BARRETT MAHONY
CIVIL & STRUCTURAL
CONSULTING ENGINEERS

# Parking Provision Report / Residential Travel Plan

Project:
**Carlisle Residential Development, Kimmage Road West, Kimmage, Dublin 12**

Job No.
**21.221**

# DOCUMENT CONTROL

**Project:** Carlisle Residential Development, Kimmage Road West, Kimmage, Dublin 12

**Project No:** 21.221

**Document Title:** Parking Provision Report / Residential Travel Plan

**Document No:** 21.221 – RP – 07

## DOCUMENT STATUS

| Issue | Date | Description | Orig. | PE | Issue Check |
|---|---|---|---|---|---|
| 1 | 14/09/2021 | Issue 1 | MR | MH | MH |
| 2 | 05/10/2021 | Issue 2 | KB | MH | MH |
| 3 | 04/02/2022 | Issue 3 | KB | MH | MH |
| 4 | 11/02/2022 | Issue 4 | KB | MH | MH |
| 5 | 25/02/2022 | Issue 5 | KB | MH | MH |
| 6 | 08/03/2022 | Issue 6 | KB | MH | MH |
| 7 | 06/11/2022 | Issue 7 | MH | MH | MH |



Prepared by:

**BMCE**
52-54 Lower Sandwith Street
Dublin 2
D02WR26

Prepared for:

**1 Terenure Land Ltd**
27 Merrion Square
Dublin 2
D02P297

## CONTENTS

## APPENDICES

# 1. INTRODUCTION

Barrett Mahony Consulting Engineers (BMCE) have been commissioned by 1 Terenure Land Ltd. to prepare a Parking Report / Residential Travel Plan for a proposed residential development at the Carlisle site, Kimmage Road West, Kimmage, Dublin 12.

The proposed Large Scale Residential Development will consist of the construction of 5 no. blocks of development and will range in height up to 6 storeys. This will provide 208 no. residential units (104 no. 1 beds and 104 no. 2 beds) all of which will have associated private balconies/terraces. Car, cycle, and motorbike parking will be located at under croft and surface level. Vehicular/pedestrian/cyclist access is provided off Kimmage Road West via the existing Ben Dunne Gym access route. All associated site development works, open spaces, landscaping, boundary treatments, plant areas, waste management areas, and services (including ESB substations) shall be provided. A full description is set out in the statutory notices included with this application. 100 No. car parking spaces are proposed, together with 484 No. bike parking spaces.

Permission was granted, under ABP 313043 on the 22/09/2022, for an LRD on the subject site comprising 208 no. apartment units in 5 no. blocks. The current proposed LRD application provides the same layout and quantum of units as this permitted development. The proposed LRD residential travel plan arrangements are the same as permitted in the LRD application

The purpose of the report is as follows:

- Propose the rationale for a reduced car parking provision for the residential development, and demonstrate that the proposed provision is entirely sustainable given the current car ownership and modal splits for the journey to work for existing residents living close to the subject site, and
- Given this reduced parking provision, demonstrate the sustainability in transportation terms of residents utilising non-car based forms of travel by demonstrating the high level of service that is provided by the transport infrastructure in place at the site with regards to, walking, cycling, public bus services, DART, national rail, and other Services
- Identify both physical elements and strategies to be incorporated within the proposed new development which will facilitate and create incentives for both residents of and visitors to the development, to use the available modes of public transport, along with walking and cycling in preference over private car use.
- Provide a residential travel plan framework to help ensure projected modal splits for the development are maintained / improved, with the appointment of a travel plan coordinator to oversee the process.

Section 2 of this report will estimate the car and cycle parking requirement for the overall development, proposing that, for the commercial component, full effective compliance with the car and cycle parking requirements will be achieved. For the residential component, while the full cycle parking requirements will be achieved, a restricted car parking provision will be proposed. The sustainability of this level of car parking provision will be demonstrated using census and canal cordon survey data.

Section 3 details the relevant guidance documents on mobility management planning in Ireland.

Sections 4 to 9 contain the residential travel plan for the proposed development, utilising the modal splits derived within Section 2.

Section 10 makes some overall concluding comments.

The site entrance accesses directly onto Kimmage Road West and is the access point currently used by the Ben Dunne Gym at Carlisle.

In the westbound direction, traffic accesses directly onto Kimmage Road West past the Kimmage Road West / Whitehall Road signalised T-junction located 35 metres to the west of the access point.

In the eastbound direction, traffic accesses directly onto Kimmage Road West onto the Terenure Road West / Fortfield Road / Kimmage Road West / Sundrive Road signalised crossroads, located 200 metres to the east of the access point.

Figure 1-1 contains a site location map of the proposed development, indicating its location relative to the local road network.

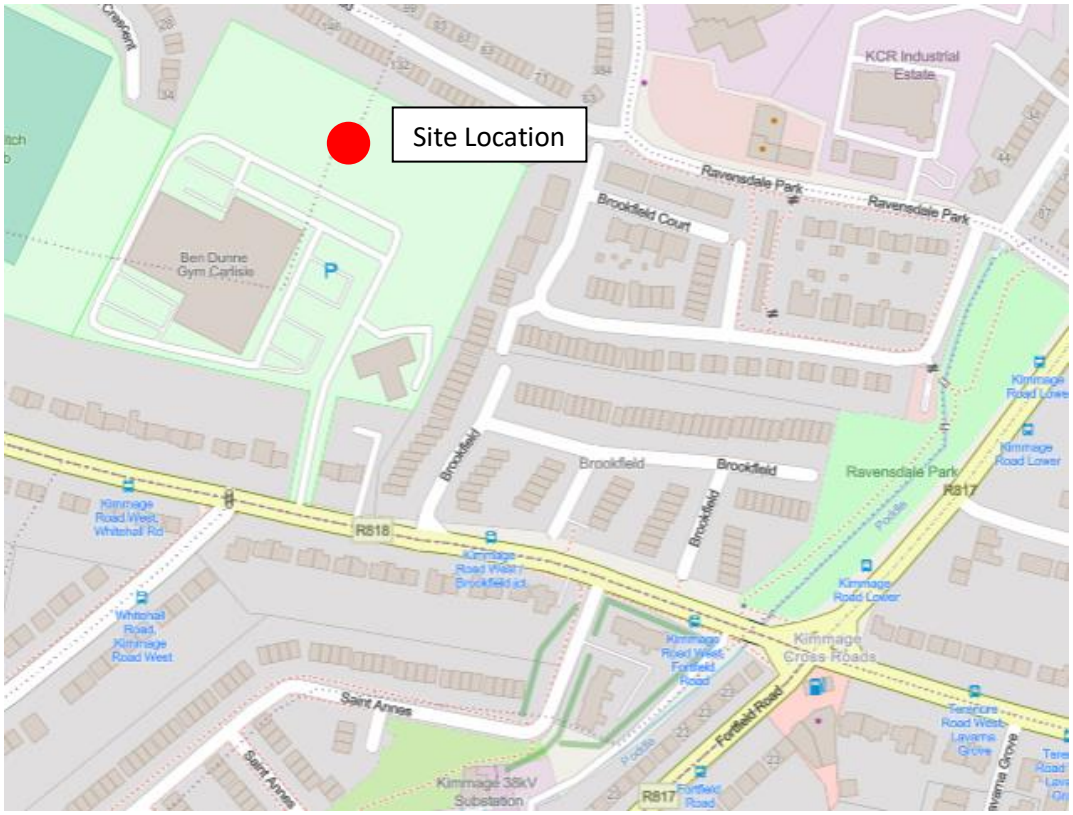



Figure 1-1: Site location map

The proposed development will consist of 208 no. dwelling units. It is proposed to provide 100 No. car parking spaces, equating 0.48 No. car parking spaces per apartment, and 484 No. cycle parking spaces.

The development mix is as follows:

- 104 No. 1-Bed Apartments

- 104 No. 2-Bed Apartments

It will be assumed within this report that the proposed development will open in 2024.

The report will justify the on-site parking on the basis of:

- Coherence with the parking requirements as stated within the New Apartment Guidelines;
- The travel patterns for existing commuters in the area as detailed within the 2016 Census for their journey to work;
- The existence of significant non-car-based travel alternatives for residents at the proposed development.

Appendix 1 contains a site layout of the proposed development.

# 2. SUSTAINABILITY OF CAR PARKING PROVISION AT THE PROPOSED DEVELOPMENT

## 2.1 INTRODUCTION

This section details the car and cycle parking requirements under the Dublin City Development Plan. The proposal will provide more than 100% of the required cycle parking, and a car parking provision of 0.48 spaces per residential unit is proposed. The rationale for this level of car parking provision is based on the requirements of the New Apartment Guidelines and the analysis of census information for the local area. It will be demonstrated that the proposed residential parking provision is entirely sustainable given the current car ownership and modal splits for the journey to work / college for existing residents living close to the subject site.

This level of car parking provision is also seen as being completely consistent with the mobility targets for the greater Dublin area as detailed within the Dublin City Transport Plan and also consistent both with minimising the traffic impact of the proposal and with maximising patronage of the extensive public transport and soft mode options (as detailed within this mobility plan).

## 2.2 CAR AND CYCLE PARKING REQUIREMENTS AS PER DUBLIN CITY DEVELOPMENT PLAN 2016 – 2022 (AND NEW DRAFT DEVELOPMENT PLAN 2022-2028)

Table 2-1 below details the maximum car and bicycle parking standards for Dublin City Council based on the rates contained within their 2016 - 2022 Development Plan Written Statement for the residential developments (and the new draft development Plan 2022-2028)

| **Development type** | **Area / units** | **Maximum car parking standards** | **Maximum car parking required** |
|---|---|---|---|
| Apartments (2016-2022 Dev Plan) | 208 No. | 1.0 per unit | 208 |
| Apartments (2016-2022 Dev Plan) | 208 No. | 1.0 per unit | 208 |
| | | | |
| | | **Bike parking standards** | **Bike parking required** |
| Apartments (2022-2028 Dev Plan) | 208 No. | 1 per unit | 208 |
| Apartments (2022-2028 Dev Plan) | 208 No. | Long term (1 per bedroom)<br><br>Short term (1 per 2 apartments) | 312<br><br>104<br>_____<br>416 |

Table 2-1: Parking required under Dublin City Council Development Plan Standards (2016-2022) & (new draft 2022-2028)

## 2.3 CAR AND CYCLE PARKING PROVISION

It is proposed to provide 100 No. car parking spaces for the residential component, equating to 0.48 No. spaces per residential unit.

This level of provision is 48% of the quantum required under the Dublin City Development Plan maximum standards. However, this provision must also be viewed in relation to the New Apartment Guidelines, the level of compliance with which is detailed within the mobility management plan in a separate submitted report.

In terms of cycle parking provision, it is intended to provide 484No. cycle parking spaces, 233% of the 2016-2022 Dublin City Development Plan standard, but 116% compliant with the requirements of the National Cycle Manual and 2022-2028 Development Plan (which both require 1 No. space per bed for residents and 0.5 No. spaces per residential unit for visitors).

