

Rochestown Avenue Active Travel Scheme

Part 8 Planning Report

Project number: 60661468

June 2023

Quality information

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1. Introduction

Overview

AECOM on behalf of Dún Laoghaire-Rathdown County Council (DLRCC) have prepared a Part 8 Report for the Rochestown Avenue active travel scheme. The objective is to upgrade the pedestrian and cycling infrastructure to promote active travel within the following study area.

The length of the study area is along Rochestown Avenue from the Bakers Corner junction (Kill Avenue / Kill Lane / Abbey Road) extending 2.2km towards the Graduate Roundabout junction.

The scheme proposes to improve the current infrastructure to promote walking and cycling to cater for the increasing demand for sustainable travel. The existing pedestrian infrastructure along the scheme has gaps in the network, with no existing pedestrian footpaths along the southern side of Rochestown Avenue between Pottery Road and the National Rehabilitation Hospital (NRH) and also between the NRH and the Sefton junction, in total 800m along the southern side of Rochestown Avenue is without pedestrian infrastructure, restricting permeability to shops, residential area and employment locations (e.g. NRH).

The need for the scheme was identified as part of the Dún Laoghaire-Rathdown County Development Plan 2022-2028, which aims to promote and provide for the development of cycling and walking as healthy sustainable attractive transport modes in the County for commuting, short utility trips, recreation trips and trips to schools/colleges. Rochestown Avenue connects onto the strategic pedestrian and cycle network routes in the County including the Mountain to Metals Safe Routes to School, the Dún Laoghaire Central Active Travel Scheme and Kill Lane Rapid Deployment Scheme. Figure 1-1 illustrates the scheme extents.

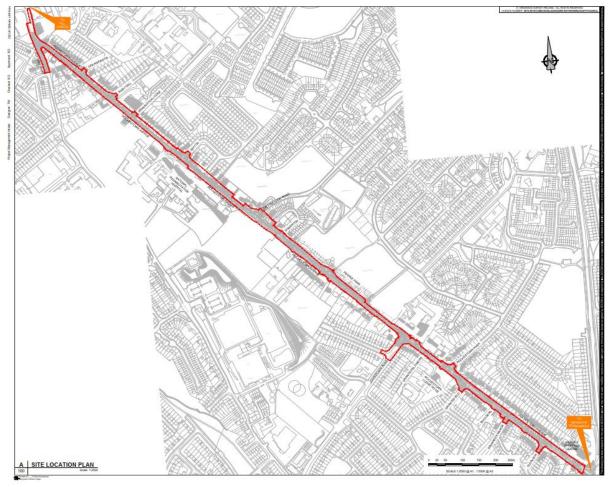




Figure 1-1 - Scheme Extents

Objectives

The proposed scheme being brought forward for Part 8 will help deliver the following objectives:

- Providing continuous and high-quality walking and cycling facilities;
- Promote modal shift from private vehicles to more sustainable modes including walking, cycling and public transport;
- Providing enhanced permeability for sustainable modes;
- Enhancing public realm and improving the overall visual quality of public spaces and street layout;
- Creating a place for all, which provides infrastructure for all ages and abilities in particular more vulnerable groups including the elderly and children;
- Protecting and enhancing sensitive existing landscapes;
- Improving biodiversity; and
- Remaining consistent with national, regional and local policy objectives in respect of sustainable transport, active travel and lower carbon emissions.

Report Structure

Following this introductory chapter, the remainder of this report is as follows:

- Chapter 2 presents an overview of the Planning Process that the scheme sits within;
- Chapter 3 presents the relevant Policy Context of the scheme;
- Chapter 4 presents the scheme details;
- Chapter 5 presents the impacts of the scheme; and
- Chapter 6 details the Consultation with DLRCC Departments.
- Chapter 7 details the Alternatives Considered.

2. Planning Process

Part 8

Section 179 of the Part XI of the Planning and Development Act 2000, (as amended); and Part 8 of the Planning and Development Regulations 2001, (as amended) set out the requirements in respect of certain classes of development by on or behalf of local authorities. Part 8 of the Regulations comprises 7 Articles – 79 to 85. Article 80(1) lists the type of Developments to which Part 8 is required. The proposed road development is covered under the above article.

Site Notices

In accordance with the Article 81 the Local Authority shall:

- (a) Give notice of proposed development in a newspaper;
- (b) Erect site notice(s) on the land on which the proposed development would be situated.

Dún Laoghaire Rathdown County Council published a notice of the proposals in an appropriate newspaper. Site notice(s) will also be erected in the study area and will be maintained for the duration of the submission period.

Schedule of Part 8 Planning Documentation

The following is a list of Part 8 planning documents which have informed this Part 8 application and are contained within this application

Title	Document Number
Proposed Layout Plan 1 of 4	60661468_SHT_ROCH_141.1_A
Proposed Layout Plan 2 of 4	60661468_SHT_ROCH_141.2_A
Proposed Layout Plan 3 of 4	60661468_SHT_ROCH_141.3_A
Proposed Layout Plan 4 of 4	60661468_SHT_ROCH_141.4_A
Options Selection Report	n/a
Transport Statement	n/a
Appropriate Assessment (AA) Screening Report	n/a
Environmental Impact Assessment (EIA) Screening Report	n/a
Ecological Impact Assessment Report (EcIA)	n/a
Preliminary Ecological Assessment (PEA) Report	n/a

Submission Process

Dún Laoghaire-Rathdown County Council is required to make full plans and particulars of the proposed development available for inspection. These will be made available at the following location:

- Dún Laoghaire-Rathdown County Council, County Hall, Marine Road, Dún Laoghaire, Co Dublin, A96 K6C9 (Planning Counter Opening Hours: Monday to Friday 10am-4:00pm, Sat and Sun Closed)

Submissions and observations can be made or via e-mail to info@dlrcoco.ie or by logging onto www.dlrcoco.ie Public Consultation Hub:

Online https://www.dlrcoco.ie/en/council-development-projects-part-viii/proposed-part-8-schemes

Submission in writing can also be made and should be clearly marked "Active Travel Section – Rochestown Avenue Part 8".

All submissions must include a contact name and address. Submissions made as part of the process are to be accessible upon request.

Any submissions or observations received by the Council are considered in the Part 8 Chief Executives Report which is prepared and presented to the Councillors, where they may vary or modify the development. The Chief Executives Report lists those who made a submission together with the summary of their points made in the respective submission. The Report addresses each point and forms the local authority's response.

Arising from consideration of the representations, the Chief Executive's Report sets out whether or not it is proposed to proceed as originally planned or to proceed with a modified proposal or decides not to proceed with the development.

3. Policy Context

Overview

The scheme is strongly supported by policy at all levels (i.e., European, National, Regional and Local), as well as in multiple policy areas. While the scheme aligns most obviously with policy aimed at reducing emissions, improving safety and encouraging a modal shift to walking and cycling, the project provides a unique opportunity to address a much wider range of policy objectives by integrating green infrastructure and public realm improvements. This section provides an overview of this policy context and highlights how the scheme could make a positive impact in many policy areas.

Policy level	Policy
European	European Green Deal
	RISM Directive
National	Project Ireland 2040: National Planning Framework
	National Development Plan 2021-2030
	Climate Action Plan 2023 and the associated Annex of Actions
	National Investment Framework for Transport in Ireland (NIFTI)
	National Physical Activity Plan
	Government Road Safety Strategy 2021-2030
Regional	Regional Spatial and Economic Strategy for the Eastern and Midland Region, 2019-2031
	Transport Strategy for the Greater Dublin Area 2022-2042
	GDA Cycle Network Plan
Local	Dún Laoghaire Rathdown County Council Development Plan 2022-2028
	Dún Laoghaire Rathdown Cycle Policy
	Dún Laoghaire Rathdown Climate Change Action Plan 2019-2024

We note that other elements of active travel policy have also been considered as part of the scheme development, including Smarter Travel - A Sustainable Transport Future 2009-2020, National Sustainable Mobility Policy, National Cycle Policy Framework, and NTA Statement of Strategy 2018-2022, and these have not been expanded upon below.

