



**SONAS DV Refuge**

**Kilcross Road,  
Sandyford,  
Dublin 18.**

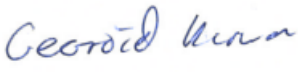


**Transport  
Assessment &  
Cycle Audit**



**May 2024**

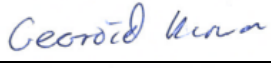
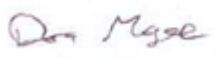
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## 1 Introduction

This Transport Assessment is for the development of a Sonas Refuge development at Kilcross Road, Sandyford, Dublin 18, at the location indicated in Figure 1 below.



Figure 1: Site Location

### 1.1 The Proposed Development

The proposed development consists of 2 short stay residential buildings comprising of 12 residential units and a communal building on a 0.2 Hectare site (site ownership, plus 0.05 Hectare way leave). There are 6 no. 2 bed apartments and 6 no. 1 bed apartments proposed. It is proposed to provide 12 no. parking spaces on site for this development.

The development was suggested to fall under the definition of ‘residential institution’ during the pre-planning meeting (PAC-04-23) on 27<sup>th</sup> January 2023 with Dun Laoghaire-Rathdown County Council (DLRCC). The DLR County Development Plan defines ‘residential institution’ as “*a building or part thereof or land used as a residential institution and includes a monastery, convent, hostel, nursing home.*” Based on this definition, 9 parking spaces would be the maximum number of spaces, based on 18 no. beds. However, based on 12 no. apartments and approximately 10 staff at a given time, this provision is likely too low.

It is much more likely that the parent and children refuge facility, compared to a monastery, convent, hostel or nursing home, will have a need for a parking space given their scenario. In



terms of parking requirements, the development is better described as apartments, the CDP standard for which is 1 parking space per apartment. The site is located within 'Parking Zone 3'.

Land Use		Zone 1 MTC Areas and Blackrock	Zone 2 Near Public Transport	Zone 3 Remainder of County (non-rural)	Zone 4 Rural
<b>Houses:</b>	<b>Criterion</b>	<b>Maximum</b>	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>
House 1 bed	unit	1	1	1	Case by case
House 2 bed	unit	1	1	1	Case by case
House 3 bed or more	unit	1	2	2	Case by case
<b>Apartments and Sheltered Housing:</b>					
Apt 1 bed	unit	1	1	1*	Case by Case
Apt 2 bed	unit	1	1	1*	Case by Case
Apt 3 bed +	unit	1	2	2*	Case by Case
<b>Community:</b>	<b>Criterion</b>	<b>Maximum</b>	<b>Maximum</b>	<b>Maximum</b>	<b>Maximum</b>
Community facility, library, museum, art gallery	GFA	1 per 150	1 per 100	1 per 50	1 per 50
Place of Worship Place of Public Worship	Seat	1 per 50	1 per 20	1 per 10	1 per 5
Medical facility	Consulting Room	1	2	2	n/a
Hospital	GFA	1 per 100	1 per 75	1 per 50	1 per 50
Residential Institution	Bed	1 per 3	1 per 2	1 per 2	1 per 4
Funeral Home	parlour	4	4	5	n/a

Figure 2: Car Parking Zones and Standards

Included in those car parking spaces is 1 no. disabled parking space and 2 no. electric vehicle (EV) Charging Stations (with ducting provided to remaining spaces) in line with the DLR County Development Plan “For both residential and non-residential car parking, 4% of car parking provision shall be suitable for use by disabled persons” and “Residential multi-unit developments both new buildings and buildings undergoing major renovations (with private car spaces including visitor car parking spaces) - a minimum of one car parking space per five car parking spaces should be equipped with one fully functional EV Charging Point. Ducting for every parking space shall also be provided”.

As Outlined in Appendix 3 of the Development Plan, a traffic impact assessment would be required if the proposed development would lead to an increase of greater than 5% as a result of traffic to and from the traffic flow on the adjoining road or 100 trips in the peak hours.

The proposed development would not exceed 5% of the traffic flow on the adjoining road, therefore a Traffic Impact Assessment (TIA) is not required. The Kilcross Road serves approximately 250 residential units. Assuming one vehicle per unit (i.e., 250 vehicles), the proposed 12 car parking spaces in the development constitute 4.8% of the total traffic flow. Furthermore, given the nature of the development, there would be minimal traffic generated during peak hours and hence it is likely the proposed development would generate a lot less than 5% of the traffic flows during peak hours.

## **1.2 Objectives**

The main objective of this assessment is to examine the existing transport facilities and access arrangements for the proposed development.

