



**SOCIAL HOUSING BUNDLE 4**  
**DEVELOPMENT AT COLLINS AVENUE, WHITEHALL**

**TRAFFIC MOBILITY MANAGEMENT**  
**PLAN**

**DUBLIN CITY COUNCIL**  
**April 2024**

Job: 23006

# Contents Amendment Record

2B Richview Office Park, Clonskeagh, Dublin 14  
Tel: +353-1-260 2655 Fax: +353-1-260 2660 E-mail: info@MORce.ie



**Title:** SOCIAL HOUSING BUNDLE 4  
DEVELOPMENT AT COLLINS AVENUE, WHITEHALL.  
Traffic Mobility Management Plan / Dublin City Council

**Job Number:** 23006

**Prepared By:** Kezia Adanza **Signed:** Kezia Adanza

**Checked By:** Eugene Kelly **Signed:** pp Eugene Kelly

**Approved By:** Douglas Weir **Signed:** Douglas Weir

## Revision Record

Issue No.	Date	Description	Remark	Prepared	Checked	Approved
0	19.04.2024	Information	P1	KA	EK	DW
1	23.07.2024	Planning	P3	KA	DW	DW

# CONTENTS

		Page No.
<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
	1.1 Introduction	1
	1.2 Site Overview	1
	1.3 Proposed Development	2
<b>2</b>	<b>MOBILITY MANAGEMENT CONTEXT .....</b>	<b>4</b>
	2.1 What is Mobility Management	4
	2.2 The Benefits of Mobility Management	4
	2.3 Mobility Management Plan Objectives	4
	2.4 Making Residential Mobility Management Plans Work	5
<b>3</b>	<b>PLANNING POLICY CONTEXT .....</b>	<b>6</b>
	3.1 Policy and Plan Overview	6
	3.2 National Policy Context	6
	3.3 Regional and Local Policy Context	6
<b>4</b>	<b>BASELINE REVIEW: EXISTING TRANSPORT NETWORK .....</b>	<b>14</b>
	4.1 Overview	14
	4.2 Existing Pedestrian/ Cyclist Environment	14
	4.3 Public Transport Infrastructure	17
	4.4 Other	19
<b>5</b>	<b>TRAFFIC IMPACT .....</b>	<b>21</b>
	5.1 Construction Traffic Impact	21
	5.2 Operational Stage	22
	5.2.1 Car parking.....	22
	5.2.2 Bicycle Parking.....	24
	5.3 Direct Impact on Adjoining Road Network – Collins Avenue Junction	28
	5.4 Direct Impact on Adjoining Road Network – Secondary Access	29
<b>6</b>	<b>PRE – OCCUPATION BASELINE MODE SHARE .....</b>	<b>30</b>
	6.1 Purpose of the Baseline	30
	6.2 Mode Share	30
<b>7</b>	<b>AIMS AND OBJECTIVES OF THE TMMP.....</b>	<b>35</b>

7.1 Overview	35
<b>8 MOBILITY MANAGEMENT MEASURES .....</b>	<b>36</b>
8.1 Proposed TMMP Action Plan Measures	36
8.2 Mobility Manager	36
8.3 Reducing the need to travel	36
8.4 Welcome Travel Pack	37
8.5 Marketing and Travel Information	37
8.6 Walking	38
8.7 Cycling	38
8.8 Public Transport	38
8.9 Managing Car Use	39
<b>9 MONITORING AND REVIEW .....</b>	<b>40</b>
9.1 Monitoring and Review	40
9.2 Data Collection Analysis	40

## **1 INTRODUCTION**

### **1.1 Introduction**

This report is prepared in support of the planning application for Dublin City Council for a residential development on a site at Collins Avenue, Whitehall, Dublin 9.

The purpose of this document is to define a Traffic Mobility Management Plan (TMMP). The TMMP provides an assessment of existing traffic and mobility issues accessing the site. It outlines the process of development of the TMMP Strategy and finally it examines the scope available for sustainable modes of transport to and from the site.

This TMMP has been prepared to guide the delivery and management of a package of integrated initiatives which seeks to encourage and embed sustainable travel choices by residents from the outset of the development's occupation.

A successfully implemented TMMP can provide reductions in car usage, particularly influencing levels of single-occupancy car travel, with increased trips made by car-sharing, public transport, walking and cycling, and can improve road safety and personal security for pedestrians and cyclists.

Mobility Management is about improving the development site's access from the outset – by designing for and enabling and promoting sustainable travel options (e.g., walking, car-sharing, cycling and public transport) to residents – and by reducing the need to travel by car from the development to access essential services and amenities. TMMPs can also improve the health and wellbeing of residents through the benefits of active travel and reduce the transport-related carbon impact of the development. A TMMP specifically focuses on journeys made from a single origin (home) to multiple destinations.

### **1.2 Site Overview**

The site is located on Collins Avenue across from the entrance to Dublin City University. The main routes serving the site includes the R103 running along the southern boundary (connecting Finglas – Ballymun – Glasnevin – Howth Road), the R101 along the western boundary (connecting Finglas – Santry, Coolock – Raheny) and the N1 along the eastern boundary (connecting to the M1 motorway). The site is accessed from Collins Avenue, off the R103 Regional Road. It is bounded by industrial development to the north and west, Collins Ave estate to the south and Crestfield Close estate to the east.

The site is located approximately 300m to the northeast of DCU, 2.40km from Dublin City Centre, 3km to the east of Finglas and 1.20km to the south of Santry.

Historically, the site has accommodated Dublin City Council's North City Depot and currently operates as a Bring Centre. It is proposed to redevelop the site into a residential community.



Figure 1-1– Site Location showing the indicative Site Boundary and Adjacent Developments

### 1.3 Proposed Development

The proposed development will comprise:

Development at the site will consist of the following:

- The demolition of the existing office building, sheds, warehouses and garages and site clearance works.
- Three apartment blocks comprising a total of 106 residential units and 375 sqm of community, arts and cultural space.
  - Block A ranges from 3 to 6 storeys and consists of 50 no. residential units (22 no. 1 bed, 20 no. 2 bed and 8 no. 3 bed units) and 275 sqm of community, arts and cultural facilities at ground floor level.
  - Block B ranges from 4 to 6 storeys and consists of 38 no. residential units (17 no. 1 bed, 9 no. 2 bed and 12 no. 3 bed units) and 100 sqm of community, arts and cultural facilities at ground floor level.
  - Block C ranges from 4 to 5 storeys and consists of 18 no. residential units (10 no. 1 bed and 8 no. 2 bed units).
- 183 no. long-stay and 63 no. short-stay bicycle parking space, 57 no. car parking spaces and 5 no. motorcycle parking spaces.
- 1,925 sqm of public open space and 3,140 sqm of communal open space.
- One signalised vehicular access is proposed via Collins Avenue and Collins Avenue Extension.
- Provision of pedestrian and cyclist access at northern boundary to allow for future link via Shanowen Business Estate and the Shanowen Hall and Square



- Boundary treatments and planting, public lighting, site drainage works, internal road surfacing and footpath, ESB meter rooms, stores, bin and cycle storage, plant rooms, landscaping; and
- All ancillary site services and development works above and below ground.



*Figure 1-2 – Proposed Site Layout*

#### **1.4 Report Structure**

This report sets out the background, context, and objectives of the plan, and describes a package of measures to promote and provide for the use of sustainable modes as an alternative to single occupancy car use to the development. A strategy for implementation, target setting and monitoring is also discussed. The report is set out in the following structure:

- Chapter 1: Introduction.
- Chapter 2: An introduction to the Mobility Management.
- Chapter 3: Planning Policy Context.
- Chapter 4: Baseline Site Transport Review.
- Chapter 5: Traffic Impact.
- Chapter 6: Pre-occupation Baseline Mode Share.
- Chapter 7: TMMP Objectives and Targets.
- Chapter 8: MMP measures.
- Chapter 9: Monitoring and Review.

## 2 MOBILITY MANAGEMENT CONTEXT

### 2.1 What is Mobility Management

Mobility Management is a concept to promote sustainable transport and manage the demand for car use by changing travellers' attitudes and behaviours. Mobility Management is about improving a site's access, by designing for and enabling and promoting sustainable travel options (e.g., walking, cycling and public transport) to residents. The use of Mobility Management is well established in Ireland through the Development Control process and policy documents set out in Chapter 3. The process involves key stakeholders such as the Local Authority, public transport operators, the developer, and future residents.

### 2.2 The Benefits of Mobility Management

Implementing a TMMP has the following local benefits:

- Promoting alternative uses to the car can result in less congestion and therefore improves safety on local roads by promoting alternatives to the car.
- Reduced motorway capacity problems can enable more sustainable travel choices.
- The local environment will be improved from reduced congestion, carbon emissions, pollution, and noise.
- A range of travel options makes the development site attractive to potential residents.
- Increases opportunities for active healthy travel, such as walking and cycling.
- Reduces demand for parking spaces, enabling land to be put to more cost-effective or commercially beneficial use and freeing space for active travel initiatives.
- Improved travel choice, quality, and affordable access to services for all users.

### 2.3 Mobility Management Plan Objectives

The overarching objectives of the TMMP are to reduce levels of private car use by encouraging people to walk, cycle, use public transport and car share. It can also reduce the number and lengths of trips undertaken or required.

The specific objectives of an TMMP can vary depending upon the organisation, site characteristics and specific land uses which vary with each site. Nevertheless, in the context of a residential TMMP, objectives can include:

#### Residents

- Address residents need for sustainable access to a full range of facilities for work, education, health, leisure, recreation, and shopping.
- Promote healthy lifestyles and sustainable, vibrant local communities by improving the environment and the routes available for cycling and walking.

#### The Local Community

- Make local streets less dangerous, less noisy and less polluted and enhance the viability of public transport.



- Reduce the traffic generated by the development for journeys both within the development and on the external road network.
- Promote equal opportunities by offering wider travel choices.
- Improve personal and wider community health.
- Reduce air and noise pollution.

## 2.4 Making Residential Mobility Management Plans Work

A successful TMMP will address all aspects of a development that create a need for travel by site residents. The TMMP ‘pyramid’ below demonstrates how successful plans are built on the firm foundations of location and site design. A TMMP should combine hard measures (e.g., cycle parking, routes to bus stops) and soft measures. All measures should be integrated into the design, marketing, and occupation of the site – with parking restraint often crucial to the success of the TMMP in reducing car use.

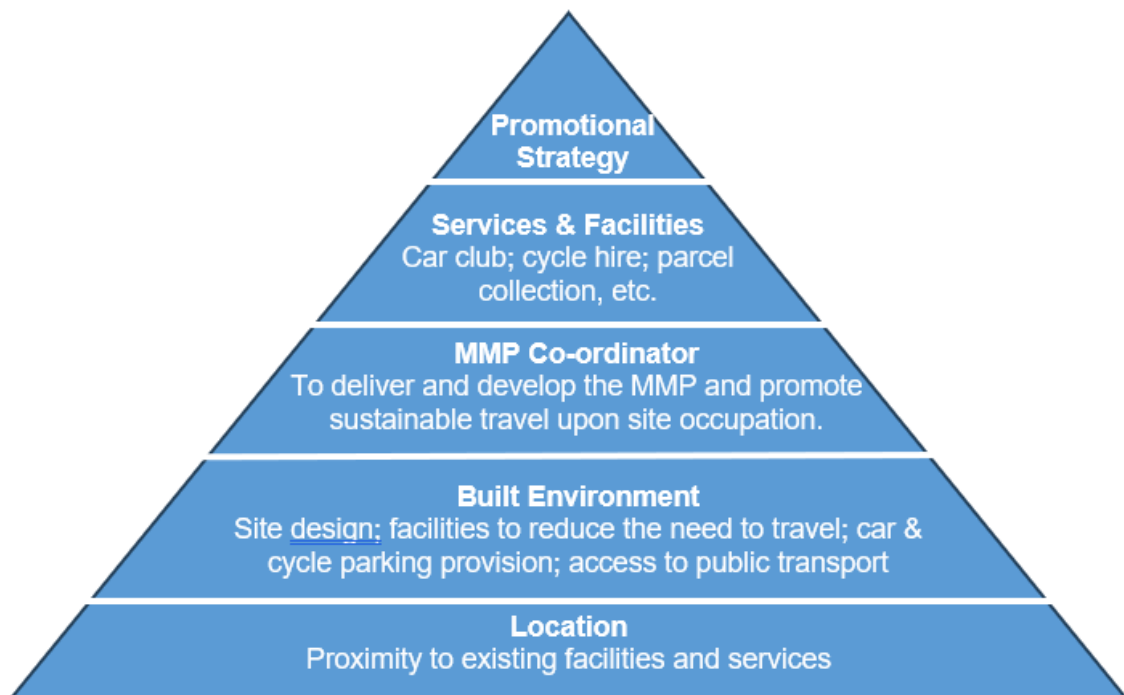


Figure 2-1 – The Travel Plan Pyramid

TMMPs are evolutionary documents that should be regularly updated. In this way, TMMP targets and Action Plans can be reviewed and tailored to take account of ongoing changes in travel patterns. It is therefore intended that this TMMP is the starting point of a live process and will be updated when required by circumstances.