European Policy

European Green Deal

The European Green Deal was adopted in 2020 and contains a set of policy initiatives (presented in Figure 3-1) aimed at making the European Union climate neutral by 2050. Overall, the Green Deal aims to reduce emissions by at least 50% by 2030 and achieve net-zero emissions by 2050 by introducing new strategies, funding and legislation for the circular economy, transport, buildings, and biodiversity. Two of these strategies are described in further detail.



Figure 3-1 - European Green Deal focus areas

EU Sustainable and Smart Mobility Strategy

Forming part of the European Green Deal, the EU's Sustainable and Smart Mobility Strategy aims to reduce transport emissions across the Union through funding, regulations and policy supports for clean and sustainable mobility. While naturally EU policy mainly focuses on pan-European measures and cross-border mobility, the Strategy does reiterate strong support for investment in urban walking and cycling infrastructure by member states.

The Strategy places a particular emphasis on urban mobility and increasing the sustainable mode shares for trips to work, school and other key destinations. The Street Scheme will make progress towards the strategy, as shown in Table 3-1 below.

Table 3-1 - Alignment to the EU Sustainable and Smart Mobility Strategy

No	Action
35	As set out in the 2030 climate target plan, increasing the modal shares of collective transport, walking and cycling, as well as automated, connected and multimodal mobility will significantly lower pollution and congestion from transport, especially in cities and improve the health and well-being of people. Cities are and should therefore remain at the forefront of the transition towards greater sustainability. The Commission will further engage with cities and Member States to ensure that all large and medium-sized cities that are urban nodes on the TEN-T network put in place their own sustainable urban mobility plans by 2030. The plans should include new goals, for example on having zero emissions and zero road fatalities. Active transport modes, such as cycling, have seen growth with cities announcing over 2300 km of extra cycling infrastructure. This should be doubled in the next decade towards 5000 km in safe bike lanes. The Commission is also considering developing a mission in the area of Climate-neutral and Smart Cities28 as a strategic priority for joint action to accomplish decarbonisation within a large number of European cities by 2030.
37	The EU and Member States must deliver on our citizens' expectations of cleaner air, less noise and congestion, and eliminating fatalities on our city streets. By revising the Urban Mobility Package to promote and support these sustainable and healthy transport modes, the Commission will contribute to the improvement of the current European framework for urban mobility. Clearer guidance is needed on mobility management at local and regional level, including on better urban planning, and on connectivity with rural and suburban areas, so that commuters are given sustainable mobility options. European policies and financial support should also reflect the importance of urban mobility for the overall functioning of the TEN-T, with provisions for first/last mile solutions that include multimodal mobility hubs, park-and-ride facilities, and safe infrastructure for walking and cycling.

EU Biodiversity Strategy for 2030

The EU Biodiversity Strategy is also part of the European Green Deal, and it "aims to put Europe's biodiversity on the path to recovery by 2030 for the benefit of people, climate and the planet". Noting that "the biodiversity crisis and the climate crisis are intrinsically linked", the strategy notes the dual benefits of green infrastructure or nature-based solutions, such as cooling in urban areas, reducing pollution and flooding, mitigating the impact of natural

disasters, and protecting wildlife and biodiversity. It also recognises the value of green and open spaces to physical and mental wellbeing, particularly in urban areas where space is limited.

The Biodiversity Strategy recommends a number of actions aimed at greening urban areas, including:

- The "systemic integration" of healthy ecosystems, green infrastructure and nature-based solutions into urban planning, including in public spaces, infrastructure and the design of buildings and their surroundings;
- The development of 'Urban Greening Plans' in all European cities of at least 20,000 inhabitants which would
 focus on creating biodiverse and accessible urban parks, green spaces and tree-lined streets; as well as
 improve connections between existing green spaces.

The Rochestown Avenue Active Travel Scheme provides a prime opportunity to integrate green infrastructure into the design of new walking and cycling facilities, and to enhance the urban realm throughout the scheme extents.

Road Infrastructure Safety Management (RISM) Directive

The European Union has set a 'Vision Zero' target, which aims to halve fatalities on European roads by 2030, and reduce this to 'almost zero' by 2050. Influenced by a 'Safe Systems' approach, which is a road safety concept that deaths and serious injuries are largely preventable by good design and maintenance of road infrastructure, the 'Vision Zero' target is accompanied by a suite of European and national policies and programmes aimed at achieving this strategic ambition.

Accordingly, the Directive on Road Infrastructure Safety Management (RISM) defines procedures for EU member states to improve safety on European road networks. Under RISM, each member state is required to carry out actions to monitor and improve road safety on the network, including network-wide 'Safety Ranking', regular Road Safety Inspections, Road Safety Audits during planning and design of infrastructure, training, certification and knowledge exchange with local authorities and European partners. While RISM was originally intended to cover just the TEN-T network, the 2019 revision to the RISM Directive notes that it is: "desirable for those RISM principles to be applied to other parts of the European road network".

RISM was updated in 2019 to require Member States to take into account the needs of 'vulnerable road users' in network planning, design and operation, which are defined as "non-motorised road users, including, in particular, pedestrians and cyclists". In planning and designing road infrastructure, the updated RISM Directive places much greater emphasis on separating protecting vulnerable road users from the risks of high-speed and high-volume traffic, and requires authorities to consider things such as:

- "Provisions for cyclists, including the existence of alternative routes or separations from high-speed motor traffic;
- Density and location of crossings for pedestrians and cyclists;
- Provision for pedestrians and cyclists on affected roads in the area; and
- Separation of pedestrians and cyclists from high speed motor traffic or the existence of direct alternative routes on lower class roads".

National Policy

'Project Ireland 2040' - National Planning Framework

Project Ireland 2040 is Ireland's National Planning Framework (NPF) and provides a high-level strategic plan to shape planning policy, future growth and development in Ireland in the period to 2040. The NPF aims to avoid the "mistakes" made in previous planning policy – mistakes that have led to urban sprawl, unbalanced regional development, and increased car dependency - by ensuring that investment is closely aligned to these overarching principles. The NPF is based on ten 'National Strategic Outcomes' (NSO), which are an expression of the shared national goals or benefits the NPF aims to achieve. These are displayed in Figure 3-2.



Figure 3-2 - Project Ireland 2040 National Strategic Outcomes

All public projects are required to demonstrate how they align to the NPF, and how they would contribute to the achievement of the NSO. The alignment of the proposed scheme to the NSO is summarised in the table below.

Table 3-2 - Alignment with NPF National Strategic Outcomes

NSO	Relevance to the Proposed Scheme
1. Compact Growth	Responding to past levels of urban sprawl and car dependency, the NPF aims to concentrate growth in existing villages, towns and cities; and to ensure that residents have easy access to jobs, amenities and services. The scheme will encourage compact growth by encouraging a shift to sustainable modes of transport, and making Dún Laoghaire a healthier and more liveable town.
4. Sustainable Mobility & 10. Transition to a low Carbon and Climate Resilient Society	The scheme aims to support sustainable mobility and encourage a shift from private cars to reduce transport emissions.
7. Enhanced Amenity & Heritage	The scheme proposes to open up the existing greens at Rose Park and Casement Villas, to deliver enhanced amenities and public realm for local residents and visitors to walk, cycle, jog, or to simply enjoy spending time in a high-quality public realm.
9. Sustainable management of water, waste and other environmental resources	The scheme aims to improve environmental quality by integrating green infrastructure (i.e., vegetation, SUDs etc) into the planning and design, where possible.

As well as the NSO, the NPF also includes 'National Policy Objectives' to provide a more specific statement of the types of actions or investment that should be prioritised. Several of these are of particular relevance to the scheme and are displayed in Table 3-3. As well as transport and climate objectives, this highlights the potential of the project to make a positive contribution to other policy areas, particularly in terms of improving the environment and quality of life within the study area.

