Objective 9.4

Provide 2 Multi-Use Games Areas (MUGA) adjacent to the relocated St. Mochta's Football Club grounds for use by schools and the community.

Objective 9.5

The relocation of St. Mochta's Football Club to facilitate the re-development of the existing club grounds shall not negate the requirement to fulfil all Class 1 and Class 2 open space requirements arising from the development of the football grounds for residential purposes.

Objective 9.6

A programme for the re-location and completion of all works in relation to St. Mochta's Football Club shall be agreed with the Planning Authority in advance of or as part of re-development proposals for the existing grounds. All works in relation to the completion of the new re-located sports grounds shall be completed and made available to the club for use prior to the commencement of re-development proposals at the existing club site.

Objective 9.7

Appropriately sized playgrounds shall be provided as part of development proposals within the 'RA' Residential Area zoned lands and/or within the 'OS' Open Space zoned lands as agreed with the Planning Authority. Appropriate separation distances shall be provided between all residential units and new playgrounds with such distances agreed with the Planning Authority prior to commencement of development.

Objective 9.8

All Class 1 open space generated by development proposals within the RA Residential Area zoned lands shall be provided within the OS Open Space zoned lands to the south or as agreed with the Planning Authority.

Objective 9.9

Ensure that developers lay out and maintain areas of open space to a high standard until such time as they are taken in charge and facilitate the early handover of such areas of public open space to the Council in a completed manner in accordance with approved landscaping plans.

Objective 9.10

Ensure that public and/or communal open space areas are de-

signed to be overlooked to ensure the potential for anti-social behaviour is minimised through passive surveillance.

Objective 9.11

Provide for a riparian corridor/buffer free from development to the south of the Royal Canal. The riparian corridor shall accord with the recommendations of the Strategic Flood Risk Assessment.

Objective 9.12

The design and layout of the proposed open spaces including cycle and pedestrian routes shall have regard to layouts and guidelines for proposed open spaces and accessibility as set out for each Development Area (see Section 6).

Objective 9.13

All planning applications within the LAP shall clearly distinguish between areas of private and public space with clearly delineated boundary treatment.

Objective 9.14

Investigate the feasibility of facilitating additional pedestrian access points to the approved burial grounds to facilitate permeability and to connect the burial grounds into the broader open space network.

Objective 9.15

All landscaping and planting proposals shall include appropriate measures to implement the All-Ireland Pollinator Plan.



Figure 9.4: Kellystown LAP Layout

10 Creating Communities

10.0 Introduction

A successful community combines a range of elements and amenities including environmental sustainability, economic sustainability (local employment), and community infrastructure (schools, public and private amenities, etc.). The growing community in Kellystown will incorporate all of these elements.

Key Goals

- Expand the range of community infrastructure available to the existing and future population of Kellystown by providing a permanent primary and secondary school; and
- Strengthen the local economy by providing opportunities for local retail and services around the proposed civic square in Development Area 2 - Central Development Area.

10.1 Community Infrastructure

Community Infrastructure refers to a range of amenities that contribute to an enhanced quality of life. This includes amenities such as schools, care homes, health centres, childcare facilities, and libraries. Not all community infrastructure is necessarily provided by the Council or other Government service providers, shops, cafes, and places for people to gather and socialise also count as community infrastructure. It is generally preferable for these facilities to be clustered together, within or adjacent to a settlement where they are easily accessible by the community that they serve.

People want to live in places that have a range of community infrastructure facilities available and it is important that these facilities are provided in a timely manner where new residential development is constructed. The Fingal Development Plan 2017-2023 promotes the clustering of community, recreational and open space facilities, with community facilities being located in local centres or combined with school facilities as appropriate. Community facilities should also be flexible in their design and ensure optimum usage.

Objective PM70 of the Development Plan seeks to ensure that proposals for large scale residential developments include a community facility, unless it can be demonstrated that the needs of the new residents can be adequately served by existing or committed facilities in the area. In recent years, community hubs have been developed, such as at Ongar and Tyrrellstown, that co-locate a state of the art community centre with a school,

offering a range of activities throughout the day and evening.

In contrast to neighbouring areas, the population of the Kellystown LAP area is modest, accommodating a small number of largely rural dispersed dwellings with no housing estates or apartment developments. An increased population in Kellystown will create a different pattern of demand for community facilities than that of the current population.

10.2 Existing Community Facilities

There are two Primary Schools that serve the residents of Kellystown and, to a certain extent, those of Clonsilla and Carpenterstown. Scoil Choilm Community National School and St. Mochta's National School are located in close proximity of the LAP lands. There is one secondary school, Luttrellstown Community College. The Fingal Development Plan 2017 – 2023 includes a map based Specific Objective to provide for a new school within the LAP lands. Additionally, the Luttrellstown Community Centre and Porterstown Scout Den are located to the south-east of

the LAP lands.

As the LAP lands develop, additional community infrastructure, in the form of both a permanent primary and secondary school and associated open space provision will cater to the growing population of Kellystown. Table 10.1 below provides a summary of local community facilities in Kellystown.

10.3 Community Infrastructure and Education Objectives

Objectives for the delivery of Community Infrastructure within the LAP area are set out below:

Objective 10.1

Require development proposals for the Central Development Area (DA2) to incorporate an appropriately sized primary school (16-24 classrooms) in consultation with the Department of Education & Skills, incorporating associated car parking, drop off/collection and play areas as set out in Section 7 Movement and Transport Strategy.

Community Facility	Asset	Commentary
Schools	<ol style="list-style-type: none"> 1. Luttrellstown Community College 2. Scoil Choilm Community National School 3. St. Mochta's National School 	Kellystown is currently served by three nearby schools: two primary schools and one secondary school.
Childcare	<ol style="list-style-type: none"> 1. Giraffe Childcare Clonsilla 2. Castlefield Montessori School 3. Luttrell House Crèche 4. Daisy Montessori 5. Teach na bpáistí Montessori school 6. Smarties Childcare Montessori & Afterschool Care 	Childcare facilities are available within the nearby and adjacent residential developments. Further expansion may be needed to accommodate growing younger population.
Religious	<ol style="list-style-type: none"> 1. St. Mochta's Church 2. The Church of Jesus Christ of Latter-day Saints 	St. Mochta's Church is located approx. 600m from the nearest point of the LAP lands, while the local Mormon church is located across the canal on Clonsilla Road.
Emergency Services	<ol style="list-style-type: none"> 1. Blanchardstown Garda Station 2. Blanchardstown Fire Station 	Both the nearest Garda Station and Fire Station are in Blanchardstown.
Healthcare	<ol style="list-style-type: none"> 1. Marymount Care Centre 2. Balroy House Nursing Home 3. Oakwood Medical Clinic Clonsilla 4. Healthwell Clinic 	Healthcare facilities are primarily located nearby in Clonsilla.
Recreation	<ol style="list-style-type: none"> 1. Luttrellstown Golf Course 2. Castleknock Golf Club 3. St. Mochta's Football Club 4. Beech Park Allotments 5. Castleknock Celtic 6. Westmanstown Sports Clubs 7. Luttrellstown Community Centre 	These facilities offer a range of resources for the area.