### **3 PLANNING POLICY CONTEXT**

#### **3.1 Policy and Plan Overview**

This section provides an overview of the national, regional, and local transport and other policy drivers and strategies that underpin the requirements and benefits of implementing a TMMP for the proposed residential development.

#### **3.2 National Policy Context**

This section provides an overview of the main national policy drivers and strategies that underpin the requirements and benefits of implementing a TMMP for a residential development at the Collins Avenue site.

##### **Ireland 2040 Our Plan – National Planning Framework**

The Project Ireland 2040 - National Planning Framework (NPF) recognises that improvements in connectivity are achievable and are necessary to boost competitiveness and quality of life. The Ireland 2040 vision include the following key elements which direct relevance to mobility management.

- i. More sustainable choices and options for people, businesses and communities that can positively influence sustainable patterns of living and working.
- ii. The highest possible quality of life for our people and communities, underpinned by high quality, well managed built and natural environments.
- iii. Significant improvement in local and international connectivity that underpins that competitiveness and quality of life of our people, businesses, communities, and regions.

The NPF has been developed to deliver the following National Strategic Outcomes which are pertinent to this report. These are to:

- i. Improve accessibility to and between centres of mass and scale and provide better integration with their surrounding areas.
- ii. Ensure transition to more sustainable modes of travel (walking, cycling, public transport) and energy consumption (efficiency, renewables) within an urban context.

The NPF seeks to enable people to live closer to where they work, moving away from unsustainable trends of increased community. It supports more energy efficient development through the location of housing and employment along public transport corridors, where people can choose to use less energy intensive public transport, rather than being dependent on the car.

#### **3.3 Regional and Local Policy Context**

This section provides an overview of the main regional and local policy drivers and strategies that underpin the context, requirements, and benefits of a TMMP for the proposed residential development.

## **Greater Dublin Area Transport Strategy, 2022 – 2042**

This strategy aims to contribute to the economic, social, and cultural progresses of the Greater Dublin Area by providing for the efficient, effective, and sustainable movement of people and goods – helping to reduce modal share of car-based communities to a maximum of 45%. To achieve these principles, future developments must:

- i. Have transport as a key consideration in land use planning – integration of land use and transport to reduce the need to travel, reduce the distance travelled, reduce the time taken to travel, promote walking and cycling especially within development plans.
- ii. Protect the capacity of the strategic road network.
- iii. Ensure a significant reduction in share of trips taken by car, especially those trips which are shorter or commuter trips.
- iv. Consider all day travel demand from all groups.
- v. Provide alternate transport modes to reduce the strain on the M50 as current increase in traffic is unsustainable.

Dublin City Council are working with the National Transport Authority (NTA) to bring forward additional and extended public transport routes to services newly developed and existing areas, to address gaps in existing areas to improve access to public transport stops and services and to improve the integration between high density development and public transport nodes. As part of the strategy, indicative radial and orbital core bus corridors were identified. The NTA has refined and altered the proposals across these corridors and have endeavoured to design a new bus system that is efficient and effective. Two of these bus corridors are located in close proximity to the proposed development site. The Swords to City Centre corridor is located on the N1 Swords Road, 820m to the east of the site entrance off Collins Avenue. The Ballymun / Finglas to City Centre corridor runs along the R108 Ballymun Road, 750m to the west of the site entrance off Collins Avenue.

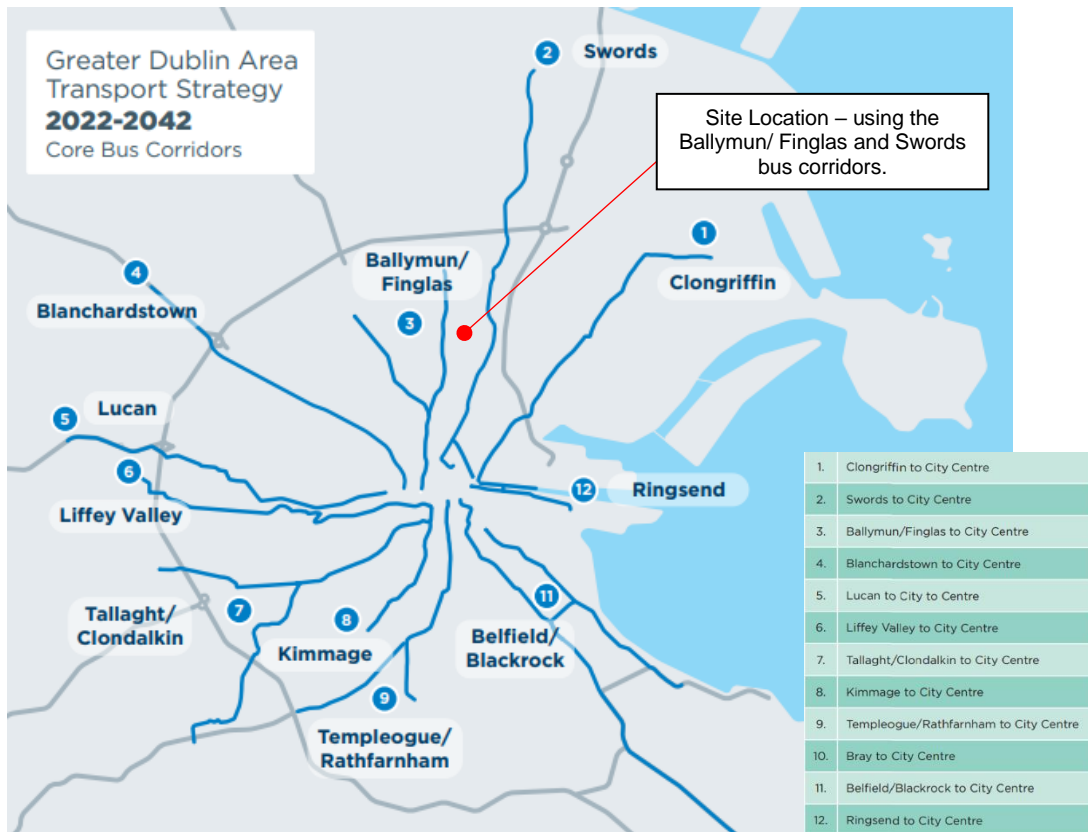


Figure 3-1 – BusConnects Dublin Core Bus Corridors (Source: GDA Transport Strategy 2022 – 2042)

The Swords to City Centre corridor starts at Pinnock Hill Junction south of Swords, heading south along R132 Swords Road, passing through Airside Retail Park, Dublin Airport, Santry Park, and Santry Demesne. It merges with R104 at Coolock Lane, continues south through Santry village, Whitehall, and Griffith Avenue. It then follows Drumcondra Road Upper to the River Tolka, through Drumcondra to Binns Bridge on the Royal Canal. It proceeds on Dorset Street Lower to Eccles Street, then Dorset Street Upper to North Frederick Street. Inbound buses will end at Parnell Street via North Frederick Street and Parnell Square East, while outbound buses will travel northeast from Parnell Street, passing the Rotunda Hospital and Parnell Square West to join Dorset Street Upper.

The Ballymun / Finglas to City Centre Scheme commences at the St. Margarets Road junction at Ballymun Road and proceeds along Ballymun Road, St. Mobhi Road, Botanic Road, Prospect Road, Phibsborough Road, Constitution Hill and Church Street as far as the junction with Arran Quay/ Ormond Quay on the River Liffey.

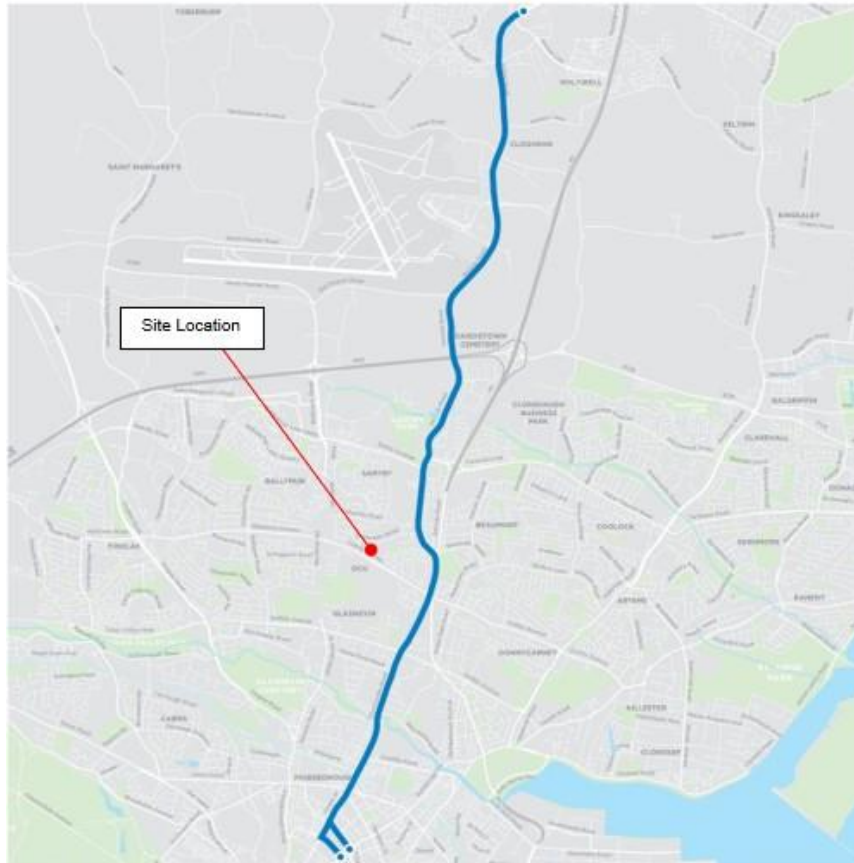


Figure 3-2 – Swords to City Centre Bus Route

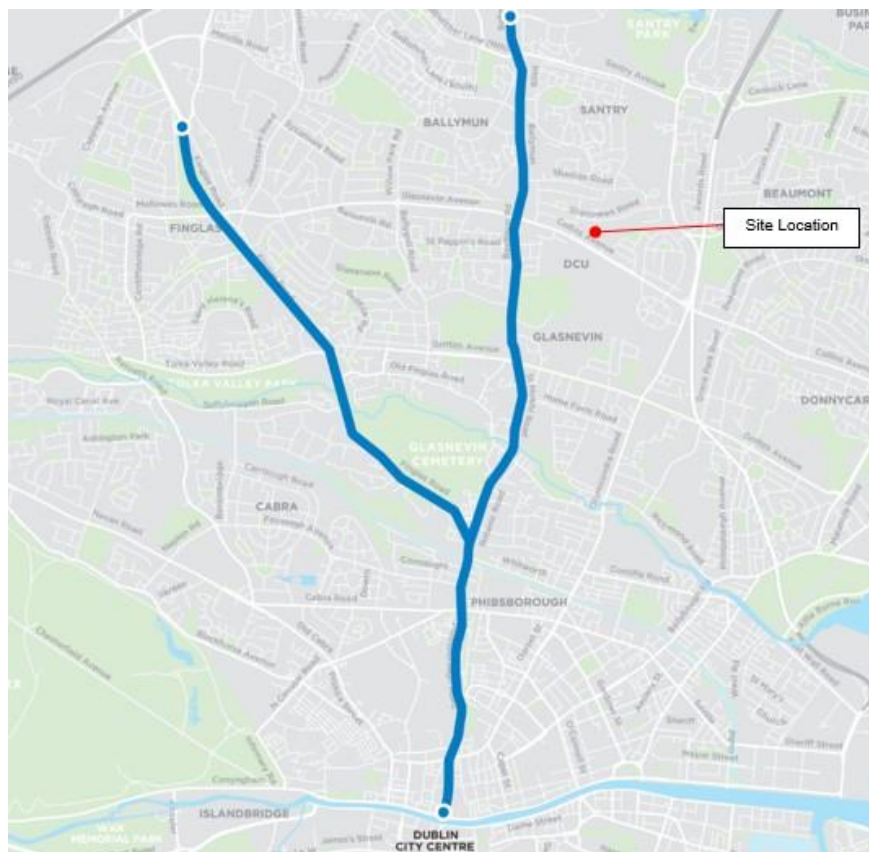


Figure 3-3 – Ballymun / Finglas to City Centre Bus Route

### **Greater Dublin Area Cycle Network Plan, 2013**

The Greater Dublin Area (GDA) Cycle Network Plan sets out a 10-year strategy plan to expand the urban cycle network from 500km to 2480km. The overarching ambition of the scheme is to increase the number of commuters who commute by bike to the same amount of those commute by bus.