Table 3-3 - Alignment with NPF National Policy Objectives

No.	National Policy Objective
6	Making Stronger Urban Places: Regenerate and rejuvenate cities, towns and villages of all types and scale as environmental assets, that can accommodate changing roles and functions, increased residential population and employment activity and enhanced levels of amenity and design quality, in order to sustainably influence and support their surrounding area.
26	People, Homes and Communities: Support the objectives of public health policy including Health Ireland and the National Physical Activity Plan, through integrating such policies, where appropriate and at the applicable scale, with planning policy.
27	People, Homes and Communities: Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages.
54	Realising our Sustainable Future: Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaption objectives, as well as targets for greenhouse gas emissions reductions.
57	Realising our Sustainable Future: Integrating sustainable water management solutions, such as Sustainable Urban Drainage (SUDS), non-porous surfacing and green roofs, to create safe places.
62	Realising our Sustainable Future: Identify and strengthen the value of greenbelts and green spaces at a regional and city scale, to enable enhanced connectivity to wider strategic networks, prevent coalescence of settlements and to allow for the long-term strategic expansion of urban areas.
64	Realising our Sustainable Future: Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car, the promotion of energy efficient buildings and homes, heating systems with zero local emissions, green infrastructure planning and innovative design solutions.

Climate Action Plan 2023

The Climate Action Plan 2023 sets out the ongoing urgent response to the climate crisis. Within the Plan, it calls for a significant cut in transport emissions by 2030 in order to meet the sectoral emission ceiling. The previous 2021 Climate Action Plan targets have been revised including a 20% reduction in total vehicle kilometres, a reduction in fuel usage, and significant increases to sustainable transport trips and modal share.

The 'Avoid-Shift-Improve' approach to transport decarbonisation is shown below in Figure 3-3.3. It is a hierarchical framework that prioritises actions to achieve the change needed.



Figure 3-3.3 Avoid – Shift – Improve Framework, Climate Action Plan 2023

'Shift' refers to measures that encourage modal shift to more sustainable modes of transport. Active travel schemes such as the Rochestown Avenue Active Travel Improvements Scheme not only aims to provide high quality walking and cycle infrastructure for users but also aims to reduce the attractiveness of private vehicle use through the

provision of pedestrian and cycle priority. Safe and high-quality active travel infrastructure can significantly increase the scope for active travel to become a default mode of mobility.

National Investment Framework for Transport in Ireland (NIFTI)

The Department of Transport published a framework for guide future investment in the land transport network and to prioritise investment that supports the delivery of the National Strategic Outcomes. The investment objectives of NIFTI are:

- Delivering clean, low-carbon and environmentally sustainable mobility;
- Supporting successful places and vibrant communities;
- Facilitating safe, accessible, reliable and efficient travel on the network; and
- Promoting and strong and balanced economy.'

NIFTI includes two 'hierarchies' specifying the order in which transport investment should be prioritised: an 'intervention hierarchy' and a 'modal hierarchy'; both of which are shown in the figure below.

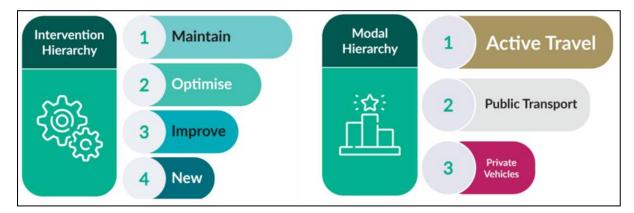


Figure 3-4 - NIFTI intervention and modal hierarchies

The Intervention Hierarchy differentiates between the level of intervention proposed, and states that investment should firstly seek to 'maintain' existing infrastructure; then to 'optimise' or 'improve' existing infrastructure; and finally – if it is not possible to achieve an objective through previous steps – to invest in providing 'new' infrastructure. The aim of the Investment Hierarchy is to maximise the lifespan and value for money of past investments, and to ensure that more affordable and efficient options for achieving an objective are considered before investing in large-scale transport projects or programmes.

The scheme is mostly aligned with Level 3 ('improve') on the Intervention Hierarchy. While requiring new infrastructure in parts, the primary focus of the project is improving and re-designing existing public space in Dublin City to be more efficient, sustainable and equitable. This includes targeted upgrades to cycling, pedestrian, and public transport infrastructure, while reducing the prominence given to private cars.

The Modal Hierarchy differentiates between the modes of transport, and states that Active Travel (walking and cycling) should be prioritised, followed by public transport, and lastly by private vehicles. As outlined throughout, the scheme has been guided by a user hierarchy which seeks to prioritise active travel and bus users over private cars, which squarely aligns with NIFTI's Modal Hierarchy.

National Physical Activity Action Plan

The aim of the Department of Health's *National Physical Activity Plan* is to increase physical activity levels across the whole population, and the Plan sets separate targets for adults, children and older people to reach the recommended levels of physical activity. Recognising that there are many reasons that people are unable to meet recommended levels of physical activity, the Plan contains some guiding principles to promote greater levels of physical activity, namely by: "creating increased opportunities for people to be active in ways which fit into everyday lives; which is suitable for individual needs, circumstances and interests; and which removes the barriers people face to being active and encouraging people to recognise how to overcome those barriers".

The Plan highlights walking and cycling as a way to easily incorporate physical activity in everyday life, and includes several actions aimed at promoting active travel and recreation, including to:

- Project number: 60661468
- Develop and promote walking and cycling strategies in each Local Authority Area;
- Ensure that the planning, development and design of towns, cities and schools promotes cycling and walking with the aim of delivering a network of cycle routes and footpaths;
- Ensure that the planning, development and design of towns and cities promotes the development of local and regional parks and recreational spaces that encourage physical activity;
- Prioritise the planning and development of walking and cycling and general recreational / physical activity infrastructure; and
- Explore opportunities to maximise physical activity and recreational amenities in the natural environment'.

As well as providing dedicated facilities for walking and cycling, the scheme aims to create opportunities for physical activity and exercise for residents, locals and visitors alike. In line with national policy, this infrastructure should be attractive and accessible to users of all ages and abilities.

Government Road Safety Strategy 2021-2030

The Government's Road Safety Strategy (RSS) 2021-2030 is Ireland's fifth RSS, and provides an integrated strategy for managing safety on the road network up to 2030. Building on progress over previous decades, the RSS aims to reduce road deaths on Irish roads by at least 50% (144 to <72), with serious injuries decreasing by the same percentage (1259 to <630). One of the key intervention areas is promoting safe and healthy modes of travel (i.e. walking and cycling). The RSS emphasises the many benefits provided by active travel, and recognises the unique vulnerability of pedestrians and cyclists in collisions. It proposes several actions aimed at improving safety and encouraging increased uptake, including:

- Continue to implement an active travel infrastructure scheme where Local Authorities can apply for funding to develop improved active travel infrastructure;
- Encourage modal shift to support environmental, safety and health objectives by promoting the use of sustainable and active modes of travel; and
- During 2021-2025, construct 1,000 km of segregated walking and cycling facilities to provide safe cycling and walking arrangements for users of all ages.

In line with the RSS, the scheme aims to promote safety for vulnerable road users to ultimately reduce collisions and encourage increased levels of walking and cycling due to a safer and more pleasant environment.

Regional Policy

Regional Spatial and Economic Strategy (RSES) 2019-2031

The Regional Spatial and Economic Strategy (RSES) for the Eastern & Midland Regional Assembly provides a high-level development framework for the region, and supports the implementation of the NPF and relevant economic policies and objectives of the Government at a regional level. Local authorities are required to give effect to the policies of RSES when developing county and local area plans. For the Dublin Metropolitan Area, the RSES notes several key guiding principles, including the development of strategic and sustainable transport networks, urban and social regeneration, and enhancing amenities and Green Infrastructure.

Several Regional Policy Objectives (RPO) are also relevant to the scheme, especially the strong emphasis placed on developing strategic Green Infrastructure that links key environmental assets in the Dublin region.

Table 3-4 - Alignment with Regional Spatial and Economic Strategy (RSES) 2019-2031 actions

RPO	Action
5.2	Sustainable transport: Support the delivery of key sustainable transport projects including Metrolink, DART and Luas expansion programmes, BusConnects and the GDA Metropolitan Cycle Network and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned.
5.3	Sustainable transport: Future development in the Dublin Metropolitan Area shall be planned and designed in a manner that facilitates sustainable travel patterns with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe and attractive street environment for pedestrians and cyclists

dentify, manage, develop and and develop a Green	

RPO	Action
5.7	Green Infrastructure: Coordinate across local authority boundaries to identify, manage, develop and protect regional Green Infrastructure, to enhance strategic connections and develop a Green Infrastructure policy in the Dublin Metropolitan Area
5.8	Green Infrastructure: Support the promotion and development of greenway infrastructure and facilities in the Dublin metropolitan area, and support the expansion and connections between key strategic cycle routes and greenways as set out in the NTA GDA Cycle Network Plan

Greater Dublin Area Transport Strategy 2022 - 2042

The overall aim of the Strategy is:

"To provide a sustainable, accessible and effective transport system for the Greater Dublin Area which meets the region's climate change requirements, serves the need of urban and rural communities, and supports the regional economy".