Therefore, we are providing an over provision of 68no. cycle parking spaces following guidance from the National Cycle Manual and the new draft Development Plan 2022-2028.

## 2.4 CAR PARKING REQUIREMENTS FOR THE RESIDENTIAL DEVELOPMENT BASED ON THE NEW APARTMENT GUIDELINES

Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) was published by the Department of Housing, Planning and Local Government in March 2018.

Chapter 4 of this report refers specifically to revised car parking requirements for new apartment developments.

Its recommendations can be summarised as follows:
The quantum of car parking is dependent primarily on the location of the subject site. Three categories of location are defined:

*Central and/or Accessible Urban Locations*:
Apartments in central locations that are well served by public transport, in which situation car parking provision to be wholly eliminated or substantially reduced. These locations are most likely to be in cities, within 15 minutes walking distance of city centres or centrally located employment locations. These locations include sites within 10 minutes walking distance of DART, commuter rail or LUAS stops or within 5 minutes walking distance of high frequency (min 10 minute peak hour frequency) bus services.

*Intermediate Urban Locations*
This applies to apartments in suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare. For this category, planning authorities may consider a reduced overall car parking standard.

*Peripheral and/or Less Accessible Urban Locations*
Apartments in relatively peripheral or less accessible urban locations will require one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments.

It is reasonable to assume that the subject site comes within the second category – an intermediate urban area, which is served by public transport to the City Centre.

On the basis of this classification, it was concluded that a provision of between zero and 0.5 parking spaces would be appropriate for the proposed development.

The section immediately below uses mobility information from the 2016 Census to indicate the sustainability of this level of car parking provision at the proposed development.

## 2.5 Projected Car Usage In General Proximity To Proposed Development

Car ownership levels and modal split data from the 2016 Census for Electoral Divisions close to the subject site can assist in providing a case for the sustainability in transportation terms of only 41% of residents having access to a car space.

Such evidence can help demonstrate that potential overspill onto the local road network will not occur with the proposed level of car parking provision in place being sufficient to meet the requirements of the residents.

In order to demonstrate that the proposed quantum of car parking is sustainable and will not result in overspill, this report will assess existing demand for car ownership and car travel within the general environs of the subject site using 2016 Census data.

This data enables the proportion of households in the general vicinity of the subject site who do not own a car to be established as well as the proportion of commuters presently living in the area using the private car for their journey to work.

Data from individual electoral divisions, overall figures for Dublin City and Canal Cordon Counts are utilised to support the proposed level of car parking provision.

Data has been obtained for the following 5 No. Electoral Divisions in the general vicinity of the subject site:

- Kimmage E (ED containing Carlisle development)
- Terenure A
- Terenure B
- Kimmage C
- Kimmage D

Figure 2-1 contains a map showing the location of the 5 No. Electoral Divisions close to the subject site.

Table 2-2 below indicates the percentage of households in each of these ED's with no car.

| Electoral Division | Total No. of households | No. of households with no car | % households with no car |
|---|---|---|---|
| Kimmage E | 1338 | 342 | 26 |
| Kimmage C | 1182 | 333 | 28 |
| Kimmage D | 1002 | 285 | 28 |
| Terenure A | 1531 | 339 | 22 |
| Terenure B | 1414 | 273 | 19 |
| AVERAGE | | | 25 |

Table 2-2: Car ownership levels in ED's close to proposed development

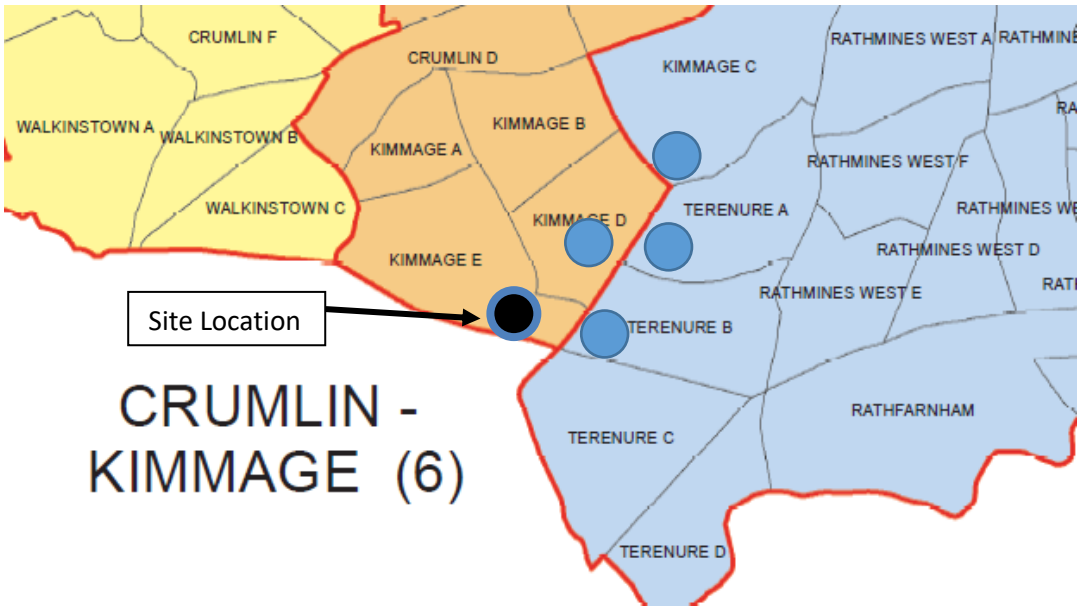



Figure 2-1: Chosen Electoral Division relative to location of proposed development

Thus, the above figures demonstrate that an average of one-quarter of the existing inhabitants of the area close to the proposed development do not own a car. Thus only 75% are in a position to make the journey to work by this mode of travel.

In order to analyse in detail the travel behaviour of commuters in the vicinity of the proposed development, let us look first at modal splits for commuters within the Dublin city area.

## 2.6 Modal splits for the private car - 2019 Canal Cordon Counts document

The results within this document detail the volume of vehicles and people crossing the Canal Cordon into Dublin city centre in the morning peak between 7am and 10am. The purpose of collecting this data is to track trends in the modes of travel people are using to travel to the city centre. It indicates the degree of success of various transport management measures / policies in changing commuter travel behaviour.

A comprehensive picture of the modes of travel of commuters was compiled for the period 2006 to 2019.

Table 2-3 below details the modal splits compiled for the 10-year period from 2010 to 2019:

| | Percentage for each mode | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Mode | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| Private car users | 39.8 | 38.0 | 37.0 | 35.4 | 33.3 | 32.6 | 31.8 | 29.2 | 28.3 | 26.7 |
| Pedestrians | 8.3 | 7.9 | 9.2 | 9.1 | 10.2 | 9.4 | 10.5 | 11.8 | 11.2 | 11.4 |
| Cyclists | 3.3 | 3.7 | 4.3 | 4.7 | 5.4 | 5.4 | 5.9 | 5.9 | 5.7 | 6.0 |
| Public transport | 45.9 | 47.5 | 46.4 | 47.9 | 48.4 | 49.8 | 49.1 | 50.7 | 52.6 | 53.5 |

Table 2-3: Modal share for commuters crossing canal cordon 2010 to 2019.

It can be seen that car usage has gradually reduced over the past 10 years, with the modal split for private car usage now below 27%, with public transport at just above 53%.

## 2.7 MODAL SPLIT FOR THE PRIVATE CAR – 2016 CENSUS RESULTS FOR ELECTORAL DIVISIONS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Table 2-4 contains the journey to work modal splits for car, bus and LUAS / Rail travel for the 5 No. Electoral Divisions close to the subject site whose car ownership levels have been detailed within Table 2.4:

| Mode | CAR DRIVER (%) | CAR PASSENGER (%) | BUS (%) | LUAS / TRAIN (%) | CYCLING (%) | WALKING (%) | VAN / HOME / NOT STATED |
|---|---|---|---|---|---|---|---|
| Kimmage E | 46 | 3 | 18 | 1 | 12 | 8 | 12 |
| Kimmage C | 32 | 1 | 14 | 3 | 19 | 24 | 7 |
| Kimmage D | 40 | 3 | 20 | 2 | 15 | 11 | 9 |
| Terenure A | 36 | 1 | 15 | 1 | 22 | 16 | 9 |
| Terenure B | 43 | 2 | 14 | 1 | 20 | 11 | 9 |
| Average | **39** | **2** | **16** | **1** | **18** | **14** | 10 |

Table 2-4: Modal splits for electoral divisions in vicinity of subject site

Appendix 2 contains details of the 2016 Census data from the 5 No. Electoral Divisions. Thus, for the existing inhabitants in 5 No. Electoral Divisions close to the subject site, as detailed within the 2016 Census, excluding vans, workers staying at home and no preference stated, 39% commute by private car (plus 2% as passengers) with 17% commuting by bus, train or LUAS and 32% cycling or walking.

These figures are critical in two respects. Firstly it demonstrates that providing car parking spaces for 48% of occupants of the proposed development is entirely sustainable, given that the 2016 census indicated a modal split for private car use for the journey to work for the general area of 39%. Secondly, as indicated by the year-on-year canal cordon counts,

this figure has, in all probability, reduced in the intervening two years to 2021, and is likely to reduce further at the year of opening (2024).

The 2016 census figures indicates a modal split for the private car in the region of 39%, higher than the 2019 canal Cordon result of 29%. Given that the canal cordon indicates a further 2.5% reduction between 2017 and 2019, it would be reasonable to assume that the Census modal split has reduced further below 39%, and would continue to further reduce by 2024, the projected year of opening.

### 2.8 Concluding Comment

This section of the report demonstrates that, given existing travel patterns close to the subject site, and its assumed designation within the New Apartment Guidelines as an 'intermediate urban area' within close proximity to a high frequency major bus corridor, a car parking provision of 0.48 per residential unit (100 No. spaces for 208 No. apartment units) is entirely sustainable.

However, providing a limited quantum of car parking spaces places an onus on the applicant to demonstrate that the site is configured in such a manner that enables all residents at the proposed development to commute to work using modes of travel other than the private car.

The remaining sections of this document seek to demonstrate that such is the case for the proposed development at the site.

## 3. GUIDANCE AND POLICY DOCUMENTS ON RESIDENTIAL TRAVEL PLANS

### 3.1 Introduction

The relevant documents at an international, national and local level are detailed within this section.

### 3.2 National / International / Local Policy on Sustainable Travel / Travel Plans

#### 3.2.1 Smarter Travel, A Sustainable Transport Future (STASTF) – A New Transport Policy for Ireland, 2009 – 2020

This document plans for an integrated transport network that enables the efficient, effective and sustainable movement of people and goods, in order to contribute to economic, social and cultural progress.

