



Residential Travel Plan

Boherboy SHD

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Prepared for:

Kelland Homes Ltd

The Durkan Group



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1 INTRODUCTION

1.1 Proposed Development

The proposed development will consist of 655 no. dwellings, comprised of 257 no. 2, 3 & 4 bed, 2 & 3 storey detached, semi-detached & terraced houses, 152 no. 1, 2 & 3 bed duplex units in 17 no. 2-3, 3-4 & 4 storey blocks, and 246 no. 1, 2 & 3 bed apartments in 9 no. buildings ranging in height from 2, 2-5, 4-5 & 5 storeys, and a 2 storey crèche (693m²).

Access to the development will be via one no. vehicular access point from the Boherboy Road, along with proposed upgrade works to Boherboy Road to include the provision of a roadside footpath along the front of the site at the Boherboy Road, continuing eastwards to the junction with the N81 Blessington Road (for an overall distance of c.370m). The proposed development also provides for pedestrian and cyclist connectivity to the adjoining Carrigmore Park to the north-east, and vehicular, pedestrian and cyclist connections to adjoining developments at Corbally Heath to the east and Carrigmore Green to the north.

The proposed development provides for (i) all associated site development works above and below ground, including surface water attenuation & an underground foul sewerage pumping station at the northern end of the site, (ii) public open spaces, including alongside the Corbally Stream, which will accommodate the provision of pedestrian / cyclist links to Carrigmore Park to the north-east, (iii) hard and soft landscaping and boundary treatments, (iv) undercroft, basement & surface car parking (914 no. spaces including EV parking), (v) bicycle parking (797 no. bicycle parking spaces), (vi) bin storage, (vii) public lighting, and (viii) 5 no. ESB sub-stations, all on an overall application site area of 18.3ha. In accordance with the Fortunestown Local Area Plan (2012) an area of approx. 1.42ha within the site is reserved as a future school site.

The site has an area of 18.26Ha.

The site has an area of 18.26Ha.

It is proposed to develop this site based on the following schedule of accommodation: -

Proposed Land Uses	
Land Use	Size
Houses	268
Duplex	152
Apartments	246
Total	655

Table 1 Proposed Land Uses

The purpose of the report is to outline the objectives of the Travel Plan (TP) applied to the residential aspect of the site.

Their purpose is to ultimately reduce the number of single occupancy car trips and promote the use of more sustainable modes of travel.

The aim being to minimise vehicle trip rates, the volume of which has been outlined in the Traffic and Transport Assessment (TTA) for the proposed development.

The measures as outlined within this document will be introduced in order to achieve the target of minimising vehicle trips to and from the residential component of the proposed project, along with a timeframe for the implementation of the various measures outlined.

A Travel Plan Co-ordinator (TPC) shall be appointed to provide ongoing management for the TP. The TPC will be appointed by the organisation managing the proposed 'build-to-rent' residential facility.

In conjunction with the on-site management team, the TPC will prepare a document detailing the progress of The Travel Plan and the strategy for its future development as stated with it.

This document is seen as particularly important document as it fosters a change in mindset as it will help residents choose more sustainable modes of transport.

A Residential Travel Plan (RTP) is thus a document which seeks to increase sustainable travel at a residential development by:

- reducing the need for travel
- reducing single-occupancy car travel
- providing and encouraging the use of more sustainable travel choices, such as walking, cycling, public transport, car sharing and car clubs

An RTP addresses all types of trips to, from and within a residential development, including trips made by residents and visitors. It sets out the implementation, marketing, monitoring and review of a variety of travel measures to meet pre-agreed targets.

An RTP is site-specific and takes into account the characteristics of the development such as its location, surrounding transport infrastructure and proximity to local facilities. It is not a static document; it is flexible and should be adapted to suit changes in the site's characteristics over time.

The benefits to residents of the proposed development, and the wider community in the local area, will include:

- increased choice and quality of travel modes
- reduced traffic congestion and saving travel time on roads
- reduced harmful impacts on the environment due to fewer vehicles being on the roads and promoting less environmentally intrusive forms of travel, such as walking and cycling
- improved air quality and minimised greenhouse gas emissions due to a reduction in traffic growth and congestion and an increased choice of more sustainable modes of transport
- reduction in the harmful effects to the existing biodiversity and the build and historic environment as a result of reduced traffic growth
- improved health due to less pollution from vehicles and the take up of more active modes of travel, such as walking and cycling
- financial savings from free or discounted travel vouchers and the take up less costly alternatives of travel, such as walking or car sharing

- safer communities through reduced number of accidents and other incidents, for example by reducing traffic on roads, restricting traffic speeds, creating road crossings or forming home zones
- improved sustainable access to local services, facilities and the natural environment such as open spaces and green corridors for non-motorised forms of transport
- reduced social isolation as a result of extended or new public transport services, resident walking/cycling groups, resident travel forums and building links with the wider community

1.2 Report Structure

Section 2 of this report will give a summary on the current thinking with regard to mobility management and best practice when preparing a Residential Travel Plan.

Section 3 of this report will summarise the existing public transport, walking and cycling facilities at the subject site, together with the existing commuter travel patterns for the local area (information extracted from the submitted parking and mobility study for the proposed development).

Section 4 takes the commuter travel patterns for the area and proposes year-of-opening modal splits for the proposed development, plus target modal splits for year-of-opening plus 5 years.

Section 4 details the objectives of the Travel Plan Strategy and what measures will be implemented to facilitate the achievement of these objectives.

Section 6 details the central role of the Travel Plan Coordinator in the attainment of the objectives as set out within this document.

Section 7 contains some concluding comments.

2 GUIDANCE & POLICY DOCUMENTS

2.1 National & International Policy

The following outlines national and international policy and best practice to help inform the principals that will be adopted in this Travel Plan.

Making Residential Travel Plans Work (Department for Transport, UK, 2007)

UK document providing a framework for residential travel plans, detailing the content that should be provided within the Travel Plan. The structure advocated by this document is incorporated within this report.

Dublin City Centre Transport Study 2015-2033

The Study seeks to address major transport issues facing the core city centre area, to facilitate the implementation of the Dublin City Council Development Plan, and to safeguard the future growth of the city, specifically in terms of new transport infrastructure. The construction and operation of Luas Cross City will require a significant reconfiguration of current transport arrangements. This study addresses these issues and proposes measures to counter long-standing constraints of the existing City Centre transport network. This will ensure that capacities are in place to meet the demands of future growth in the City, as well as optimising the use of the City Centre's limited road space to maximise the benefits for people living, working and visiting Dublin City Centre. The key objectives include increasing the capacity, reliability and use of public transport into and within the City Centre as well as improving the quality of service for cycling and walking, with particular emphasis on the 'core' City Centre.

The Study advocates significant reductions in the modal split for private cars for the journey to work over the short to medium term in the Greater Dublin Area.

The achievement of these targets requires developments such as the proposed development to advocate sustainable modes of transport for residents travelling to work and college. Achievement of the objectives and targets as outlined within this document. The residential travel plan framework will be entirely consistent with the aims of the Dublin City Centre Transport Study.

Dublin City Development Plan 2016-2022 – chapter 8: Movement and Transport

The transportation elements of this document aim to work in tandem with the Dublin City Centre Transportation Study referred to above. The strategy within the draft document makes optimum use of existing and proposed transport infrastructure, and Dublin City Council works Transport Infrastructure Ireland and relevant transport agencies to deliver key projects. Sustainable forms of transport such as public transport, walking and cycling are strongly promoted in this plan, which takes a pro-active approach to influencing travel behaviour and effective traffic management. A key challenge listed within the document is the prioritisation of transport and movement schemes, particularly those that increase the use of public transport, walking and cycling, that can be implemented in the short term.

The Plan states that a mobility management plan / travel plan seeks to encourage as much travel as possible by sustainable means such as public transport, walking and cycling. This is best achieved at a strategic level by locating developments in the most accessible locations

Dublin City Development Plan: Appendix 4-Mobility Management and Travel Plan

Dublin City Council regards mobility management as an important element in the promotion of sustainability and in the achievement of a substantial increase in the modal share of public transport, walking and cycling during peak travel times. Mobility management is a proactive approach to influencing how people travel. While it plays an important role at a strategic level, the adoption of this approach at a site or business level can be very influential in achieving sustainable travel patterns. Travel planning is a tool for implementing mobility management in specific situations and environments

such as workplaces, schools/colleges and mixed-use developments by pro-actively encouraging sustainable travel.

A Travel Plan is stated to consist of a package of measures, initiatives and incentives aimed at encouraging a target group of people to shift from travelling individually by private car to walking, cycling, public transport and car-sharing. The plan sets out percentage targets for modal splits to be achieved over a specified time period.

Regular monitoring and updating of the plan is required as travel planning is an on-going process. Dublin City Council has established a Mobility Management section with responsibility for implementing Dublin City Council's own Workplace Travel Plan. This section also has responsibility for the management and monitoring of all existing and future Travel Plans submitted as part of the planning process.

Thus, the above documents confirm and emphasise the importance of maximising the use of sustainable modes of travel and minimising the use of the private car, particularly for the journey to work / college

Smarter Travel Initiative, A Sustainable Transport Future, Department of Transport, 2009.

Smarter Travel is the transport policy for Ireland for the period of 2009-2020. The policy recognises the vital importance of continued investment in transport to ensure an efficient economy and continued social development, but it also sets out the necessary steps to ensure that people choose more sustainable transport modes such as walking, cycling and public transport. The policy is a response to the fact that continued growth in demand for road transport is not sustainable from a number of aspects; it will lead to further congestion, further local air pollution, contribute to global warming, and result in negative impacts to health through promoting increasingly sedentary lifestyles.

Transport Strategy 2011 – 2030, National Transport Authority, 2011.

Chapter 11 of the Draft Transport Strategy 2011 – 2030, discusses travel demand management in great detail. The chapter discusses the impact of congestion in the Greater Dublin Area and the subsequent need to meet the Smarter Travel targets. The NTA also provides a discussion on numerous demand management measures that could be implemented within the Greater Dublin Area, including a section on mobility management, car clubs, lift sharing and marketing.

'Achieving Effective Workplace Travel Plans Guidance for Local Authorities' by the National Transport Authority (2012)

This guidance document produced by the NTA is for use by Local Authorities and other groups that are preparing Workplace Travel Plans as part of the planning process with a view reducing the dependency on the car for residents commuting to/from work and other work-related journeys. The paper discusses the principles of Workplace Travel Plans and why an organisation would consider implementing a Workplace Travel Plans, including the benefits of a plan to employers and employees.

The paper outlines how to prepare, design and implement a Workplace Travel Plans. It discusses the measures that could be used for car use, public transport, walking and cycling in order to reduce singular car occupancy.