As with NIFTI, the Strategy is guided by a road user hierarchy, which aims to prioritise investment and space allocation towards pedestrians at the top, followed by cyclists, public transport, goods, and lastly, private motor vehicles

Four objectives have been developed to support the delivery of the overall aim of the Transport Strategy which are set out below:

- An enhanced Natural and Built Environment: To create a better environment and meet our environmental
 obligations by transitioning to a clean low emission transport system, increasing walking, cycling and
 public transport use, and reducing car dependency.
- Connected Communities and Better Quality of Life: To enhance the health and quality of life of our society by improving connectivity between people and places, delivering safe and integrated transport options, and increasing opportunities for walking and cycling;
- A Strong Sustainable Economy: to support sustainable economic activity and growth by improving the
 opportunity for people to travel for work or business where and when they need to, and facilitating the
 efficient movement of goods;
- An inclusive Transport System: to deliver a high quality, equitable and accessible transport system which caters for the needs of all members of society.

GDA Cycle Network Plan

The GDA Cycle Network Plan accompanies the GDA Transport Strategy and sets out the vision and planned network of cycling facilities in Dublin city centre and the surrounding GDA. The overall vision of the Network is:

"The Greater Dublin Area Cycle Network seeks to be an inclusive cycling environment that is safe for all cycling abilities and ages with strong function and recreational connectivity between homes and key destinations".

The goals of the GDA Cycle Network are to:

- **Increase participation –** The plan proposes an optimised cycle network accessible by cyclists of all abilities, regardless of users' level of confidence and skill. Specific attention is given to increasing cycling for school, education and recreational trips
- **Improve safety and accessibility –** Safety and accessibility will be improved on the GDA Cycle Network, such that actual and perceived safety concerns are reduced. Users should be able to quickly access the network from home, work and/or education settings.
- **Improve connectivity** Barriers will be removed or mitigated where they obstruct direct and continuous cycling. Initiative and infrastructure will be designed, developed and delivered to enhance permeability and enable the connection to key destinations.
- **Create a navigable and coherent network -** The GDA Cycle Network will be enhanced to improve connections between cycle routes with suitable infrastructure, supporting facilities and wayfinding signage.

The GDA Cycle Network Plan places a much greater emphasis on the safety, quality and accessibility of cycling infrastructure compared to before, making it clear that in order to attract cyclists of all abilities, the scheme must be designed to very high specifications, with a high standard of segregation and continuity. It also places more emphasis on recreational cycling, which supports measures to improve the comfort and attractiveness of any cycling facilities.

As illustrated in Figure 3.4 the scheme is identified as a Secondary Route meaning it serves as links from the primary cycle routes to local zones. The link also connects to a number of existing feeder routes including the Mountains to Metals Safe Route to Schools.



Figure 3-5 – Scheme within the GDA Cycle Network Plan

Local Policy

Dún Laoghaire Rathdown County Development Plan 2022 - 2028

The proposed scheme is consistent with the policy objectives set out in the DLR County Development Plan. The Plan sets out a vision for the towns and villages within the county to guide future climate resilience and economically vibrant growth over the Plan period. The Plan identifies the overall policy approach for Transport and Mobility as being:

- To adopt the 'Avoid Shift Improve Approach'
- To integrate land use and transport policies
- To support the demand management approach which focuses on moving people from private car to sustainable modes
- To improve permeability for the pedestrian and cyclists
- To provide attractive high-quality walking and cycling networks with direct routes to local destinations and transport hubs
- To adopt a balanced approach to road and street design in accordance with the four core principles of DMURS connected networks, multifunctional streets, pedestrian focus and a multi disciplinary approach.

Some of the County Development Plan objectives, and their respective heading, are outlined below.

Integrated Land Use and Transport

T1: Integration of Land Use and Transport Policies: a Policy Objective (PO) to actively support sustainable modes of transport and ensure that land use and zoning are aligned with the provision and development of high quality public transport systems

Promoting Modal Change

T4: It is a Policy Objective to promote, facilitate and cooperate with other transport agencies in securing the implementation of the transport strategy for the County and the wider Metropolitan Area as set out in Department of Transport's 'Smarter Travel A Sustainable Transport Future 2009 –2020', and subsequent updates and the NTA's 'Transport Strategy for the Greater Dublin Area 2016-2035' and subsequent updates, the RSES and the MASP

Walking and Cycling

T11: to secure the development of a high quality, fully connected and inclusive walking and cycling network across the County and the integration of walking, cycling and physical activity with placemaking including public realm permeability improvements.

Road and Street Network

T25: It is a Policy Objective that where projects for new roads, identified under Section 5.8, are not already provided for by existing plans/ programme or are not already permitted, that the feasibility of progressing these projects shall be examined, taking into account environmental sensitivities as identified in the SEA Environmental Report (including greenhouse gas emissions and other emissions to air) and the objectives of the Plan relating to sustainable mobility. A Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages: Stage 1 – Route Corridor Identification, Evaluation and Selection and Stage 2 – Route Identification, Evaluation and Selection. In implementing this Objective, the Council will comply with any national policy or guidelines issued relating to the assessment of greenhouse gas emissions.

Dún Laoghaire Rathdown County Council Climate Action Plan 2019-2024

The DLRCC Climate Action Plan is a collaborative response to the impact that climate change is having on the Dublin Region and its citizens. The four targets of the plan are:

- A 33% improvement in the Council's energy efficiency by 2020
- A 40% reduction in the Council's greenhouse gas emissions by 2023
- To make Dublin a climate resilient region, by reducing the impacts of future climate change related events
- To actively engage and inform citizens on climate change

As part of the Transport Key Action Area within the Plan, some of the main actions relating to active travel include the construction of segregated cycle routes, expanding bike sharing and implementing and supporting cycling campaigns. DLRCC are encouraging people to walk or cycle to help with the response to climate change. Through actively working to provide high quality walking and cycle network, they are aiming to provide a cycling network across the County that prioritises the safety of pedestrians and cyclists.

Design Guidance

In additional to the relevant policy guidance, the proposed scheme has been prepared in compliance with the following design guidance:

- DMURS (Design Manual for Urban Roads & Streets);
- National Cycle Manual;
- National Transport Authority, Project Management Guidelines;
- National Transport Authority Active Travel Design Guidelines;
- Traffic Management Guidelines; and
- Traffic Signs Manual.

4. Proposed Scheme

Overview

AECOM have prepared General Arrangement drawings illustrating the Rochestown Avenue Active Travel scheme proposals, which should be read in conjunction with this section.

The scheme proposes implementing a continuous 3.0m wide two-way cycle track running on northern side of Rochestown Avenue from Bakers Corner junction at its northern end to the Graduate Roundabout at its southern end.

Where the two-way cycle track passes through Pearse Park, the scheme converts into a 4.0m wide shared path for pedestrians and cyclists, which is akin to the pedestrian and cycle facilities in DLRCC Public Parks. When the scheme exits Pearse Park and connects back onto Rochestown Avenue, the scheme reverts back to a segregated pedestrian and two-way cycle track along the northern side of Rochestown Avenue.

The proposal will introduce a new footpath on the southern side of Rochestown Avenue, providing an upgrade to the existing pedestrian infrastructure. Approximately 800m of new pedestrian infrastructure will be introduced on the southern side of Rochestown Avenue, including a new footpath connecting Pottery Road and the NRH (approximately 550m) and a new footpath between NRH and Sefton (approximately 250m).

The scheme ties in at its northern end with the Dún Laoghaire Central Active Travel Scheme, a recently approved Part 8 development (November 2022) for high quality pedestrian and cycle infrastructure. At its southern end the scheme will tie into the Graduate Roundabout, where existing cycle infrastructure is located along Church Road (R118).