In order to complete this report, AOCA has referred to the following documents:

- Dun Laoghaire Rathdown County Development Plan (2022 – 2028);
- Standards for Cycle Parking and Associated Cycling Facilities for New Developments (DLRCC, January 2018)
- Greater Dublin Area Cycle Network Plan (NTA<sup>1</sup>, 2013);
- Sustainable Urban Housing Design Standards for New Apartments Guidelines for planning Authorities (Department of Housing, Local Government and Heritage, December 2020);
- Design Manual for Urban Roads and Streets, DMURS (Department of Transport, Tourism and Sport, May 2019);
- Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated and compact grade separated junctions), DN-GEO-03060 (TII<sup>2</sup>, June 2017); and
- Traffic and Transport Assessment Guidelines, PE-PDV-02045 (TII, May 2014).

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<sup>1</sup> NTA – National Transport Authority

<sup>2</sup> TII – Transport Infrastructure Ireland

## 2 Existing Conditions

This chapter reviews the existing conditions surrounding the site including public transport, walking, and cycling facilities and the operation of the surrounding public network. This report has been carried out as a desk study and no on-site audits have been carried out to date.

### 2.1 Location

The site is located on a green field site on the Kilcross Road, just off the R117. The site bounds a housing development to the west and amenity green to the east and north. Access to the site is from the Kilcross road to the South.

### 2.2 Land Use Zoning

The lands the site is located on are zoned “objective A” within the Dun Laoghaire Rathdown County Development Plan 2022-2028 and can be seen in figure 3.1 below. The objectives of land zoned A are “to provide residential development and improve residential amenity while protecting the existing residential amenities” The R117 is also scheduled for active travel upgrades.

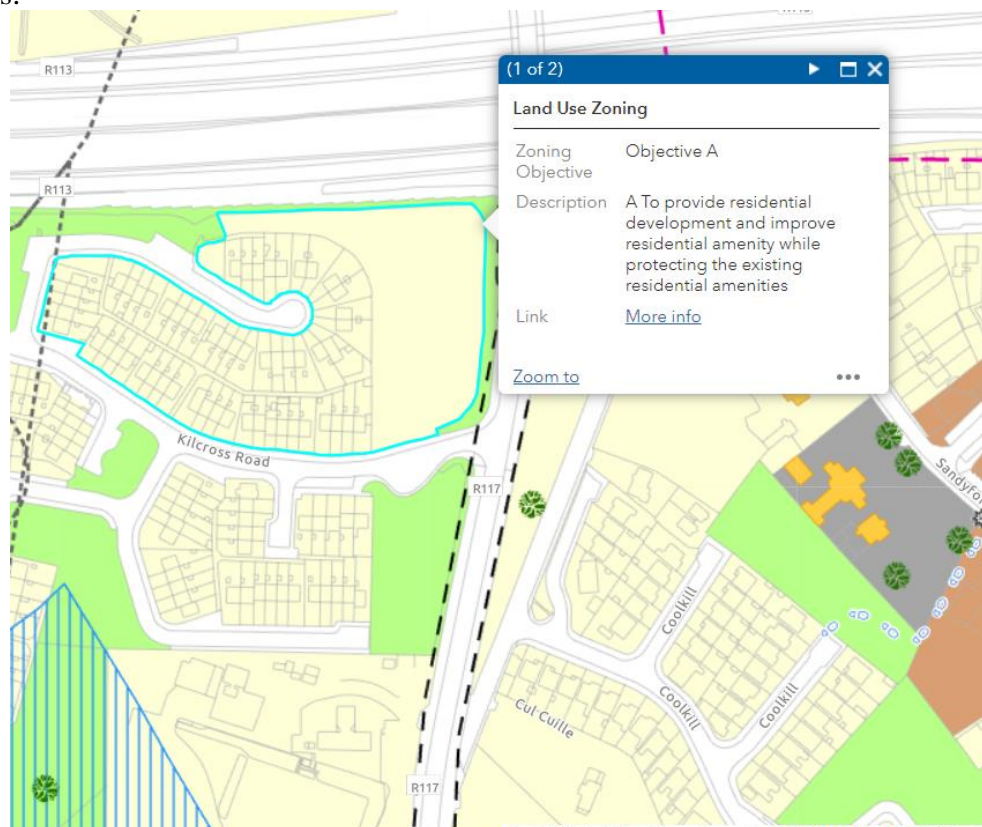


Figure 3: Land zoning of site

### 2.3 Existing Transport Infrastructure

#### 2.3.1 Kilcross Road

Kilcross road is a 6.5 - 7m wide local road which is located along the south of the proposed site and the main access to the site is from Kilcross Road. There are footpaths on both sides of the road servicing the Kilcross residential estate. Public street lighting is provided in the vicinity of the site. There is no posted speed limit on the Kilcross road and is not included in the DLRCC Draft Road Traffic Special Speed Limit Bye Laws 2024.