Table 10.1: Community Infrastructure Facilities near Kellystown

Objective 10.2

Require development proposals for the Central Development Area (DA2) to incorporate a secondary school capable of catering to c.1,000 pupils in consultation with the Department of Education & Skills, with appropriate car parking/drop-off collection areas as set out in Section 7.

Objective 10.3

A timeframe for the delivery of school infrastructure shall be agreed as part of the Development Management process with regard to the Central Development Area (DA2) and in consultation with the Department of Education & Skills.

Objective 10.4

Require development proposals for the Central Development Area (DA2) to include a new civic square, proximate to the local centre and proposed primary and secondary schools. The civic square shall be suitably landscaped and finished to a high standard to ensure its suitability for numerous community functions.

Objective 10.5

Provide a mix of high quality pocket parks, small parks and playgrounds within the Eastern (DA1) and Western Development (DA3) Areas which shall be sized and designed to Development Plan standards.

Objective 10.6

Provide for the co-location of schools and other community facilities and to facilitate and co-operate with community and educational organisations in the provision of services for the community as it grows.

Objective 10.7

Require the provision of appropriate childcare facilities in line with national guidelines.

Objective 10.8

Consult with St. Mochta’s Football Club, schools and community organisations in the provision of sports and recreational facilities.

10.4 Social Inclusion

Social inclusion is important in creating sustainable neighbourhoods. This Local Area Plan sets out a vision and development framework which seeks to create a better physical

environment and to promote access to a range of community enhancing infrastructure. As part of the planned development of the LAP lands, a range of housing typologies, local services, employment opportunities and creation of civic spaces are promoted to ensure the social, community and cultural needs of all persons and communities are catered for in the area. Fingal County Council will continue to co-operate with all relevant agencies and local community sector to seek to counter disadvantage and social exclusion, to secure improvements in quality of life and to promote equality of access to public and social services as part of the delivery of the Kellystown LAP.

10.5 Arts and Culture

Fingal benefits from a rich heritage and culture. While the main cultural centres are some distance from Kellystown, the Fingal Arts Office seeks to promote cultural life across the County for all members of the community at a local level. It is envisaged that the proposed civic square, located within Development Area 2, will play a key role in the cultural life of the LAP lands and provide for a focal point. The space shall be designed to be capable not only of providing for social encounters on a daily basis, but also to be capable of hosting local cultural events/activities.

10.6 Business and Employment

The Fingal Local Economic and Community Plan 2016-2021 supports the redevelopment and reinvigoration of LAP lands and town centres and acknowledges that settlements should develop in a self-sufficient manner with a range of local services commensurate with local needs. The plan also seeks to increase the resilience of the local economy (Goal G9) and to strategically market towns and LAP lands through an enhanced ‘sense of place’.

10.7 Tourism

Kellystown is strategically located in close proximity to the 5-star Luttrellstown Castle Resort and Golf Course. Other recreational amenities such as Castleknock Hotel and Castleknock Golf Course, Hermitage Golf Club, and Westmanstown Golf Club are all within close proximity of the LAP lands. Kellystown is within a 15 minute drive to Phoenix Park, Phoenix Park Visitor Centre, Dublin Zoo and Farmleigh House Estate. While there are currently no tourist attractions within the LAP boundary despite the high quality nature of the environment, it is envisaged that the provision of a high quality open space environment will enhance the setting of nearby assets.

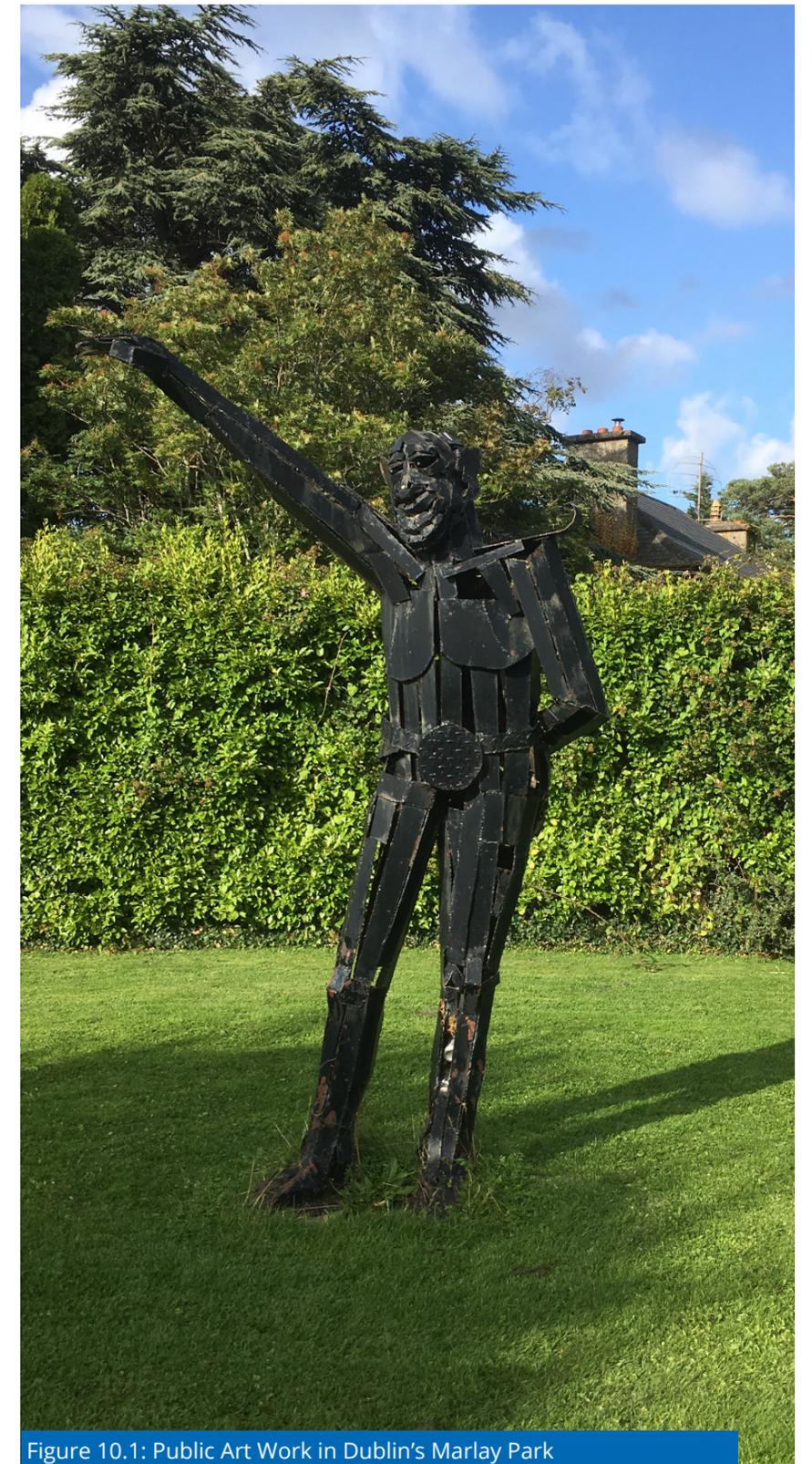


Figure 10.1: Public Art Work in Dublin’s Marlay Park

10.8 Commercial, Employment and Tourism Objectives

Objectives regarding commercial and employment uses in the LAP are as follows:

Objective 10.9

Facilitate and actively promote tourism activities including walking, cycling associated with the Royal Canal Greenway.