The proposal will upgrade the existing signalised junctions along the development route to enhance pedestrian and cycle-controlled crossings.

New mid-block controlled crossings are also proposed at 5no. locations including the following:

- At Grangewood, across Rochestown Avenue— to facilitate the existing pedestrian desire line towards the existing Applegreen retail area on the southern side of Rochestown Avenue
- At Sefton / NRH Entrance across Rochestown Avenue toucan crossing to facilitate pedestrian and cycle crossing between NRH and Sefton, which will cater for the desire line associated with the Mountain to Metals Safe Route to Schools Route.
- Pearse Park entrance across Rochestown Avenue a new pedestrian crossing is proposed to cater for the desire line into Pearse Park, also with the existing bus stops, and the nearby garden centre which all generate pedestrian crossing movements at this location.
- South Eastern end of Pearse Park, across Rochestown Avenue The proposal will create a new pedestrian and cycle entrance into Pearse Park, a new pedestrian crossing is proposed to cater for the anticipated desire line across Rochestown Avenue into the Park.
- Glenview across Rochestown Avenue a new toucan crossing is proposed to cater for pedestrian and cyclist movements across Rochestown Avenue.

Scheme Details

This subsection presents the scheme in sections, which should be read in conjunction with the General Arrangement drawings:

- 60661468_SHT_ROCH_141.1_A
- 60661468 SHT ROCH 141.2 A
- 60661468_SHT_ROCH_141.3_A
- 60661468_SHT_ROCH_141.4_A

Section 1 Bakers Corner to Grangewood

Section 1 ties in with Kill Avenue at its north western extents. This section runs from Bakers Corner to the Grangewood estate entrance. Existing footpath and cycle track on the south side of the road from Bakers Corner as far as the junction with Pottery Road will be maintained (2m each). On the north side of the road, a 2m footpath and 3m two-way cycle track will be provided, along with 1 southbound general traffic lane (3m) and 2 northbound general traffic lanes (3m each).

The existing left turn slip lane from Rochestown Avenue onto Pottery Road will be removed to facilitate space for the pedestrian and cycle improvements. The north side of the junction will have kerb buildout to provide a waiting area for pedestrians and cyclists to cross at the toucan crossing. A raised table will be provided for pedestrians crossing the cycle track from the footpath to the pedestrian island waiting area. The three-arm junction will have toucan crossings on each arm. A short stretch of shared area for pedestrians and cyclists is proposed to connect cyclists from Rochestown Avenue onto Pottery Road.

The pedestrian footpath will run inside the two-way cycle lane on Rochestown Avenue. Landscaping will be implemented between the cycle lane and path. On Pottery Road, the scheme will tie in with the existing layout, with one-way cycle tracks and footpath on both sides of the road.

On Rochestown Avenue between the Pottery Road Junction and the Grangewood estate entrance, the footpath and cycle track (2m and 3m respectively) continue on the north side of the road, separated from the carriageway by 2-4.5m of landscaping/street furniture.

On the southern side of Rochestown Avenue, a new 2m footpath will be installed to enhance pedestrian permeability to the existing petrol filling station, the existing residential units and towards the National Rehabilitation Hospital. To accommodate the footpath, it is necessary to remove an existing short left turn slip lane.

A new toucan crossing will be provided to the west of the entrance to the Grangewood estate. A raised table pedestrian crossing with tactile will be provided for pedestrians to cross the cycle track to reach the toucan crossing. A raised table pedestrian and cycle crossing will also be provided across the entrance to the estate.



Figure 4-1: Proposed Layout at Section 1

Figure 4-2 overleaf illustrates a photomontage for Rochestown Avenue near Grangewood, illustrating the proposed footpath, controlled crossing and the two way cycle track.



Figure 4-2 Existing conditions along Rochesotwn Avenue near Grangewood



Figure 4-3 Photomontage of Rochestown Avenue near Grangewood

Section 2 Grangewood to National Rehabilitation Hospital

From the entrance to the Grangewood estate to the entrance to the National Rehabilitation Hospital, the proposed layout continues with the following design principles:

- 2m wide footpath on each side of the road. The proposal will introduce a new footpath on the southern side of Rochestown Avenue to enhance pedestrian permeability;
- A new 3m wide two-way cycle lane on north side of the road
- Landscaping between cycle lane and road carriageway
- 3m single way general traffic lane in each direction

Entrances to Ruby Hall and Kensington Lodge estates will have raised continuous pedestrian and cycle crossings.

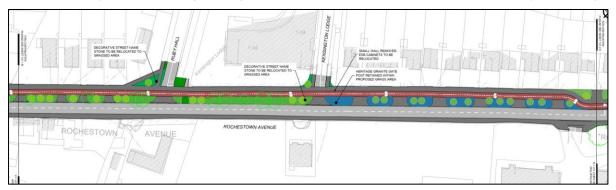


Figure 4-4: Proposed layout at Section 2

Section 3 National Rehabilitation Hospital to the junction with the Sallynoggin Road

Section 3 runs from the entrance to the National Rehabilitation Hospital to the junction with the Sallynoggin Road. The existing pedestrian crossing to the east of the Sefton estate will be removed and a new toucan crossing on the western side of the estate. The proposed crossing will tie into the DLRCC Mountain to Metals Safe Routes to School scheme, to cater for the pedestrian and cycle desire line from the NRH to Sefton.

At this point also, the landscaping will be behind the footpath on the north side of the road, with the two-way cycle path adjacent to the road carriageway. For approximately 100m after the entrance to the Sefton estate, there will be landscaping between the two-way cycle track and the carriageway, with pedestrian footpath both adjacent to the road carriageway and behind the cycle track. This will allow pedestrians to access the bus stop at this location. At all points where pedestrians cross the cycle track, tactiles are provided.

The existing pedestrian crossing at the pedestrian entrance to the NRH will be maintained. Between this pedestrian crossing and the Sallynoggin Road junction, there will be no landscaping on the north side of the road. Pedestrian crossings will be introduced on all arms of this junction, with a cycle crossing also on the northern arm.

At the Sallynoggin Road junction, it is proposed to widen the carriageway to accommodate a new right turn lane along Rochestown Avenue into Sallynoggin Road. The right turn lane will have capacity for approximately 5 vehicles, enhancing capacity at the respective junction. The south side of the road on this section will have a pedestrian footpath for the entire length, with landscaping in sections between the path and the road carriageway.

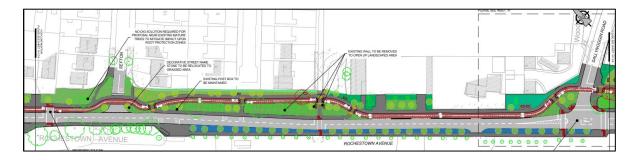


Figure 4-5: Proposed layout, Section 3



Figure 4-6 Existing Conditions along Rochestown Avenue near Sefton



Figure 4-7 Photomontage along Rochestown Avenue, near Sefton

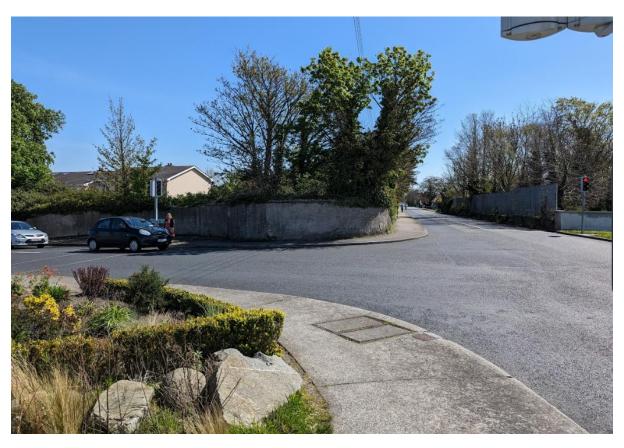


Figure 4-8 Existing Conditions at Rochestown Avenue / Sallynoggin Road junction



Figure 4-9 Photomontage at Rochestown Avenue / Sallynoggin Road junction

Section 4 Sallynoggin Road to Pearse Park

The two-way cycle track will continue along the northern side off Rochestown Avenue alongside a proposed 2m wide footpath. A continuous pedestrian and cycle crossing is proposed the Somerton estate to provide priority for sustainable modes.