### 2.3.2 R117

The R117 is a 9m wide single carriageway road located to the east of the site and the main network which the Kilcross Road connects to. The road is serviced by pedestrian ways and raised cycle lanes on both sides and there is public lighting situated along the road. The R117/Kilcross road junction is a priority junction with pedestrian crossing lights located to the south of the junction.

## 2.4 Sustainable Transport

### 2.4.1 Bus

Figure 2.4.1 below illustrates the locations of nearby bus stops in relation to the site. The closest bus stops are located on the R117 and are operated by Dublin bus. The Routes servicing the area are no. 44, 44b and 144.

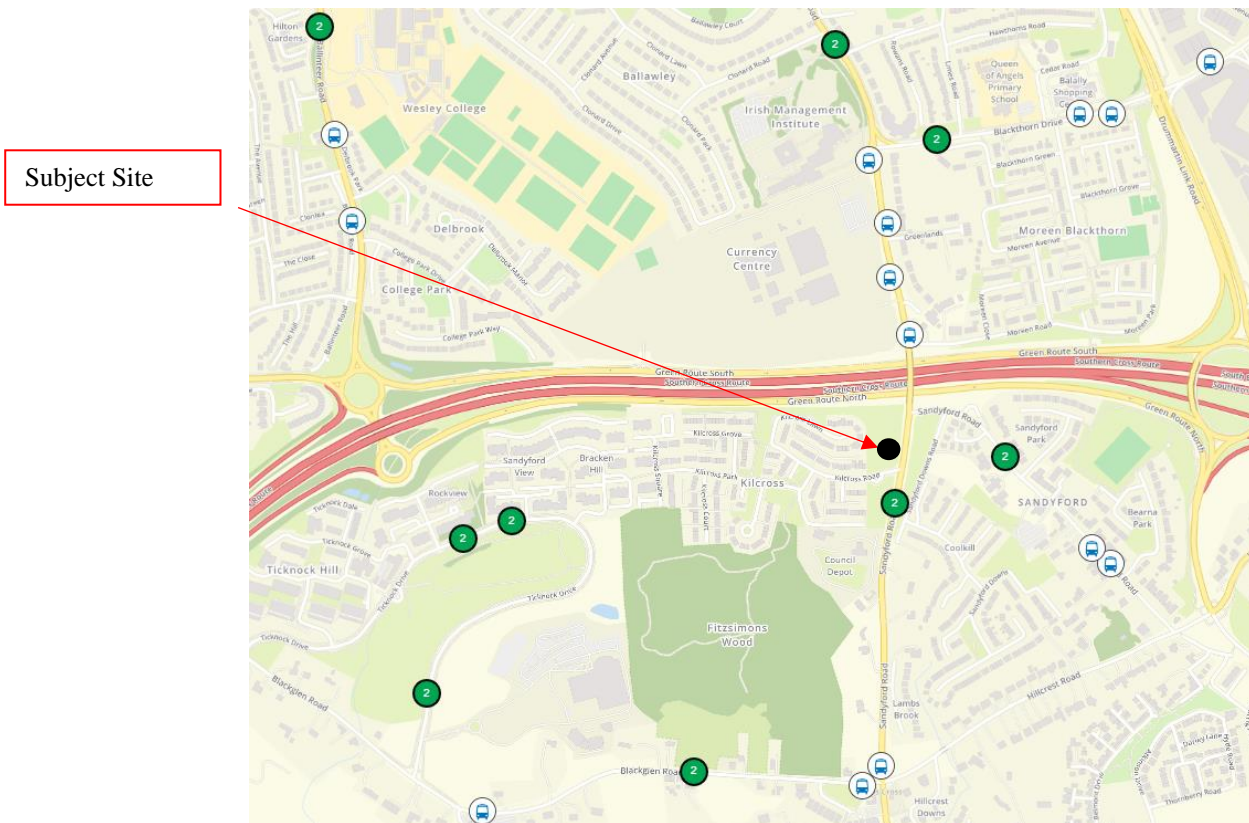


Figure 4: Bus stops in vicinity of the site

Route No.	Operator	Route	Services		
			Mon - Fri	Saturday	Sunday
44	Dublin Bus	DCU-Enniskerry, Enniskerry-DCU	1 Service every 60 minutes	1 service every 60 minutes	1 service every 60 minutes
44b	Dublin Bus	Dundrum luas Station – Glencullen,	6:50, 7:45, 8:50, 15:45, 17:30	No service	No service
		Glencullen-Dundrum Luas Station	7:15, 8:15, 9:20, 16:35, 18:10	No service	No service
114	TFI	Blackrock station - Ticknock	1 service every 30-45 minutes	1 service every 60 minutes	1 service every 60 minutes

Table 1: Bus routes and services

### **2.4.2 Rail**

The closest Luas stop to the site is the Glencairn Luas stop, 1.8km (25mins walk) from the site. There are no train stations in the vicinity of the site.