The network will consist of a series of primary, secondary, feeder and greenway routes. These routes will comprise of a mix of cycle tracks and lanes, cycleways, and infrastructure-free cycle routes in low traffic environment.

The proposed cycle network surrounding the development is shown below, with the following key radial routes into the City Centre are proposed to pass through the area:

- Route 2A: Route 2A is a branch of Route 2 that links the city centre to Drumcondra Road. Route 2A starts at Dorset Street – Bolton Street/ Henrietta Street Junction.
- Route 3A: Route 3A is a branch of Route 3 that links the city centre to Parnell Square to Phibsborough via Royal Canal Bank. Route 3A is via the Botanic Road, St. Mobhi Road and the Ballymun Road to Glasnevin and Ballymun.
- Route NO4: Along Castle Avenue and Seafield Road on Collins Avenue from Killester to Whitehall and on Glasnevin Avenue from Ballymun Road to Finglas Road.

In the Dublin North Central Sector, new cycling facilities were proposed along cyclist desire lines to complete the cycle route network at Primary and Secondary Route levels. The following cycle routes are applicable to the site:

- Route NO3: Along Griffith Avenue from Phillipsburgh Avenue to Finglas Road.
- Route NO5: Along Finglas West to Blanchardstown via Ratoath Road, Cappagh Road, Ballycoolin Road and Snugborough Road. This road then continues southward via Porterstown to cross the River Liffey Valley and connect to Lucan via a new greenway link.
- Radial Route 2B: From Clonliffe Road, through Holy Cross College over the River Tolka, to Richmond Road and along Grace Park to Collins Avenue and Beaumont Road with a feeder route from Beaumont Hospital.
- Radial Route 3D: New route through Ballymun West/ Finglas East to join up with a minor greenway routh – Broadstone Greenway.



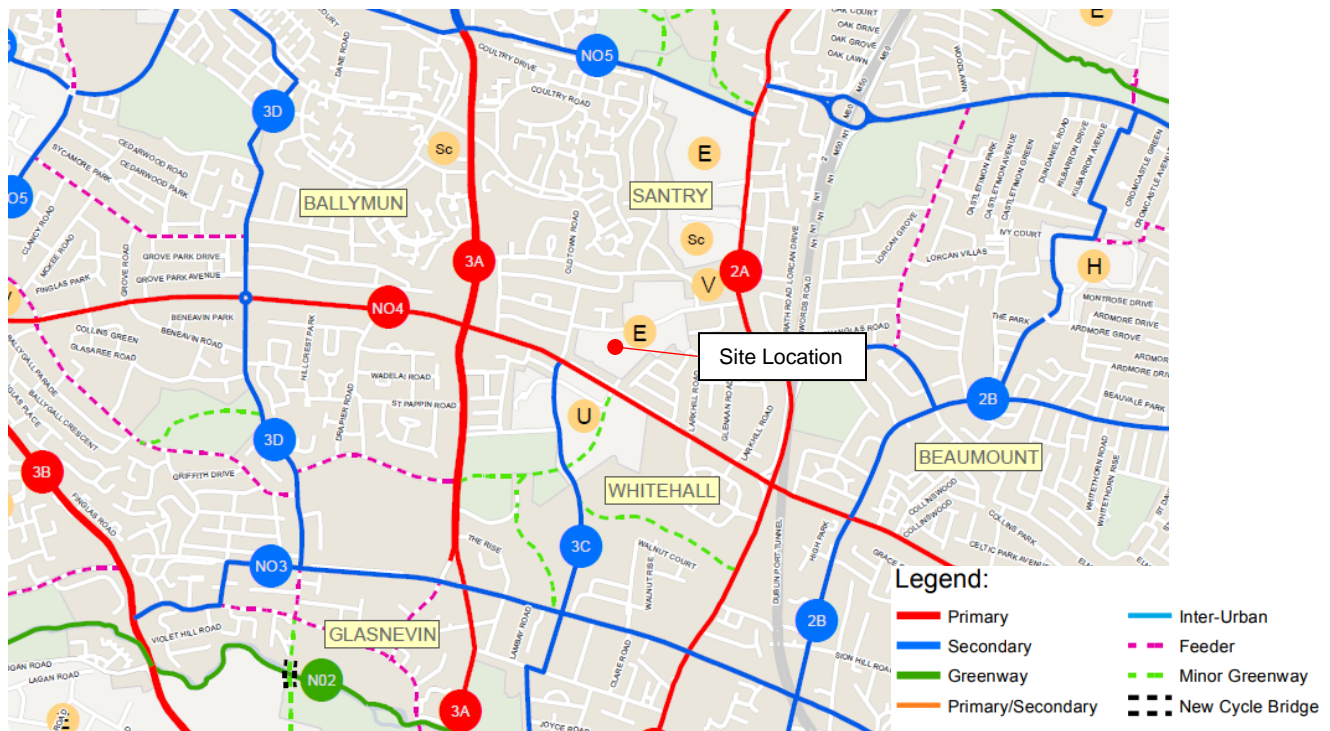


Figure 3-4 – Proposed Cycle Network Map

### Dublin City Development Plan, 2022 – 2028

The Dublin City Development Plan (DCDP) provides a coherent, integrated framework to ensure the city develops in an inclusive and sustainable manner which is resilient on social, economic, and environmental fronts in the short and longer term. The plan emphasises the need for Dublin to become a low-carbon city and the role of compact, self-sustaining communities and neighbourhoods, urban form, and movement must play in achieving this goal.

The plan details a Core Strategy which includes housing, settlement, employment, retail, and public transport strategies. The strategy translates into 3 broad strands which form the basis for the policies and objectives outlined in the plan. These are:

- Compact, quality, green, connected city.
- A prosperous, enterprising, creative city; and
- Creating sustainable neighbourhoods and communities

Table **3-1** below provides a summary of the policies and objectives most relevant to this TMMP.

Table 3-1 - Extracts from most relevant DCDP 2022 – 2028 Policies

Policy No.	Details
CEE13	<p><b>Towards a Green and Circular Economy</b></p> <p>To support the growth of the 'green economy' including renewable energy, retrofitting, and electric vehicles and charging infrastructure and to support the transition towards a circular economy in line with national policy and legislation.</p>
SMT6	<p><b>Mobility Management and Travel Planning</b></p> <p>To promote best practice mobility management and travel planning through the requirement for proactive mobility strategies for new developments focussed on promoting and providing for active travel and public transport use while managing vehicular traffic and servicing activity.</p>
SMT16	<p><b>Walking, Cycling and Active Travel</b></p> <p>To prioritise the development of safe and connected walking and cycling facilities and prioritise a shift to active travel for people of all ages and abilities, in line with the city's mode share targets.</p>
SMT18	<p><b>The Pedestrian Environment</b></p> <p>To continue to maintain and improve the pedestrian environment and strengthen permeability by promoting the development of a network of pedestrian routes including laneway connections which link residential areas with recreational, educational and employment destinations to create a pedestrian environment that is safe, accessible to all in accordance with best accessibility practice.</p>
Policy No.	Details
SMT27	<p><b>Car Parking in Residential and Mixed Used Developments</b></p> <ul style="list-style-type: none"> <li>i. To provide for sustainable levels of car parking and car storage in residential schemes in accordance with development plan car parking standards to promote city centre living and reduce the requirement for car parking.</li> <li>ii. To encourage new ways of addressing the transport needs of residents (such as car clubs and mobility hubs) to reduce the requirement for car parking.</li> </ul>
SMT33	<p><b>Design Manual for Urban Roads and Streets</b></p> <p>To design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within the Design Manual for Urban Roads and Streets (DMURS) and to carry out upgrade works to existing road and street networks in accordance with these standards where feasible.</p>
SMT34	<p><b>Street and Road Design</b></p> <p>To ensure that streets and roads within the city are designed to balance the needs and protect the safety of all road users and promote place making, sustainable movement and road safety providing a street environment that prioritises active travel and public transport whilst ensuring the needs of commercial servicing is accommodated.</p>
SMT35	<p><b>Traffic Calming and Self-Regulation Street Environments</b></p> <p>To ensure that all streets and street networks are designed to passively calm traffic through the creation of a self-regulating street environment that are suited to all users, including pedestrians and cyclists.</p>
SMT034	<p><b>Speed Limits and Traffic Calmed Areas</b></p> <p>To expand the 30kph speed limits and traffic calmed areas at appropriate locations throughout the city and subject to stakeholder consultation.</p>

Volume 2, Section 4 of the DCDP sets out the car and cycle parking standards for proposed new development.

The Development Plan notes that reduced car parking provision may be acceptable where the Council is satisfied that good public transport links are already available or planned and/or a Mobility Management Plan for the development demonstrates that a high percentage of modal shift in favour of the sustainable modes will be achieved through the development.

## **4 BASELINE REVIEW: EXISTING TRANSPORT NETWORK**

### **4.1 Overview**

This chapter discusses the existing transport network surrounding the site. A detailed commentary is provided on the existing walking, cycling and public transport facilities near the site.

### **4.2 Existing Pedestrian/ Cyclist Environment**

The site is within a convenient walking distance to a number of educational, residential, medical and retail facilities.

- Dublin City University is within a 10-minute walk from the site.
- Larkhill Primary School is within a 15-minute walk from the site.
- D11 Dental is within a 15-minute walk from the site.
- Cocoon Childcare is within a 15-minute walk from the site.
- Hampstead Private Hospital is within a 20-minute walk from the site.
- Glasnevin is within a 30-minute walk from the site.