Objective 10.10

Strengthen the local economy by creating and facilitating opportunities for new businesses to locate and establish in the area including remote working spaces.

Objective 10.11

Provide for the integrated development of the LAP lands and its future population with the development of new housing delivered in tandem with supporting community and physical infrastructure.

Objective 10.12

Encourage the expansion and development of additional retail provision and commercial services and facilities at a level appropriate to the LAP lands to meet the retailing and service needs of the existing and future population of Kellystown.

Objective 10.13

Require that all proposals for new retail/commercial developments are designed to the highest architectural standards and promote an awareness of good shopfront design ensuring that new shopfronts do not visually detract from the character of the LAP lands.

Objective 10.14

Ensure that all proposals for new retail and commercial developments respect the character and scale of the LAP lands.

Objective 10.15

Develop and maximise the tourism potential of Kellystown and co-operate with the community and relevant organisations in marketing and promoting tourism within the LAP lands.

Objective 10.16

Preserve, protect and enhance the natural, built, cultural and historical heritage of Kellystown to promote the attractiveness of the LAP lands to visitors.

10.9 Housing

The latest statistics available at the time of writing indicate that there is a persistent housing crisis in Dublin, with historically high levels of homelessness, rising rent pressures and an insufficient quantum of housing delivery to meet demand. The challenge in the provision of housing in the LAP lands, as well as throughout the Fingal area, will be to balance the need for new housing with the requirement to construct high quality, well planned housing that results in a coherent community.

Figures 10.2 - 10.5 overleaf provide examples of different residential typologies.

People want to live and work in places that have a range of community infrastructure facilities available and it is important that these facilities are provided in a timely manner where new development is constructed. This ensures that people have amenities required without the need to travel long distances.

10.10 Housing Objectives

Objectives regarding housing in the LAP are as follows:

Objective 10.17

Provide for a varied, high quality housing choice with a range of household types, tenures and typologies.

Objective 10.18

Create a residential environment that supports a range of lifestyle and affordability choices.

Objective 10.19

Ensure that the range of residential typologies developed can facilitate people throughout their lifespan.





Figure 10.2: Residential Typology Example - New Islington, Manchester (MAE LLP Architects)



Figure 10.3: Residential Typology Example - Abode, Cambridge (Proctor and Matthews Architects)

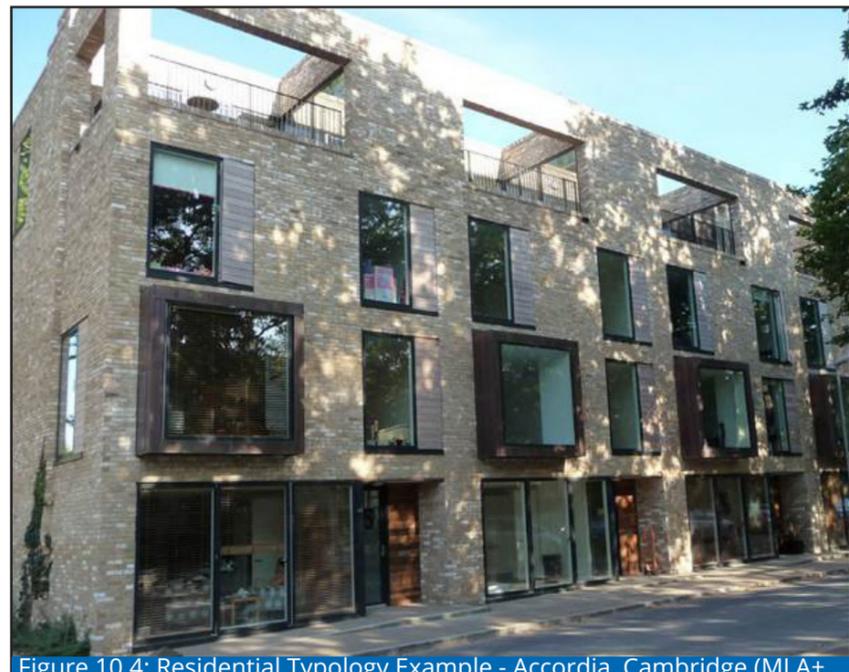


Figure 10.4: Residential Typology Example - Accordia, Cambridge (MLA+ Architects)

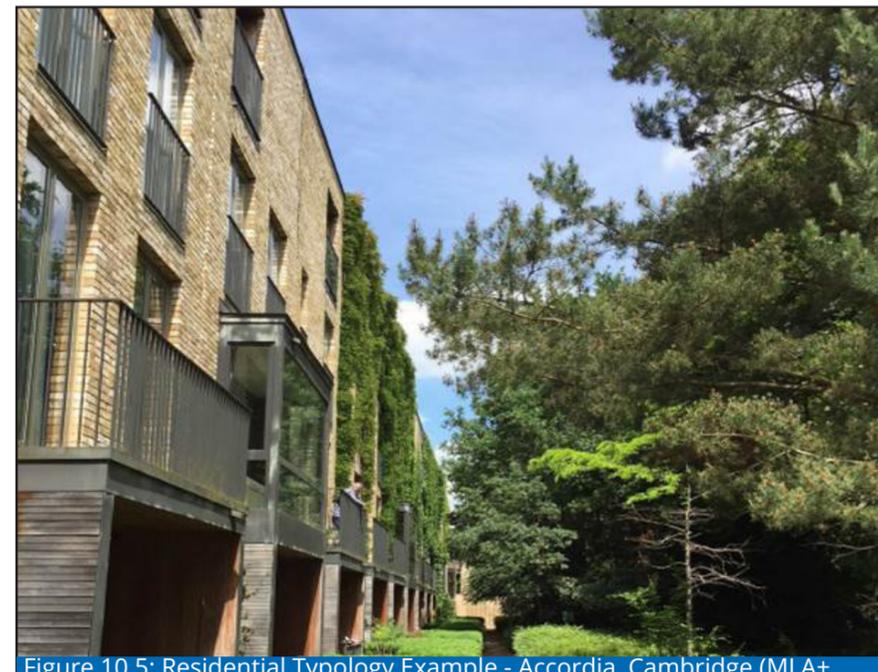


Figure 10.5: Residential Typology Example - Accordia, Cambridge (MLA+ Architects)

11 Water and Infrastructure Services

11.0 Introduction

Infrastructure and utilities are an essential component of the sustainable development of Kellystown. Infrastructural services include water supply, wastewater and surface water removal and treatment as well as utilities including electricity supply, broadband, gas and telecommunications. All such infrastructure and utilities must be planned for so that they are available to support the quantum of development envisaged, in a manner that is environmentally appropriate, cost effective, efficient and protects public health.