'The Route to Sustainable Commuting – An employer's guide to mobility management plans' by NTA (formerly Dublin Transportation Office), March 2001.

This guidance document produced by the NTA is for use by organisations that are considering, or already implementing measures to reduce dependency on the car for residents commuting and other work-related journeys. The paper discusses the principles of mobility management plans and why an organisation would consider implementing a mobility management plan, including the benefits of a plan to employers and employees.

The paper outlines how to prepare, design and implement a mobility management plan. It discusses the measures that could be used for car use, public transport, walking and cycling in order to reduce

singular car occupancy. It then outlines how to market a Residential Travel Plan and how to measure the success of one.

‘DTO Advice Note – Mobility Management Plans’ by NTA (formerly Dublin Transportation Office), July 2002.

This Advice Note is intended as guidance for Local Authorities in the Greater Dublin Area. The Advice Notes set out what the DTO considers to be current best practice in relation to the development of mobility management plans.

The advice note outlines the principals of mobility management, when a Workplace Travel Plan is required, the planning process in relation to mobility management, the motivations for implementing a plan and the staged approach to the preparation of mobility management plans.

‘The Essential Guide to Travel Planning’ by Department of Transport, UK, March 2008.

This document provides a guide on developing and implementing travel plans in the UK. A travel plan is the UK equivalent of a Residential Travel Plan in Ireland. The document draws together extensive experience from travel plans already in operation and offers an overview of what is required to prepare a travel plan and ensure it is successful. The guide provides the following:

- An explanation of the benefits of travel plans,
- The essential measures required to ensure the success of the travel plan,
- Identification of potential savings that could form the basis of a business case for the implementation of a travel plan,
- An indication of what data is required from travel surveys in order to measure the success of travel plans.

‘Making travel plans work – Lessons of U.K. case studies’ by Department of Transport (U.K.), 2002.

This report is based on the experience and findings of a number of large employers e.g., hospitals, councils, large companies and third level educational facilities in the U.K. The guide was published for employers who want to reduce congestion around their respective sites, improve travel options for their residents and reduce costs using a travel plan. The main findings of the report are as follows:

- It found that parking restrictions through a parking permit scheme can reduce resident’s car use;
- Financial incentives such as subsidies on public transport tickets have been found to work better in combination with parking restrictions.

The initiatives would need the full support of the management of the company and also a resident member would need to be appointed to form a travel plan. Local recruitment is found to be useful when reducing travel distances.

2.2 Local Policy

Section 11.4.6 of the South Dublin Development Plan 2016-2022 outlines the requirements for Travel Plans as follows:

‘A Workplace Travel Plan or Mobility Management Plan, outlines a series of measures to encourage sustainable travel modes and reduce car borne traffic within a development. Initiatives might include proposals to encourage cycling and walking, car sharing (including car clubs), carpooling, flexible working hours, cycling and public transport use. The National Transport Authority (NTA) guidelines on Achieving

Effective Workplace Travel Plans note that:

“International experience has shown that a methodical and planned approach to targeting commuting and visitor patterns at an organisational level, can pay major dividends in terms of promoting sustainable travel.”

Workplace Travel Plans are required for larger sized developments as defined in Table 11.25. All Workplace Travel Plans are required to be prepared in accordance with the Achieving Effective Workplace Travel Plans - Guidance for Local Authorities published by the NTA. Mobility Management Plans are required for all new schools or for existing schools where 25% or greater expansion in classrooms is proposed.’

Section 6.4.2 of the South Dublin Development Plan 2016-2002 outlines the requirements for traffic and transport management for developments that are likely to generate large volumes of car-based trips:

‘Travel Plans (also known as Mobility Management Plans) will be required to support development proposals that have the potential to generate significant traffic movements, to demonstrate that there is public transport carrying capacity and road capacity to serve the development.’

In the context of the above, this Residential Travel Plan is being prepared on the basis that the proposed development is likely to generate large volumes of car-based trips if no mobility management measures are to be adopted.

2.3 The Travel Plan Pyramid

A Residential Travel Plan outlines a set of measures and operating procedures that are tailored to meet the demands of individual circumstances of different locations, but with the common goal of minimising the impacts of travel and transport activity. A variety of companies, organisations and institutions adopt MMPs to manage the transport needs of commuters by raising awareness, promoting alternatives, facilitating change and implementing a system of continuous management and review.

In its publication ‘The Route to Sustainable Commuting’ the Dublin Transport Office (now the National Transport Authority) states that a MMP outlines a package of measures and initiatives put in place by an organisation to encourage more sustainable modes of transport amongst its residents, residents and visitors.

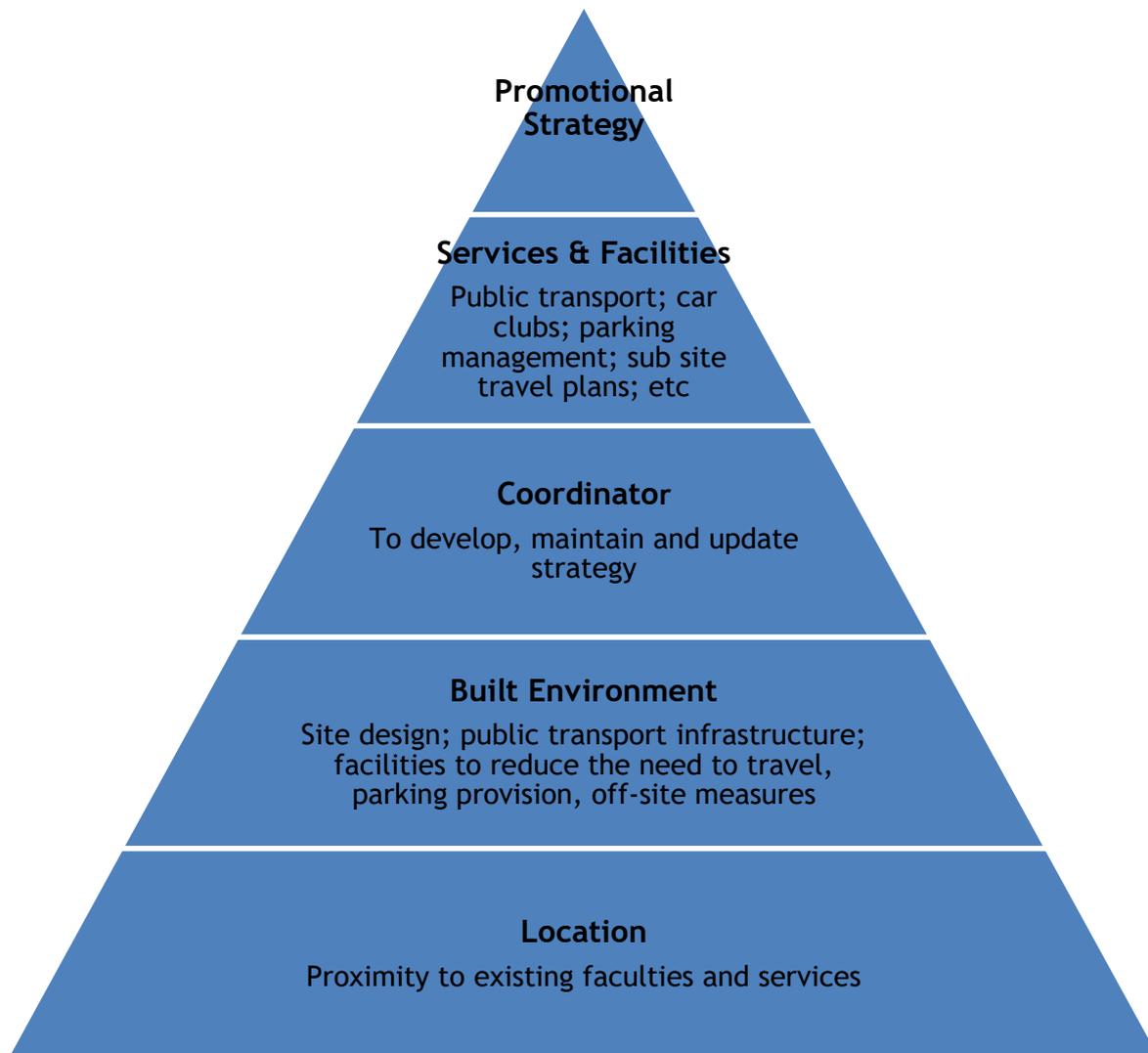


Figure 1 The Travel Plan Pyramid (Source: 'Making Residential Travel Plans Work' Dept of Transport UK (2007))

The Travel Plan Pyramid “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 intergraded 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.”

In order to minimise the impacts of the development and to encourage sustainable modes of transport a Mobility Management Plan sets out the following actions in order to achieve this:

- Introduction of appropriate parking management
- Optimise links with public transport
- Provide and enhance cyclist and pedestrian facilities
- Encourage modes of transport other single car trips

For the development, the primary purpose of the Residential Travel Plan is to review current levels of transport accessibility and suggest measures that reduce the potential of continued reliance on private car use as the main mode of transport to and from the site.

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 and LUAS 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.

3 PUBLIC TRANSPORT, WALKING AND CYCLING FACILITIES AND COMMUTER TRAVEL PATTERNS

3.1 Introduction

The subject site forms the southern parts of two separate and contiguous landholdings at Boherboy, Co. Dublin and is currently an undeveloped site.

The development site abuts Citywest/Carrigmore to the north, the Corbally Estates to the east, Boherboy Road to the south and farmland to the west. Boherboy Road links Saggart Village to the N81.

The location of the site is shown on the map extract at Figure 2 below.

The site is xx Ha in size.