It recognises that, without intervention, congestion will get worse, transport emissions will continue to grow, economic competitiveness will suffer, and quality of life will decline. The key goals are to Improve quality of life and accessibility to transport for all and for people with reduced mobility and those who may experience isolation due to lack of transport; to Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks; to minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions; to reduce overall travel demand and commuting distances travelled by the private car and to Improve security of energy supply by reducing dependency on imported fossil fuels.

Its implementation will help meet Ireland's international obligations towards tackling climate change, enhancing existing legislative provisions to deliver deeper integration of travel and spatial planning and to support the full integration and alignment of transport

plans with the development plan process and local area planning, and ensure better integration of land use planning and transport policies in the relevant planning guidelines as part of their ongoing review and we will avail of policy directives to give effect to specific measures needed to meet the vision for sustainable travel.

It details a requirement that developments above a certain scale have viable travel plans in place, that significant housing development in all cities and towns must have good public transport connections and safe routes for walking and cycling to access such connections and local amenities, and the necessity for the integration of cycling and public transport with the proposal.

### 3.2.2 Greater Dublin Area Transport Strategy, 2016-2023

The Greater Dublin Area (GDA) Transport Strategy has, as its central objective, the promotion of efficient, effective and sustainable movement of people and goods, thereby helping to reduce modal share of car-based commuting to a maximum of 45%. To achieve these principles, future developments must 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, protect the capacity of the strategic road network, ensure a significant reduction in share of trips taken by car, especially those trips which are shorter or commuter trips, and provide alternate transport modes in order to reduce the strain on the M50 as current increase in traffic is unsustainable.

The mobility management plan demonstrates the proximity of site to improved public transport provisions such as the proposed BusConnects Core Bus Corridor, which will improve overall levels of public transport provision within the GDA, improving public transport options for residents.

### 3.2.3 Dublin City Council Development Plan, 2016-2022 (and New Draft Plan 2022-2028)

The Dublin City Development Plan (DCDP) provides an integrated framework for the development of the city 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 has to play in achieving this goal.

The DCDP details a Core Strategy which includes housing, settlement, employment, retail and public transport strategies. The strategy translates into a number of broad strands which form the basis for the policies and objectives outlined in the plan, including the creation of sustainable neighbourhoods and communities and the development of policies and objectives to achieve this.

Relevant policies include:

- The promotion modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport;
- The improvement of the city's environment for walking and cycling through the implementation of improvements to thoroughfares and junctions and also through the development of new and safe route;
- The improvement of the pedestrian environment;

- The promotion of the development of a network of pedestrian routes which link residential areas with recreational, educational and employment destinations to create a pedestrian environment that is safe and accessible to all;
- The promotion of best practice mobility management and travel planning to balance car use to capacity and provide necessary mobility via sustainable transport modes;
- The provision of sustainable levels of car parking and storage in residential schemes in accordance with development plan car parking standards so as to promote city centre living and reduce the requirement for car parking; and
- The encouragement of new ways of addressing the parking needs of residents (such as car clubs) to reduce the requirement for car parking.

### 3.2.4 Making Residential Travel Plans Work: Guidelines for New Development - UK Department of Transport, 2005

This document details the policy context of an RTP, exploring the benefits they can offer and sets the context in terms of related policy issues, outlines travel plan design and content, including objectives and guiding principles, and the measures that can be secured as part of a residential travel plan. It details the process of requiring a residential travel plan, covering the key stages in the residential travel planning process, the management, monitoring and enforcement of the RTP**,** highlighting key issues to be taken into account to ensure that the travel plan is effective and continues to be effective. It also details a strategic framework which reviews the planning and transport framework underpinning an effective residential travel plan;

The guidance within this UK document is used extensively within this RTP for Carlisle site. It states that travel planning had, to date, largely focussed on the development of destination travel plans, which are generally designed to reduce car use to a specific destination - such as a workplace, school or a visitor attraction. Within such a plan, the office employer, the school or the attraction itself, in partnership with others such as the planning authority and public transport operators, destination travel plans focus mainly on a particular journey purpose, e.g. the journey to work, school, etc.

The document states that, in contrast, a residential travel plan is concerned with journeys made from a single origin multiple and changing destinations. This crucial difference raises a number of issues and explains the need for specific good practice advice, though many aspects of good practice in developing destination travel plans are likely to apply to residential travel plans.

It states that key differences between the origin-based residential travel plans and destination office / school travel plans are:

- The pattern of journeys originating at home is more varied, with residents having multiple destinations and different needs and travel choices over time. This is a crucial difference compared with destination-based plans which normally only deal with a single journey purpose e.g. access to work.;
- An ongoing management organisation and structure for the travel plan needs to be put in place, as there is often no single company or institution to provide continuity and a common point of interest for residents

This guidance document looks at residential travel plans in the context of new development, where the travel plan will normally be drawn up before the residents are in occupation. It is envisaged that the measures included in a residential travel plan will include demand management and smart travel tools, as well as improvements in services

and facilities. As with destination travel plans, it would generally combine the 'soft' measures of promotion and awareness raising with 'hard' measures and improvements to design, infrastructure and services, both on-site and off-site. In addition, because of the many purposes of journeys from home, the residential travel plan may need to incorporate a wider range of measures to encourage more sustainable travel choices. It will need to be "fit for purpose" given the substantial variety of scale, location and type of residential development.

A residential travel plan should also include targets, monitoring and management arrangements to ensure that the objectives of the travel plan are achieved and that it remains sustainable over the longer term. It should be secured through the planning system as part of the assessment of the planning application. As with other travel plans, residential travel plans should be a key requirement on a par with highways improvements or instead of them. For any residential development likely to generate significant levels of traffic. They should not, of course, be a reason for approving an unacceptable development in the wrong location but, where practical, providing a means of solving accessibility issues.

Travel planning for residential development is stated to have the potential to help achieve more sustainable communities by improving their accessibility. New housing development is normally characterised by high car trip generation. However, better choices about the location and density of new housing, combined with the increased use of residential travel plans, should deliver a real impact on travel patterns and aid progress towards sustainable transport and land use objectives.

If the travel plan is designed into the residential development from the beginning and supported by a long term commitment and mechanisms for implementation, potential local benefits.

- Reducing the need for car use with benefits in terms of reduced traffic, congestion, air pollution and accidents;
- Improving accessibility and travel choice for reaching local facilities;
- Improving public transport provision for people in nearby developments because of the increased economies of scale;
- Increasing scope for child-friendly housing layouts with fewer roads, vehicle movements and parking areas; Complementing nearby travel plans, and possibly even assisting them in achieving more ambitious initiatives;
- Improving access by the wider community to the residential development by sustainable modes of transport;
- Representing good practice and providing an educational tool to help change perceptions about the convenience and benefits of not using the car where alternatives exist;
- Achieving more attractive environments that contribute to regeneration and renewal initiatives;
- Increasing marketability of the development as more households seek to change their travel behaviour.

The document thus clearly illustrates the benefits of a well thought out Residential Travel Plan to achieving more environmentally sustainable communities.

## 4. THE TRAVEL PLAN PYRAMID

The UK document 'Making Residential Travel Plans Work' details the travel plan pyramid that helps demonstrate how successful plans are built on the firm foundations of a good location and site design. A Plan should also combine hard measures – such as new bus stops and cycle ways, and soft measures – such as discounts on season tickets and help with individual journey planning. All measures should be integrated into the design, marketing and occupation of the site. In addition, parking restraint is often crucial to the success of the plan in reducing car use.

An image of the pyramid is contained within Appendix 3.

The travel pyramid, as detailed within 'Making Residential Travel Plans Work', contains the following five key concepts that are central to a good RTP:

- Location - Residents need to be within easy reach of shops and services – so that walking or cycling becomes the natural choice
- Built Environment – Low-density developments are hard work to get round by bike and foot. Encouraging compact development that is walking and cycling friendly, with low parking allowances, is crucial in encouraging sustainable travel choices.
- Travel Plan Coordinator - Successful travel plans need people. The Coordinator plays a crucial role in developing the plan and working with residents and management to ensure the plan meets their needs for access and evolves over time
- Services and facilities - Good public transport and a car club can help reduce the need for on-site parking. Other measures, such as broadband internet access and home deliveries can reduce the need to travel off site.
- Promotional strategy - Welcome packs, public transport discounts and cycling incentives can all help introduce the travel plan to residents and build enthusiasm.

In terms of location and built environment, one can see the significant advantages of the subject site, within easy access of bus facilities, with the layout of the proposed development making cycling and walking safer and more efficient.

This report will demonstrate the central role that will be undertaken by the Travel Plan Coordinator in setting targets, updating the Travel Plan, monitoring use of car club spaces and maximising the circulation of promotional material among residents.

## 5. THE CONTENTS OF RESIDENTIAL TRAVEL PLAN

Section 6 of this report will summarise the existing public transport and cycling facilities at the subject site.

Section 7 takes the existing commuter travel patterns for the area and proposes year-of-opening modal splits for the proposed development. It also contains proposed future improvements public transport, cycling and walking facilities nearby which will assist in the attainment of the stated targets.

Section 8 details the objectives of the Travel Plan Strategy and lists a suite of measures which is planned to be implemented to facilitate the achievement of these objectives.

Section 9 details the central role of the Travel Plan Coordinator in the attainment of the objectives as set out within Section 8.

Section 10 contains some concluding comments on the residential travel plan.

# 6. ROAD NETWORK, AND EXISTING BUS TRANSPORT AND CYCLING FACILITIES

## 6.1 SITE LOCATION

The general location of the subject site in relation to the surrounding road network is illustrated in Figure 1.1.

## 6.2 EXISTING BUS INFRASTRUCTURE

The Dublin Bus services in the area provide direct linkage to the city, with Routes 9, 15a and 17 running past the site. In addition, the 54a passes through Kimmage crossroads 200 metres to the east of the proposed development, while route 83 and 83a pass through Lorcan O'Toole Park, 350 metres to the northwest.

The frequency of each bus can be seen in Table 6-1:

| Route | Origin | Destination | Frequency AM peak hour |
|---|---|---|---|
| Route 9 | Limekiln Avenue | Charlestown | 5 No. buses per hour |
| Route 15a | Limekiln Avenue | Ringsend Road | 4 No. buses per hour |
| Route 17 | Rialto | Blackrock | 3 No. buses per hour |
| Route 54a | Killtipper Way | Pearse Street | 2 No. buses per hour |
| Route 83 | Harristown | Kimmage | 6 No. buses per hour |
| Route 83a | Harristown | Kimmage | 6 No. buses per hour |
| TOTAL | - | - | 26 No. buses per hour |

Table 6-1– Dublin Bus Route Frequencies


Figure 6-1: Existing bus services

Figure 6-1 details the routes taken by the 9, 15A, 17, 54a, 83 and 83a routes in close proximity to the site of the proposed development.

## 6.3 EXISTING CYCLING PROVISION

Figure 6-2 details the existing cycle facilities close to the site:


Figure 6-2: Cycling facilities in proximity to Carlisle site

One can see that there are limited cycle lanes in the vicinity of the development, with the main link being the Fortfield Road / Sundrive Road link.