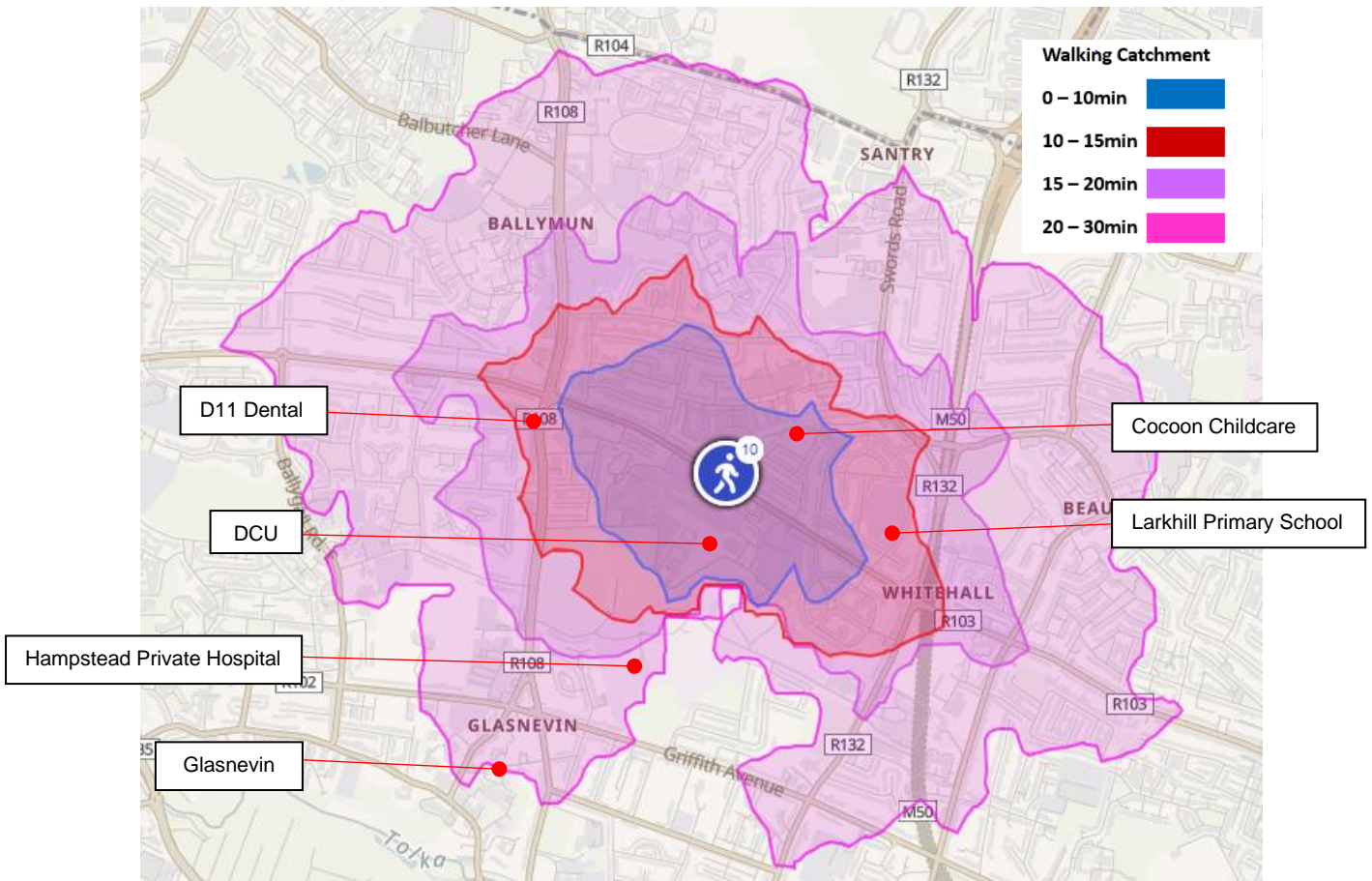
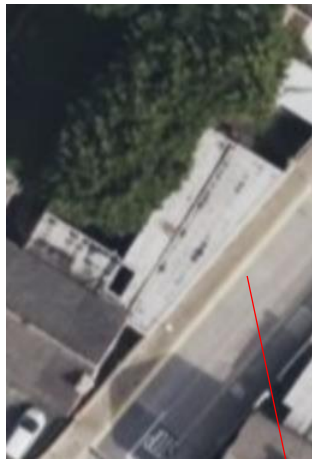
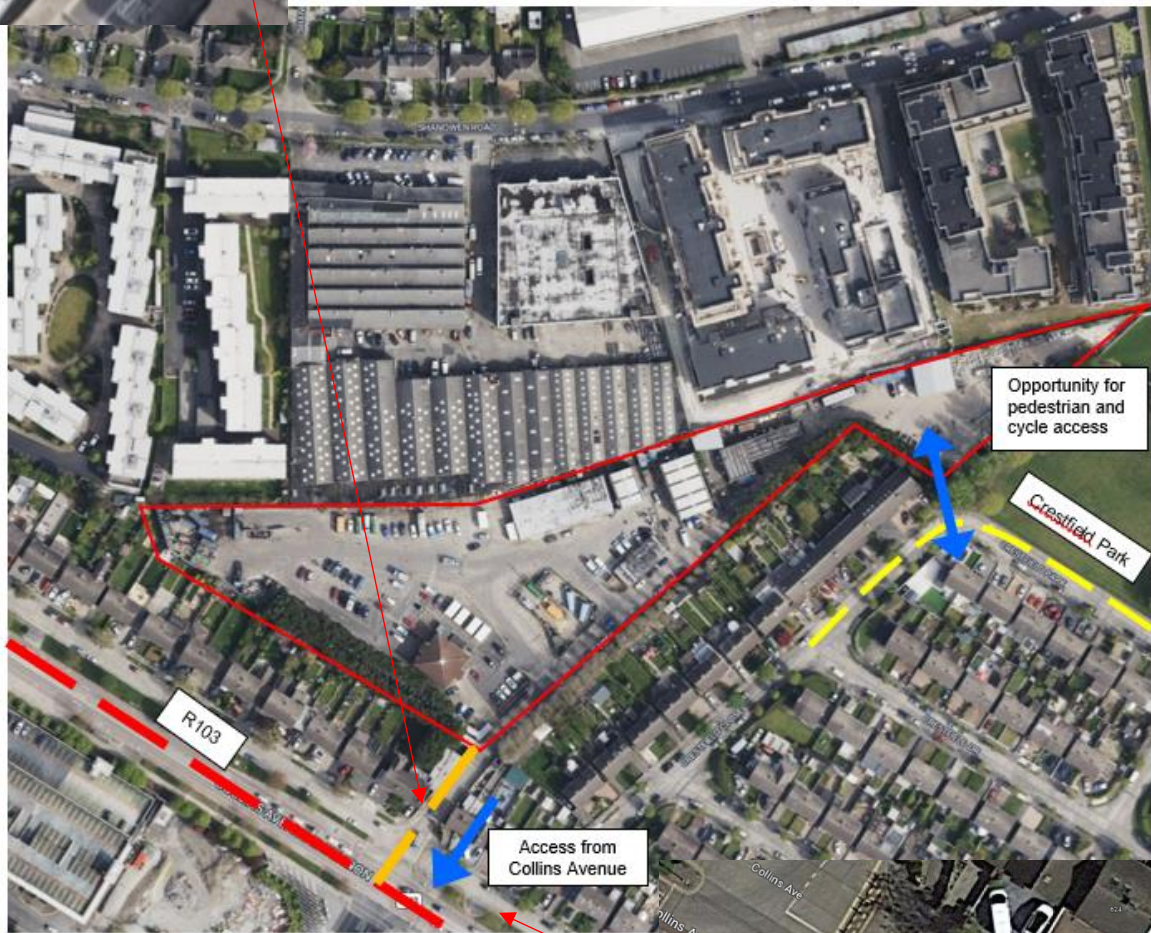


Figure 4-1 – Walking Catchment (Source: <https://commutetimemap.com/map>)





The main vehicular access to the site will be off Collins Avenue.



Collins Avenue - R103 Regional Road- is a 12m wide dual-carriageway. There are 2m wide footpaths and 2m wide cycle lanes on both sides of the road. There are traffic signal-controlled pedestrian crossings at desirable crossing locations.



Figure 4-2 – Existing Road Network





Figure 4-3 – R103 street view towards the R108

R103 regional road is a double carriageway street and is located along the southern boundary of the site. 2m wide cycle-tracks and 2.5m wide raised footpaths are provided on both sides of the road, along with public lighting. The layout of the footpaths and cycle-tracks has been designed to allow safe and comfortable crossing of the road infrastructure by pedestrians and cyclists at several points along its route. The cycle lanes are accompanied by cycle lane bollards ideal for delineating cycle lanes ensuring clear visibility and guidance for cyclists.

There is a pedestrian crossing with traffic signals for both pedestrians and vehicular traffic forming a pelican crossing. The crossing is usually formed with two lights on either sides of the road and a call button for pedestrians to operate the crossing. The crossing also features paving and are flush with the road.

The dual carriageway is separated by a refuge island, where pedestrians can stop before finishing crossing the road. this significantly improves amenity for pedestrians trying to cross busy streets.

Further pedestrian safety features are included such as a 30km/ hr speed limit sign.

The site is also highly accessible by cycling:

- Ballymun, Glasnevin, Drumcondra and Santry are within a 10-minute cycle.
- Finglas, Phibsborough and North Strand are within a 15-minute cycle.
- Grangegorman, North and East Wall, Clontarf are within a 20-minute cycle.
- Islandbridge, Kilmainham, The Liberties, Harold's Cross, Ballsbridge, Ringsend and Donaghmede are within a 30-minute cycle.

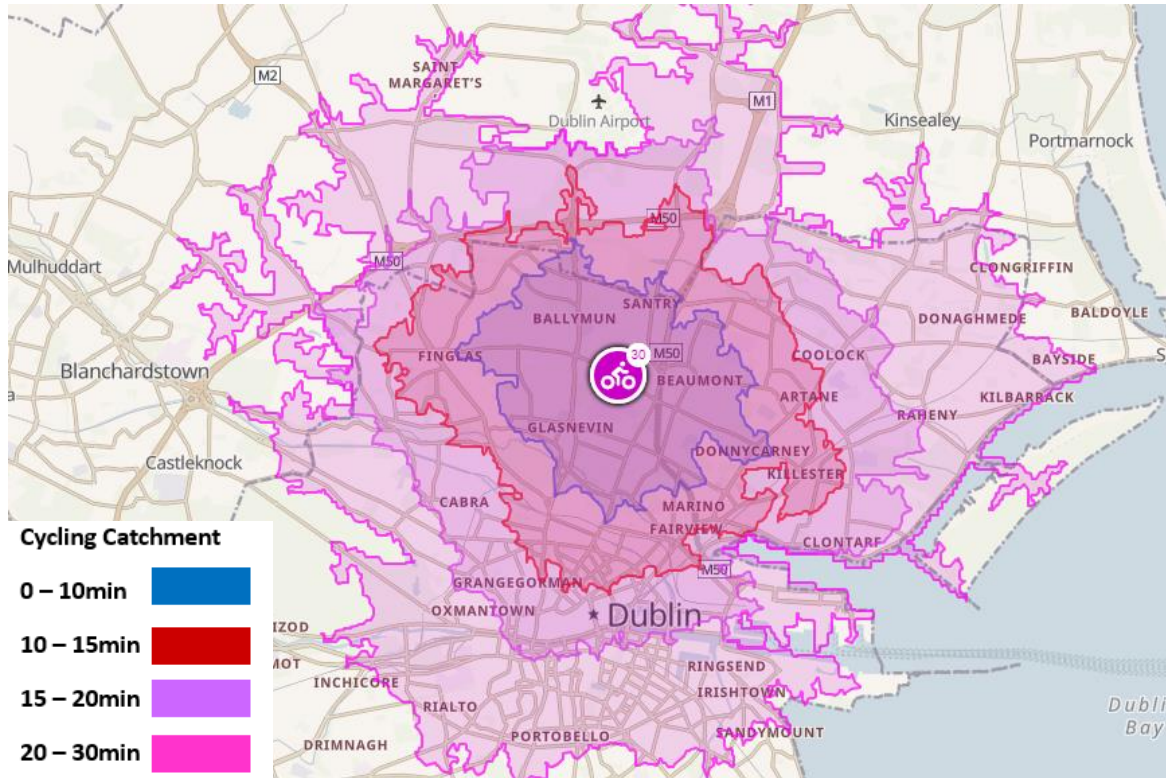


Figure 4-4– Cycling Catchment (Source: <https://commutetimemap.com/map>)



There are cycle lanes provided most of the way from the R103 Road and the R108 Road as shown from the existing facilities map taken from the Greater Dublin Area Cycle Strategy as illustrated in Figure 4-5.

Figure 4-5 – Existing Cycle Network Map (Source: National Transport Authority)

### 4.3 Public Transport Infrastructure

#### 4.3.1 Public Bus

As graphically illustrated in Figure 4-6 below, the site is well situated to benefit from public bus connections, with Table 4-1 detailing the number of services per day.

The closest bus stops to the site are located along the R103 road which are within a few minutes walking catchment of the site. These bus stops are operated by Dublin Bus.