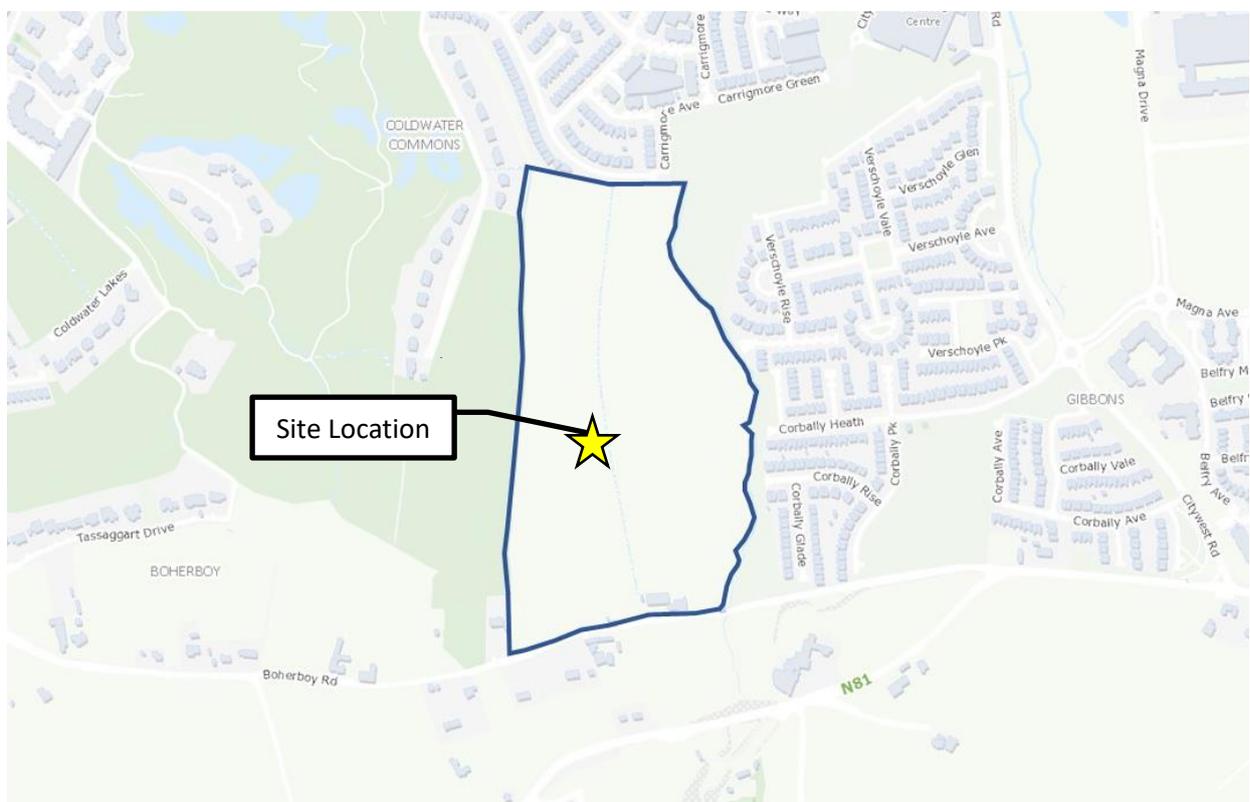


Figure 2 Site Location and Local Road Network (Source: GeoHive)

3.2 Existing Road Network

A summary of the existing road network is provided below:

The road network surrounding the site provides a variety of movement functions. Boherboy Road links Tallaght in the east with Saggart in the West. The N82 provides access to Dublin via the M7/N7 and to other inter urban motor ways via the M50.

Boherboy Road, Corbally Estate and Carrigmore Estate will be the primary access points into the proposed development.

These routes provide for pedestrians, cyclists and motorists alike and a general commentary on these facilities is presented below:

Boherboy Road

Boherboy Road is a local street forming a priority-controlled junction with the R147 Dublin Road to the east and the R161 Circular Street to the west.

The carriageway width is approximately 8.0m along the site frontage with footpaths of various widths on each side.

Boherboy Road has a local road character providing access to local businesses and housing. Local business in the vicinity of the entrance include office, retail and commercial premises.

A speed limit of 50km/h was noted on Boherboy Road along the site frontage.

No cycle facilities were noted along Boherboy Road.

Boherboy Road is within walking distance to the local bus stops for services including the 109,109A, 134, 136 and 179 with good pedestrian facilities that the proposed development can tie into.

N82

The R147 Dublin Road is a road that links the M3 motorway to the east to Navan town.

The carriageway width is approximately 12.0m along the site frontage with footpaths and verges of various width on each side.

A speed limit of 50km/h was noted on R147 Dublin Road adjacent to the site.

No cycle facilities were noted along the R147 Dublin Road.

An NX bus stop is located on the R147 Dublin Road adjacent to the proposed pedestrian access to the development.

3.3 Public Transport

3.3.1 Background

Local public transport infrastructure is illustrated in Figure 3 below.

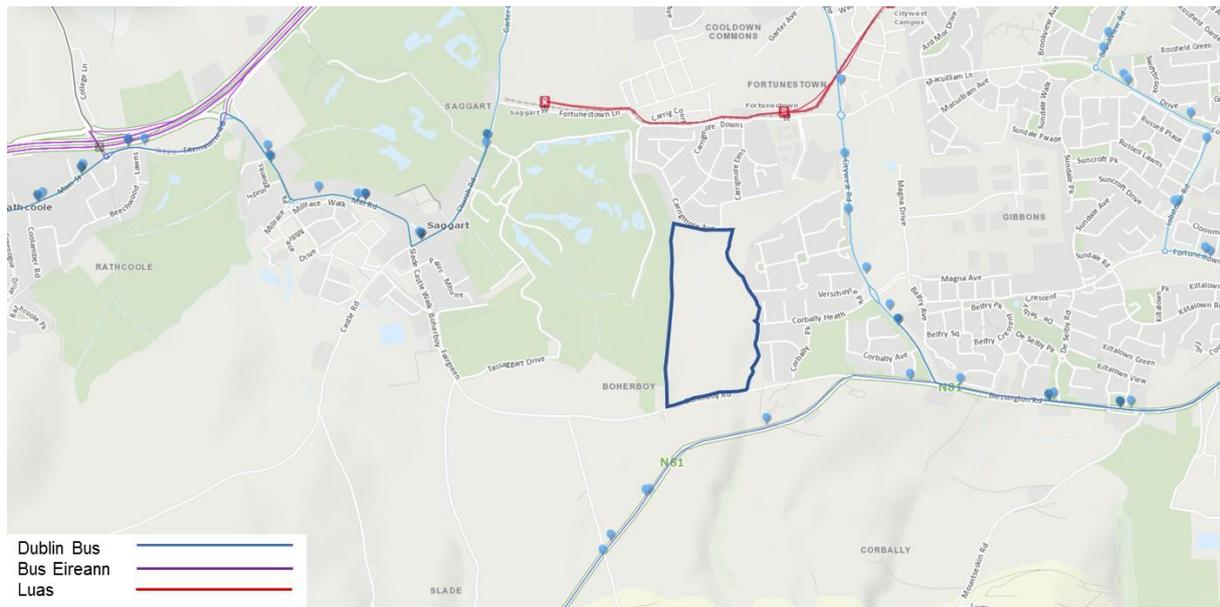


Figure 3 Local Public Transport Infrastructure

3.3.2 Bus

There are numerous bus operators providing a bus service locally and within walking distance to the site, with further details shown in Table 2 below.

No.	Route	Service	Mon-Fri	Sat	Sun	
65	Poolbeg Street - Valleymount Road	Poolbeg Street	First	05:30	05:40	08:00
			Last	23:0	23:15	23:15
		Valleymount Road	First	06:30	07:10	09:30
			Last	00:15	00:20	00:20
		Frequency	Up to 15/day	Up to 112/day	Up to 10/day	
65b	Poolbeg Street -Citywest	Poolbeg Street	First	05:50	05:50	09:00
			Last	23:30	23:30	23:30
		Citywest	First	06:50	07:00	08:30
			Last	23:30	23:30	23:30
		Frequency	Up to 18/day	Up to 17/day	Up to 15/day	

77a	Ringsend Rd. - Citywest	Ringsend Rd	First	05:40	05:55	07:00
			Last	23:25	23:25	23:30
		Citywest	First	06:00	06:20	08:00
			Last	23:30	23:20	23:30
		Frequency		Up to 14/day	Up to 17/day	Up to 3/day
77x	Citywest - UCD Belfield	Citywest	First	07:20	-	-
			Last	-	-	-
		UCD Belfield	First	-	-	-
			Last	-	-	-
		Frequency		1 per day	-	-
69	Hawkins St. - Rathcoole	Hawkins St.	First	06:15	06:20	10:00
			Last	23:15	23:15	23:15
		Rathcoole	First	06:00	06:15	11:15
			Last	00:05	00:05	00:10
		Frequency		Up to 20/day	Up to 21/day	Up to 12/day
175	UCD - Kingswood Avenue	Kingswood Avenue	First	06:00	07:10	08:10
			Last	23:20	22:15	22:15
		UCD	First	06:15	08:15	09:15
			Last	22:15	23:20	20:05
		Frequency		Up to 19/day	Up to 17/day	Up to 16/day

Table 2 Local Bus Services

Measured from the centre of the site, the nearest stop is located approximately 670m (Route A /c. 9 mins walk time) and 1.46km (Route B / c. 19 mins walk time). These routes are illustrated in Figure 4.

Route A and Route B provide access to the services outlined in Table 2.

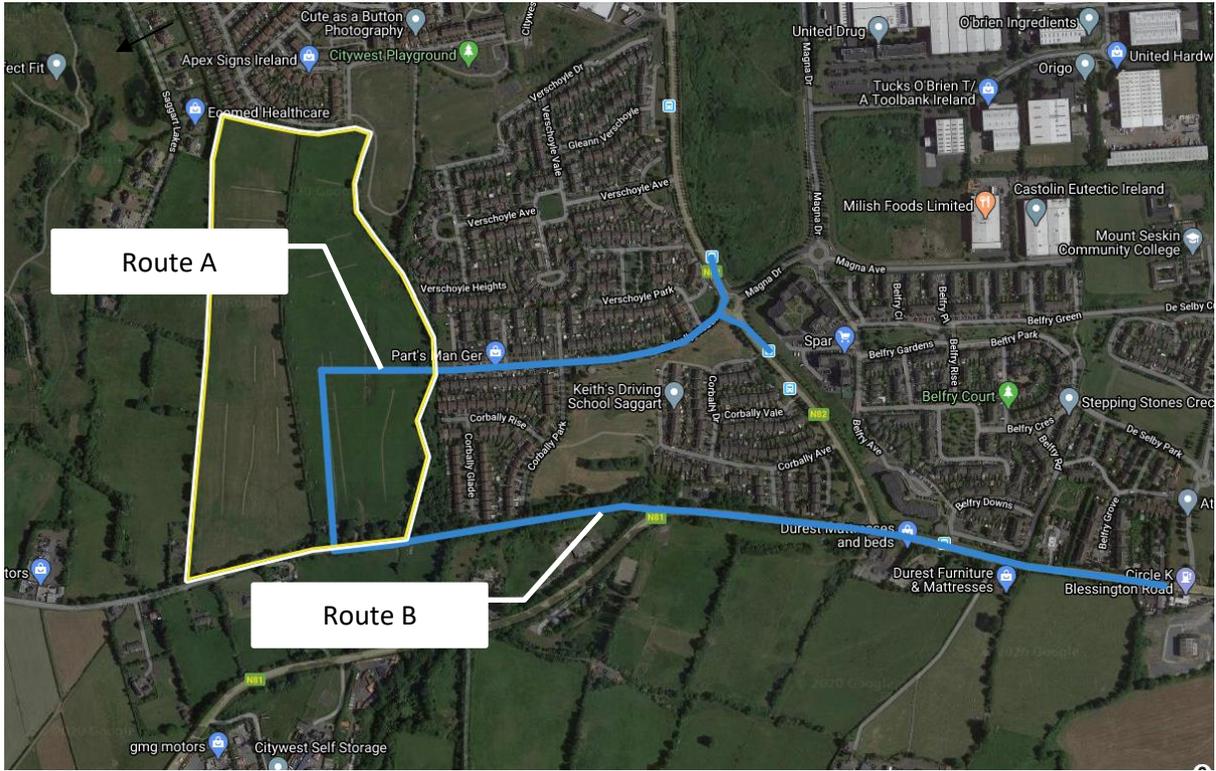


Figure 4 Walk Routes (Source: Google Maps)

3.3.3 Luas

The Luas Red Line (Saggart/Tallaght to Conolly/The Point) calls at the Fortunestown which is located approximately 950m north of the subject site.