# 7. PREDICTED POST-DEVELOPMENT TRAVEL PATTERNS

## 7.1 INTRODUCTION

Based on the modal split information within section 2 of this report for the Electoral Divisions in the general vicinity of the subject site, excluding not-stated modal preferences and stay-at-home workers, Table 7-1 below indicates a target profile for the future residents at the Carlisle Site on the projected day of opening:

| Transport Mode | Commuter Usage (%) (day-of-opening) |
|---|---|
| Car driver | 45 |
| Car passenger | 2 |
| Public transport | 17 |
| Cycle | 22 |
| Walk | 14 |

Table 7-1 - Future Target Modal Splits for Carlisle Site

The car driver modal split is very close to the figure for the Kimmage E Electoral Divisions which contains the subject site (46%), while the modal split for cycling mirrors the figure for the more central Terenure A Electoral Divisions but is deemed appropriate given the significant supply of on-site cycle parking. The remaining modal splits are derived from the average figures for the 5 No. Electoral Divisions in the vicinity of the site evaluated in Table 2-4.

The section below details the improvements planned to the bus and cycle network which will help ensure that the proposed day-of-opening modal splits for the development are maintained into the future.

## 7.2 FUTURE PLANNED PUBLIC TRANSPORT AND CYCLING NETWORK IMPROVEMENTS

### 7.2.1 Bus Connects

Figure 7-1 details the Bus Connects proposals, indicating that the F3 route on the high frequency F spine passes the entrance to the site

The F spine buses (F1, F2, F3) will provide an all-day service, operating every 5 minutes from the Kimmage Crossroads to City Centre (via Harold's Cross) and points beyond. West of Kimmage Crossroads, the route will change to F3, which continues to Templeogue, Firhouse and Tallaght via Fortfield Rd, Fortfield Park, Templeville Road, Cypress Grove Road and Old Bridge Road, running every 15 minutes.

The high frequency S4 orbital route, also runs past the site access, will create a direct service from Liffey Valley and Ballyfermot across the southern side of Dublin, including Crumlin, Terenure, Milltown, and finally UCD.

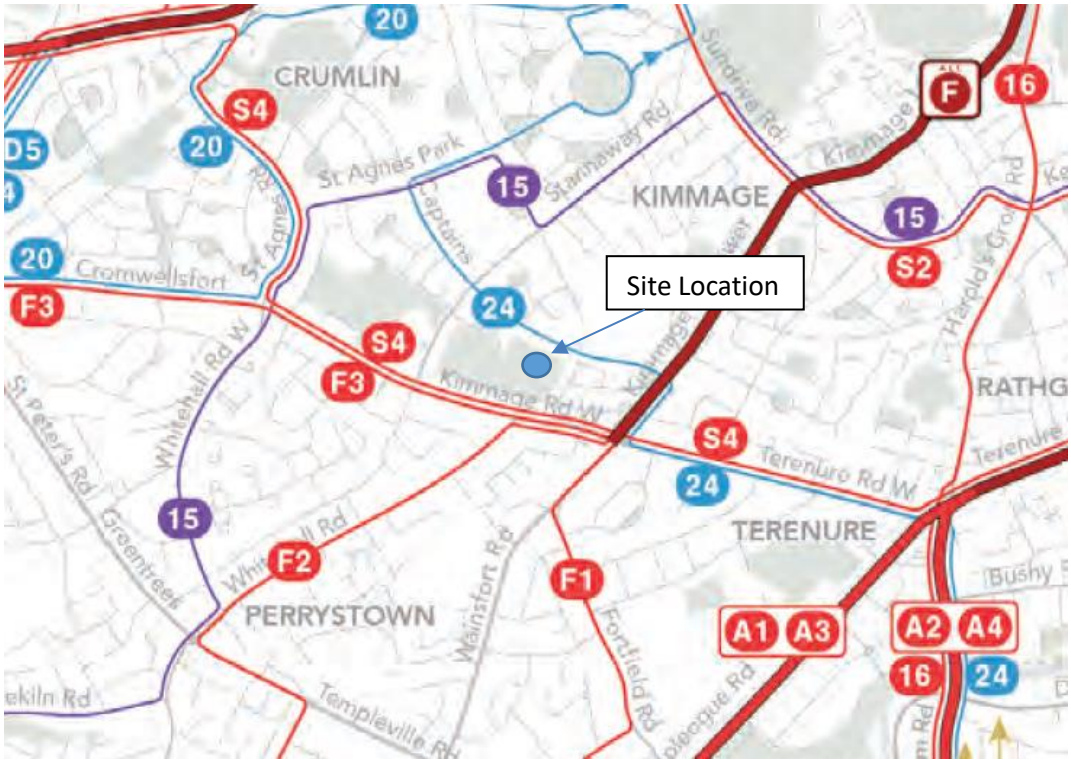



Figure 7-1: Bus Connects proposals

Appendix 4 provides more details of Bus Connects for the Inner South City area.

### 7.2.2 GDA Cycle Plan

Figure 7-2 details the network improvements proposed within the GDA cycle plan.


Figure 7-2: Cycle lane improvements detailed within the GDA Cycle Plan

The SO3 secondary route which provides direct access into the city will allow residents of the development to use the route and cycle along the canal where they will not have to share their space with other road users such as cars, buses or trucks.

The SO3 route connects into Primary Route 9 at the Kimmage Crossroads junction, 200 metres east of the development entrance.

Route 9 runs from the city centre along Clambrassil Street through Harold's Cross, intersecting with the SO3 route at Kimmage crossroads.

The SO3 route runs from Rathgar and Dartry to Milltown, Clonskeagh and Ballsbridge along the Dodder Greenway, connecting westwards to Tallaght.

Appendix 5 contains the text from the GDA Cycle Network Plan for the Dublin South West Sector.

# 8. OBJECTIVES OF TRAVEL PLAN STRATEGY

## 8.1 INTRODUCTION

A Travel Plan Framework is a tool that brings together site management issues relating to transport in a coordinated manner. This document puts in place the objectives of the mobility management strategy for the subject site and the specific measures designed to achieve these objectives.

As the proposal includes a reduced on site parking provision, this strategy aims to provide sustainable transport choices for residents and visitors at the site, thus continuing to eliminate private car use for the trip to and from the workplace. Specific measures for achieving effective modal shift away from the private car will be detailed.

The aim of this strategy is thus to introduce measures which will maximise the chances that the modal split targets for year of opening are met and maintained thereafter.

The objectives of the Travel Plan Strategy for the proposed development in order to meet the stated targets for the subject site are as follows:

- To manage the availability of the private car for residents (non-work purposes) (Objective No. 1);
- To encourage residents to use public transport by providing information on the services available as well financial incentives to use public transport. New public transport schemes coming on stream will further aid the achievement of this objective (Objective No. 2);
- To encourage residents to cycle to work, if appropriate, by providing safe parking and general information on the health benefits of cycling (Objective No. 3);
- To encourage to walk to work if appropriate, by providing all necessary information on this mode of travel (Objective No. 4).

A number of the proposals listed to achieve and maintain the modal splits detailed within Table 7-1 above are easy and inexpensive to implement. Other measures require initial co-operation and co-ordination both within and between organisations.

The general morale of residents will be, to an extent, dependent on their general state of health and fitness, particularly where, for some, long periods are spent behind a desk working with computers when they get to their workplace. The profile of their journey to work can be a significantly beneficial factor in regard to increased fitness and wellbeing.

## 8.2 OBJECTIVE NO. 1 – MANAGE PRIVATE CAR AVAILABILITY FOR RESIDENTS (WORK AND NON-WORK PURPOSES)

The promotion of car sharing among residents using the development website can help decrease the car driver modal share and increase the car passenger percentage for work-related purposes.

Rather than all residents requiring access to a parking space in order to have a car available to make non-work related trips for shopping and leisure purposes, an alternative and more sustainable approach is proposed involving the provision of information on car clubs to residents in order to cater for the non-trip-to-work-related car demand.

It is proposed that the Travel Plan Co-ordinator will provide information on the availability of car club vehicles for residents within the development, with 2 No. spaces being provided initially.

Such actions will have the effect of reducing the modal split for car drivers below the opening day projection of 45%.

## 8.3 OBJECTIVE NO. 2 - ENCOURAGING GREATER USE OF PUBLIC TRANSPORT FOR THE JOURNEY TO WORK

### 8.3.1 GENERAL

Public transport will be a favoured transport option for a predicted 17% of residents at the proposed development on its day of opening.

The Bus Connects, in the longer term, will significantly improve public transport services at the subject site.

### 8.3.2 PUBLIC TRANSPORT INFORMATION

It is vital that timetable information is available to residents in order to encourage maximum usage of the public transport system. Dublin Bus and LUAS timetables should be posted on the notice board within the apartment complex and / or the web site to be set up by on-site management.

## 8.4 OBJECTIVE NO. 3 - ENCOURAGING MORE RESIDENTS TO CYCLE TO WORK

Cycling will be a favoured transport option for a predicted 22% of residents at the proposed development on its day of opening.

The provision of 484 No. cycle parking spaces on site will help maintain and strengthen this modal split. The proposed GDA cycle network improvements detailed within section 7 above will help maintain the projected modal split for cycling at the subject site.

## 8.5 OBJECTIVE NO. 4 - ENCOURAGING MORE RESIDENTS TO WALK TO WORK

Walking will be a favoured transport option for a predicted 14% of residents at the proposed development on its day of opening.

Maintenance of this modal share will be facilitated by noticeboard and website information on quickest routes to town, nearby divisions and closest bus stops.

# 9. ROLE OF THE TRAVEL PLAN COORDINATOR FOR THE PROPOSED RESIDENTIAL DEVELOPMENT

## 9.1 APPOINTMENT OF TRAVEL PLAN COORDINATOR

It will be the intention of on-site management at the proposed development' that a Travel Plan Coordinator be appointed to administer, implement, monitor and review travel plan management issues within the residential component of the proposed development. The coordinator will also liaise with the local authority, public transport companies and facility managers on issues relevant to the maximisation by commuters of non-car based journeys to work.

## 9.2 DUTIES OF THE TRAVEL PLAN COORDINATOR

The application is founded on minimal use of the private car by all residents and the maximization of travel by soft modes and public transport.

The co-ordinator will have a vital role in encouraging and enabling residents at the subject site to adopt the measures listed within the document to achieve the objectives listed above within section 8. The duties of the co-ordinator are detailed below under the following headings:

- Promoting the environmental and health benefits of their travel choices
- Promoting bike use
- Promoting walking to work
- Promoting rail and bus based travel
- Monitoring the modal splits for residents' journey to work

### 9.2.1 Promoting the environmental and health benefits of their travel choices

It will be the duty of the coordinator to make residents aware of the environmental and health consequences of their travel choices. Various media should be employed in order to communicate this message. These could include a newsletter and a mobility website, and providing information on issues such as available public transport services, where to buy a bike, and the health benefits of cycling / walking.