This Section identifies the existing public water supply, drainage and other key infrastructure within the LAP area and sets out the requirements and investment needed in infrastructure to meet the objectives of the LAP.

Key Goals

- *Mitigate flood risk by incorporating SuDS features into new development and by providing an undeveloped buffer zone to the Royal Canal;*
- *Reduce surface water run-off by maximising permeable areas and incorporating features such as water butts, rainwater harvesting, rain gardens, and permeable pavements; and*
- *Protect water quality by ensuring that new development is designed so that water runs through at least one SuDS feature before discharge.*

11.1 Conservation of Water

Water is a precious resource and its responsible and sustainable use in existing and new development is becoming increasingly important as Dublin continues to grow and expand, while trying to deal with the unpredictable effects of climate change. Although Ireland receives adequate rainfall, there is a limit to how much water can be taken from the environment. There is also a significant cost to providing large quantities of clean, treated water, both from a financial perspective as well as from the perspective of energy consumption. It is therefore important we utilise only what we need.

In order to limit unnecessary water usage, leakage and excessive consumption, a Water Management and Conservation Plan will be required to accompany future planning applications within the LAP lands. Best practice should be adopted for new development and developers will be required to detail proposals regarding how water conservation will be achieved

with regard to both water mains and internal plumbing. The use of innovative approaches to water conservation including rainwater harvesting, particularly in any commercial or community developments within the LAP lands, is encouraged. Water butts, used to collect and store rainwater, is regarded as a minimum requirement for new residential development. Additional measures include low flush and dual flush toilets, as well as low water use appliances.

11.2 Water Supply

The water supply for Kellystown and the surrounding area including Clonsilla and Carpenterstown area, is provided by the Leixlip Water Treatment Plan. The area in general is well served with trunk mains which have capacity to cater for additional future growth in the area.

Objective 11.1

Collaborate with Irish Water to ensure the delivery of their Capital Investment Plan or any other relevant investment works programme to ensure both foul and water capacity constraints are not a deterrent to sustainable development.

Objective 11.2

Support Irish Water in the provision and maintenance of adequate wastewater disposal and water supply in accordance with EU Directives, to service the LAP lands as appropriate.

Objective 11.3

All Planning Applications shall be accompanied by a Water Management and Conservation Plan.

11.3 Foul Water Drainage

In April 2019, An Bord Pleanála granted permission to Irish Water for revisions to the approved scheme (granted permission in 2012) to upgrade the Ringsend Treatment Plant, which is currently operating at capacity. The upgrade permitted will include the use of Aerobic Granular Sludge (AGS) technology as well as the omission of the previously approved long sea outfall tunnel, which would have deposited treated material 9km out to sea. The approved upgrades to the treatment plant will allow it to increase its capacity from 1.64 million PE (population equivalent) to 2.4 million PE and will enable further population growth in the Dublin region, including at Kellystown. Irish Water plans to invest over €400 million in the staged upgrade of the plant, with the major phase of the works expected to be completed in 2020, with all works scheduled to be completed

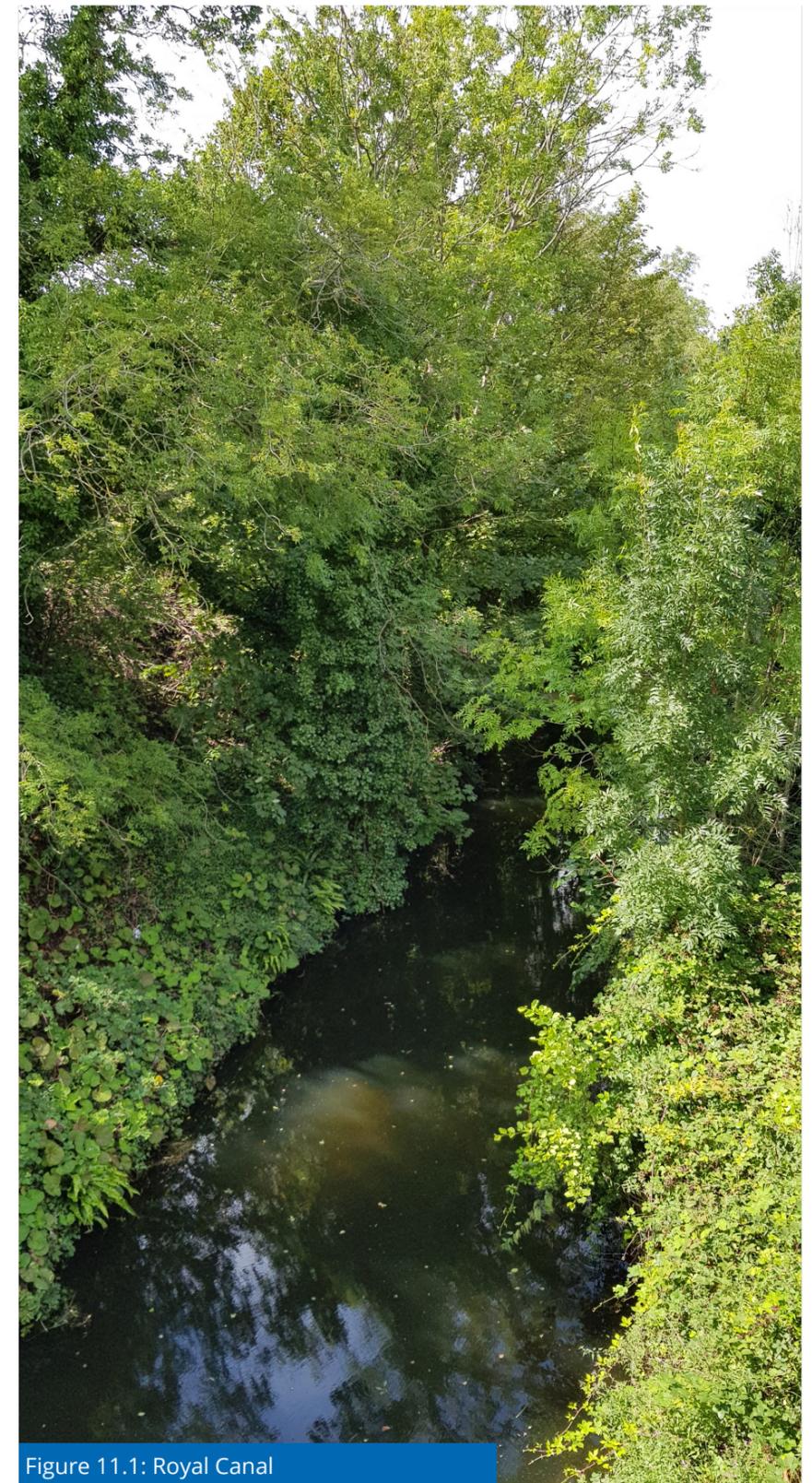


Figure 11.1: Royal Canal



by 2025.