Luas Red Line					
Monday – Friday (05:30-00:00)		Saturday (06:30-00:00)		Sunday (07:00-23:00)	
Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
3-6	6-15	7-8	10-15	11-12	-

Table 3 Luas Green Line Frequency (minutes) – (source www.luas.ie)

The Luas has a major terminus at the Square, Tallaght which is also a major terminus for Dublin Bus. The Square is served by Dublin Bus with several local routes. Currently timetabled bus services adjacent to the site include the 27 (which has approximately 80 services per day in each direction from Clarehall to Jobstown), the 49 (which has approximately 37 services per day in each direction from Pearse Street to Tallaght), the 54a (which has approximately 30 services per day in each direction from Pearse St. towards Ellensborough / Kiltipper Way), the 65 (which has approximately 14 services per day in each direction from Hawkins Street to Blessington/Ballymore), the 75 (which has approximately 38 services per day in each direction from the Square to Dun Laoghaire), the 76 (which has

approximately 40 services per day in each direction from Tallaght to Chapelizod), the 76a (which has approximately 3 services per day in each direction from Tallaght to Blanchardstown Centre) and 77a (which has approximately 56 services per day in each direction from Ringsend to Citywest).



Figure 5 Luas Walk Times

Measured from the centre of the site, the nearest stop is located approximately 950m (c. 10 mins walk time) from the site. This is illustrated in Figure 5.

3.3.4 Walking and Cycling

There is no footpath located along the site frontage. The public footpath terminates at the junction between the N81/Boherboy Road. A footpath is located c. 450m west of the development which provides access to Saggart.

There is no cycle network located along the site frontage. Existing cycle routes identified by the National Transport Authority (NTA) in the vicinity of the site are indicated in Figure 6 below.

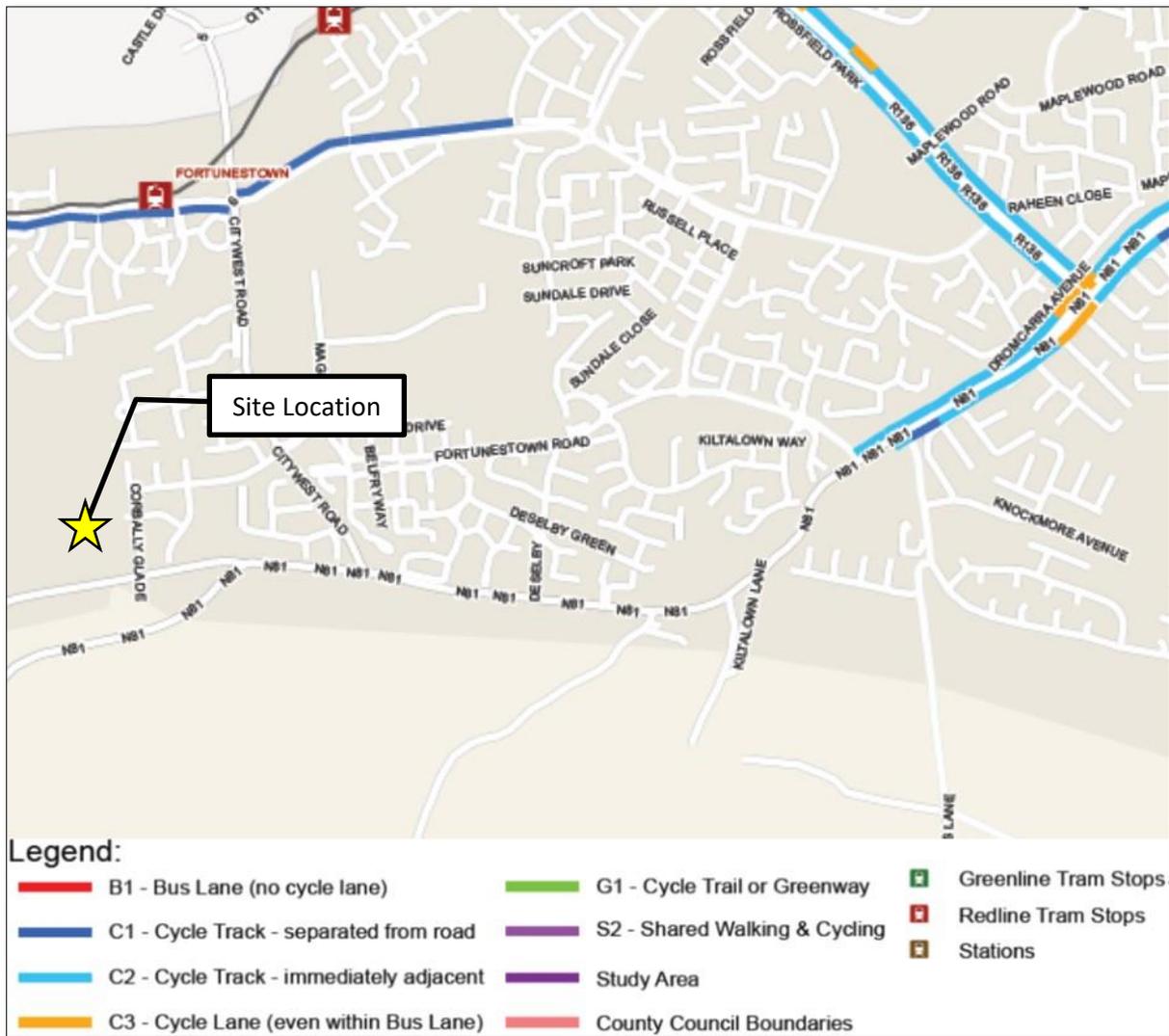


Figure 6 Existing Cycle Routes (Source: NTA)

3.3.5 Local Amenities

As illustrated in Figure 7, the proposed development site is well placed in terms of the availability of and access to local amenities. There are several primary and post primary schools within 5km of the subject site. The subject site benefits from good access to local retail and leisure facilities. Furthermore, the subject development site is well placed to benefit from local employment opportunities at Citywest Business Campus to the north and Magna Business Park to the east.

As part of the development, it is proposed improve pedestrian and cyclist permeability to local public transport services and amenities. Prior to first occupation it is intended to construct a pedestrian and cycle route through Carrigmore District Park to the north and a footpath linking the proposed development to the N81 in the east via the Boherboy Road.

Future connectivity has been allowed for via the Corbally estate but is subject delivery by South Dublin County Council, as the local authority.

The connectivity through Carrigmore District Park and Boherboy Road to local public transport services will reduce car dependency and will reduce the concerns regarding access and connectivity.



Figure 7 Pedestrian/Cyclist Permeability

A summary of the proposed pedestrian/cycle connectivity is provided below:

Fotutnestown Lane

The route to the Fotutnestown Lane measures approximately 1.2km to the Luas stop, another 250m to the bus stops (into town) and 350m to the next bus stop (out of town). This equates to approximately 10/15-minute walk time.

N82

The route to the N82 measures approximately 650m to the bus stops located on the N82 via Corbally Estate. This equates to approximately 7/8-minute walk time.

N81

The route to the N81 measures approximately 1.15km to the nearest bus stop (into town) and another 200m to the next stop (out of town). This equates to approximately 10/15-minute walk time.

All pedestrian routes service the same bus routes. The blue route has a higher amenity value as it provides access to local shops, schools, Luas etc.

3.4 Permeability

Permeability for residents and visitors to the proposed development is a key factor in determining the long-term sustainability when considering modal choice.

To encourage a shift away from car dependency, residents and visitors to the development must have viable alternative choices such as walking routes and cycle routes public transport links.

3.4.1 Walking

Figure 8 outlines the walking distance covered by the average person in a 15-minute period. It illustrates the local amenities that are available to the proposed development. Local amenities within 15-minutes' walk of the proposed development include:

- Citywest Shopping Centre
- Fotutnestown Luas Stop
- Access to bus network
- School
- Carrigmore District Park