### **2.4.3 Car-Sharing**

There is a GoCar hire station located at the Glencairn Luas Park and Ride, a 25 minute walk from the site. GoCar allow members to book cars online and unlock them through their phone or GoCard. The vehicles come with fuel, insurance and city parking all included.

## **2.5 Emerging Transportation Infrastructure**

### **2.5.1 Local Road Proposals**

The DLRCC Development Plan 2022–2028 outlines short-term (6 years) and long-term (6+ years) road network proposals in the DLRCC vicinity. Policy T23: Roads and Streets within the plan specifies the following objective:

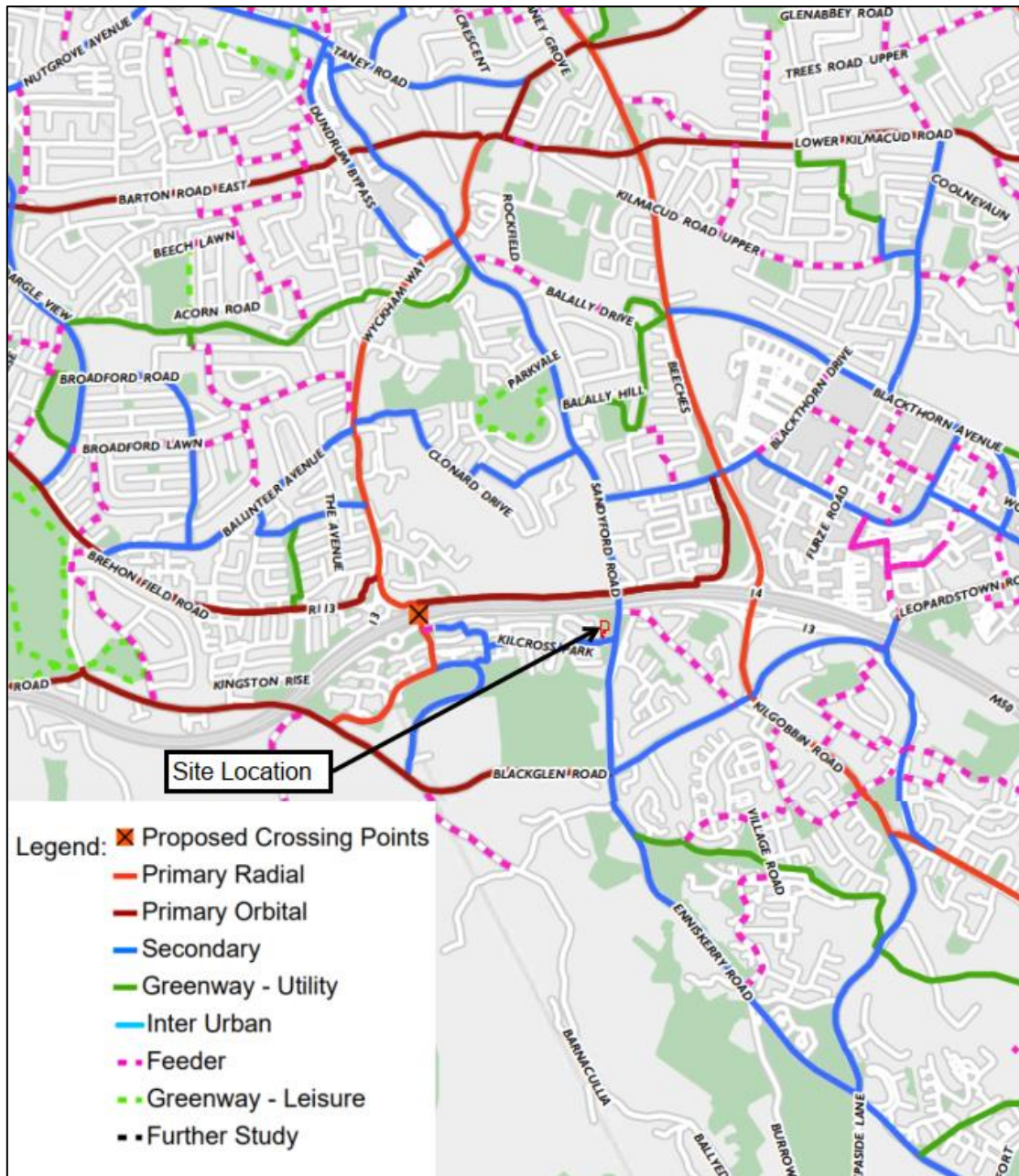
"It is a policy goal, in collaboration with other transport entities like TII and NTA, to achieve enhancements to the County's road network, encompassing improved pedestrian and cycling facilities, contingent upon environmental assessment, flood risk assessment, and the planning process."