The Greater Dublin Drainage (GDD) Project is a long term scheme designed to provide the strategic drainage infrastructure required for the Greater Dublin Area (GDA) in the period up to 2050. It is currently estimated that construction of a new regional wastewater treatment plant in the Fingal area and orbital pipelines, stretching from Blanchardstown to Clonshaugh, will be operational by 2026. The project also includes a new pumping station at Abbotstown and An Bord Pleanála granted planning permission for the GDD Project in November 2019.

Development within the Kellystown LAP area will be dependent on the progress of relevant improvement works and will be subject to the agreement of Irish Water. All foul infrastructure shall be designed and constructed in consultation with Irish Water.

The following are the foul water drainage objectives of the LAP:

Objective 11.4

Development shall connect to the public sewer and public water mains, subject to a connection agreement with Irish Water, in order to protect water quality in the Plan area.

Objective 11.5

Facilitate a connection to the public sewer, subject to connection agreement with Irish Water, for existing properties in the area that are currently utilising existing on-site waste disposal systems, in order to protect water quality in the Plan area.

Objective 11.6

Ensure the separation of foul and surface water effluent through the provision of separate foul sewerage and surface water run-off networks.

Objective 11.7

Permit new development only where it can be clearly demonstrated that there is adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards.

Objective 11.8

Prior to the commencement of development, in the event that

a pumping station is required to service the lands, its location shall be subject to agreement both with Irish Water and the Planning Authority.

11.4 Surface Water Management

New development has the potential to exacerbate flood risk by increasing hardstanding areas and consequently increasing surface water runoff. It can also impact on water quality and on biodiversity.

Figure 11.2 below outlines the identified water features which currently exist within the Kellystown LAP lands. There is an open drain/storm outfall sewer that runs from north to south through the eastern part of the LAP area and a pond exists to the north-east of the LAP area.

Objective SW04 of the Fingal Development Plan 2017-2023

seeks to require the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques where appropriate, for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.

SuDS are a more environmentally effective approach to managing surface water on developed lands. This most closely reflects natural catchment behaviour where rainfall either infiltrates through the soil or runs off slowly over the ground surface to the nearest watercourse. This is an important element of climate change mitigation and will act to future-proof communities against adverse weather effects.

SuDS offer a comprehensive approach to the management of water on a site, to delay and reduce run-off through

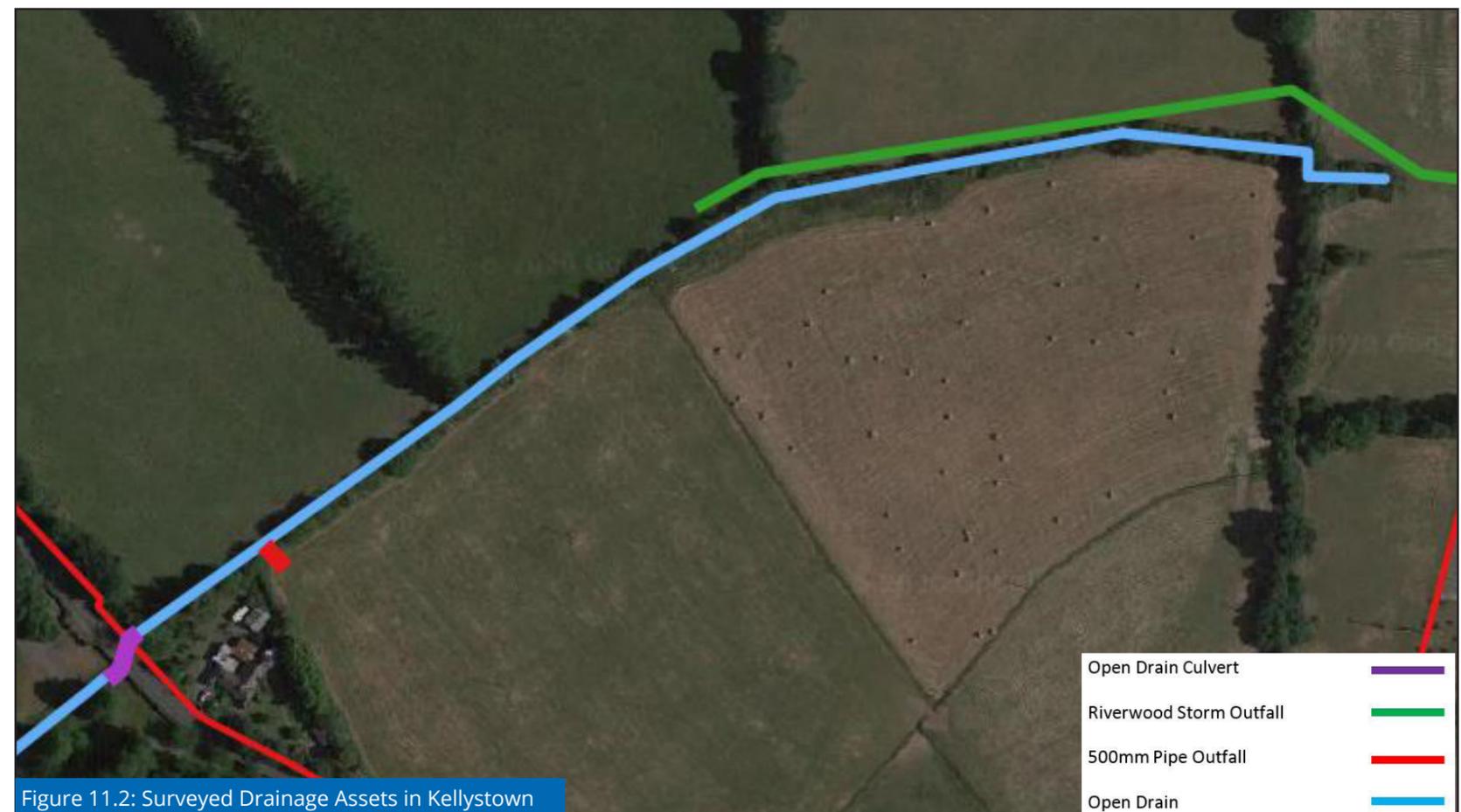


Figure 11.2: Surveyed Drainage Assets in Kellystown



11 Water and Infrastructure Services

infiltration, transpiration, evapotranspiration and re-use, whilst also providing improvements to water quality, amenity and biodiversity. Shallow surface based systems to manage surface water are encouraged in favour of underground infrastructure such as pipes and culverts. In tandem with this, runoff control measures favoured include surface based systems such as weirs and orifices rather than proprietary systems contained underground in manholes. Runoff from green areas should never be permitted to enter closed sewer networks, and groundwater infiltration must be favoured over discharge to open surface water (ditches, streams).