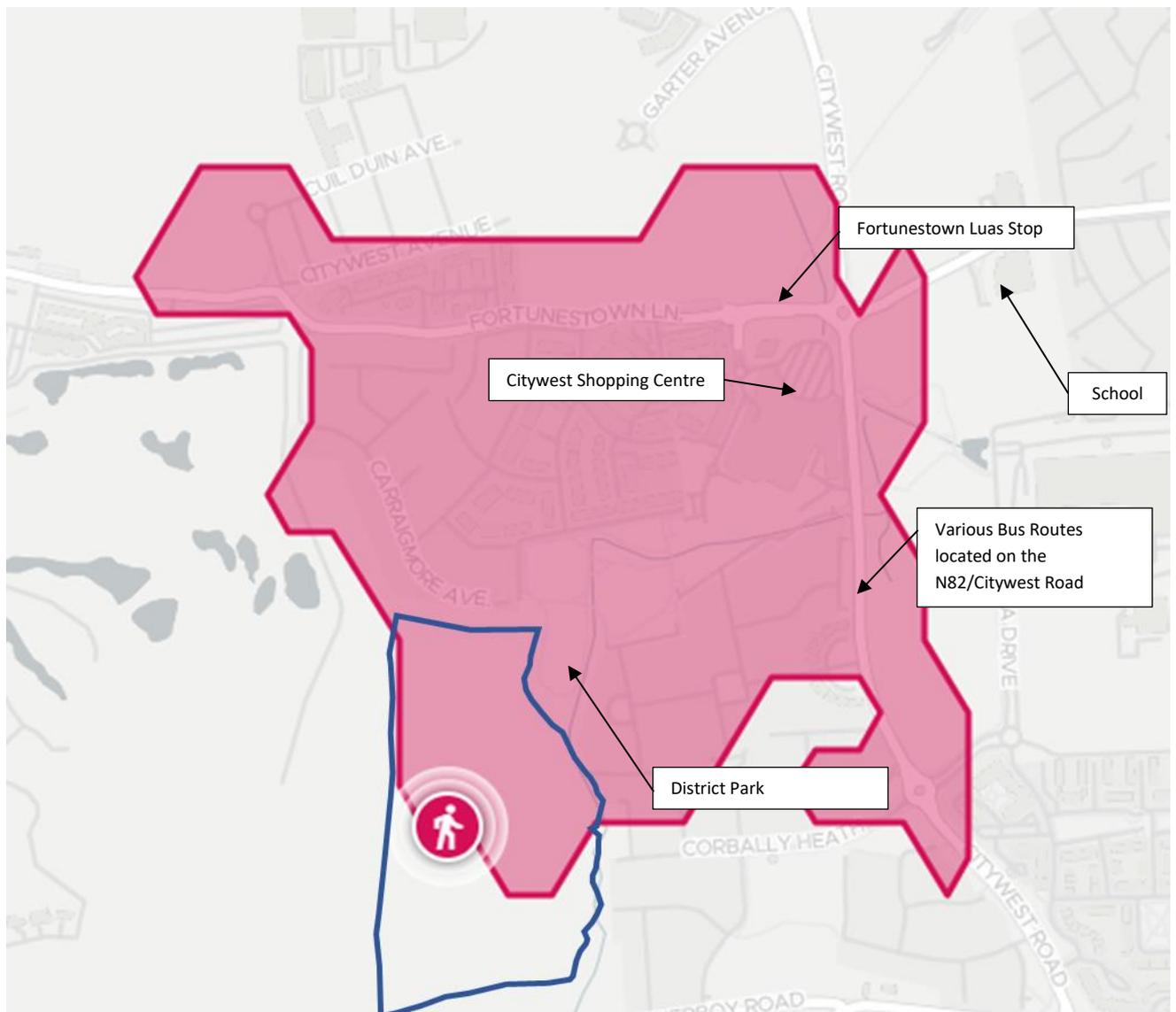


Figure 8 Walking Distance (15 Min Travel Time)

3.4.2 Cycling

Figure 9 outlines the cycling distance covered by the average person in a 30-minute period. It illustrates the local amenities that are available to the proposed development. Local amenities within 30-minutes cycle of the proposed development include:

- Citywest Shopping Centre
- Fotutnestown Luas Stop
- Access to bus network
- School
- Carrigmore District Park
- Access to areas of employment (Citywest Business Campus, Tallaght Village)
- Allows access to/from surrounding areas including:
 - Tallaght
 - Clondalkin
 - Firhouse
 - Rathchoole
 - Newcastle

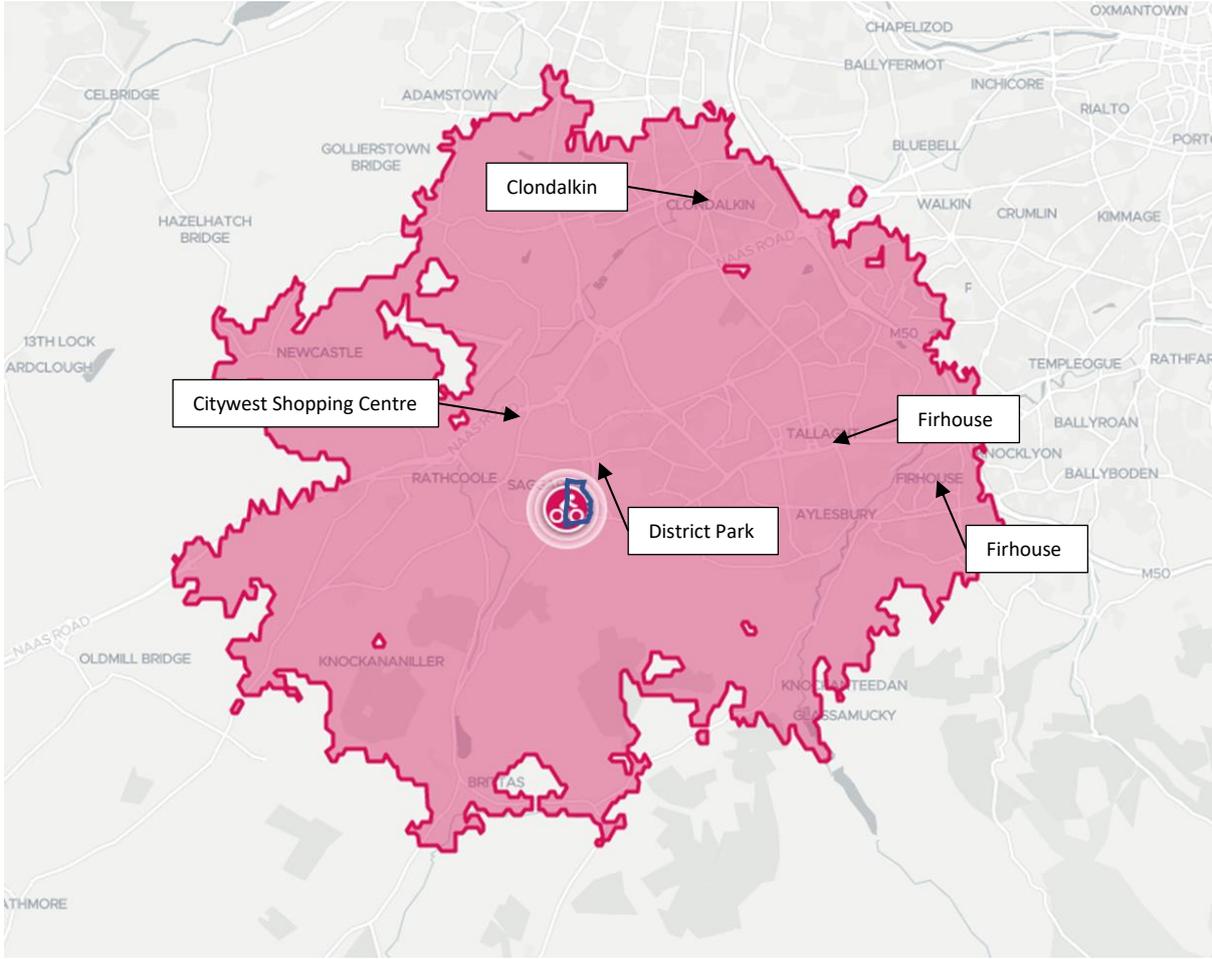


Figure 9 Cycle Distance (90 Min Travel Time)

There is no cycle network located along the site frontage. Existing cycle routes identified by the National Transport Authority (NTA) in the vicinity of the site are indicated in Figure 10 below.

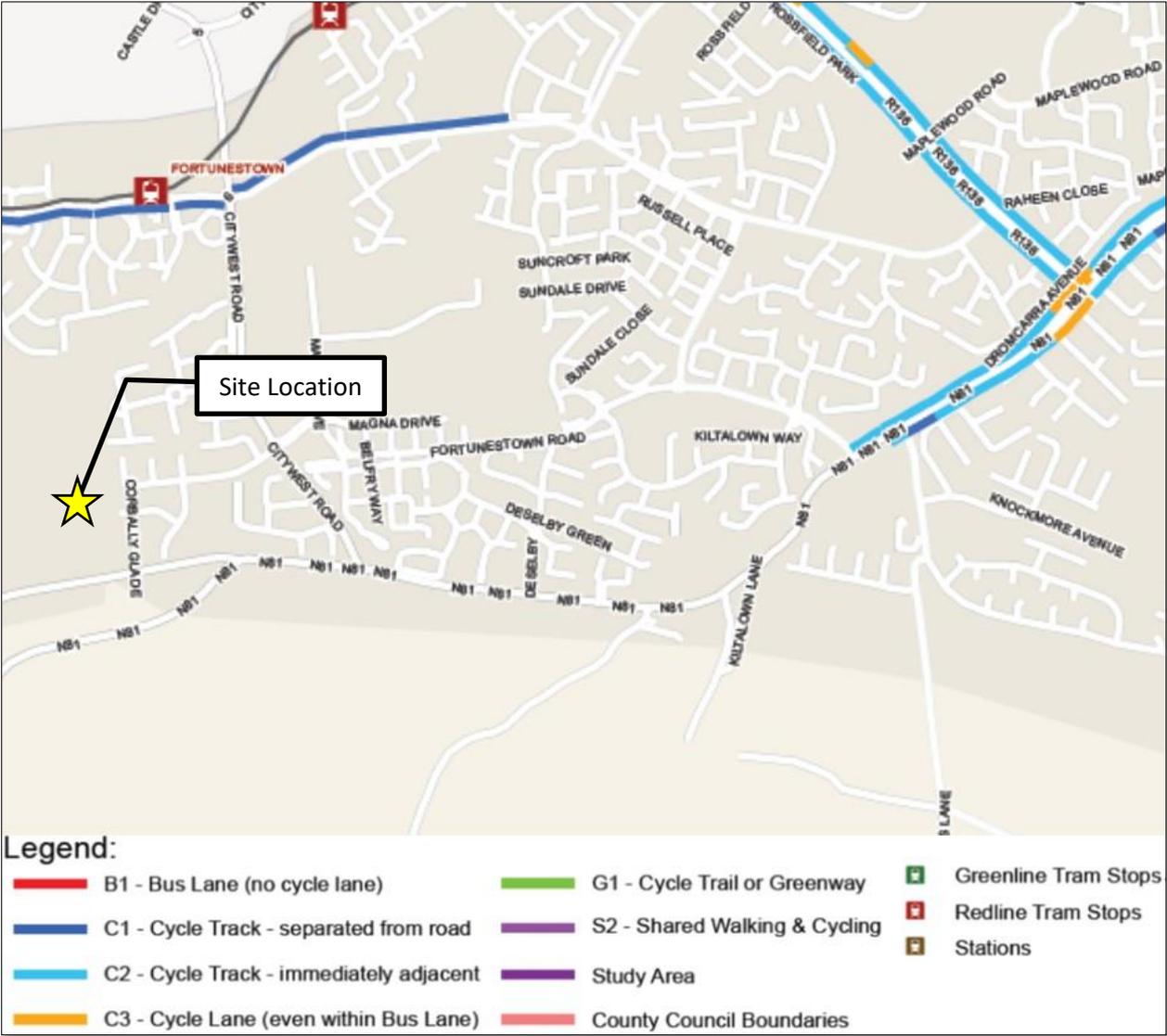


Figure 10 Existing Cycle Routes (Source: NTA)

3.4.3 Public Transport

Figure 11 outlines the distance that maybe covered on a 90minute public transport journey.