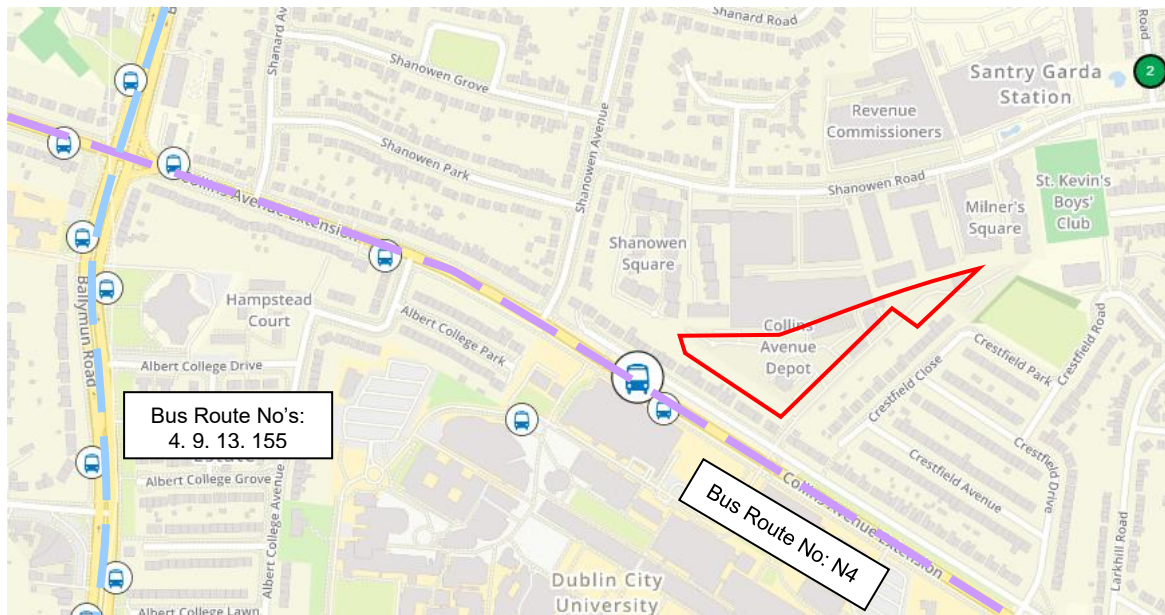


Figure 4-6 – Bus Stops in the Vicinity of the Site (Source : [www.journeyplanner.transportforireland.ie](http://www.journeyplanner.transportforireland.ie))



*Table 4-1 – Bus Frequency*

Operator	Route No.	Route	No. of services		
			Monday to Friday	Saturday	Sunday
Dublin Bus	4	Monkstown Ave – Blackrock – Pembroke Road – City Centre – Phibsborough Shopping Centre – Botanic Ave – Ballymun – Harristown	From 6:00 – 7:00 service every 15 mins Every 12 mins until 19:00 From 19:20 – 23:20 service every 20 mins	From 6:00 – 7:00 service every 30 mins From 7:15 – 19:00 service every 15 mins From 19:20 – 23:20 service every 20 mins	From 8:00 – 11:30 service every 30 mins From 11:45 – 19:00 service every 15 mins From 19:00 – 23:30 service every 30 mins
	9	Charlestown – Beneavin Road – Botanic Road – O’Connell Street – South Circular Road – Limekiln Ave	Starts 6:25 – 17:00 service every 15 mins. From 17:00 – 19:00 service every 12 mins From 19:00 – 23:00 service every 20 mins	Starts 6:40 – 10:00 service every 20 mins. From 10:00 – 18:00 service every 15 mins From 18:00 – 23:00 service every 20 mins	Starts 9:00 – 12:00 service every 20 mins. From 12: 00 – 18:30 service every 15 mins From 18:30 – 23:30 service every 20 mins
	13	Grange Castle – Clondalkin Village – Naas Road – St. James Hospital – O’Connell Street – Drumcondra Rail Station – Ballymun – Harristown	From 5:50 – 17:18 service every 12 mins From 17:30 – 23:30 service every 15 mins	From 6:10 – 8:30 service every 20 mins From 8:45 – 23:30 service every 15 mins	From 7:00 – 11:00 service every 30 mins From 11:00 – 23:30 service every 15 mins
	155	Ikea – Ballymun Road – Phibsborough Shopping Centre – O’Connell Street – Donnybrook – Cabinteely – Bray Rail Station	Starts 6:00 – 23:20 service every 20 mins	Starts 6:00 – 23:20 service every 20 mins	Starts 8:00 – 23:20 service every 20 mins
	N4	Point Village – Finglas – Connolly Hospital - Blanchardstown	Monday: From 5:30 – 23:30 service every 12 mins Tuesday – Friday: From 12:00 – 23:30 service every 12 mins	From 7:30 – 23:30 service every 30 mins	From 7:50 – 23:30 service every hour

#### 4.4 Other

On-site car parking is considered to be an inefficient use of space, particularly at a constrained location in a highly developed urban area such as the development site.

Taking this into consideration, the provision of car club spaces is considered a more sustainable alternative which both reduces the need for car ownership and provision of dedicated car parking while also maintaining access to a vehicle for infrequent use.

There are 6 GoCar hire stations located within a 1km walk from the site. The locations of the GoCar bases are illustrated in Figure 4-7 with Table 4-2 providing additional details in relation to walking distance from the site and the type of GoCar vehicle available.














Figure 4-7 – GoBase locations in the Vicinity of the site (Source : [www.gocar.ie/locations/](http://www.gocar.ie/locations/))

GoCar members can book cars online or via the app for durations of as little as an hour. They then unlock the car with their phone or a GoCard; the keys are in the car; with fuel, insurance and city parking all included. The benefits of such car sharing services include:

- The reduction of cars on the road and therefore traffic congestion, noise, and air pollution.
- Frees up land traditionally used for private parking spaces.
- Encourages and potentially increases use of public transport, walking and cycling as the need for car ownership is reduced.
- Car share replaces approximately 20 private car parking spaces.

Table 4-2 - GoBase Details

Reference No.	GoBase Locations	Vehicle Class/ Cars Available	Approximate Distance from the Development
1.	Collins Avenue Extension, Glasnevin	GoCity 	100m to the west
2.	DCU Collins Avenue	 GoExplore Auto	200m to the south
3.	Albert College Court	GoCargo  GoCity 	650m to the west
4.	St. Pappin Road, Glasnevin	GoCity 	750m to the southwest
5.	Shanowen Road	GoCargo  GoCity  GoTripper 	400m to the north
6.	Iveragh Road	GoCargo  GoCity  GoTripper 	700m to the east



## **5 TRAFFIC IMPACT**

### **5.1 Construction Traffic Impact**

Relative to the operational stage, the construction period will be temporary in nature. Construction traffic is only expected to consist of materials delivery and removal vehicles.

It is difficult to assess the exact quantum of traffic that will be generated during the construction period as it will vary throughout the construction process as different activities have different associated transportation needs. However, due to the nature of this development it can be assumed that there will be approximately 100 construction site staff at peak time, and it is expected that the site would generate approximately 40 vehicles during the morning and evening peak hours.

The number of HGVs generated during the construction phase will be evenly spread out throughout the day and in general will not coincide with peak commuter periods.

The following points are noted regarding to construction traffic:

- In general, the construction day will begin and end outside of peak travel hours. As a result, most workers travelling to and from the site will arrive before the a.m. peak hour and depart after the p.m. peak hour.
- On site parking will be prohibited due to the site constraints and to encourage employees to travel by numerous public options serving the area.
- Development of the proposed substructure and superstructure. This will include deliveries of machinery, steel rebar, brick, and concrete, roofing materials, and prefabricated element deliveries on HGVs.
- Material delivery vehicles travelling to and from the site will be spread across the course of the working day meaning the number of HGVs travelling during the peak hours will be relatively low.

Construction traffic associated with the construction of the proposed development will vary during the construction phase. The proposed sequencing of the construction of the proposed development is as follows:

- Initial set-up of the site, including security and construction compound.
- Identifying and locating above and below ground utilities and services at the site.
- Development of the proposed substructure and superstructure. This will include deliveries of machinery, steel, rebar, brick, and concrete deliveries on HGV's.
- Internal finishing, including the mechanical and electrical fit out.
- External landscaping.

To ensure the construction traffic has negligible impact on the surrounding traffic network, construction travel should arrive on site before peak travel times. These peak travel times are highlighted in section 6.2 Mode Share.

Overall, it is expected that the level of traffic generated by the construction works will be negligible during the peak traffic hours, and as a result, it is expected to have negligible impact on the surrounding road network with respect to capacity.

## 5.2 Operational Stage

The Dublin City Council area is divided into three areas for the purpose of parking control, as shown on Map J in Volume 3 - Zoning Maps in the DCCDP .

- Parking Zone 1 is generally within the Canal Cordon and within North Circular Road in recognition of active travel infrastructure and opportunities and where major public transport corridors intersect;
- Parking Zone 2 occurs alongside key public transport corridors and;
- The remainder of the City falls under Parking Zone 3.

Collins Avenue development falls under Zone 2 as per Figure 5-1. **Error! Reference source not found.**



Figure 5-1 - Extract from Map J in the DCCDP

### 5.2.1 Car parking

As per the guidelines 1 space is required per dwelling as seen in xx. In total there are 105 dwellings proposed for the site and 375m<sup>2</sup> of community, arts and cultural space. A maximum of 106 parking spaces are allowable on site for dwellings and 2 spaces for the community, arts and cultural space: therefore, a maximum of 108 car parking spaces area allowable for the development.

Category	Land-Use	Zone 1	Zone 2	Zone 3
Accommodation	Hotel <sup>1</sup>	None	1 per 3 rooms	1 per room
	Nursing Home Retirement Home	1 per 3 residents	1 per 2 residents	1 per 2 residents
	Elderly Persons Housing Sheltered Housing	1 per 4 dwellings	1 per 2 dwellings	1 per 2 dwellings
	Student Accommodation	None <sup>2</sup>	1 per 20 bed spaces	1 per 10 bed spaces
	Houses Apartments/ Duplexes	0.5 per dwelling	1 per dwelling	1 per dwelling
	Civic, Community and Religious	Bank Community Centre Library Public Institution	1 per 350 sq. m. GFA	1 per 275 sq. m. GFA
Place of Worship		1 per 100 seats	1 per 25 seats	1 per 10 seats
Funeral Home		4 off street parking spaces	4 off street parking spaces	4 off street parking spaces

Figure 5-2 - Maximum parking provisions set out by DCCDP

According to the Development Plan the maximum car parking spaces required are 108 spaces, 106no. spaces for the residential accommodation and 2no. space for the community centre. It is proposed at a rate of 0.54 spaces per unit, 57 no. spaces in total, meeting the car parking standards set out in the DCC Plan of maximum 1 space per unit for development in Parking Zone 2. These car parking spaces are not designated to any residential unit which allows for greater turnover for spaces and caters for the community facility.

However, the Development Plan notes that a reduced car parking provision may be acceptable where the Council is satisfied that good public transport links are already available or planned and/or a Mobility Management Plan for the development demonstrates that a high percentage of modal shift in favour of the sustainable modes will be achieved through the development.

Appendix 5, Chapter 4 Car Parking Standards of the Development Plan 2022 – 2028 states the following in relation to car parking:

*“A relaxation of maximum car parking standards will be considered in Zone 1 and Zone 2 for any site located within a highly accessible location. Applicants must set out a clear case of satisfactorily demonstrating a reduction of parking need for the development based on the following criteria:*

- Locational suitability and advantages of the site.
- Proximity to High Frequency Public Transport service (10 minutes' walk)
- Walking and cycling accessibility/ permeability and improvement to same.
- The range of services and sources of employment available within walking distance of the development.
- Availability of shared mobility.
- Impact on the amenities of surrounding properties of areas including overspill parking.
- Robustness of Mobility Management Plan to support the development.