At Pearse Park, it is proposed that the scheme will convert into a shared pedestrian and cycle path, 4.0m wide, an upgrade to the existing footpath within the park. A segregated footpath and two way cycle track was examined within Pearse Park but due to constraints associated with the existing trees and the footpath pitch, there is insufficient space required for segregated facilities. The shared path arrangement is consistent with DLRCC's approach to pedestrian and cycle design in nearby public parks i.e. Kilbogget.

Low path level public lighting will be included within the scheme for the proposed path within the park with lighting design to avoid unnecessary light spillage to adjacent areas of vegetation.

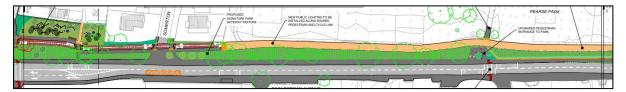


Figure 4-10: Proposed layout, Section 4



Figure 4-11 Existing Conditions along Rochestown Avenue near Somerton



Figure 4-12 Photomontage of Proposal at Rochestown Avenue near Somerton

Section 5 Pearse Park to Sallynoggin Road

The shared path continues within Pearse Park up to its eastern boundary and then returns onto the northern side of Rochestown Avenue. It is proposed to continue the shared space for a short stretch on Rochestown Avenue due to the constraints in the available widths. After the entrance to Sefton horse riding school, the shared space returns to segregated footpath and two way cycle track. Due to the constrained widths, the two way cycle track for a short stretch of approximately 50m is 2.5m wide, returning to 3.0m width after the pinch point.

The existing Rochestown Avenue and Johnstown Road junction is proposed to be upgraded to enhance pedestrian and cycle infrastructure. The proposals comprise of segregated pedestrian and cycle crossings across the Rochestown Avenue arms of the junction. A segregated and single pedestrian crossing is proposed across the Johnstown Road arm of the junction, thus removing the existing staggered pedestrian crossing.

To accommodate the proposed active travel improvements, it will be necessary to reallocate road space. The existing left turn slip from Rochestown Avenue onto Johnstown Road is proposed to be omitted as per DMURS guidelines, to facilitate a more compact junction with reduced pedestrian and cyclist crossing distances. The existing short right turn lane is proposed to be amended to a right turn pocket, which will accommodate 2 vehicles.

On the eastern side of Johnstown Road, a former bus layby is proposed to be removed to facilitate the new cycle track, which will eventually connect into the existing protected cycle lanes on Johnstown Road. After the Johnstown Road junction, the proposed two way cycle track continues along the northern side of Rochestown Avenue, with a continuous footpath and cycle track proposed across Eaglewood apartment access.



Figure 4-13: Proposed layout, Section 5



Figure 4-14 Existing condition at Rochestown Avenue / Johnstown Road signalised junction



Figure 4-15 Photomontage of proposed Rochestown Avenue / Johnstown Road signalised junction

Section 6 Rochestown Park to Drumkeen Manor

At the junction with Rochestown Park / Rochestown Avenue, it is proposed to enhance pedestrian and cycle infrastructure at this junction, by reducing the crossing distances and introducing controlled crossings for pedestrians and cyclists on all arms of the junction. On Rochestown Park, the existing short left turn flare is proposed to be omitted to facilitate a single lane approach to the junction.

At the Granitefield junction, the radius to the junction is proposed to be reduced as per DMURS to approximately 6m to encourage reduced vehicular turning speeds. The proposed two-way cycle track continues on the northern side of Rochestown Avenue along this section, providing continuous infrastructure for cyclists.

The existing right turn lane from Rochestown Avenue into Drumkeen Manor is proposed to be omitted to accommodate the new two way cycle track. Drumkeen Manor is a cul de sac with approximately 22no. properties, therefore the projected volumes of traffic entering and exiting the estate is relatively low, therefore any delay associated with right turning vehicles will be limited.



Figure 4-16 Proposed Layout, Section 6

Section 7 Glenview to the Graduate Roundabout

The final section of the proposed scheme comprises a continuation of the two way cycle track on the northern side of the Rochestown Avenue. The scheme will require the removal of the existing informal car parking on the northern side of Rochestown Avenue. The car parking can be well utilised as it acts as an overflow car park to the Killiney Shopping Centre.

It is proposed to upgrade the entrances to the Killiney Shopping Centre to introduce continuous pedestrian and cycle infrastructure, enhancing priority for sustainable modes at this conflict point. Controlled crossing is proposed connecting Glenview to the northern side of Rochestown Avenue. The scheme ties into the existing toucan crossing prior to the Graduate Roundabout.

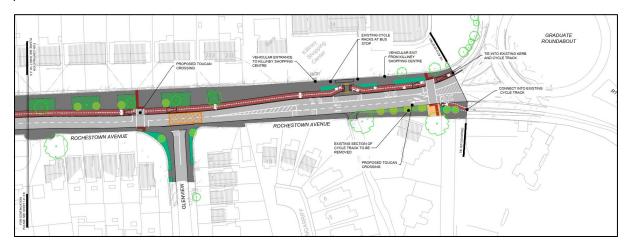


Figure 4-17 Proposed Layout, Section 7

5. Impacts of the Scheme

This chapter provides an overview of the likely impacts of the proposed scheme.

Traffic Assessment

AECOM has prepared a Transport Statement, reviewing the proposed scheme against the existing conditions. The report presents an overview of the existing conditions, whilst detailing the proposed measures to promote pedestrian and cycle infrastructure at the existing signalised junctions. For instance, existing left turn slip lanes are proposed to be omitted at two junctions including Rochestown Avenue / Pottery Road and Rochestown Avenue / Johnstown Road, to provide a more compact junction as per DMURS, reducing crossing distances and to assist in reducing vehicular turning speeds.

The proposed designs will assist to introduce new and high-quality cycle and pedestrian infrastructure to meet the scheme objectives in terms of promoting sustainable transport. The report notes that the results of the junction modelling indicates:

- Pottery Road / Rochestown Avenue would have a reduction in capacity due to the pedestrian and cycle enhancements but overall the junction would continue to operate within capacity;
- Sallynoggin Road / Rochestown Avenue would operate better than the existing arrangement due to the proposed additional capacity designed into the junction upgrade via the new right turn lane from Rochestown Avenue onto Sallynoggin Road;
- Johnstown Road / Rochestown Avenue would have a marginal reduction in capacity due to the proposed mitigation for pedestrian and cycle improvements but would continue to operate well within capacity; and
- Rochestown Avenue / Rochestown Park / Granitefield would operate with comparable levels of capacity in the proposed scenario in comparison to the existing.

Any impacts to vehicular capacity should be considered in unison with the positive impacts the scheme will deliver to sustainable modes including:

- will promote walking and cycling;
- reduced pedestrian crossing distances at junctions;
- Provider safer facilities for pedestrians and cyclists;
- enhance permeability for sustainable active travel modes; and
- encourage travel for all ages to walk or cycle.

Appropriate Assessment (AA) Screening Report

The process required by Articles 6(3) and 6(4) of the Habitats Directive is stepwise and must be followed in sequence. The first step in the sequence of tests is to establish whether an Appropriate Assessment (AA) is required. This is often referred to as 'AA Screening'. The purpose of AA Screening is to determine, in view of best available scientific knowledge, whether a plan or project, either alone or in-combination with other plans or projects, could have likely significant effects on a European site, in view of that site's conservation objectives.

AECOM on behalf of Dún Laoghaire-Rathdown County Council have prepared an AA Screening Report in relation to the Rochestown Avenue Active Travel Improvement Scheme. The AA Screening report considers the potential effects of the scheme on European sites, with include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The AA Screening Report which has been prepared by AECOM, which concluded:

- The assessment has concluded that there are no likely significant effects predicted from the Proposed Scheme on any European sites, SCI/QI species or supporting habitat.
- Furthermore, the in-combination assessment also concludes that there are no likely effects at all predicted when considering the Proposed Scheme in combination with other projects or plans.
- Therefore, in view of best scientific knowledge and on the basis of objective information, it is concluded that the Proposed Scheme, whether individually or in-combination with other plans or projects, beyond

reasonable scientific doubt is not likely to have significant effects on any European site. Therefore, there is no requirement to proceed to the next step of Appropriate Assessment.