"The design and execution of the 6-year road proposals/projects prioritize walking and cycling infrastructure, with the specifics of individual road designs and the degree of cycle lane/path segregation determined on a case-by-case basis in accordance with the Design Manual for Urban Roads and Streets (2019) and the 'National Cycle Manual' (2011)."

Under the road policy, DLRCC has indicated plans to upgrade the R117 (named Sandyford/Enniskerry road) as part of the development plan, which is scheduled for completion within the plan's 6-year timeframe (2022–2028). The scope and current stage of the design process for the implementation of the scheme remain uncertain at this point.

### **2.5.2 Cycle Network Proposals**

The Greater Dublin Area (GDA) Cycle Network Plan, January 2023, consisting of the different route types, was adopted as part of the GDA Transport Strategy 2022-2042. Sandyford Road is shown as a secondary route, and currently has an existing off road cycle lane.



### 2.5.3 Bus Network Proposals

The National Transport Authority (NTA) has presented proposals to enhance several key bus corridors from the outskirts of Dublin to the City Centre under the initiative named 'BusConnects.' The project aims to:

- Improve the speed, predictability, and reliability of bus journeys.
- Introduce new bus stops and enhance existing facilities.
- Establish a more efficient network that connects additional locations and accommodates more passengers.
- Update ticketing systems and implement a cashless payment system with a simplified fare structure.



- Enhance the cycling network and prioritize safety.

As part of the BusConnects plan, the current bus network will undergo revision, leading to the provision of more frequent and efficient services throughout the Dublin outskirts. The project site is situated along the Local Route L33, which run from Glencullen to Dundrum and Routes 86,87 and 88, all serving the Sandyford area to Dublin City Centre. Figure 4 illustrates all routes, and Table 3.3 provides details on the proposed routes in the vicinity of the subject site.



Figure 5: Proposed Bus routes in the vicinity of the site

### 2.5.4 Existing site access

At present there is currently no access point to the site. The site is a greenfield lawn with no existing pedestrian or vehicle access.



Figure 6: View of site from Kilcross Road

### **2.5.5 Quality Audit (Road Safety Audit)**

A Quality Audit was undertaken and is submitted separately as part of this application. The feedback from the audit has been incorporated into the site layout, such as repositioning of a lighting column (as opposed to removal), a cycle friendly gully was suggested, manhole covers will be checked for traffic loads and parking spaces have been checked by vehicle tracking.

### **2.5.6 Existing conditions Summary**

The subject site is strategically positioned in an urban environment to leverage sustainable modes of transportation, including walking, cycling, and public transport.

Its close proximity to nearby bus stops, several of which are within a 1.5km walking catchment, offers prospective residents convenient access to an extensive bus network. Notably, Dunderum hosts frequent bus services that travel towards Dun Laoghaire and to the city center.

Furthermore, the site is situated within a 1.8 km walking catchment of both the Kilmacud Luas stop north of the site, and the Glencairn Luas stop southeast of the site. Luas frequencies at the Kilmacud stop range from 4-12 minutes on average during the week and 7-16 minutes on average at weekends. Luas frequencies at the Glencairn Luas stop range from 9-16 minutes on average during the week and 12-16 minutes on average at weekends. These Luas services connect to Dublin City, providing residents and staff with options to access the broader bus network or train services, enhancing the site's sustainability profile.

In addition, the site is in close proximity to several car-sharing facilities, as detailed earlier, with five GoCar GoBase locations within a 1.5km walking catchment. These facilities enable residents to embark on day trips without the need for private vehicle ownership, thereby reducing the demand for on-site parking.



## **3 DMURS compliance**

### **3.1 General**

This chapter comprises of a Statement of Compliance, prepared for the proposed development. It includes the following sections with appropriate commentary relevant to the proposed development and its compliance with the Design Manual for urban Roads and Streets (DMURS).

### **3.2 Compliance with DMURS**

AOCA has set out in the following sections how the proposed development is compliant with the DMURS guidelines.

It is AOCA's opinion that the proposed development is consistent with both the principles and guidance outlined within DMURS. The scheme proposals are the outcome of an integrated approach that seeks to implement a sustainable community connected by well-designed streets which deliver safe, convenient and attractive networks in addition to promoting a real and viable alternative to car-based journeys.

The adopted design approach successfully achieves the appropriate balance between the functional requirements of different network users whilst enhancing the sense of place. The main objective of this report is to examine the design principles of the proposed development with reference to the two core principles presented within DMURS, as outlined below:

- **Street Networks:** To support the creation of integrated street networks which promote either level of permeability and legibility for all users and in particular more sustainable forms of transport.
- **Street Design:** The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment.