### 9.2.2 Promoting bike use

The coordinator can promote the use of this mode of travel using other measures such as the setting-up of a cycle users group so that experienced cyclists within the development can help encourage newcomers to the mode of travel. The coordinator can also help by keeping tool kits and spare parts on site for cyclists to avail of. The web site and newsletter could also be an aid to encouraging the mode of travel by encouraging the potential time savings involved. In addition, the coordinator can keep in contact with the local authority to monitor the progress in implementation of the proposed cycle track network in the locality.

It would also be possible for management at the proposed residential development to agree a group bicycle insurance scheme for residents at preferential rates in order to maximise its use as a mode of travel to work.

In addition, management might subsidise the cycling mode by purchasing an initial stock of bicycles to loan to residents at preferential rates. Such a scheme would not be expensive

and would have the added benefit of raising awareness of it as a mode of travel and generally encouraging cycle use.

### 9.2.3 Promoting walking to work

As with cycling, the coordinator should promote the health and fitness benefits of walking and its general viability as a method of getting to work. The coordinator can also liaise with the local authority on work being done near the candidate site to make the local road network more pedestrian friendly.

### 9.2.4 Promoting rail and bus based travel

The coordinator will promote a public transport culture among residents. The coordinator can use the newsletter and website to provide information on public transport, in particular timetable information, fares, bus and / DART stop location and route planning, together with information on annual and monthly public transport tickets, carrying potential tax benefits for commuters.

### 9.2.5 Monitoring the modal splits for the residents' journey to work

In order to maximise the effectiveness of the Travel Plan, the coordinator should be responsible for the ongoing monitoring of the modal splits within the plan, including the carrying out on a regular basis of travel surveys of all on-site residents.

## 10. CONCLUDING COMMENT

This Travel Plan is required to ensure the sustainability of the limited provision of car parking at the subject site, consistent with the New Apartment Guidelines but below the maximum provision as detailed by the planning authority.

This report has demonstrated that the proposed reduced car parking provision for the residential development is entirely sustainable based on current car ownership and modal splits for the journey to work for existing residents living within Electoral Divisions close to the subject site, and is entirely in line with recommendations on parking provision set out in the *'Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities): March 2018'*

A parking provision of 0.48 spaces per apartment unit is sustainable, given that car usage for the journey to work is in the region of 40% and public transport / soft mode usage for the journey to work is projected to be in the region of 60%.

The Residential Travel Plan within this report aims to achieve a sustainable travel culture for residents at the residential development by outlining a travel strategy, by listing measures to achieve its objectives and by committing to appoint a travel plan coordinator to oversee and monitor progress towards the target modal splits predicted for the site on its day of opening.

# Appendix 1

## Site Layout


KEYPLAN
1:500
6269-P-003b
6269-P-003a
FOR CONTINUATION REFER TO DRAWING 6269-P-003a
DRAWING KEY
TOTAL AMOUNT OF UNITS
1 Bed
2 bed
DUAL ASPECT UNITS
UNITS WITH BALCONY/TERRACE
TOTAL SITE AREA
TOTAL SITE AREA
TOTAL BUILDING FOOTPRINT
SITE COVERAGE
PLOT RATIO
PUBLIC OPEN SPACE
COMMUNAL OPEN SPACE
PARKING
NOTE:
SUBJECT PROPOSAL BOUNDARY LINE
Carlisle Site, Kinnage
Residential Development
Proposed Site Layout Plan - Sheet 03
6269-P-003a
bkd architects

# Appendix 2

## 2016 Census Information

| Means of Travel | Work | School or College | Total |
|---|---|---|---|
| On foot | 127 | 132 | 259 |
| Bicycle | 183 | 67 | 250 |
| Bus, minibus or coach | 281 | 136 | 417 |
| Train, DART or LUAS | 13 | 2 | 15 |
| Motorcycle or scooter | 8 | 0 | 8 |
| Car driver | 702 | 19 | 721 |
| Car passenger | 41 | 232 | 273 |
| Van | 60 | 0 | 60 |
| Other (incl. lorry) | 3 | 0 | 3 |
| Work mainly at or from home | 21 | 1 | 22 |
| Not stated | 87 | 36 | 123 |
| Total | 1,526 | 625 | 2,151 |

**KIMMAGE E**

| Means of Travel | Work | School or College | Total |
|---|---|---|---|
| On foot | 388 | 183 | 571 |
| Bicycle | 308 | 74 | 382 |
| Bus, minibus or coach | 220 | 71 | 291 |
| Train, DART or LUAS | 47 | 3 | 50 |
| Motorcycle or scooter | 7 | 0 | 7 |
| Car driver | 515 | 14 | 529 |
| Car passenger | 24 | 83 | 107 |
| Van | 21 | 1 | 22 |
| Other (incl. lorry) | 1 | 0 | 1 |
| Work mainly at or from home | 29 | 0 | 29 |
| Not stated | 58 | 15 | 73 |
| Total | 1,618 | 444 | 2,062 |

**KIMMAGE C**

| Means of Travel | Work | School or College | Total |
|---|---|---|---|
| On foot | 124 | 123 | 247 |
| Bicycle | 166 | 42 | 208 |
| Bus, minibus or coach | 232 | 110 | 342 |
| Train, DART or LUAS | 18 | 1 | 19 |
| Motorcycle or scooter | 4 | 0 | 4 |
| Car driver | 460 | 6 | 466 |
| Car passenger | 37 | 98 | 135 |
| Van | 31 | 0 | 31 |
| Other (incl. lorry) | 2 | 1 | 3 |
| Work mainly at or from home | 23 | 0 | 23 |
| Not stated | 42 | 27 | 69 |
| Total | 1,139 | 408 | 1,547 |

**KIMMAGE D**

| Means of Travel | Work | School or College | Total |
|---|---|---|---|
| On foot | 322 | 231 | 553 |
| Bicycle | 435 | 119 | 554 |
| Bus, minibus or coach | 290 | 112 | 402 |
| Train, DART or LUAS | 24 | 2 | 26 |
| Motorcycle or scooter | 24 | 0 | 24 |
| Car driver | 707 | 10 | 717 |
| Car passenger | 22 | 128 | 150 |
| Van | 40 | 0 | 40 |
| Other (incl. lorry) | 2 | 3 | 5 |
| Work mainly at or from home | 68 | 0 | 68 |
| Not stated | 50 | 21 | 71 |
| Total | 1,984 | 626 | 2,610 |

**TERENURE A**

| Means of Travel | Work | School or College | Total |
|---|---|---|---|
| On foot | 181 | 273 | 454 |
| Bicycle | 346 | 85 | 431 |
| Bus, minibus or coach | 249 | 137 | 386 |
| Train, DART or LUAS | 14 | 3 | 17 |
| Motorcycle or scooter | 16 | 0 | 16 |
| Car driver | 734 | 17 | 751 |
| Car passenger | 34 | 121 | 155 |
| Van | 37 | 0 | 37 |
| Other (incl. lorry) | 1 | 0 | 1 |
| Work mainly at or from home | 37 | 0 | 37 |
| Not stated | 70 | 20 | 90 |
| Total | 1,719 | 656 | 2,375 |

**TERENURE B**

# Appendix 3

## Travel Plan Pyramid

## The travel plan pyramid

# Appendix 4

## Bus Connects –
## Inner South City Area

## Maps E10, P10: Inner South

Five spines would radiate from the centre into this area, as well as several numbered radials. Orbitals O, S2, and S4 would provide a vast improvement in east-west services. Here are some of the considerations in the design.

### New Orbitals

- **Route O - Inner Orbital.** All-day service, every 8 minutes. This route would run on the North and South circular roads, connecting many destinations at the edge of the centre (e.g. Grand Canal, Docklands, Heuston), and allowing many trips coming from south and north Dublin to bypass the core of the City Centre.
- **Route S2 from Heuston station to Poolbeg.** All-day service, every 15 minutes. This route would replace the western half of Route 18, at higher frequency and connecting to Heuston. It would serve Heuston station, St. James' Hospital, Rialto, Sundrive Road, Kimmage, Rathmines, Ranelagh, Ballsbridge and Sandymount, ending on Sean Moore Road.
- **Route S4 from Liffey Valley to UCD.** All-day service, every 10 minutes. This would be a new orbital extending west from UCD, to Milltown, Rathgar, Terenure and Crumlin. The large number of residential areas and villages, combined with major destinations at either end of the route, suggest that it would be useful for many trips that do not need to go through City Centre.

### Inchicore

The primary radial services in and near Inchicore would be:

- The Luas Red Line, continuing to operate as it does today.
- **All G spine buses (G1, G2).** All-day service, every 8 minutes (every 6 minutes at peak) from Ballyfermot to Spencer Dock.

Furthermore, two secondary radials would cross Inchicore as well:

- **Route 93 from Rathcoole to Dublin Port.** All-day service, every 60 minutes. Coming from the Naas Road, this route would follow Tyrconnell Road to Emmet Road, Bulfin Road/ Goldenbridge Ave as a one-way couplet, and continue to City Centre via Islandbridge.
- **Route 95 from Cherry Orchard to Spencer Dock.** All-day service, every 60 minutes. This route would follow the same path as Routes G1 and G2 in this area.

### Drimnagh and Crumlin

The primary radial services in Drimnagh and Crumlin would be:

- The Luas Red Line, continuing to operate as it does today.
- **All D spine buses (D1, D2, D3, D4, D5).** All-day service, every 4 minutes from Crumlin Hospital to City Centre and points beyond. South and west of Crumlin Hospital, the branches would separate, with:
  - **Routes D1 and D3** continuing to Clondalkin via Long Mile Road, Kylemore Luas station and the New Nangor Road. All-day service, every 8 minutes until Watery Lane, splitting to every 15 minutes on each branch beyond that point.
  - **Route D2, D4 and D5** continuing to Tallaght via Walkinstown Road and the Greenhills Road. All day service, every 8 minutes, splitting at Castletymon Road. D2 and D4 continue on a direct path to Tallaght Village and The Square, D5 takes a longer path through Tymon North and Seskin View.

In addition, Drimnagh would be served by two numbered radial routes:

- **Route 22 from Crumlin Hospital to East Wall.** All-day service, every 30 minutes, via Galtymore Road and Keeper Road.
- **Route 23 from Crumlin Hospital to Marino.** All-day service, every 15 minutes, via Mourne Road and St. James' Hospital.