Environmental Impact Assessment (EIA) Screening Report

An Environmental Impact Assessment (EIA) Screening report has been prepared by AECOM on behalf of DLRCC for the proposed scheme. The report is to inform the EIA Screening Determination to identify if the Proposed Development should be subject to an EIA as required under Directive 2014/52/EU (the "EIA Directive), considers the Proposed Development under Schedule 5 of the Planning and Development Regulations 2001 (as amended), and considered the Proposed Development under Section 50 of the Roads Act 1993 (as amended).

The Screening report notes that the proposed development does not meet the criteria or minimum thresholds outlined in Section 50(1)(a) of the Roads Act 1993 (as amended) or Schedule 5, Part 1 and Part 2 of the Planning and Development Regulations 2001 (as amended), and therefore does not trigger the requirement for a mandatory EIA.

For the purpose of a robust screening process, a sub threshold screening assessment was undertaken in accordance with selection criteria outlined in Annex III of the EIA Directive in order to determine whether or not the Proposed Development would be likely to have significant effects on the environment.

The likely impacts that will arise from the Proposed Development in the absence of appropriate mitigation measures have been evaluated in line with relevant guidance and regulatory frameworks noted in the Screening report. If the recommended mitigation measures discussed in the report such as the production and implementation of a Construction Environment Management Plan (CEMP) during the construction phase which includes: dealing with unexpected archaeological discoveries, procedures for protecting heritage asset during the construction phase, inherent environmental controls, regulatory controls and best practice measures, are applied and adhered to, no likely adverse significant effects are anticipated as a result of the Proposed Development. The Proposed Development does not screen in under mandatory criteria and, with implementation of appropriate mitigation and best practice measures does not screen in for EIA under sub-threshold assessment.

Public Lighting

Existing public lighting is located on all the roads along the study area, the Proposed Development aims to retain existing public lighting where possible. If the scheme proposals impact upon existing public lighting, if required new lighting will be installed to provide uniform lighting along the scheme. Where the scheme proposes to connect into Pearse Park, new lighting will be required to illuminate the new shared pedestrian and cycle path.

Arboricultural Assessment

CMK Horticulture & Arboriculture Ltd were commissioned to provide a condition assessment of the existing tree vegetation on the study area, to prepare an arboriculture impact study and to recommend tree protective measures for those trees for retention within the proposed development.

An Arboriculture Assessment of the proposals is being undertaken by CMK Horticulture & Arboriculture Ltd to inform the design of this Part 8 scheme to identify whether any existing trees or vegetation will be impacted. The report will highlight areas for sensitive consideration during the proposed development and construction works, to identify mitigation measures such as tree pruning, tree protection, landscaping and monitoring.

Any construction works near retained trees will be undertaken in accordance with approved method statements prepared by the construction contractor under the direct supervision of a qualified consultant Arboriculturist. Therefore, during the construction works, a professionally qualified Arboriculturist will be retained by the principal contractor or site manager to monitor and advise on any works within the Root Protection Zones (RPA) of retained trees to ensure successful tree retention and planning compliance.

Adjoining Schemes

A land use and planning survey was undertaken along the proposed scheme. The Dún Laoghaire Rathdown County Council and ABP online database was reviewed to identify planning schemes that could impact on the proposed scheme. An list is included in the EIA Screening, whilst a list of a number key projects is outlined in the following table.

Table 5-1 Adjoining Schemes

Location	Ref	Description Summary	Date Permitted
0.483ha lands at Baker's Corner, Rochestown Avenue and Kill Avenue, Dún Laoghaire, Co. Dublin, A96TD77	ABP311411 21	Permission for a strategic housing development for student accommodation shall provide for 276no. bedspaces with associated facilities, a public house, 2no. commercial units and ESB Substation.	26/01/202 2
Dundrum to Dún Laoghaire	N/a (Part 8)	The "DLR Connector" walking, cycling and public realm improvement scheme would connect neighbourhoods and villages East to West across the county through a safe, accessible and attractive walking and cycling route with public realm and greening improvements.	n/a
Kill Avenue	N/a (Part 8)	DL Central Part 8, approved in 2022 for active travel infrastructure.	2022

Preliminary Ecological Appraisal Report (PEAR)

AECOM was commissioned by Dún Laoghaire-Rathdown County Council to conduct a Preliminary Ecological Appraisal (PEA) in relation to the proposed scheme. AECOM Ecologists conducted an ecological walkover survey of the Proposed Scheme footprint.

This Preliminary Ecological Appraisal Report (PEAR) sets out the survey methods, results, potential ecological constraints associated with the Proposed Scheme and recommendations for further survey work and/or mitigation, where these are deemed necessary. The approach applied when carrying out the desk study generally accords with the Guidelines for Preliminary Ecological Appraisal published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). This PEAR addresses relevant wildlife legislation and planning policy.

The following summarises the findings of the PEA and recommendations for further work or specific mitigation:

- **Habitats**: The majority of works will occur within existing areas of hardstanding, and only a small amount of habitat loss is required to facilitate the Proposed Scheme. Any losses should be compensated for by landscape planting. In general, landscaping should incorporate native species of local provenance providing habitats for birds, mammals and invertebrate species. Proposed wildflower grassland in areas of open space should be managed in an ecologically sensitive manner.
- **Invasive Species:** No scheduled invasive species were identified within the Site or wider Survey Area. However, eight species of non-scheduled invasive species including butterfly-bush and winter heliotrope were identified within the Site. As good practice, it is recommended that biosecurity measures are implemented as practicable to prevent the further spread of these species. These measures must be clearly set out in a Method Statement for the works.
- **Bat Roost Suitability:** A single tree with Low suitability (T1) to support roosting bats was identified within the Survey Area, located immediately north of the junction with Sefton. This tree is proposed to be retained. Existing lighting is located in the vicinity, which is proposed to be retained. If new lighting is required, this will be in a similar location to ensure no additional light spill onto T1.
- **Breeding Birds:** Vegetation on Site offers limited potential nesting habitat for common bird species only. Proposed Clearance works are to be carried out outside of the bird breeding season (March to August inclusive), unless first checked by a suitably experienced ecologist.
- Other notable or protected species There is very limited suitable habitat within the Survey Area for badger, and badger is not considered to pose a constraint to the Proposed Scheme. Other protected mammals, such as hedgehog may be present within the Survey Area. On a precautionary basis, general measures to prevent entrapment of animals overnight should be implemented for hedgehog i.e., provision of a means of escape from excavations (e.g. mammal ladder or ramps), covering or fencing off any excavations at the end of each working day, and capping of open pipes overnight.

Ecological Impact Assessment (EcIA)

This EclA details the results of the desk study and field survey. The predicted impacts and effects arising from the Proposed Scheme on identified ecological features are described and, where necessary, appropriate and proportionate mitigation measures are prescribed. In line with national and local planning policy, opportunities for enhancement are identified.

This Report has been prepared as part of an application for planning permission for the Proposed Scheme. Other documents submitted with the planning application support this EcIA Report and should be read in conjunction with it, in particular the Appropriate Assessment (AA) Screening Report (AECOM, 2023) and the Preliminary Ecological Appraisal (PEA) Report (AECOM, 2023). The AA Screening assesses the potential impacts of the Proposed Scheme on European sites (comprising Special Areas of Conservation (SAC) and Special Protection Areas (SPA)), and the PEA Report sets out the survey methods, results, potential ecological constraints associated with the Proposed Scheme and recommendations for further survey work and / or mitigation, where these are deemed necessary.

The report concludes that there are not predicted to be any residual adverse ecological effects, on designated sites, notable habitats, or other protected or notable species. In most cases there is no effect or a negligible effect. For general breeding bird, insects and hedgehogs, there are predicted to be slight beneficial effects (of Site significance only, but nevertheless beneficial), which result from the proposed species habitat enhancement measures.

The measures outlined in Section 7 of the EcIA will incorporate small biodiversity enhancements proportionate to the small scale of the Proposed Scheme, including installation of bird and bat boxes on local trees, replanting or trees and hedgerows and seeding of local wildflower seed mix at locations around the Proposed Scheme.