### **3.3 Street Networks**

Specific attributes of the street network which contribute to achieving the DMURS objective include:

Courtesy crossings across raised tables allowing pedestrians to informally assert a degree of priority.

A variety of materials and finishes will be specified in the shared areas to indicate that the carriageway is an extension of the pedestrian domain.

### **3.4 Street Design**

The internal layout design has been informed by Chapter 4 of the DMURS guidelines and is in accordance with these guidelines. The following measures are examples of where compliance with the recommended street design guidelines has been demonstrated:

#### **3.4.1 Streetscape**

- Pedestrian crossings are proposed which comprise of raised tables to facilitate pedestrian movements throughout the site.
- Car parking provision is proposed within the curtilage of the development.

- DMURS also gives guidance on the types of materials and finishes to be used in order to provide a sense of calm for traffic and improve legibility for vulnerable road users. All carriageways, footpaths and tactile paving are proposed to be of visually contrasting colour.

### **3.4.2 Pedestrian and Cyclist Environment**

The following measures are examples of where compliance with the DMURS pedestrian focus has been demonstrated:

- There are pedestrian crossings proposed at the turning head within the site, which comprises tactile paving and a raised table to allow a level crossing for pedestrians.
- The proposed corner radii at the junctions comply with DMURS (Section 4.3.3) of 4.0 – 6.0m in order to reduce vehicular speeds and reduce pedestrian crossing distances.

### **3.4.3 Carriageway Conditions**

- Car parking is greater than the required minimum dimensions i.e., 2.4m x 4.8m for a standard parking space. The smallest space provided is 2.5m x 4.8m.
- Vehicle tracking has been undertaken to demonstrate that the proposed development can cater for servicing vehicles and to confirm suitability of parking spaces.

### **3.4.4 Conclusion**

As detailed above the proposed development has been examined and complies with the design principles and objectives set out in DMURS (2019) for Street Networks and Street Design.

## 4 Cycle Audit

### 4.1 Introduction

This audit will illustrate and detail the proposed developments compliance with the Dun Laoghaire Rathdown County Council (DLRCC) Development Plan 2022-2028 cycle standards and DLRCC Standards for Cycle Parking and Associated Cycling Facilities for New Developments 2018.

In the planning of a new development, giving due consideration to cycle parking is crucial. Throughout the planning process, it is essential to view high-quality cycle parking as an integral component of the scheme. It should be perceived as a fundamental aspect that enhances the overall appeal of a development, rather than being seen as a mere add-on to fulfil minimum policy requirements.

### 4.2 Policy Documents

Two policy documents have been used as guidance within this audit:

- Dun Laoghaire Rathdown County Council Development Plan (2022-2028).
- DLRCC Standards for Cycle Parking and Associated Developments (2018)

This audit will provide a comprehensive examination of how the proposed development has taken these policy documents into account.

#### 4.2.1 DLRCC Development Plan

The Dun Laoghaire-Rathdown County Council Development Plan (2022-2028) states that it is:

*‘a requirement that, new residential developments of 5 residential units or more or non-residential type developments of 400 sq. m. or over, submit a Cycle Audit as part of the planning application. The Cycle Audit must be prepared by a suitably qualified person and shall clearly demonstrate, in plain format, how all the requirements of Council’s “Standards for Cycle Parking and Associated Cycling Facilities for New Developments” (2018), are met within the development.’*

The DLRCC Development Plan (2022 – 2028) outlines the Cycle Parking Assessment Criteria, applicable to new residential developments comprising 5 units or more, as well as non-residential developments of 400 sq. m. or over. These criteria should be evaluated based on the following guidelines:

- Is the number of cycle parking spaces and footprint adequate and is there suitable provision for parking of outsized formats (cargo bikes etc)?
- Is the location of cycle parking convenient, appropriate, and secure with adequate provision for covered parking?
- Is the cycle parking area accessible in terms of dedicated access routes with ramps and/or kerb dishing where required?
- Do the internal cycle access routes connect well with off-site cycle facilities – existing and proposed?
- Is there adequate and appropriately designed and integrated provision for ancillary cycling and pedestrian facilities including showers, locker / changing rooms and drying areas?

### 4.2.2 DLRCC Standards for Cycle Parking and Associated Developments

The DLRCC Standards for Cycle Parking and Associated Developments (2018) details the standards for provision of cycle parking to ensure support for the development of cycling as a practical transport choice. High quality secure cycle parking at origins and destinations is a key element of any strategy aimed at encouraging cycling and it is just as important as other forms of infrastructure. The purpose of this document is to provide guidance on the provision of cycle parking at new developments (residential, workplace) and in the public realm. This documents details guidance and standards in DLRCC such as:

- Cycle Parking Stands and layouts
- Standards for Cycle Parking and Cycle Facilities for New Developments and
- Measures and Initiative’s for Cycling.