Crumlin would be served by three numbered radial routes:

- **Route 15 from Greenhills College to Mountjoy Square.** All-day service, every 20 minutes. This route would start in Greenhills, serving Limekiln Road, Whitehall Road West, St. Agnes Road (Crumlin Village), St. Agnes Park, Stanneway Road, and Sundrive Road, heading to Rathmines, then continuing to City Centre. This route is intended to replace some of the functions of existing routes 15a, 18 and 83.
- **Route 20 from Tallaght to East Wall.** All-day service, every 30 minutes (every 15 minutes at peak from Walkinstown to City Centre). This route would arrive in Crumlin via Ballymount and Walkinstown. It would run on Cromwellsfort Rd, through Crumlin Village, then onto Kildare Road and Clogher Road to City Centre.
- **Route 24 from Dundrum to Fleet Street.** All-day service, every 30 minutes. This route would be arriving from Whitechurch, Ballyboden and Rathfarnham. From Terenure, it would take Terenure Road West to Kimmage Road Lower, Captain's Way, St. Agnes Park and Clonmacnoise Road to Sundrive Road, then heading to City Centre via the Crumlin Road.

### Harold's Cross, Kimmage, Perrystown, and Greenhills

The primary radial services in these areas would be:

- **All F spine buses (F1, F2, F3).** All-day service, every 5 minutes from the Kimmage Crossroads to City Centre (via Harold's Cross) and points beyond. South and west of the Kimmage Crossroads, the branches would separate, with:
  - **Routes F1** continuing to Greenhills College via Kimmage Road West, Cromwellsfort Road, St. Peter's Road and St. James' Road, similar to existing route 9. All day-service, every 15 minutes.
  - **Route F2** continuing to Perrystown and Templeogue via Whitehall Road, Templeville Road and Glendown Avenue. All-day service, every 15 minutes.
  - **Route F3** continuing to Templeogue, Firhouse and Tallaght via Fortfield Rd, Fortfield Park, Templeville Road, Cypress Grove Road and Old Bridge Road. All-day service, every 15 minutes.

In addition, these areas would be served by:

- **Route 15 from Greenhills College to Mountjoy Square,** as previously described (see Drimnagh and Crumlin).
- **Route 16 from Tallaght to Parnell Square.** All-day service, every 15 minutes (every 10 minutes at peak). Coming from Rathfarnham, this route would serve Harold's Cross Road, Clanbrassil Street and Patrick Street (two-way) coming into City Centre. It would replicate portions of existing routes 15b and 16.
- **Route 24 from Dundrum to City Centre,** as previously described (see Drimnagh and Crumlin).

### Rathmines, Rathgar, Terenure, Dartry

Rathmines, Rathgar and Terenure would be primarily served by:

- **All A spine buses (A1, A2, A3, A4).** All-day service, every 3 minutes from Terenure to City Centre and points beyond. South of Terenure, the branches would separate, with:
  - **Routes A1 and A3** continuing to Templeogue via Templeogue Road. All-day service, every 6 minutes,

splitting at Templeogue into service every 12 minutes to Tallaght (A1) and Knocklyon (A3).

» **Routes A2 and A4** continuing to Rathfarnham via Rathfarnham Road. All-day service, every 6 minutes, splitting south of Rathfarnham Village into service every 12 minutes to Ballinteer (A2) and Nutgrove (A4).

These areas would also be served by **Route 15, Route 16** and **Route 24**, as previously described (see above).

Dartry would be served by:

- **Route 14 from Ballinteer to Liffey Valley.** All-day service, every 15 minutes (every 10 minutes at peak). Coming from Nutgrove, this route would serve Braemor Road, Orwell Road, Highfield Road and Rathmines Road Upper, continuing to City Centre on Rathmines Road.

#### Ranelagh, Milltown, Clonskeagh

Radial service in these areas would follow similar paths to existing service, with:

- **Route 10 from Ticknock to Mountjoy Square.** All-day service, every 30 minutes. Coming from Sandyford, this route would serve Goatstown, Clonskeagh and Ranelagh.
- **Routes 11 and 12 from Belarmine to Mountjoy Square.** All-day service, two routes combining for service every 30 minutes. Coming from Dundrum these routes would serve Milltown and Ranelagh.

From Milltown Park, all three routes would combine for service every 15 minutes to City Centre.

#### Stillorgan Road Corridor and UCD

The N11/Stillorgan Road corridor would primarily be served by:

- **All E spine buses (E1, E2).** All-day service, every 5 minutes from Foxrock Church to City Centre and points beyond.
  - » At peak hours, and extra **E9** service would add 6 trips per hour between Brides Glen Luas and UCD, to relieve loads on buses headed to City Centre.

At the same time, the largest destination in this corridor is UCD, which would also be served by:

- **Routes B1 and B2** to City Centre and points beyond via Merrion Road. All-day service, every 8 minutes.
- **Route 213 from Kilternan to Ringsend.** All-day service, every 40 minutes (every 20 minutes when combined with Route 313 at peak, from UCD to Kilternan).

In addition to being a prime destination on orbital Routes S4 and S6 (see New Orbitals), UCD would also continue to be a major focal point for peak express routes from many directions. See maps from the origin areas of these routes for further descriptions.

#### Merrion Road Corridor

The Pembroke Road/Merrion Road/Rock Road corridor would be primarily served by

- DART train service, operating every 10 minutes.
- **All B spine buses (B1, B2, B3, B4).** All-day service, every 4 minutes from St. Vincent's Hospital to City Centre and points beyond. South of St. Vincent's, the branches would separate, with:
  - » **Routes B1 and B2** continuing to UCD via Nutley Lane and Stillorgan Road. All-day service, every 8 minutes.
  - » **Routes B3 and B4** continuing to Blackrock. All-day service, every 8 minutes, splitting south of Blackrock into service every 15 minutes to Dun Laoghaire (B3) and Sallynoggin (B4).

A secondary radial service in this area would be:

- **Route 98 from Loughlinstown Park to Mountjoy Square.** All-day service, every 60 minutes. This is a lifeline radial service targeted at serving more isolated areas further south.

#### Irishtown and Sandymount

Irishtown and Sandymount would be served by:

- **Routes C1 and C2.** All-day service, every 15 minutes to City Centre and points beyond on the same path served by existing Route 1.
- **Route 213 from Kilternan to Ringsend.** All-day service, every 40 minutes. This route would provide an infrequent but direct connection to St. Vincent's Hospital and UCD, similar to existing Route 47, but coming nearly twice as often. Unlike Route 47, it would not continue into City Centre.

# Appendix 5

## GDA Cycle Plan – South West Sector

## 3.6. Dublin South West Sector

The Dublin South West Sector extends outward from the twin corridors of Camden Street and Clanbrassil Street in the city centre, through the inner suburbs of Rathmines and Harold's Cross, to serve the areas of Terenure, Kimmage, Walkinstown, Tallaght, Firhouse and Rathfarnham. There is considerable overlap between the West and South West sectors, with interconnecting routes between the two. Some radial cycle routes originate in one sector at the city centre but end up in the neighbouring sector.

Refer to Maps E1, E6 and E7 in Part 2 for illustration of the existing main cycle routes in this sector. The existing cycle traffic flows in this sector are shown on Map DD3 in Part 7.

### 3.6.1 Dublin South West - Proposed Cycle Route Network

The cycle route hierarchy is shown on Maps N1, N6 & N7 in Part 4a.

#### Radial Routes in the Dublin South West Sector

Due to the peculiarities of the general road network in this sector, which lacks high capacity main traffic arteries unlike most of the rest of the city, the cycle route network is quite complex. The main cycle routes in this sector form a web of criss-crossing routes, with various spurs and cross links, as follows:

Route 7

Route 7E is a cross-link from the West sector into the South West sector. It branches off Route 7D on the Naas Road at Kylemore and follows Robinhood Road through the Ballymount industrial area to **cross the M50 on a new bridge** between Junctions 9 and 10 at Ballymount Cross, and then outward through the areas of Kingswood, Belgard, Cookstown, Fettercairn and Cheeverstown at the northern edge of the Tallaght suburbs.

Route 8 from South Great George's Street via the Coombe area and Dolphin's Barn to the junction of Crumlin Road and Sundrive Road (Route SO2);

Route 8A follows Crumlin Road past the Children's Hospital, Bunting Road to Walkinstown, through Ballymount to cross the M50 at Junction 10 and out to Citywest / Fortunestown via Belgard;

Route 8B branches off Route 8A midway along Crumlin Road at Windmill Road and follows a slightly meandering route mainly along minor residential streets through Crumlin Cross and Greenhills to Tymon Park and onward to Tallaght via the outer end of the Greenhills Road. It is a much better alternative to the existing route via the very busy and intimidating Walkinstown Roundabout and the narrow section of Greenhills Road along the edge of the Ballymount industrial area; and

Route 8C from Donore Avenue south of Cork Street via Clogher Road and Kildare Road through the heart of the Crumlin residential district to Our Lady's Children's Hospital on Crumlin Road where it crosses Route 8A; then along Drimnagh Road and Long Mile Road to cross the Naas Road (at a very difficult junction), and then via Nangor Road to the Park West area, with two branches towards Palmerstown to the north and to outer Clondalkin further west

Route 9 towards Tallaght along Clanbrassil Street and through Harold's Cross, where it branches into two main spurs;

Route 9A follows Kimmage Road to the Kimmage Cross Roads (KCR), then Fortfield Road and Walnsfort Road to join the N81 Templeogue Road and onward out to Tallaght town centre. (The section of this route through Kimmage and Harold's Cross is poor for cyclists with minimal and part-time advisory cycle lanes. There is no scope for improvement due to the narrowness of the road and close proximity of buildings. A better alternative is available via the proposed *River Poddle Greenway* as described later, which follows closely parallel to the west of the road. West of the KCR the route improves considerably for cyclists with better cycle lanes or cycle tracks);

Route 9B splits from Route 9A at Harold's Cross and follows Terenure Road through Terenure Cross and then Templeogue Road through Templeogue Village to re-join Route 9A at Templeogue Bridge. This route provides inter-connection with Route 10 towards the southeast city centre via Rathmines;

Route 9C is an alternative to the Harold's Cross route from Route 8C at Clogher Road via Stannaway Road west of Kimmage and then along Wellington Lane to join Route 9A at Spawell to connect to Tallaght. It also provides a continuation from Route 9A west of Tallaght via Fortunestown and Citywest to Saggart;

Route 9D would provide a traffic-free option branching off Route 9A at Kimmage Cross Roads and following the *River Poddle* Greenway to Tymon Park where **a new bridge is required over the M50** in the centre of the park to connect with Castletymon Road and rejoin Route 9A. West of Tallaght it provides a loop through Jobstown along the N81 and then northward into Citywest; and

Route 10 from Camden Street through Rathmines, Rathgar and Terenure to Rathfarnham, where it splits into several branches. South of Rathfarnham there are 3 branch routes that extend southward through the surrounding suburban area to connect with Orbital Route SO6 along Grange Road and Taylor's Lane;

Route 10A turns south-westward along Butterfield Avenue (also on Route SO4) and runs parallel to the River Dodder to Firhouse and Oldcourt beside Old Bawn Bridge on Orbital Route SO6. Knocklyon Road and Ballycullen Road are local secondary routes that branch off southward at various points. There are also northward links across the River Dodder to Radial Route 9 at Spawell and Templeogue Bridge;

Route 10B follows Willbrook Road and Ballyboden Road southward;

Route 10C along Grange Road; and

Route 10D along Nutgrove Avenue for a short section and then turns south via Stonemason's way to Ballinteer.