A Surface Water Management Plan comprising of both a Flood Risk Assessment and a Sustainable Drainage Strategy has been developed for Kellystown, prepared by McCloy Consulting Engineers on behalf of Fingal County Council (please refer to Appendix 2), and identifies various measures that may be employed throughout the development taking into account the existing surface water infrastructure in place across the site. These SuDS measures must be incorporated into the development in line with appropriate sustainable drainage practices and include for limiting runoff rates and providing site, source and regional controls. Such measures must be developed in conjunction with approved landscape and open space plans and must align with the taking in charge requirements of the local authority. The SuDS Concept Masterplan for the Kellystown LAP lands are identified in Figure 11.3.

The following are the key sustainable drainage objectives proposed:

Objective 11.9

All new development within the Kellystown LAP catchment must incorporate Sustainable urban Drainage Systems (SuDS) measures in line with the recommendations of the Surface Water Management Plan to suit individual site layouts and local ground conditions. Design of SuDS Systems should be in accordance with the Greater Dublin Strategic Drainage Study (GSDS) and the CIRIA SUDS Manual. It will be the responsibility of the developer to ensure SuDS measures are incorporated.

Objective 11.10

New surface water drainage networks will be required as part of new developments. These networks should be designed in accordance with this SuDS Strategy, CIRIA C753 'The SuDS Manual' and the Greater Dublin Strategic Drainage Systems

(GSDS).

Design Criteria for all future residential developments:

- Runoff within the curtilage of the property boundary shall pass through at least one SuDS component prior to discharging to downstream;
- SuDS components within the public realm. Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided within the curtilage of the property boundary, with a maximum discharge rate of 2l/s/ha;
- Runoff from public areas (such as roads, parking bays, hard and soft landscaped areas and footpaths) shall pass through at least two SuDS components prior to discharging to the final downstream detention/retention/polishing SuDS components within the public realm;
- The Final SuDS Components located in the public realm shall comprise of basins/ponds/wetlands (as appropriate), prior to discharge to a watercourse or local surface water sewer. Measures must align with acceptable landscape and open space proposals and maintenance requirements; and
- Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided for runoff from the public realm, with a maximum discharge rate of 2l/s/ha.

Design Criteria for all future commercial, industrial, educational and apartment developments:

- Runoff from roofs shall pass through at least one SuDS feature prior to discharge to on-site surface water retention features. Blue/green roofs shall be provided to store the 100 year event with an allowance for Climate Change;
- Runoff from roads and parking areas shall pass through at least two SuDS features prior to discharge to the final on-site surface water retention features;
- The final 'Private' surface water retention features shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the local surface water sewers/watercourses; and
- Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided for runoff from the developments, with a maximum discharge rate of 2l/s/ha.

Objective 11.11

Water butts, rainwater harvesting, rain gardens and permeable paving are recommended for use in all residential developments. Any commercial development, educational developments and apartment blocks shall incorporate rainwater harvesting for re-use and should incorporate blue/green roof features.

Objective 11.12

Subject to subsoil permeability, filter drains may be required to drain residential gardens and other small green areas within future developments. Runoff from green areas should, where possible, infiltrate directly to groundwater.

Objective 11.13

The relevant authorities should promote the benefits of SuDS retrofitting to the general public.

11.5 Flood Risk Management

In accordance with the The Planning System and Flood Risk Management: Guidelines for Planning Authorities (2009) and Circular PL02/2014 (August 2014), the preparation of the LAP was the subject of a Strategic Flood Risk Assessment completed by McCloy Consulting Engineers (please refer to Appendix 2). Future development must comply with the objectives of this report to ensure impacts on water quality and increased flood risk are avoided.

The following are the key flood risk management objectives proposed:

Objective 11.14

Implement the provisions of the DoEHLG/OPW publication The Planning System and Flood Risk Management: Guidelines for Planning Authorities (2009) or any superseding document in relation to flooding and flood risk management and facilitate flood management measures, as appropriate.

Objective 11.15

It is recommended that the drainage channels, watercourses and floodplains within the developed and undeveloped areas of the LAP boundary be maintained and protected.

Objective 11.16

Riparian corridors should be provided in accordance with the requirements of the Fingal Development Plan 2017-2023 to protect and enhance watercourses and their natural regimes