### 4.3 Existing & Proposed Cycling Infrastructure

There are existing cycling facilities throughout the constituency of DLRCC and in the vicinity of the site. These include a combination of dedicated cycle lanes, shared cycle lanes and a greenways. Figure 7 shows the Greater Dublin Area (GDA) Cycle Network Plan 2023, adopted as part of the GDA Transport Strategy 2022-2042. The majority of the routes shown below already have existing cycle infrastructure. Noteworthy additions in the vicinity of the site are Kilcross Road noted as a secondary route to a proposed crossing point over the M50, and the Blackglan Road, a primary route, which is currently under construction.

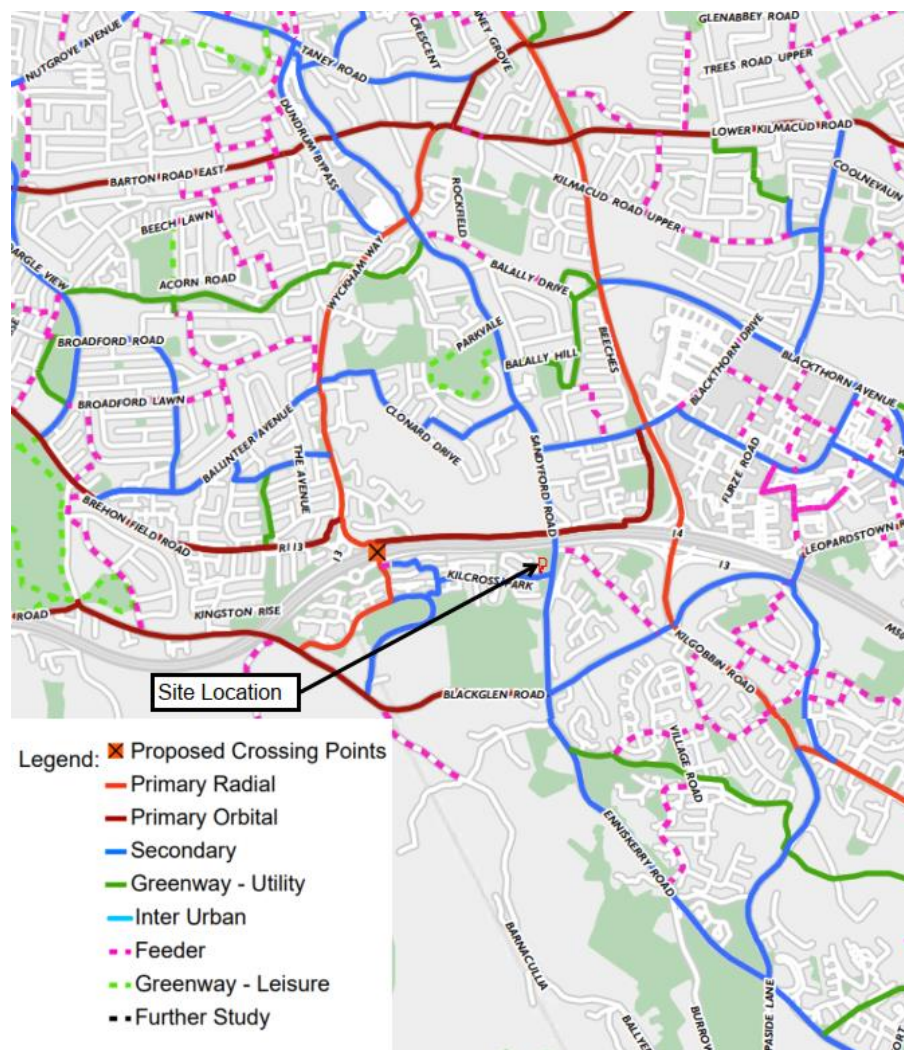
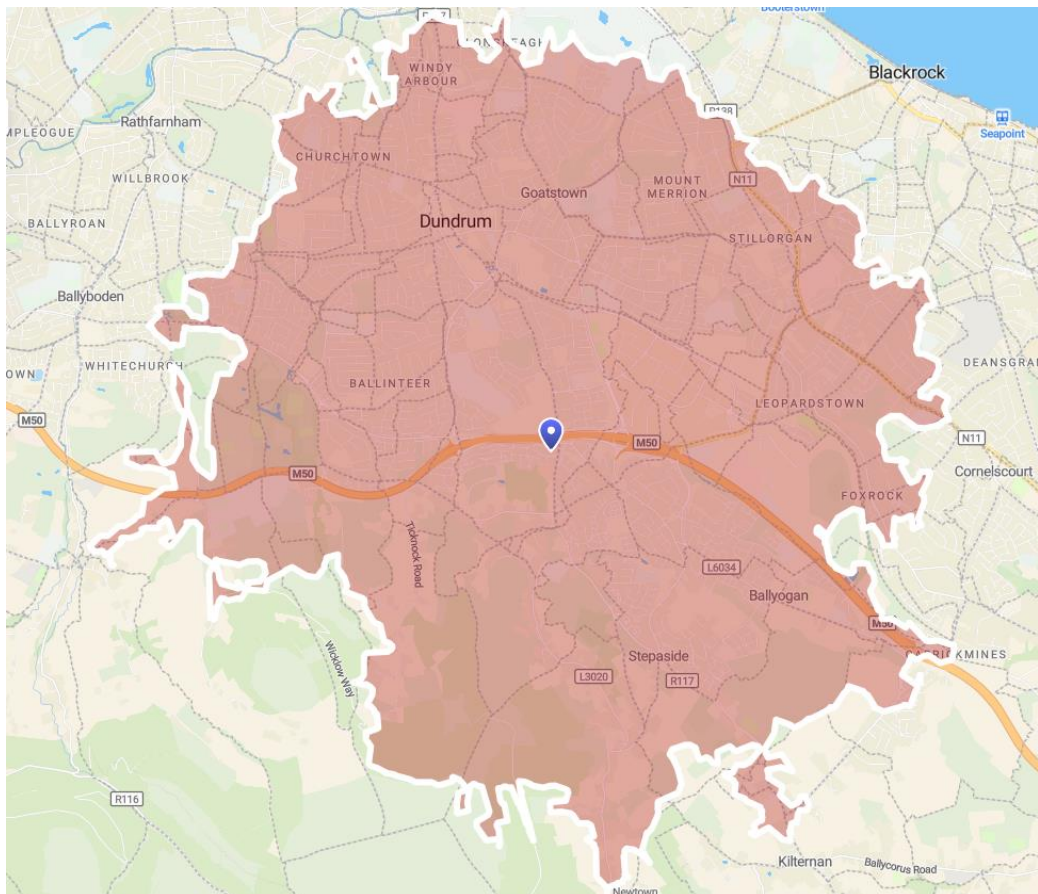