Traffic data for the radial routes indicates peak period volumes ranging from about 800 cyclists on Route 10 at Rathmines Road, nearly 700 cyclists on Route 9 at Clanbrassil Street and 150 cyclists on both Route 8C at Clogher Road and Route 8A at Crumlin Road. Further out in the suburbs, the cycle traffic model indicates moderately strong demand of 200 to 400 cyclists on Routes 9 and 10 out to just beyond Rathfarnham and Templeogue. Otherwise there are fairly low flows in the range of 100 to 200 on the various secondary routes in the South West sector, and also on Primary Route 9 to Tallaght, which is about 10km from the edge of the city centre. There are likely to be more local trips on the various routes that are not reflected in the model.

#### Orbital Routes in the Dublin South West Sector

There are six orbital routes in this sector that provide cross-links between the radial routes and give access to destinations within this sector, and in the adjoining West and South Central sectors:

Route SO1: Grand Canal Route linking from Rialto eastwards via Harold's Cross Bridge and Portobello Bridge to the Dublin 2 and Docklands office district;

Route SO2: From Kilmainham in the northwest through Crumlin, Kimmage, Harold's Cross and Rathmines to Ranelagh and Ballsbridge via Sundrive Road, Kenilworth Road and Castlewood Avenue;

Route SO3: From Rathgar and Dartry to Milltown, Clonskeagh and Ballsbridge, mostly along the proposed *Dodder Valley Greenway*. This route links to UCD at Clonskeagh. There is a connection from Tallaght via Route 9A at Oldbridge Road in Templeogue;

Route SO4: from Dundrum, Churchtown and Nutgrove through Rathfarnham and Templeogue to Greenhills and Walkinstown;

Route SO5: Dundrum to Tallaght via Ballyboden and Knocklyon and Firhouse. It will require new permeability links between Nutgrove, Ballyboden and Templeroan. Otherwise the route could overlap with SO6 for a short section along Taylor's Lane; and

Route SO6: Dun Laoghaire to Tallaght via Ballycullen and Old Bawn.

**Other Secondary Cycle Routes in the Dublin South West Sector**

In addition to the numbered radial and orbital cycle routes named above, there are also several other local secondary cycle routes that extend the network across the wide suburban area. Examples are Ballyroan Road in the Rathfarnham area, Knocklyon Road, Ballycullen Road, Kiltipper Road and Cookstown Road with a link to Fortunestown Way in the Tallaght area. Route numbers are not proposed for these routes as they are of local function only and do not form part of the long distance cycle routes that extend across the wider city area.

**Existing Permeability for Cyclists in the Dublin South West Sector**

The cycle network maps N6 and N7 show where cyclists can permeate through blocks within the road network by using quiet streets and roads that do not require cycling facilities due to the low volume and speed of traffic. Most residential areas in the southwest are quite permeable with a dense network of local roads that provide many convenient route options for cyclists. This feature did give rise to some difficulties of inappropriate through traffic and traffic calming has been installed on many roads in areas such as Crumlin and Templeogue.

Where there are obstacles to permeability, there are several good examples of pedestrian and cycle links as follows:

- Cowper Link from Dartry to Sandford: This crosses the Luas Green line at the Cowper stop and follows quiet residential streets for form an orbital connection between the Dartry/Rathgar area at Highfield Road and Sandford Road in the southern part of Ranelagh;
- River Poddle crossing at Bangor Road: There is a footbridge that provides a link between the Crumlin area and Kimmage Road Lower;
- Templeogue Woods link to Templeogue Road and Cypress Grove Road; and
- In the outer areas of this sector, there are many open public green areas that enable walking and cycling links between housing estates. Good examples are in the areas of Cookstown and Fortunestown as shown on Map N6. Formal cycle tracks are proposed through these green areas with dished kerb accesses and toucan crossings of main roads such as shown in the following photograph.

**Existing Greenways in the Dublin South West Sector & Problems at Public Parks**

There are no formal greenways at present in the Dublin South West sector, although there is great scope to provide an extensive network of such traffic-free cycle routes through public parks and less formal open green spaces. South Dublin County Council has provided barriers at most entry points to certain parks in the county, which in some cases limit cyclists' access to an extensive network of parks with potential for pleasant and safe cycling away from traffic. The situation is similar in the older parts of this sector within the Dublin City Council area, such as at Eamonn Ceannt Park and Stannaway Park in Crumlin.

*Route 9C: Barrier at Entrance to Eamonn Ceannt Park on Sundrive Road*

The proposed cycle route network includes a suggested feeder cycle route along Stannaway Road and through Eamonn Ceannt Park to link to Secondary Radial Route 8C at Clogher Road. This would pass through the gate shown in the photo above.

A good example of cycle-friendly access is shown in the following photograph of the edge of Bushy Park alongside Templeogue Road where there is a formally designated shared footpath and cycleway.

*Shared Walkway/Cycleway at Bushy Park, Templeogue Road, Terenure*

### 3.6.2 Dublin South West - Proposals for Cycle Route Network Additions and Improvements

A cycle network study for the Tallaght area was previously prepared by South Dublin County Council (SDCC) in 2011. This study addressed the cycle access routes to the central county town of Tallaght and links towards Dublin City Centre. These proposals include the following key routes:

(a) New cycle facilities along parts of Radial Cycle Route 9A from Templeogue to Tallaght, and the N81 Blessington Road dual carriageway adjoining westward to the R136 Cookstown Road junction;

(b) Dodder Valley Greenway from Templeogue to Bohernabreena: a joint study (along with NTA, DCC and DLRCC) was completed in late 2012;

(c) Wellington Lane cycle route from Spawell to Templeville Road at Greenhills (Route 9C);

(d) Tallaght to Ballyboden cycle route along Old Bawn Road and via the Dodder Valley Park and Knocklyon with a new bridge across the River Dodder (Route SO5);

(e) Upgrades to Orbital Cycle Route SO6 between Scholarstown and Old Bawn via the Ballycullen area;

(f) Upgrades to Orbital Cycle Route SO5 along the Belgard Road between Tallaght and Clondalkin;

(g) Upgrades to Greenhills Road, which forms part of Radial Cycle Route 8B from Tallaght towards the city centre via Tymon Park and Greenhills. North of the M50 bridge crossing Greenhills Road becomes very narrow and bendy with increasing frontage constraints nearer to Walkinstown. This section of road is proposed as a feeder route only, with a better through route 8B available to the south that avoids the very busy Walkinstown Roundabout;

(h) Upgrades along Whitestown Way and Cookstown Way, a local Secondary Cycle Route that passes just west of Tallaght Town Centre;

(i) Jobstown Stream Greenway from Sean Walsh Park on Old Bawn Road through the Killinarden area to Jobstown;

(j) New cycle facilities and upgrades along the Route 9C at Fortunestown Way/Lane towards Saggart; and

(k) Improvements on Orbital Route SO6 at Kingswood Interchange on the N7 Naas Road crossing (linking to Radial Routes 7C and 7D).

The current proposals by Dublin City Council for additional or improved cycle routes in this sector consist of the following:

(a) Grand Canal Greenway extension westward from Portobello Bridge to Blackhorse;

(b) New cycling facilities along Radial Cycle Route 6C from South Circular Road along Clogher Road and Kildare Road to Crumlin Hospital;

(c) Improvements to cycle lanes along Bunting Road (Route 8A) from Crumlin Hospital to Walkinstown Roundabout;

(d) New cycle facilities along Orbital Route SO4 from Walkinstown Roundabout to Kylemore and Ballyfermot;

(e) Upgrades to Radial Cycle Route 9B along Harold's Cross Road, Terenure Road and Templeogue Road; and

(f) Upgrades to Radial Cycle Route 10 along from Portobello Bridge on the Grand Canal along Rathmines Road and Rathgar Road to Terenure Cross.

#### Additional Cycle Route Network Proposals

A gap analysis has confirmed that the existing local authority proposals are quite comprehensive and there is limited need for significant additions to the proposed cycle network in this sector as follows:

(a) Missing section of Radial Route 10A along Butterfield Avenue to Rathfarnham as an extension of the existing cycle tracks along Firhouse Road;

(b) Radial Route 9D along the Blessington Road from Jobstown westwards to Citywest;

(c) Radial Route 8A from Fortunestown to Walkinstown: Complete missing sections and upgrade this route that crosses the M50 at Junction 10, Ballymount, for access to the major employment area;

(d) New traffic-free cycle crossing of the M50 on route 7E from Ballymount to Clondalkin and Belgard;

(e) Radial Route 8B from Tallaght to Greenhills and Crumlin via Tymon Park (New radial route to bypass Walkinstown Roundabout);

(f) Tallaght Town Centre Cycle Network; and

(g) Local route permeability in Tallaght through large blocks of industrial estates:

(i) Mayberry Road Link to Broomhill Road, which connects to Airton Road, into the grounds of I.T. Tallaght and through to Tallaght Village centre;

(ii) Belgard through Cookstown Industrial Estate to Tallaght Hospital and onward to Tallaght Town Centre at Belgard Square North, plus an eastward spur to Airton Road via the Belgard Retail Park; and

(iii) Kingswood to Ballymount Link across the M50 on a new bridge.

#### New Greenways in Dublin South West Sector

The following new greenway routes are proposed in the Dublin South West Sector so as to avail of the natural corridors for a mix of amenity and commuter cycling:

(a) ***Dodder Valley way:*** This major greenway will extend for a distance of 18km from the City Centre at the Docklands south-westwards to the Dublin Mountains at Bohernabreena.

(b) **River Poddle way & Tymon Park Greenways**

Alternative for Radial Route 9A/9D that is severely constrained in the Harold's Cross and Kimmage areas due to the narrow road corridor. The river corridor is mostly open and accessible between Mount Argus in Harold's Cross and Tymon Park between Greenhills and Tallaght. At Tymon Park there are numerous possibilities for link routes into the surrounding residential areas, with crossings of the M50 on two existing footbridges and one new bridge.

*River Poddle at Kimmage Manor*

(c) **Jobstown Stream Greenway:** along a tributary of the River Dodder just west of the M50 at Junction 11 and extending westwards for 5km through the southern part of the Tallaght areas of Killinarden and Jobstown to Fortunestown.

(d) **Western Parkway Greenway:** Orbital greenway for cycling along the M50 motorway corridor from the Dodder Valley way at the southern end to the Grand Canal way at the northern end. This route would also provide a second connection between the Tallaght area and the Clondalkin area as an alternative to the busy traffic route of Belgard Road.