A 90-minute public transport journey allows access to areas of employment such as:

- Citywest Business Campus
- Tallaght
- Dublin City Centre
- IFCS

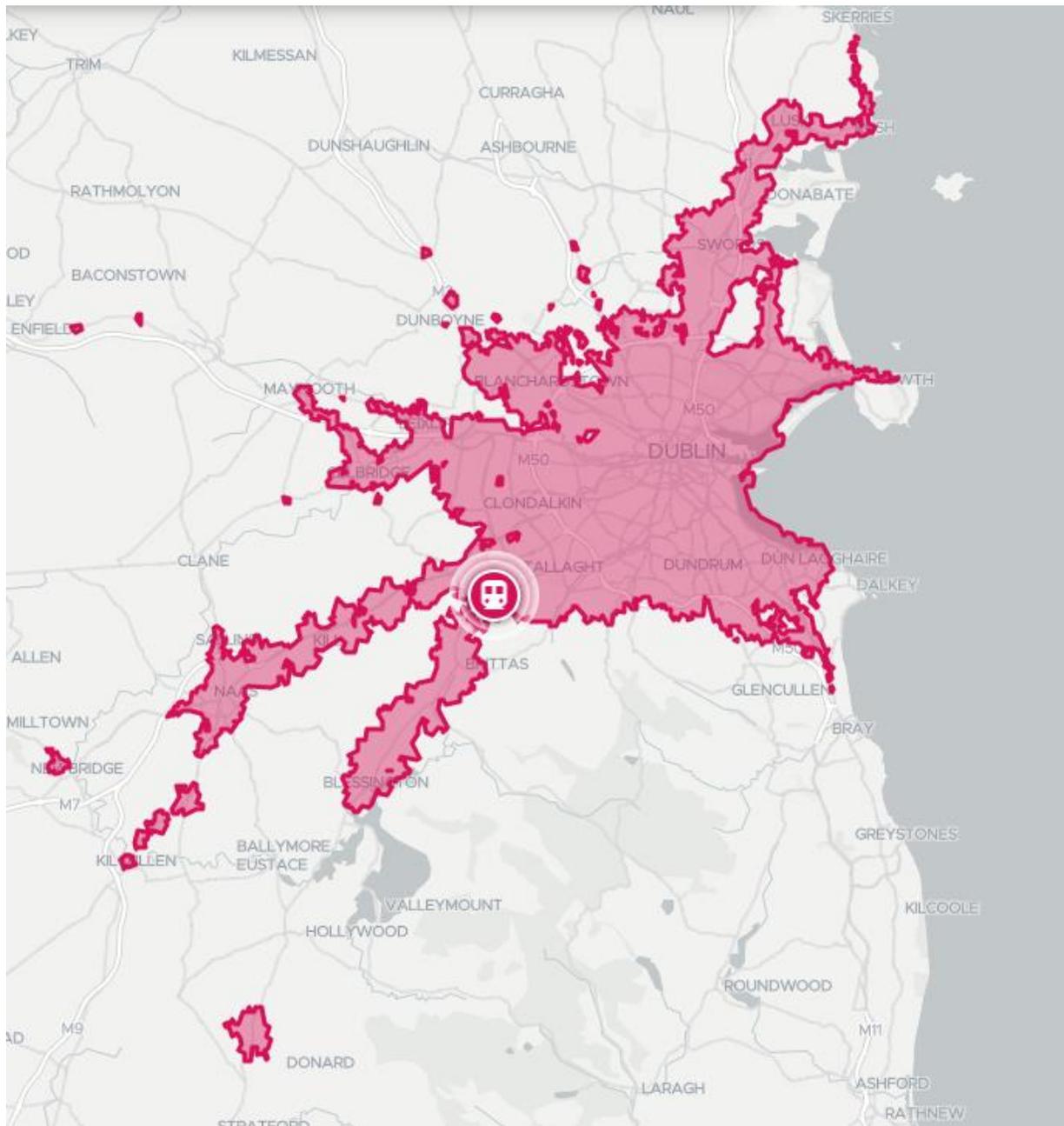


Figure 11 Public Transport (90min Travel Time)

A 90-minute public transport journey allows access from areas such as:

- Lusk (North County Dublin)
- Donard (North Wicklow)
- Dun Laoghaire (West Dublin)
- Maynooth (North Kildare)

This permeability opens up the site to all Third Level Institutions located within Dublin and Kildare (NUIM). It also offers permeability the major amenities located within Dublin City Centre (shopping, entertainment) and the gateway towns into Dublin where the likes of major retail parks are located such as Liffey Valley, Nutgrove Shopping Centre, Carrickmines retail, ect..

The proposed site is located within 90-minute public transport link to all major Dublin sporting and event venues.

3.4.4 Driving

The site has strong permeability to local amenities via walking, cycling and public transport. This will help reduce, but not eliminate, car trips.

Where car-based trips are required, the proposed development has good access to the M50, M7/N7 and the N81.

For car heading north and east via the M50, the direct route is via Carrigmore and the N7. For car heading south and east via the M50, the direct route is via the N81. For car heading west via the M7, the direct route is via Carrigmore and the N7.

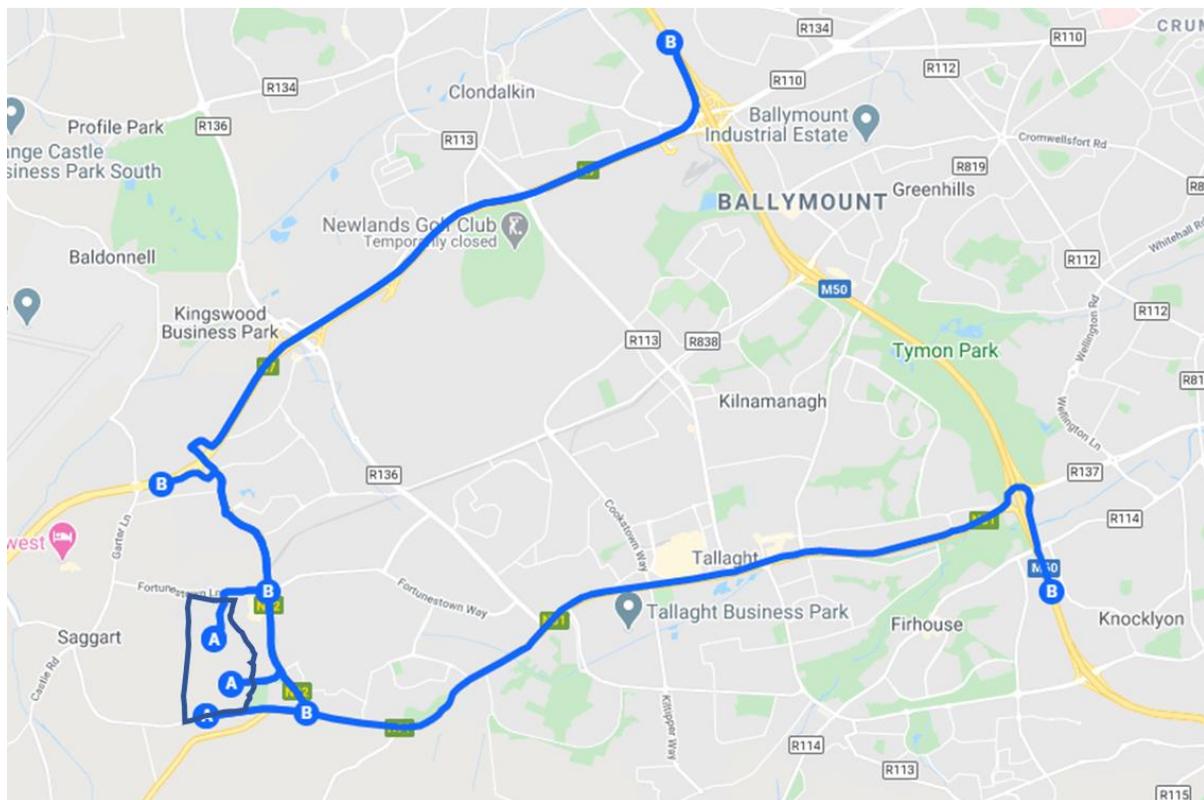


Figure 12 Road Accessibility

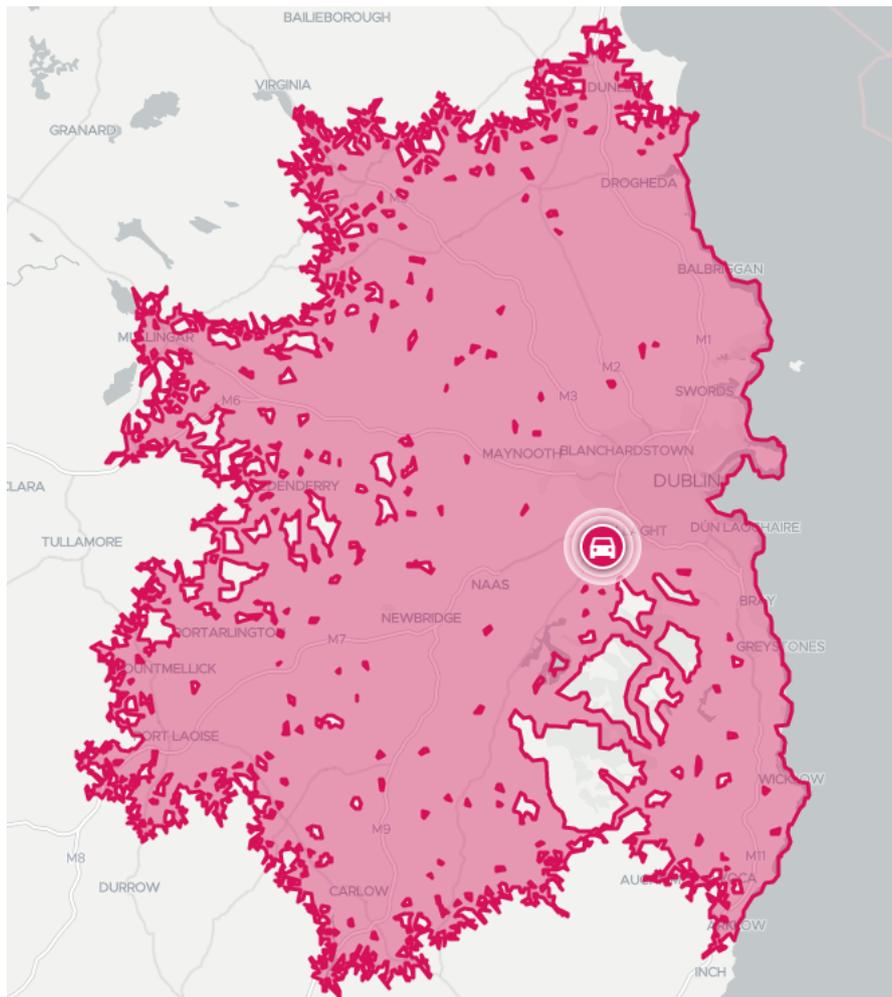


Figure 13 Road Travel Distance (60 min Travel Time)

Figure 13 outlines the travel distance by car for a 60 min travel time.