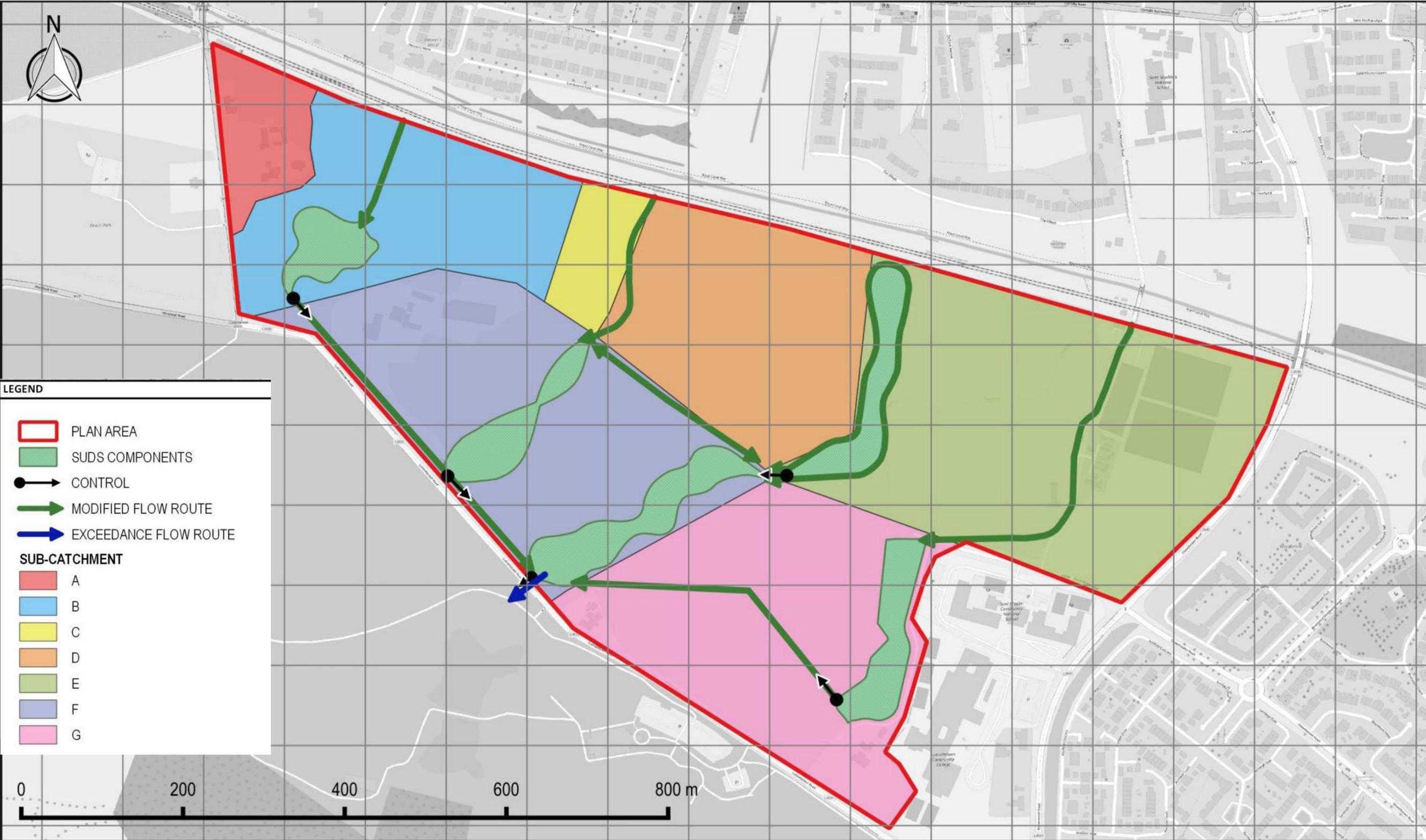


Figure 11.3: Kellystown SuDS Concept Masterplan

11 Water and Infrastructure Services

including: ecological, biogeochemical and hydromorphological.

Objective 11.17

Sustainable Drainage Systems shall be incorporated in all new developments and retro-fitting of SuDS should be encouraged in any remedial/redevelopment schemes/works.

Objective 11.18

Future developments within Kellystown LAP should be designed and constructed in accordance with the "Precautionary Principle" detailed in the guidelines. It is recommended that the flood zoning within the LAP is based on the High-End Future Scenario (HEFS) for climate change.

Objective 11.19

To address the risk of pluvial flooding in new developments in the LAP area, the Kellystown LAP Surface Water Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy will be adopted. This will ensure a consistent approach to the management of flood risk and water quality within the LAP. Implementing these measures and complying with the GSDSDS will ensure that the risk of flooding downstream or upstream of any new developments is minimised.

Objective 11.20

Detailed hydraulic modelling shall be carried out as part of Site-Specific Flood Risk Assessments, as required.

11.6 Water Quality

The Development Plan has as a central aim to promote the maintenance and improvement of the environmental and ecological quality of Fingal's watercourses and coastal waters pursuant to the requirements of the Water Framework Directive (WFD).

Construction practices should be adhered to which do not cause further deterioration of the status of the Royal Canal and licences will be required for any discharge of water from construction activities to any surface water or to ground. Construction management plans will be required as appropriate and will have due regard to the management of waters arising from the development of sites.

11.7 Swales

Design criteria for swales will include the following:

- Maximum side slopes will be 3:1. Slopes and depths should be minimised to the extent practical for aesthetic and safety reasons. The base width should be a minimum width of 60cm;
- Check dams should be installed at regular intervals along the swales to promote ponding. Large rocks that are obvious and do not become concealed by vegetation should be used as check dams. Such rocks will create an attractive as well as effective check dam and will provide micro-habitat for species (e.g. basking sites for invertebrates etc.). Figure 11.4 provides examples of swales;
- All new swales will be bounded by filter strips a minimum of 2m in width. Broadleaved trees should be planted along the filter strips (see example diagram in Figure 11.5); and
- Grassy verges along retained field boundaries and new green corridors will function as natural filter strips.

The following are the water quality objectives for the LAP area:

Objective 11.21

Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.

Objective 11.22

Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources in conformity with the Eastern River Basin Management Plan 2009-2015 and the second cycle national River Basin Management Plan 2017-2021 and any subsequent plan and the Groundwater Protection Scheme.

Objective 11.23

Implement the recommendations of the Groundwater Protection Scheme.

Objective 11.24

Establish a riparian corridor free from new development along the Royal Canal, ensuring a 15 metre wide riparian buffer strip measured from the top of the bank.



Figure 11.4: Swale example - Coopers Wood Development



Figure 11.5: Swale example - The Copse

12 Phasing of Development

12.0 Introduction

Phasing of development is required to ensure the delivery of physical, community and social infrastructure in tandem with the provision of new housing and the resultant population increase. This document outlines the optimal sustainable development strategy for the LAP lands, however, given the overall quantum of development, it is anticipated that it is likely to take place over a time period exceeding the term of the LAP.

The Local Area Plans - Guidelines for Planning Authorities states as follows in relation to the phasing of development:

"The [phasing] programme will also specify the amount of residential development that should take place in each phase, integrated with the provision of the appropriate social facilities (such as schools, childcare, and health facilities) as well as transport."

Section 19 (2) of the Planning and Development Act 2000 (as amended) provides for the phasing of development in an LAP. The phasing requirements set out in this section shall be complied with and are outlined in Table 12.1 overleaf.

12.1 Key Principles

The phasing schedule seeks to provide community infrastructure, such as schools and open space, in the earlier phases of development in order to create a high quality living and working environment. Development will be phased to ensure that the infrastructure required for a given level of development (including social/community infrastructure) is provided in tandem, or in advance of development, including water, sewerage and road infrastructure, open space and local facilities.

In order to ensure that new residents moving into the identified Development Areas benefit from the provision of appropriate amenities, it is a general objective of this LAP that community and green infrastructure elements are delivered in the first stage of development of a given Development Area. Table 12.1 identifies the elements of each Development Area that shall be delivered in the first phase.

It is an objective of the LAP that development should generally extend from east to west from Diswellstown Road across the LAP lands to the R121. It is anticipated that this approach will enable planned infrastructure in the area to be provided prior to development being constructed and occupied.

Development should occur in an orderly and sequential manner, and leapfrogging should be avoided. Where this approach proves not to be feasible, for example, due to the approach of a given landowner, a justification should be provided in any planning application proposal for assessment.

The LAP has three indicative phases, which correspond to the identified Development Areas. The development of the southern portion of the lands, zoned 'OS' - Open Space, may occur out of sequence with the northern portion and at the earliest opportunity.