The site has been reviewed in relation to the accessibility in Section 4 above and is summarised as follows:

*Table 5-1 - Table 5 2 - Dublin CDP 2022 – 2028 Reduced Car Parking Criteria*

Criteria	Response	Criteria Met
Locational suitability and advantages of the site	The location of the development is highly accessible to pedestrians and cyclists to a number of commercial and retail developments. The site benefits from excellent public transport accessibility levels including light rail and bus-based services.	Yes
Proximity to Public Transport	The closest bus stops to the site are located along the R103 road which are within a few minutes walking catchment of the site. These bus stops are operated by Dublin Bus. The bus services are as frequent as every 12 to 30 minutes.	Yes
Walking and cycling accessibility	It avails a dense pedestrian network in its vicinity. The streets in its vicinity are catered with footways and formal crossings. There are a number of schools and retail facilities that can be accessed within 30-minute walk.	Yes
Availability of shared mobility	There are 6 GoCar hire stations within a 1km walking catchment of the site.	Yes
Impact on surrounding properties	The site is situated within the area of mixed land uses are situated including residential, retail, enterprise and leisure amenities. The proposed development would result in a similar level of movements and disturbances compared to the existing adjacent uses and it is therefore not considered that there will be negative impact on the surrounding properties.	Yes

The DCCDP also states *“At least 5% of the total number of spaces shall be designated car parking spaces, with a minimum provision of at least one such space, which ever one is the greatest”*. Therefore, 3 disabled parking bays are required; it is proposed 6 disabled parking bays will be provided.

### 5.2.2 Bicycle Parking

As per the cycle parking provisions illustrated in Figure 5-3, 1 long term space is required per residential dwelling unit and 1 space is required per residential apartment bedroom. Similarly, for the short stay visitor parking 1 cycling space is required per two apartments and 5 dwellings; additionally, 1 space per 100 GFA of the community space is required.

Table 5-2 describes the required cycle parking for the development.



Category	Land-Use	Zone	Long Term	Short Stay/Visitor
Accommodation	Hotel <sup>1</sup>	All Zones	1 per 5 staff	To be determined by the planning authority on case by case basis
	Nursing Home Elderly Persons Accommodation/ Sheltered Housing <sup>2</sup>	All Zones	1 per 5 staff 1 per 5 residents	1 per 10 residents
	Residential Apartment <sup>3</sup>	All Zones	1 per bedroom	1 per two apartments
	Residential Dwelling	All Zones	1 per unit	1 per 5 dwellings
	Student Accommodation	All Zones	1 per bedroom	1 per 5 bedrooms
Civic, Community and Religious	Bank Community Centre Library Public Institution	All Zones	1 per 5 staff	1 per 100 sq. m. Gross Floor Area(GFA)
	Place of Worship	All Zones	-	1 per 20 seats

Figure 5-3 – Cycling Parking Provisions set out by DCC

Table 5-2 – Parking provisions required by DCC

Block	Long term			Short-stay/Visitor			
	1-bed	2-bed	3-bed	1-bed	2-bed	3-bed	Community space
A	22	20	8	22	20	8	275
B	17	9	12	17	9	12	100
C	10	8	0	10	8	0	0
<b>Total</b>	<b>49</b>	<b>37</b>	<b>20</b>	<b>49</b>	<b>37</b>	<b>20</b>	<b>375</b>
<b>Cycle space</b>	<b>49</b>	<b>74</b>	<b>60</b>	<b>25</b>	<b>19</b>	<b>10</b>	<b>4</b>
	<b>183</b>			<b>57</b>			

It is proposed to provide 183 no. long-stay bicycle spaces and 63 no. short-stay spaces (including 10 no. short-stay spaces provided for the community cultural spaces). The long-stay parking will be secured in indoor bike rooms accessible by residents only. The proposed number of cycle spaces both long term and short stay meet the standards set out by DCC.



### 5.2.3 Traffic Impact

#### Trip Generation

A review of trip generation factors contained within the TRICS database was carried out. TRICS data is primarily UK based, although a number of Irish sites have recently been included and the number of Irish sites continues to expand. Nevertheless, we consider that TRICS will provide a reasonable indication of traffic generation from the proposed development.

Notwithstanding the above, internal research undertaken by TRICS has shown that there is no direct evidence of trip rate variation by country or region. The use of English, Scottish or Welsh data can be equally applicable to Ireland if users take into account important site selection filtering factors such as levels of population, location type, local public transport provision, and development size and car ownership level, amongst others.

Data supplied for inclusion in TRICS undergoes a procedure of validation testing, and there is no evidence from this procedure suggesting that data from Ireland bears any significant fundamental differences to that from the other countries included. Consequently, we consider that TRICS will provide a reasonable indication of traffic generation from the proposed development.

*Table 5-3 - TRICS Trip Rates*

TRIP RATE FOR LANDUSE 03 – RESIDENTIAL /L – MIXED AFFORD HOUS (FLATS AND HOUSES)									
TOTAL VEHICLES									
Calculation factor: 1 DWELLS									
BOLD print indicates peak (busiest) period.									
Time Range	Arrivals			Departures			Totals		
	No. of Days	Ave DWELLS	Trip Rate	No. of Days	Ave DWELLS	Trip Rate	No. of Days	Ave DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	5	88	0.034	5	88	0.086	5	88	0.130
08:00-09:00	5	88	<b>0.075</b>	5	88	<b>0.122</b>	5	88	<b>0.197</b>
09:00-10:00	5	88	0.075	5	88	0.104	5	88	0.179
10:00-11:00	5	88	0.066	5	88	0.086	5	88	0.152
11:00-12:00	5	88	0.048	5	88	0.072	5	88	0.120
12:00-13:00	5	88	0.061	5	88	0.077	5	88	0.138
13:00-14:00	5	88	0.066	5	88	0.070	5	88	0.136
14:00-15:00	5	88	0.070	5	88	0.075	5	88	0.145
15:00-16:00	5	88	0.090	5	88	0.075	5	88	0.165
16:00-17:00	5	88	0.100	5	88	0.120	5	88	0.220
17:00-18:00	5	88	0.124	5	88	0.075	5	88	0.199
18:00-19:00	5	88	<b>0.133</b>	5	88	<b>0.095</b>	5	88	<b>0.228</b>
19:00-20:00	2	152	0.076	2	152	0.053	2	152	0.129
20:00-21:00	2	152	0.059	2	152	0.040	2	152	0.099
21:00-22:00									
22:00-23:00									
23:00-24:00									

*Table 5-4 - Total Number of Estimated Trips for the Development*

Total Number of Estimated Trips for the Development					
AM Peak Hour (07:30-08:30)			PM Peak Hour (17:15-18:15)		
Arrivals	Departures	Total	Arrivals	Departures	Total
8	13	21	14	10	24

Table 2.1 in the Transport Infrastructure Ireland (TII) Traffic and Transport Assessment Guidelines, 2014 sets a number of thresholds, above which a Traffic Impact Assessment must be completed.

*Table 5-5 - Traffic Management Guidelines Thresholds for Transport Assessments*

Traffic Management Guidelines Thresholds for Transport Assessments
Residential development more than 200 dwellings.
Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.
Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive.

Table 2.3 in the TII Traffic and Transport Assessment Guidelines, 2014 sets out a series of further threshold which include:

*Table 5-6 - Traffic Management Guidelines Thresholds for Transport Assessments*

Traffic Management Guidelines Thresholds for Transport Assessments	
Vehicle Movements	The character and total number of trips in/ out combined per day are such that as to cause concern.
Location	The site is not consistent with the National Guidance or Local Plan Policy, or accessibility criteria combined in the Development Plan
Other Considerations	The development is part of the incremental development that will have significant transport implications.
	The development may generate traffic at peak times in a heavily trafficked/ congested area or near a junction with a main traffic route.
	The development may generate traffic, particularly heavy vehicles in a residential area.
	There are concerns over the developments potentials effects on road safety.
	The development is in a tourist area with potential to cause congestion.
	The planning authority considers that the proposal will result in a material change in trips patterns or raises other significant transport implications.

Dublin City Council Waste Management had 43 vehicles housed in Collins Avenue Depot, 172 vehicles (43 x 4) entering or leaving every day and close to 940 journeys into and out of the depot every week.

Approximately 45 members of the public call to the Bring Centre each day, 6 days a week.

The development will provide 106 dwelling units, with just 21 vehicle movements in the AM peak hour and 24 vehicle movements in the PM peak hour, so the impact of the development on the surrounding road network is expected to be negligible. The proposed development is considered to be below the thresholds set out in Tables 6 and 7.

### **5.3 Direct Impact on Adjoining Road Network – Collins Avenue Junction**

Access to the existing Collins Avenue Depot / Bring Centre is via an access road off Collins Avenue at the southern corner of the site. It is proposed to maintain this single vehicular access.



Figure 5-4– Existing Road Infrastructure at Site Access

A number of traffic calming measures are proposed for the access road in order to improve driver and pedestrian safety at this location. These measures are illustrated on Malone O'Regan drawing no. SHB4-CAD-DR-MOR-CS-P3-103 and are described below:

- Localised narrowing of the access road into the proposed development. The proposed traffic island creates a horizontal deflection with vehicles existing the development yielding to traffic entering from Collins Avenue. This will serve to reduce the speed of traffic exiting the development.
- It is proposed to extend the footpath on the eastern side of the access road thereby narrowing the junction at Collins Avenue. This additional section of footpath also provides a continuous pedestrian route between the development and the signalised crossing leading towards DCU.

- A raised table will be provided in conjunction with the localised narrowing. The vertical deflection created by the raised table will further serve to encourage lower driver speeds.
- Tightening of kerb radii at the southern end of the access road to reduce vehicle speeds and facilitate safer pedestrian movements across the mouth of the junction. This is combined with the addition of a raised table and pedestrian crossing at this location. The raised table has been positioned to suit pedestrian desire lines.
- Yellow box junction to enable residents of the existing houses to enter traffic waiting at the signalised junction.
- Additional overrun area to reduce vehicle speeds turning off Collins Avenue. The overrun area will be constructed using colour-contrasting surfacing and will be surrounded with a low kerb. The low kerb will facilitate occasional access by larger vehicles.
- Additional linemarking and signage.

In addition to the above traffic-calming measures on the access road, it is further proposed to adjust the position of the existing traffic signals at the Collins Avenue junction. This will ensure that drivers have adequate visibility of the traffic signals. When exiting the proposed development there will be a 40m sightline to the primary traffic signal at Collins Avenue. This is the required visibility distance stated in Chapter 9 of the Traffic Signs Manual for design speeds of 30km/hr. This design speed is considered appropriate given the introduction of the traffic calming measures on the access road. By extending the footpath on the eastern side of the access road, tightening the junction at Collins Avenue and relocating the traffic signal, the visibility of the traffic signals will be significantly improved when compared against the current arrangement.

#### **5.4 Direct Impact on Adjoining Road Network – Secondary Access**

In addition to the vehicular access described above, a secondary pedestrian / cycle access will be created at the northern boundary of the site to allow for a future link to Shanowen Business Estate as well as existing and proposed future student accommodation at Shanowen Hall and Square.

## 6 PRE – OCCUPATION BASELINE MODE SHARE

### 6.1 Purpose of the Baseline

This section provides information on the travel behaviour of the existing population of the locality and similar development types. This is necessary to predict the likely travel patterns of future residents at the development sites and identifying existing constraints which may impact upon the sustainability of future development.

The subject site is located within a city suburban area with predominantly residential land uses though there are other land uses nearby within walking distances such as employment, commercial, schools and leisure.

### 6.2 Mode Share

The National Transport Authority’s (NTA) Canal Cordon Report (2022) identifies travel trends for the Greater Dublin Area. The analysis highlighted the trend in modes used by the network users when travelling to work or school/ college through various canal cordon points. The summary of the data is for the selected site within the canal cordon points have been summarised and illustrated in the Figure 6-1:

Current Mode Share (2019)	Target Mode Share 2028
Walking 11%	Walking 13%
Cycling 6%	Cycling/Micro Mobility 13%
Public Transport (bus, rail, LUAS) 54%	Public Transport (bus, rail, LUAS) 57%*
Private Vehicles (car, taxi, goods, motorcycles) 29%	Private Vehicles (car, taxi, goods, motorcycles) 17%

Figure 6-1 – Current and Target Mode Share (Source: Dublin City Development Plan 2022 – 2028: Chapter 8 Sustainable Movement and Transport)

The cordon counts indicate a significant increase in active travel as well as a reduction in the use of private car in the area enclosed by the two canals. Currently 71% of people travel into the city by sustainable modes (walking, cycling and public transport). The current mode share is 11% for walking and 6% for cycling providing a total mode share for active travel of 17%. It is acknowledged that some of the major transport infrastructure will progress through planning and construction phases. The plan therefore seeks to significantly grow the mode share for active travel to 26% and public transport to 57%.