3.4.5 Summary

As part of the proposed development, connectivity will be provided via Carrigmore Estate, Corbally Estate and Boherboy Road.

These links will provide a significant level of pedestrian, cyclist and public transport permeability to the site to established local amenities such as Citywest Shopping Centre, Citywest Business Campus and local Schools.

3.5 Existing Commuter Travel Patterns

The local electoral area is outlined in the figure below.

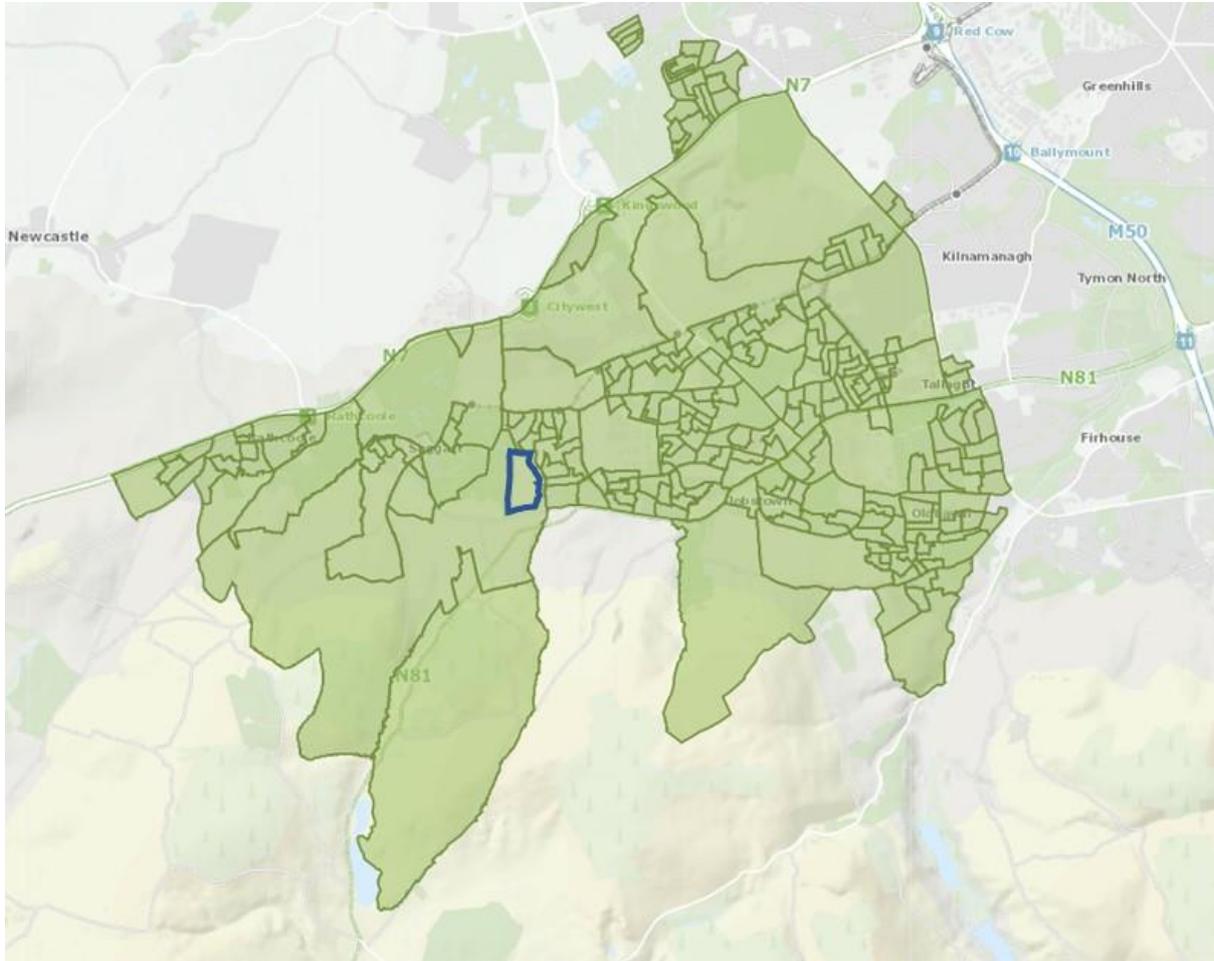


Figure 14 Study Area

Figure 15 illustrates the 2011 Census total commute to work or education by car, per Small Area.

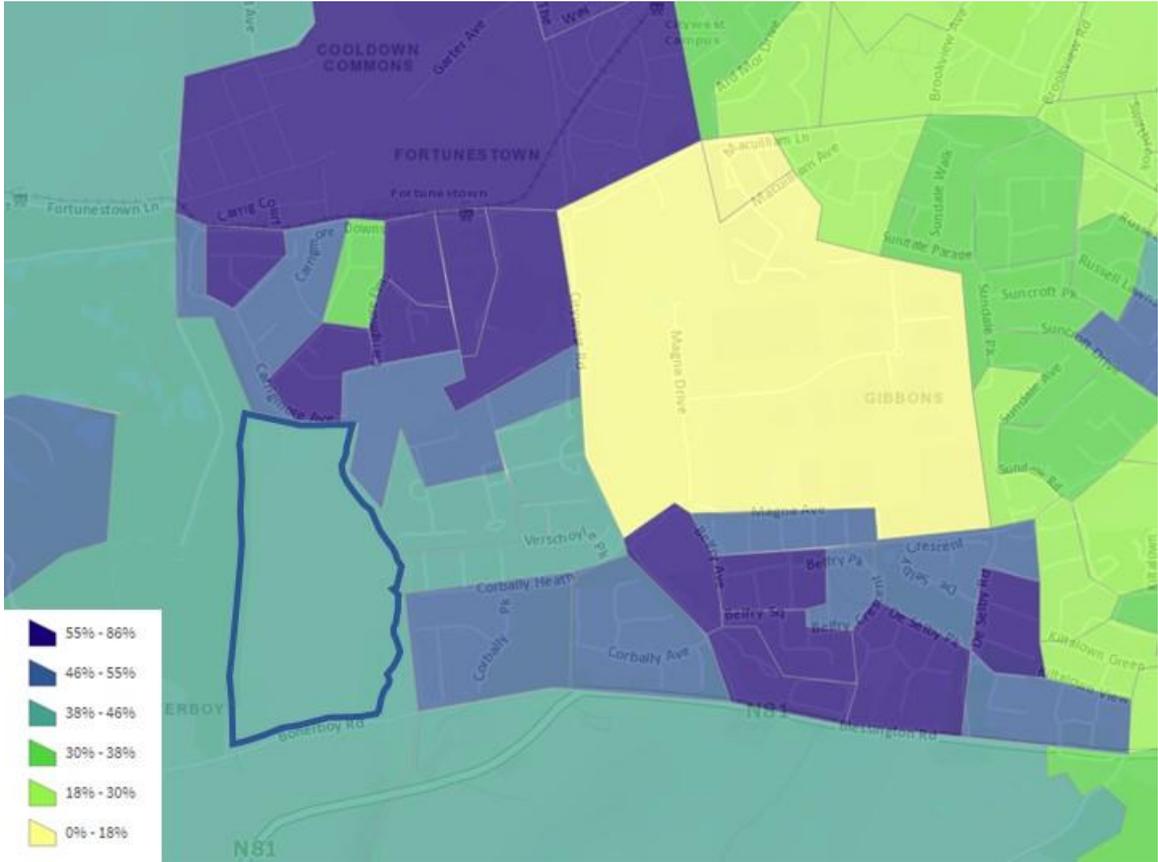


Figure 15 Mode of Transport to work/education: Cars

Figure 15 illustrate the modal splits for car, public transport (bus and LUAS / Rail travel) and green modes of travel (walking/cycling).

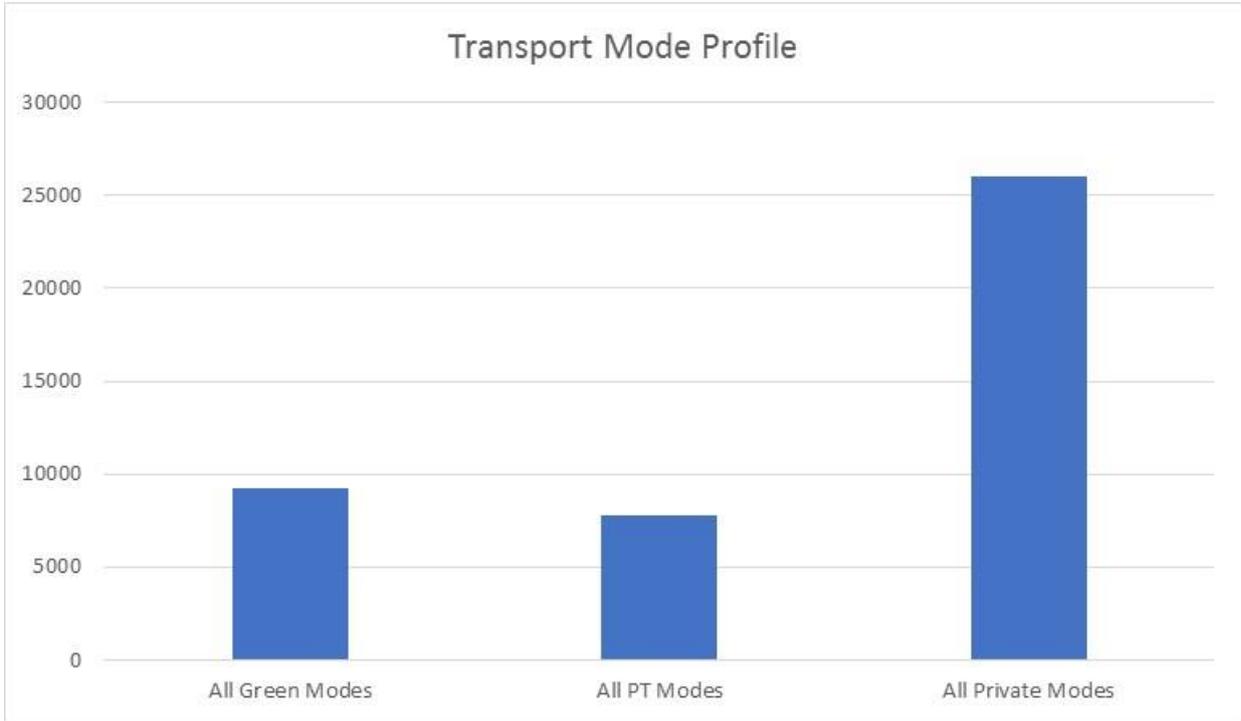


Figure 16 Transport Mode Profile

Thus, for the local resident, who have similar access to local public transport, walking and cycling facilities, 60.44% commute by private car as detailed within the 2016 Census, with 18.07 % commuting by bus, train or LUAS and 21.49% cycling or walking.