(e) **Slade Valley Trail:** a potential route southward from the villages of Rathcoole and Saggart along the upper reaches of the Camac River to Brittas at the edge of the Dublin Mountains. This route is an alternative to the very busy N81 Blessington Road and opens up access to a network of quiet rural roads in West Wicklow.

**Bike & Ride to Public Transport Corridors in the Dublin South West Sector**

The main radial public transport corridor in the western part of this sector is the Luas Red Line light rail service that extends from the city centre to Tallaght, with a branch from Belgard westwards to Saggart. This light rail line runs generally parallel to Radial Cycle Routes 7B, 7D and 7E. There is a small number of cycle parking stands at each light rail stop, but these lack shelter. Each light rail stop is comfortably accessible by bicycle with cycle tracks along busy access routes, or quiet local roads to stops like Kingswood and Cookstown. At all locations, cycle parking quantum and security will need to be assessed.

In the eastern part of this sector, the main public transport services are bus routes through Terenure and Kimmage. Cycle parking is not provided at bus stops along these routes. Consideration should be given to provision of a few cycle parking stands at key stops along these routes close to intersections with designated main cycle routes.

**Rural Cycle Links from the Dublin South West Sector**

*National Cycle Network Routes in the Dublin South West Sector*

Long-distance National Cycle Route No.10 will link Dublin to Cork and Waterford via Kilkenny as outlined in the National Cycle Network (NCN) Scoping Study published in 2010. While no formal route selection studies have yet been undertaken for this route, it is reasonable to assume that it may follow the Grand Canal towpath in the Dublin and north Kildare area because of the very high quality existing facility that is already in place from the city out to Adamstown, which will coincide with Dublin Radial Cycle Route 7B.

*Cycle Routes to Rural Towns and Villages in Southwest Dublin*

The nearest large towns beyond the Dublin area in this sector are Naas in County Kildare and Blessington in County Wicklow. There are several villages between these towns and the edge of Dublin at Tallaght. Two main routes extend in a south-westerly direction from the city towards these towns as follows:

(a) **Naas Route:** From Naas, cyclists have a choice of two routes to get to Dublin. The most attractive route in terms of Quality of Service will be along the Grand Canal way at Sallins, once it is paved for National Cycle Route 9, even though this is slightly the longer of the two options. The more direct route is generally along the corridor of the existing N7 Naas Road, the main traffic route to the city. This main road is currently unsuitable for cyclists as, apart from the M50 motorway, it is the busiest national route in the country with a high-speed dual 3-lane carriageway and mostly grade-separated junctions.

Cyclists are currently better off following an alternative route via parallel local roads from Naas through the villages of Johnstown and Kill, where there is a good quality shared cycleway/footway provided between the urban areas. East of Kill the local road network is of a lesser quality, without cycle tracks, and deviates southward away from the Naas Road. Traffic volumes are low, however, and cyclists can follow these rural roads towards the Dublin suburb of Rathcoole via the Kiteel Road. This route is shown on the proposed Inter-Urban Cycle Routes Map Sheet RN5 as K4/K14 from Kill to the Dublin County Boundary and then on Map RN10 as D5 into Rathcoole and Saggart, where it connects with Route 8A towards Dublin city via Ballymount, and Route 9C towards Tallaght and the city via Terenure.

(b) **Blessington Route:** The direct route from Tallaght to Blessington is along the N81 national secondary road, which is a very poor route to cycle because of heavy traffic and lack of hard shoulders for much of the distance in the section between Jobstown and Brittas. A large amount of construction material is supplied from the Blessington area to the Dublin market and there is a significant number of trucks hauling gravel and concrete products along the N81 route. A better route to Blessington is proposed via the R114 regional road that extends from Firhouse via Bohernabreena and over the Ballinascorney Gap. This route is shown on the proposed Inter-Urban Cycle Routes Map Sheet RN8 as W18 through Kilbride to the Dublin County Boundary and then on Map RN10 as D5 into Oldbawn and Firhouse, where it connects with the *Dodder Greenway* or Route 10A towards Dublin city via Rathfarnham.

(c) **Saggart / Rathcoole / Newcastle:** These 3 villages at the south-western edge of the city have grown substantially in recent decades and now form moderately significant dormitories. There is also a large logistics and warehouse park at Greenogue between Rathcoole and Newcastle that attracts trips by staff as well as numerous truck movements. Rural cycle route D5 is shown on Map RN10 as a link between these 3 satellite settlements along the R120 road and onward via city Route 8A to the greater Tallaght area at Fortunestown. This route continues north-westward along the R405 road from Newcastle to Hazelhatch railway station on the Dublin to Cork line, and from there connects into Celbridge in County Kildare. Route D6 links Newcastle north-eastward along the R120 road to Grange Castle and onward to either Clondalkin via Route 8C2 or to Lucan via Route SO7. These two regional roads (R120 and R405) are not comfortable for cycling due to narrow carriageway, bendy alignment and busy traffic including many trucks. Segregated cycle tracks would be required.

*Cycling Access Routes to the Dublin Mountains*

This sector is bounded to the south by the Dublin Mountains and includes the area of foothills at the northern and north-western side of the mountains. The mountains attract large numbers of recreational cyclists, especially at weekends, who enjoy the challenges of the steep climbs, quiet roads and rugged weather conditions.

Access for cyclists to the mountains is principally available on 3 routes in addition to the Blessington Route at Ballinascorney Gap:

(a) Upper Dodder Valley, Glenasmole;

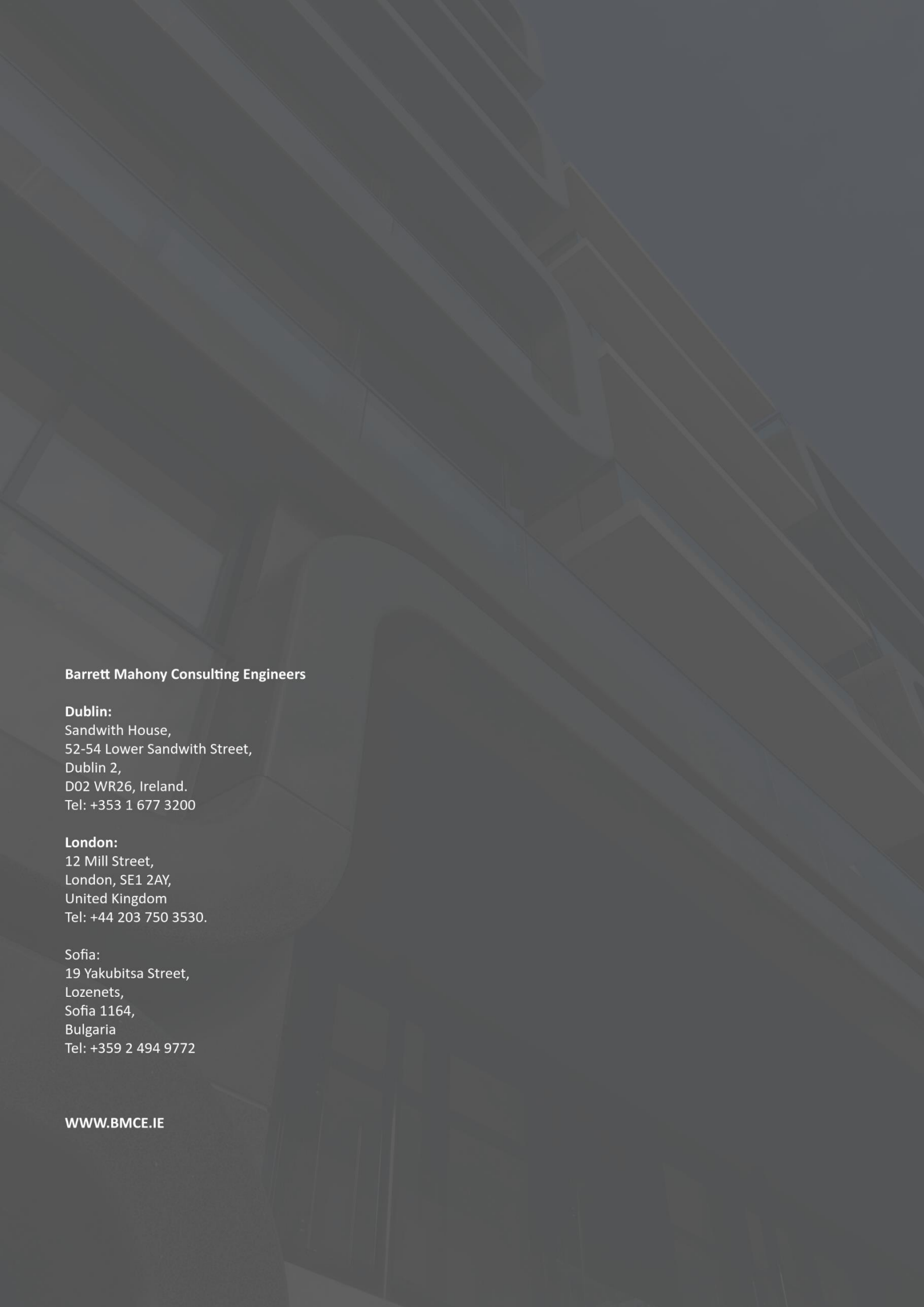
(b) The *Military Road* from Rathfarnham along the spine of the Dublin and Wicklow Mountains through the Sally Gap to Laragh and beyond. This is shown as Route D2 on Map RN10; and

(c) The Rockbrook Route is a variation on the Route D2 Military Road that is less direct and carries less traffic. There is a branch eastwards to Glencullen that allows a shorter return route to the city via Kilternan or Stepaside in the South East sector. This is shown as Route D2a on Map RN10.

These routes can be combined as a parallel *Dublin Mountain Cycleway* that follows roughly the same line as the *Dublin Mountain Way* walking route. It could form a great loop for a cycling day trip from Dublin City to the mountains via the Dodder Valley (18km), across the northern edge of the mountains to the sea at Shankill (30km) and then back to the city along the East Coast Trail (18km) to make an overall trip of roughly 70km. This is shown as Route D4/D3/D5 on Map RN10. In the westward direction Route D5 extends from the mountains towards Kildare and the village of Rathcoole.

### 3.6.3 Dublin South West Sector - Existing Quality of Service

The existing Quality of Service (QoS) was assessed for the primary cycle routes and a sample of the secondary routes in the Dublin South West sector. The QoS is mostly in the range of D and C in the eastern and older parts of this sector. There are extensive lengths of QoS level B on the newer roads in the southern and western areas, mostly along the lightly used orbital routes.



**Barrett Mahony Consulting Engineers**

**Dublin:**
Sandwith House,
52-54 Lower Sandwith Street,
Dublin 2,
D02 WR26, Ireland.
Tel: +353 1 677 3200

**London:**
12 Mill Street,
London, SE1 2AY,
United Kingdom
Tel: +44 203 750 3530.

Sofia:
19 Yakubitsa Street,
Lozenets,
Sofia 1164,
Bulgaria
Tel: +359 2 494 9772

**WWW.BMCE.IE**