Phase 1 corresponds to the Eastern Development Area (DA1). This initial phase includes those areas adjacent to the existing schools and as far north as the railway line. Phase 1 will include the relocation and completion of St. Mochta's F.C, junction upgrade works at Diswellstown Road to support provision of the Kellystown Link Road and the preservation of a site for a possible future train station and/or Metro West transport node. It is acknowledged that the section of the lands that forms part of the reserve may occur out of sequence with the balance of the LAP lands, given the somewhat specialised and temporary nature of the form of development supported and the overall timeline for the delivery of light rail in the Dublin west area.

Phase 2 comprises the Central Development Area (DA2) and relates to lands located between the proposed Kellystown Road and the railway line/Royal Canal. This area will comprise the proposed schools as well as the civic square, local centre, pedestrian/cyclist bridge and residential development. The proposed primary school should be provided in advance of residential development in this area, however, the proposed secondary school may occur out of sequence at a later date, depending on the requirements of the Department of Education & Skills.

Phase 3 corresponds to Western Development Area (DA3) and will accommodate higher density development given its proximity to Clonsilla Railway Station. The development of Phase 3 should not occur in advance of the level crossing removal, unless it can be demonstrated that development will not prejudice the delivery of this piece of infrastructure and with the agreement of Irish Rail.

12.2 Transport Infrastructure

Phasing can help to ensure the sustainable and efficient integration of development with public transport infrastructure. Kellystown benefits from proximity to the Dublin-Maynooth railway line which is due to be electrified in order to be able to accommodate DART services.

It is anticipated that access to the LAP lands will be primarily achieved from the proposed Kellystown Road. Two access points are proposed, one from the existing junction at the Diswellstown Extension Road (Eastern Development Area - DA1) and a second from a new junction with the realignment of the Clonsilla Road R121 (Western Development Area - DA3). Both junctions will be full movement traffic signalised junctions.

12.3 Information to Accompany Planning Applications

All development proposals shall comply with the objectives set out in the LAP lands Development Framework Plan and Design Requirements and shall be accompanied by a Site Design Statement demonstrating how the proposals respond to the objectives set out for each Development Area.

Applicants shall submit proposals for the protection and management of local biodiversity features in all planning applications within Development Areas where the number of dwellings exceeds 30 no. units. To protect undiscovered archaeological features, developers shall make provision to allow for and fund all required archaeological investigation which may be needed, in accordance with the National Monuments Legislation.

Construction and Demolition Waste Management Plans shall be submitted as part of planning applications in accordance with objective DMS149 of the Fingal Development Plan 2017-2023. A Water Management and Conservation Plan should be submitted with all planning applications. All future residential applications at Kellystown will need to be accompanied by a Mobility Management Plan setting out proposed measures to support reduced car dependency and an uptake in sustainable travel options.

Details of the proposed hard and soft landscaping of these spaces will be required at planning application stage.

Phase 1 Eastern Development Area (DA1)

The following elements shall be provided in the first phase of development:

- Initial stage of Kellystown Road to accommodate access to the lands;
- Upgrade the Diswellstown Road / Kellystown Road junction to accommodate the forecast growth of traffic from Kellystown and facilitate the safe movement of pedestrians and cyclists;
- Agreement of Green Infrastructure Masterplan (including all areas of passive and active open space) for the application site at pre-planning stage;
- Agreement of 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 at pre-planning stage;
- Network of pedestrian and cycle links to be provided in tandem with development and not subsequent to occupation of dwellings;
- Provision of a constructed wetland/pond(s) as part of SuDS management strategy to the west of the lands and adjoining DA2 as well as water quality infrastructure. Extents to be agreed with the planning authority at pre-planning stage;
- Provision of wastewater facilities including pumping station as required to be delivered in tandem with new development;
- Relocation of St. Mochta's Football Club to a location within OS - Open Space zoned lands, with all specifications and a programme of works to be agreed with the Planning Authority. The relocation of the Football Club will be facilitated and undertaken by the developer and works including the fitting out and completion of the sports pitches, boundary treatments, lighting, car parking, drainage and all other necessary requirements to be agreed with the local authority;
- Provision of a minimum of 2. no MUGA's adjacent to the relocated St. Mochta's Football Club for community use;
- All Class 1 open space generated by development proposals in DA1 shall be provided for within the Open Space zoned lands or as agreed with the Planning Authority; and
- Provision of all necessary infrastructure to connect the development area to water supply infrastructure and all necessary connections shall be delivered in tandem with new development.

Phase 2 Central Development Area (DA2)

The following elements shall be provided in the second phase of development:

- Completion of the Kellystown Road;
- Agreement of Green Infrastructure Masterplan (including all areas of passive and active open space) for the application site at pre-planning stage;
- Agreement of 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 at pre-planning stage;
- Reservation of land for the provision of a primary school to be made available to the Department of Education & Skills within the initial stage of development and prior to the occupation of the first dwelling unless otherwise agreed with the Planning Authority following an educational needs assessment of the area to be undertaken by the applicant in consultation with the Department of Education & Skills;
- Reservation of land for the provision of a post-primary school to be made available to the Department of Education & Skills;
- Network of pedestrian and cycle links to be provided in tandem with development and not subsequent to occupation of dwellings;
- Provision of a constructed wetland/pond(s) as part of SuDS management strategy to the east of the lands and adjoining Eastern Development Area (DA1) as well as water quality infrastructure. Extents to be agreed with the Planning Authority at pre-planning stage;
- Support the provision of a new pedestrian/cyclist bridge at the centre of the lands to provide direct access to Clonsilla Village. The pedestrian bridge shall be provided by the developer as part of any development proposal within DA2;
- Provision of wastewater facilities including pumping station as required to be delivered in tandem with new development; and
- Provision of all necessary infrastructure to connect the development area to water supply infrastructure and all necessary connections shall be delivered in tandem with new development.

Phase 3 Western Development Area (DA3)

The following elements shall be provided in the third phase of development:

- Any amendments made to the existing level crossing and operation of replacement;
- Agreement of Green Infrastructure Masterplan (including all areas of passive and active open space) for the application site at pre-planning stage;
- Agreement of 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 at pre-planning stage;
- Proposals for the preservation in-situ of the identified Ring Barrow (DU013-018) and its integration into the open space approach to the area, to be agreed at pre-planning stage. Development in this area is only to proceed after all archaeological investigations as required by the Department of Culture, Heritage and the Gaeltacht and the Planning Authority are complied with;
- Network of pedestrian and cycle links to be provided in tandem with development and not subsequent to occupation of dwellings;
- Provision of waste water facilities including pumping station as required to be delivered in tandem with new development; and
- Provision of all necessary infrastructure to connect the development area to water supply infrastructure and all necessary connections shall be delivered in tandem with new development.

Table 12.1: Development Phasing