Thus, there will be no significant effect to biodiversity and nature conservation as a result of the Proposed Scheme.

Drainage and SuDS

DLRCC have set out their County Development Plan 2022-2028 which strives to deliver on its core focus of sustainability whilst centring its objectives towards achieving climate resilient, liveable and vibrant communities. Within the County Development Plan, DLR have emphasised the role green infrastructure has in delivering these core principles, outlining it as a strategic asset in aiding sustainable development. Outlined in Appendix 14 of the CDP 2022-2028, Green Infrastructure (GI) is presented as a key factor in the progression to a climate resilient nation.

The Rochestown Avenue project presents an opportunity to produce a model scheme in line with both the County Development Plan and Green Infrastructure Strategy.

Green Infrastructure Strategy

Adopting green infrastructure as a key objective can help deliver an integrated approach to the development and planning of the County. DLR have outlined three strategic themes that the GI strategy strives to deliver:

- 1. Accessibility, Recreation, Health and Well-being
- 2. Natural and Cultural Heritage
- 3. Water Management

The incorporation of strategic drainage infrastructure as well as local green amenity can enhance an area's biodiversity and increase exposure to green space, ultimately improving its residents' health and wellbeing by promoting the use of outdoor areas. Integrating GI helps to increase exposure to green space across the urban landscape by creating smaller, more frequent pockets of open green space where previously, may have been sparse.

DLR recognise the natural and cultural heritage to be preserved and enhanced throughout its county. Providing consistent green space and infrastructure through new and retrofitted schemes allows for the natural and cultural heritage to be maintained whilst also progressing the county towards a sustainable and vibrant streetscape. The county covers an area of approximately 126 km2 ranging from mountains, urbanised landscapes, as well as 17 km of coastline. The GI Strategy highlights that the connection of natural and cultural heritage between different locations within the county is poor. Recognising the ability a well-connected GI network will have in providing this link across the county is integral in preserving this heritage.

At its core, the implementation of SuDS will enable the Rochestown Avenue scheme to deliver on the GI Strategy's third theme: water management. Correctly managed sustainable urban drainage systems enable surface water across the urban landscape to be treated, attenuated and ultimately, alleviate current loads on the existing drainage system.

6. Consultation

Consultation was undertaken with the various departments in DLRCC to obtain any feedback on the proposed Part 8 development. Feedback was received from the Traffic, Parks, Biodiversity, Drainage and Planning Departments, which are detailed below along with AECOMs response.

Traffic Department

A summary of the comments from the DLRCC Traffic Department is summarised as follows along with our proposed response:

1. Supporting of the scheme which would provide an enhanced quality of service to pedestrians and cyclists, and compliance with DMURS.

Response: Noted

2. The provision of a right turn pocket at Sallynoggin Road junction is welcomed.

Response: Noted.

3. Can you consider the tie-in at the Graduate Roundabout, in particular the south-west quadrant... if a two way cycle track could be provided here, it would be very popular.

Response: This has been considered by the DLRCC Active Travel team, whilst agreed that this would be a welcomed extension to the scheme, it was felt that this would have an impact upon the Rochestown Avenue Part 8 programme, therefore has not been included at this stage. From review of the additional area, it would appear that continuation of the two way cycle track from the Graduate Roundabout to Churchview Road along the southern side of Church Road (R118) could potentially be delivered via a separate Section 38 application as opposed to a Part 8. Therefore, this is to be examined further by DLRCC and the NTA, should the Rochestown Avenue Part 8 application be approved.

Parks Department

A summary of the comments from the DLRCC Parks Department is summarised as follows along with our proposed response:

1. Arborist to be appointed for the duration of the construction period

Response: Noted. An arborist has been appointed for this preliminary and detail design stage. An arborist will also be appointed for construction stage.

2. Root Bridging Construction Detail to be agreed and incorporated where footpaths/cycleways pass close to or over existing tree roots

Response: Noted. The root bridging detail has been assessed from a preliminary design perspective. Subject to Part 8 approval, the detail design of the construction detail to be undertaken as per Parks department requirements.

 If not already carried out, an Arboricultural Impact Assessment needs to be undertaken by a qualified arborist

Response: CMK Hort and Arb Ltd were appointed to provide arborist support for Rochestown Avenue scheme. This has included the production of a tree survey and an Arboricultural Impact Assessment report, which has been used to assess the impacts of the emerging scheme proposals.

4. Tree root barrier to line interface between tree root and adjacent surfaces and services

Response: Noted, the detail of which will be developed at detail design stage.

5. Additional tree planting required

Response: The scheme design has been updated and additional planting is now included throughout the scheme. It was not feasible to include new planting in all locations identified by Parks Department in particular near to junctions due to the need to maintain visibility for all modes.

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6. Removal of trees to occur outside of bird nesting season. Arborist to be appointed for the duration of the construction project, to carry out tree survey (that appears to have been done) & to undertake a arboricultural impact assessment.

Response: Noted and agreed.

7. Avoid too many small incidental green spaces that need to be maintained. Can the cycle and footpath run alongside one another so that the two green spaces can be combined.

Response: Noted, the scheme has been updated to facilitate cycle and footpath to run alongside one another where feasible. There are some instances where this is not feasible, i.e. where existing trees are proposed to be protected.

Drainage Department

A summary of the comments from the DLRCC Drainage Department is summarised as follows along with out proposed response:

1. There does not appear to be any drainage proposals as part of this scheme. It would be best practice that the requirements for SuDS are included at the preliminary design stage to ensure adequate space is provided, and utility checks undertaken to confirm feasibility of SuDS proposals.

Response: The General Arrangement drawing has been updated to indicate indicative SuDS proposals and opportunities along the scheme to assist in controlling water run off. A significant allowance for SuDS is indicated along Rochestown Avenue, the majority of which is proposed by reallocating existing hard standing. A utility search and a GPR survey has been undertaken to identify existing utilities along the study area, which has been used to inform the location of SuDS. At detail design stage, it may be necessary to undertake minor revisions to the proposed design subject to the extent of any utility diversions.

Biodiversity Department

A summary of the comments from the DLRCC Ecology Department is summarised as follows along with our proposed response:

1. An Ecological Impact Assessment (EcIA) is required. Trail cameras were requested to assess the small areas of scrub and woodland habitat along the scheme.

Response: An Ecological Impact Assessment report has been prepared to accompany this Part 8 application. Trail cameras were placed along the identified woodland areas. No notable species were recorded from the surveys.

- 2. Feedback and queries was also received on the Preliminary Ecological Assessment (PEA) Report, which can be summarised below:
 - a. Clarification on areas that were inaccessible to surveyors / potential for protected species in this area;
 - b. Clarification on potential for bats in the zone of influence, and potential mitigation measures;
 - c. Clarification on bird habitats;
 - Greater recommendations requested, requirement for an Ecological Impact Assessment.

Response: An updated Preliminary Ecological Assessment report has been provided as part of the Part 8 submission, with a view of addressing the comments received from DLR Biodiversity Department.

- a. Trail cameras were established and findings presented within the Ecological Impact Assessment report. It is noted that no notable protected species was identified from the further investigation.
- b. A single tree was identified as having 'Low' bat roost suitability, as defined by the Bat Conservation Trust (BCT). In accordance with industry-standard guidelines published by BCT, no further survey of trees with 'Low' bat roost suitability are required. Where new lighting is required, mitigation will be applied by minimising light spill and / or the use of low level lighting in areas;
- c. Any clearance works required to the existing shrubland will be undertaken outside of bird nesting season;
- d. An Ecological Impact Assessment has been prepared to accompany the Part 8 application.

Consultation

The following DLRCC Departments were also consulted on the draft Part 8, and provided no comments or objections to the proposals:

- Urban Design
- Lighting
- Heritage
- Architects
- Community and Cultural Development
- Planning

7. Alternatives Considered

AECOM have prepared an Options Report, which presents the alternatives options considered to inform the identification of a preferred option. A Multi Criteria Analysis (MCA) was undertaken for various sections along the route, with a preferred option identified and taken forward through Preliminary Design. Through this process, the preferred route was identified as set out in the proposed General Arrangement drawings.

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