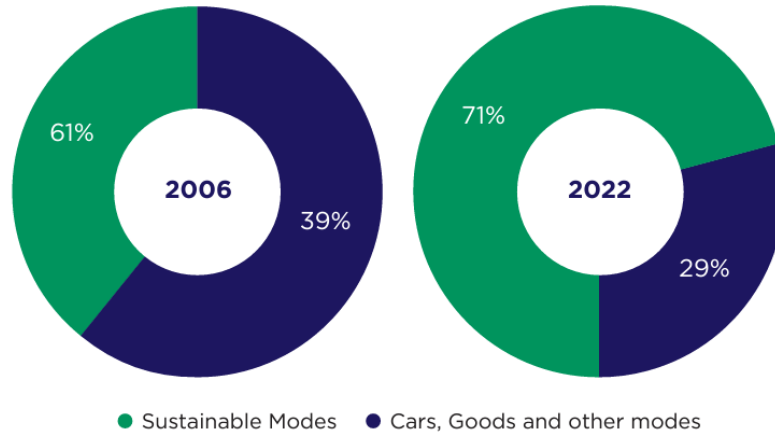


Figure 6-2 – Mode Share of People Crossing the Canal Cordon by Sustainable Modes 2006 & 2022 (Source: NTA Canal Cordon Report 2022: Figure 4 Chapter 3.3)

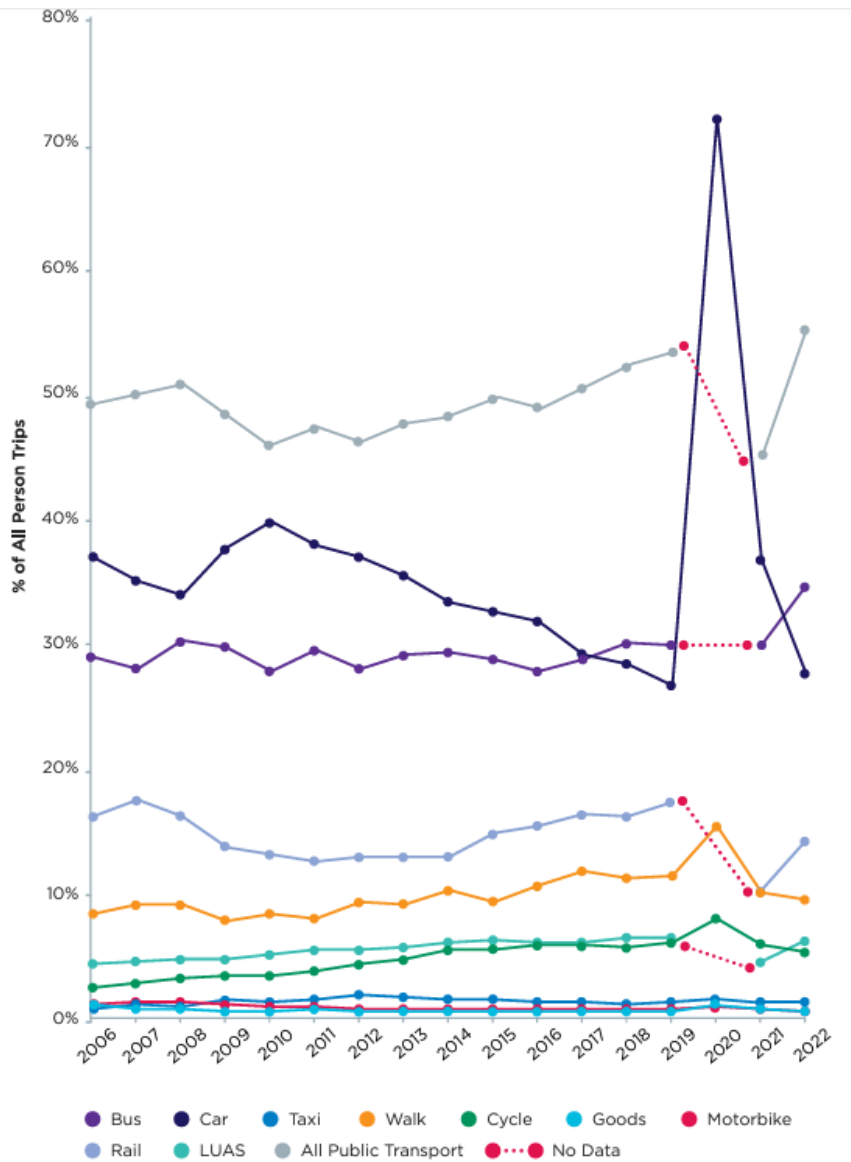


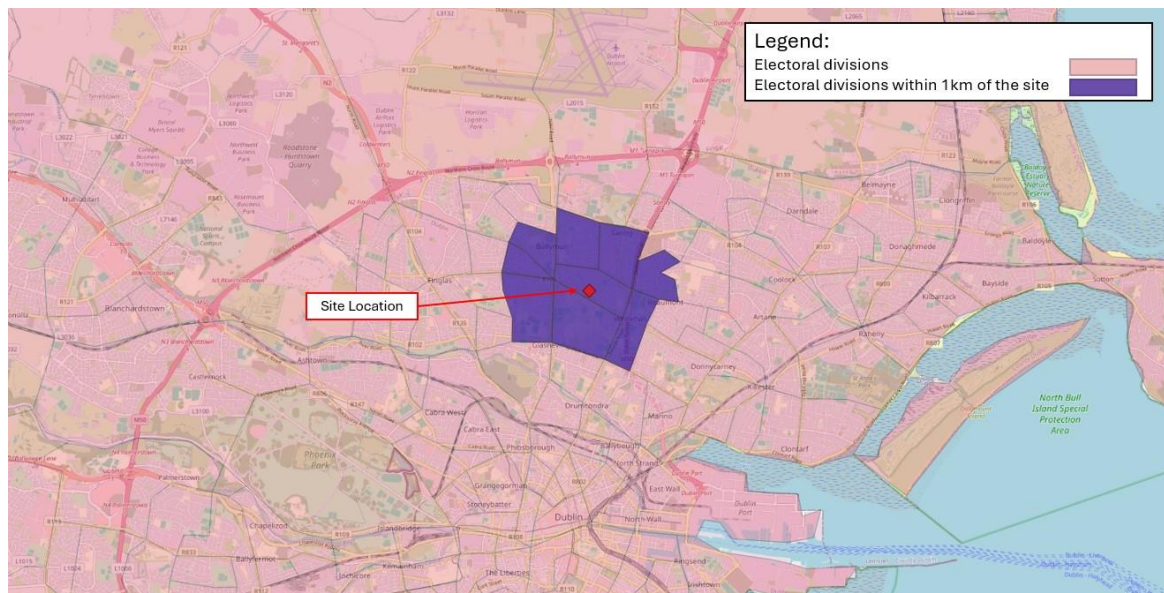
Figure 6-3 – Mode Share of People Crossing the Canal Cordon by Mode of Travel (Source: Canal Cordon Report 2022, Figure 3)

The 2022 Irish Census gathers various data from the population of Ireland under fourteen themes, with theme 11 applying to the TMMP:

1. Sex, age and marital status,
2. Migration, ethnicity and religion,
3. Irish language,
4. Families,
5. Private households,
6. Housing,
7. Volunteers,
8. Principal status,
9. Social class and socioeconomic group,
10. Education,
- 11. Commuting,**
12. Education,
13. Occupations,
14. Disability, carers and general health,
15. Industries, and
16. Motor car availability and internet access.

The data is collected in areas (counties, small areas, electoral divisions etc.), these areas allow specific locations census responses to be studied. Figure 6-4 displays the site location and all Electoral Divisions (EDs) within a 1km radius of the site.

There are nine EDs composing and surrounding the site; these include Ballymun C, Ballymun D, Ballymun E, Whitehall A, Whitehall B, Whitehall C, Whitehall D, Beaumont A and Ballygall C.



*Figure 6-4 – Local Mode of Travel*

Figure 6-5, Figure 6-6 and Figure 6-7 details the travel habits of those living within 1km of the site. A large number of people travel as a car driver at 24.17% and 8.79% detailed their main mode of transport was as a car passenger which equates to 32.96% which is above the canal cordon mode share of 29%. Additionally, the use of public transport is below the

canal cordon values and would require a 40% increase to meet the 2028 mode share targets. With the implementation of the proposed walking, cycling and public transport infrastructure and facilities both the active and public transport modes are expected to increase.

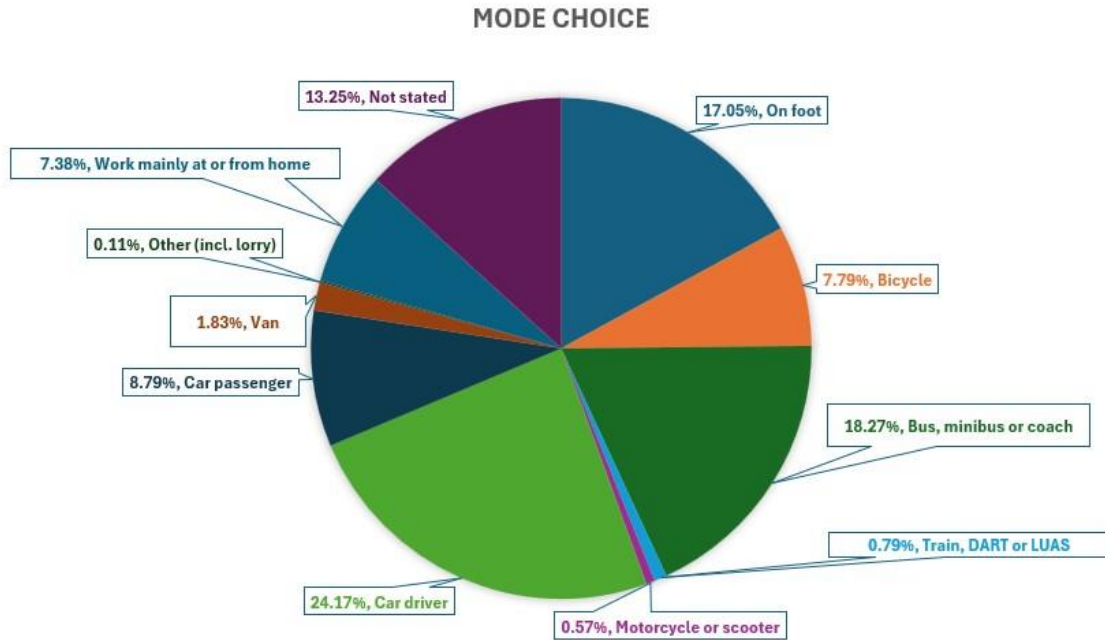


Figure 6-5 – Development area mode choice

The peak travel for those travelling within the area was between 08:01 and 08:30, followed by 07:31 and 08:00. A small percentage travelled before 06:30 and after 09:00. Therefore, the peak AM travel period for the area can be considered between 07:30 and 08:30.