Figure 7: Existing and proposed Cycle Facilities



According to the CIHT (Chartered Institute of Highways and Transportation), the maximum preferred cycling distance from a site such as the proposed development site is five kilometres, as a potential substitute for short car trips.

Figure 8 details the cycling radius area relevant to the site. This illustrates the availability of a number of amenities and locations which can be reached by cycling from the site.



**Figure 8: 5 km Cycling Radius**

The 5km cycling radius includes destinations such as the villages of Dundrum, Leopardstown, and Ballinteer. It also includes access to the Luas line with stations such as Glencairn and Stillorgan with the 5km cycle zone.



## 4.4 Cycle Facility Compliance

Table 2 below details the DLRCC Cycle Parking Standards requirements for residential land use.

Table 4.1 Cycle parking for residential development		
Residential Development type	1 short stay (visitor) parking space per: (Minimum of 2 spaces)	1 long stay parking space per: (Minimum of 2 spaces)
Apartments, Flats, Sheltered housing	5 units	1 unit
Houses - 2 bed dwelling	5 units	1 unit
Houses - 3+ bed dwelling	5 units	1 unit
Sheltered housing	5 units	1 unit
Student Accommodation	5 bedrooms	2 bedrooms

Table 2: DLRCC Standards for Cycle Parking for New Developments 2018

Table 2 illustrates the development would need to provide a total of 2 no. short stay visitor spaces and 12 no. long stay spaces in order to comply with the standards. There are 10 no. cycle parking spaces located beside the communal building for residents and staff. This is below the requirement for typical residential developments, however given the nature of the development, it is deemed unnecessary to provide that many spaces, given there is only one adult per apartment and the short term/emergency stay of tenants in the refuge. It is likely that the parent and child/children seeking refuge will travel to the site by other means.

Based on the information and analysis outlined in this cycle audit, the assessment demonstrates how the scheme has been strategically designed from a traffic and transport perspective. The aim is to seamlessly integrate with the existing cycle network and foster safe cycling practices while ensuring adequate cycle facilities within the proposed development.

Although the proposed on-site bicycle parking provision of 10 cycle spaces falls below the minimum requirement for a typical residential development, it is concluded that given the intended use of the proposed site that 10 cycle spaces is sufficient given the likely travel patterns of those attending the refuge.