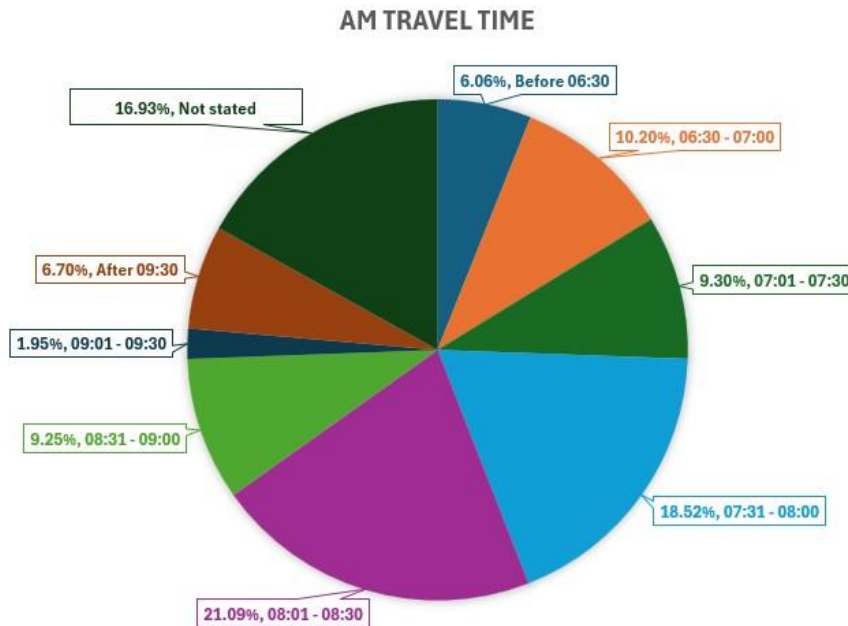


Figure 6-6 – Development area AM travel time

The most common commute time is between 15 and 30 minutes (30.42%), followed by 30 to 45 minutes (20.26%). Very few of the people living within the area travel for more than 45 minutes.

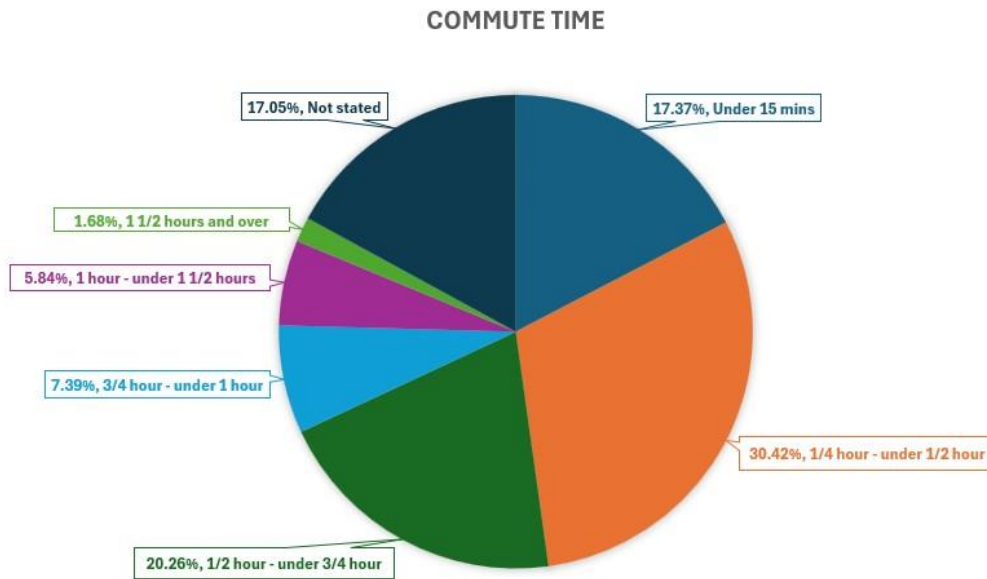


Figure 6-7 – Development area commute time

Since the public transport levels within the area are currently low, the development is not expected to have a negative impact on the surrounding public transport facilities. Additionally, since the parking provisions are limited, the development is also not expected to have a large impact on the surrounding traffic conditions. Those living within the area on average do not travel for more than 45 minutes; accompanied with the active commercial, leisure and residential neighbourhood with good walking and cycling catchments. It can be expected that the residents of the development will avail of active modes of travel.

The development will prioritise encouraging residents to use active and public transport means of travel. Methods of encouragement is described in section 8.

## **7 AIMS AND OBJECTIVES OF THE TMMP**

### **7.1 Overview**

To measure the ongoing success of the TMMP and its various measures, it is important that a series of targets and objectives are set at the outset.

As this is pre-occupation residential TMMP, it is expected that the final targets of the TMMP will be taken forward upon site occupation. As such, the pre-occupation baseline targets should be at this time considered as guidance until post- occupation baseline residential surveys are undertaken.

### **7.2 Aims and Objectives**

The overall aim of the TMMP for the proposed development is to minimise the proportion of single occupancy vehicle trips and address the forecast transport impacts of the end-users of the site. The objectives can be summarised as follows:

- Consider the needs of residents in relation to accessing facilities for employment, education, health, leisure, recreation and shopping purposes, including identifying local amenities available that reduce the need to travel longer distances.
- Reduce the vehicular traffic generated by the development – including developing measures to reduce the need to travel, such as the provision of ancillary facilities (gym, food/ beverage facilities, business area co – working spaces, convenience retail and parcel delivery/ collection services).
- Develop good urban design by ensuring permeability of the development to neighbouring areas and provision of cycle facilities.

### **7.3 Targets**

Targets are the specific quantitative goals based on the objectives described above. Targets are important as they give the TMMP direction from its inception, providing measurable goals.

Since the overall aim of the TMMP is to reduce reliance upon the private car, it is appropriate to set a target which relates to this objective. The primary outcome indicator used will be mode share of the residents of the proposed development.

It will therefore be necessary to collect data to identify and understand the post-occupation baseline and ongoing travel habits, against which the TMMPs progress can be measured. It is recommended that resident's travel surveys will establish the post-occupation baseline travel data for the site and inform the final TMMPs targets.



## 8 MOBILITY MANAGEMENT MEASURES

### 8.1 Proposed TMMP Action Plan Measures

TMMPs have a wide range of possible “hard” and “soft” measures from which to choose from with the objective of influencing travel choices. The following section introduces proposed TMMP measures that can be implemented once the site is occupied. The finalised measures within the TMMP will be informed by the insight gained by the Post-Occupation Baseline Travel Survey results.

The proposed residential TMMP Action Plan is summarised into the following sections:

- Mobility Manager
- Reducing the need to travel
- Welcome Travel Pack
- Marketing and Travel Information
- Personalised Travel Planning
- Walking
- Cycling
- Public Transport
- Managing Car Use

### 8.2 Mobility Manager

A Mobility Manager will be appointed by the PPP Co. management team, and their role is to manage the implementation of the Residential TMMP for the proposed site. The role involves being the main point of contact for travel information, promotion and improvements. This may also be organised in the form of a resident’s group once the development is fully occupied and operational. The remit of the Mobility Manager includes the following:

- To develop and oversee the implementation of the initiatives outlined in the TMMP Action Plan below.
- To monitor the progress of the plan, including carrying out annual Residential Travel Surveys.
- To actively market and promote the social, economic and environmental benefits of sustainable travel to residents.
- To provide sustainable travel information, support and advice to residents including available bus service timetables, walking and cycling maps, car-sharing, cycle hire services, local cycling and walking schemes and events.

### 8.3 Reducing the need to travel

The provision of on-site services or within reasonable walking distance to reduce the need of residents to utilise a vehicle to travel will be crucial to embedding a sustainable travel culture within the site from the outset.

#### **8.4 Welcome Travel Pack**

A 'Welcome Travel Pack' can be provided to all new residents with the intention that each resident is made fully aware of the travel choices available to them. This will also give the best possible opportunity to the new residents to consider more sustainable modes of travel.

The Welcome Travel Pack will include a variety of sustainable travel information and incentives about the development and the wider local area. It can include measures such as:

- Information on the sites available for sustainable travel services (including cycle parking and cycle hire).
- Information on services and amenities provided locally (both on-site and nearby), particularly those within walking and cycling distance.
- Maps showing the pedestrian and cycle routes in proximity to the site, including site cycle parking and cycle hire locations; advised routes (with journey times) into the city centre and also to public transport interchanges (e.g., Hazelhatch and Celbridge Station, Heuston and Connolly Station).
- Information about local public transport services and tickets including a plan showing the location of bus stops and bus routes, train stations and feeder bus routes.
- Information on the health benefits of walking and cycling.
- Details of online car-sharing services along with the benefits of car sharing, such as reduced congestion, better air quality, reduction in traffic noise and cost savings to the individuals taking part.
- Provide information on the financial and environmental costs associated with driving and support regarding tips for green driving techniques.

#### **8.5 Marketing and Travel Information**

Marketing and raising awareness will involve directly engaging with individuals and raising awareness of travel options as well the benefits of sustainable and active travel.

The Mobility Manager can market and promote the TMMP to residents of the site in the following ways:

- Production and distribution of the Welcome Travel Pack as described above.
- Producing dedicated printed Travel Option Leaflets (in addition to the Welcome Travel Pack) and online information which can be personalised to suit the individual needs of the site.
- Once travel surveys have been undertaken, additional leaflets can be provided which are tailored to encourage travel by a specific mode of transport.
- Organising events and activities to coincide with Bike Week, European Mobility Week and any other national/ local sustainable travel or community events.
- Displaying regular updates on TMMP targets and activities in communal areas of the residential development.

- Promotion of sustainable travel options to residents, focusing marketing initiatives on areas where there is a willingness to change and promoting positive messages e.g., reducing congestion and CO2 emissions, getting fit and active.

## **8.6 Walking**

Walking is the most sustainable and accessible mode of travel. Any individual in fair health can incorporate walking into part of their journey. Furthermore, 30 minutes of moderate activity 5 or more times per week is likely to enhance the health and fitness of the individual. In order to encourage walking, a number of measures will be considered:

- Promotion of National Walking Month.
- Provide maps of local walking routes to key destinations in the vicinity of the site.
- Make information on local pedestrian routes and facilities available.
- Raise awareness of the health benefits of walking.

## **8.7 Cycling**

To encourage residents to cycle, the following measures will be implemented or considered:

- Adequate, secure bicycle parking at convenient locations within the site.
- Information on the local cycle network routes on communal notice boards.
- Promotion of Bike Week events taking place in the surrounding area.
- Promotion of cycle security and bike marking schemes to reduce bike theft.
- Promotion of cycle safety.
- Setting up of a Bicycle User Group (BUG).

## **8.8 Public Transport**

The following measures will be considered in order to encourage residents and visitors to travel by public transport:

- Provide up to date bus details including timetables/ contact information in the welcome packs and on community notice boards.
- Provide wayfinding towards key transport modes.
- Liaise with local bus companies regarding future improvements and/or extension to local services.

Cost awareness can be a contributing factor in the decision to travel by car or public transport. Residents can be made aware of the savings that can be made by purchasing season and other ticket types.

## **8.9 Managing Car Use**

To encourage lower levels of car use and private car ownership i.e. promote a car free lifestyle, the following measures can be considered;

- Consider designating a section of car parking within the car park for priority use for those that car share and/ or low emission vehicles.
- Provide details for the proposed car club and current car club operators within the vicinity of the site.

## **9 MONITORING AND REVIEW**

### **9.1 Monitoring and Review**

The monitoring of travel behaviour is vital to measure progress towards targets. Monitoring may be undertaken by the resident's association after occupation. Thus, the Mobility Manager (MM) will be a volunteer representative of the committee, this position could also be assisted by the local council.

The MM will consult with the occupiers to promote the concept of the TMMP, as well as identifying objectives for encouraging active travel.

Monitoring surveys will be conducted at intervals following occupation of the development. The MM will organise surveys aimed at obtaining updated information on the travel patterns of the residents. The TMMP will be updated on the receipt of survey results.

The MM will be responsible for monitoring on-site and off-site facilities for sustainable modes. It will be the duty of the MM to report any significant issues observed or any useful comments received from residents on either on-site or off-site facilities.

### **9.2 Data Collection Analysis**

As the development has not yet been constructed, it is not possible to undertake any travel surveys.

In order to understand travel habits, travel surveys will be distributed to all residents after occupation. Recipients will be encouraged to participate, and the surveys would extract the following key information:

- Place of work/study.
- Usual mode of travel and reason for modal choice.
- Attractiveness of various sustainable modes.
- Any barriers of sustainable modes.
- Initiatives that would encourage residents to travel more sustainably.

The information obtained will be used to undertake travel performance indicator and modal split analysis.