4 PREDICTED POST-DEVELOPMENT TRAVEL PATTERNS

4.1 Objectives

The following objectives are outline from South Dublin County Council's Travel Smart Communities:

1. Achieve a modal shift from private car to more sustainable modes for commuting, leisure and other trips as follows:
 - Reduce single occupancy car travel.
 - Increase car occupancy (car sharing) rates.
 - Increase walking mode share.
 - Increase cycling mode share.
 - Increase bus mode share.
 - Increase train mode share.
2. Increase bike ownership and use.
3. Increase awareness of sustainable travel through the Travel Smart Communities brand

This is supported by Smarter Travel 'A Sustainable Transport Future' which states

'Work-related commuting by car will be reduced from a current modal share of 65% to 45%, which will mean that between 500,000 and 600,000 commuters will be encouraged to take means of transport other than car driver (of these 200,000 would be existing car drivers). Change in personal behaviour will also be necessary for other travel purposes as most travel relates to non-commuting • Car drivers will be accommodated on other modes such as walking, cycling, public transport and car sharing (to the extent that commuting by these modes will rise to 55% by 2020) or through other measures such as e-working

Therefore, the primary objective of this report is to reduce car-based trips to a maximum 45% and increase other modal share to a minimum 55% of the work/education related commutes.

4.2 Target

Based on the modal split information outlined in section 3, 60.44% commute by private car as detailed within the 2016 Census, with 18.07 % commuting by bus, train or LUAS and 21.49% cycling or walking. The modal split target for 5 years post opening of the development is outlined in Table 4.

Modal Splits		
Transport Mode	Commuter Usage (%)	Commuter Usage (%)
Commuter Usage (%)	(day-of-opening)	(+ 5 years)
Car	60%	40%
Public Transport	18%	30%
Green Modes	22%	30%

Table 4 Modal Targets

It is also assumed that, on the day of opening of the proposed development, the public transport, walking and cycling patterns of the residents will mirror the patterns of existing residents in the local area.

It can be seen that targets for five years after the day of opening of the proposed development indicate commuting by private car decreasing from 60% to 30 %, public transport increase from 18% to 30% and Green Modes increase from 22% to 30%.

The following sections of the report will demonstrate how the setting of appropriate objectives and the appointment of a Travel Plan Coordinator to oversee their implementation will ensure that these targets are achieved.

5 OBJECTIVES OF TRAVEL PLAN STRATEGY

5.1 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.

While recognising that not all car trips can be eliminated, this strategy aims to provide sustainable transport choices for workers and visitors at the site, thus leading to a reduction in 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 and 5 years thereafter are met if not exceeded.

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 car parking resources in such a manner that generally discourages use of the private car for the journey to work and maximises the efficient use of the limited on-site spaces available (**Objective No. 1**);
- To encourage residents to use public transport by providing information on the services available as well as 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, appropriate showering facilities, financial subsidies 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**).

Table 4, Section 4.2 assumes that objectives outlined above will be taken within five years of opening to reduce the modal split for car travel down to 40%, to increase public transport to 30%, and to increase the Green Mode to 30%

A number of the proposals listed to achieve these modal splits are easy and inexpensive to implement. Other measures require initial co-operation and co-ordination both within and between organisations or require an initial investment where this outlay is greatly outweighed by the subsequent benefits both to commuters and the environment. Residents' performance and general morale are both dependent to a great extent on their general state of health and fitness, particularly where long periods are spent behind a desk working with computers. The profile of their journey to work can be a significantly beneficial factor in this regard.

5.2 Objective No. 1 - Maximising the Efficient Use Of Car Parking Facilities

5.2.1 Introduction

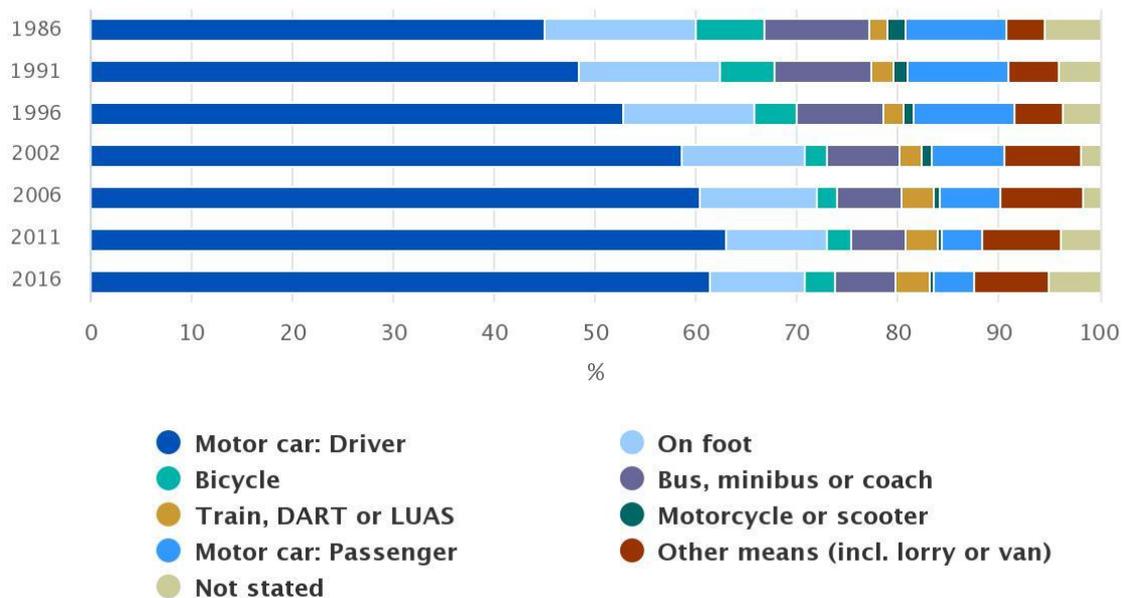
Given the reduced availability of on-site car parking at the subject site (894 No. spaces required under the development plan versus the 867 No. spaces provided) will help both to generally discourage use of the private car due to the availability of car parking.

5.2.2 Increasing Car Occupancy Rates

The day-of-opening modal splits, based on CSO data, the average car and van occupancy in Ireland mounted to c1.1 in 2018.

For the purpose of this Travel Plan, it is assumed that in the opening year, the development will have similar car occupancy rates to the national average.

Figure 2.1 Means of travel of working commuters, 1986 – 2016



Source: CSO Ireland

Figure 17 Average Car/Van Occupancy Rates (Source: Census of Population 2016 – Profile 6 Commuting in Ireland)

With no Irish targets available, a 'Review of The UK Passenger Road Transport Network' published by Government Office For Science (UK, 2019) was undertaken with the following findings:

'Car occupancy varies significantly for car trips of different purposes; average rates are around 2 people for school and holiday trips, between 1.6-1.7 for shopping and leisure trips and only 1.2 for commuting and business trips. The data indicate that people are more likely to share trips for leisure. These figures are indicative of barriers and other practical factors that limit sharing for commuting car trips.'

Therefore, for the purpose of this report, the 5-year modal split targets are to increase the occupancy rates from 1.1. to 1.6.

In order to achieve the necessary modal split for residents and visitors to the site and reduced car ownership levels, it is important to discourage the number of single occupant car trips and to promote the use of public transport or multi person car trips.

A Car Club will be set up by the Travel Plan Co Ordinator to promote two specific methods of reducing car vehicle usage by the development.

The following information in relation to Car Club has been supplied by Mobility Services for Urban Sustainability (MOSES). MOSES is a European partnership project chartered with developing innovative mobility services based on 'car-clubs' to target a sizeable marketing breakthrough on a European scale.

5.2.3 Car Parking

The applicant proposes a car parking provision which will ensure that the proposed development operates efficiently, effectively and safely whilst at the same time ensures against the over provision of car parking and hence an over reliance on the private car. This parking provision has been generated with a detailed knowledge of anticipated site users and relevant Local Authority standards.

A reduced parking provision was highlighted as being the most effective demand management measure in the 'Greater Dublin Area Travel Demand Management Study' published by the NTA (formerly the DTO). However the applicant is also conscious of providing for the needs of residents and visitors to the development without an overflow on parked vehicles onto adjacent roads and developments. Details of the parking provision can be found in the Transport Assessment submitted with this application.

5.2.4 Car Pooling

The Travel Plan Coordinator will establish a car-pooling database possibly via an intranet site to coordinate residents and visitors of the proposed development willing to share journeys and associated costs. A central information/communication point will be set up to ensure that an up-to-date list of participating residents is kept.

Car sharing software and apps are available which can facilitate such arrangements. An Irish Company, Carma, is one such app. Carma is a real-time transportation technology company headquartered in Cork, Ireland. Its flagship product, Carma Carpooling, matches users with nearby commuters and enables them to share the cost of driving.

Carma produces real-time information and management systems that use GPS, GSM, Geographic Information Systems, Internet and mobile phone technologies to facilitate a shift from single-occupancy vehicles to sustainable transport.

Carma's flagship product is a real-time ridesharing app that matches drivers and riders, enabling people to make car transportation more efficient and more affordable. The company states on its website that Carma's mission is "to enable people around the world to break free from the tyranny of the modern commute".

According to the Carma Terms of service proceeds of the rider(s) payment (consisting of fixed charge per trip and a variable per mile fee) is split between the driver (85%) and the company (15%).

Carma has an app for various mobile platforms. It enables on-demand real-time ridesharing. It works by automatically matching a driver's spare seat capacity with a passenger's desire to travel the same route at the same time. Drivers are provided with a price incentive in the form of electronic micropayments from riders at the end of each journey.

The Travel Plan Coordinator may use Carma as a means to manage the database of scheme members.

5.2.5 Car Club Usage

'As well as showing that a site is sufficiently well located in relation to employment, amenities and services, it is important that access to a car sharing club or other non-car-based modes of transport are available and/or can be provided to meet the needs of residents, whether as part of the proposed development, or otherwise. 'Car free' development is permissible and if developed, must be fully communicated as part of subsequent apartment sales and marketing processes. '

Car Clubs gives you a 'car on call', whenever you need it. Car clubs have developed as a modern service in many European cities and are a good alternative to high levels of private car use and 'driver

only' occupancy rates. The principal of a car club is to ensure that the optimal use of a small number of vehicles to meet the needs of a wide group of people.

International experience to date shows that healthy car clubs, such as those run by GoCar, operate at a provision of 30 clients per car and every car can replace up to 4 private vehicles thereby significantly reducing the number of traffic movements.

In addition, restricting car parking provision is a recognised method of reducing car dependence of a development.



Figure 18 GoCar Location

City Council commuter data was compared to GoCar Member Data as illustrated below. This data shows how the modal choice can change if an alternative option is available. The availability of car clubs leads to a more sustainable choice for individuals.

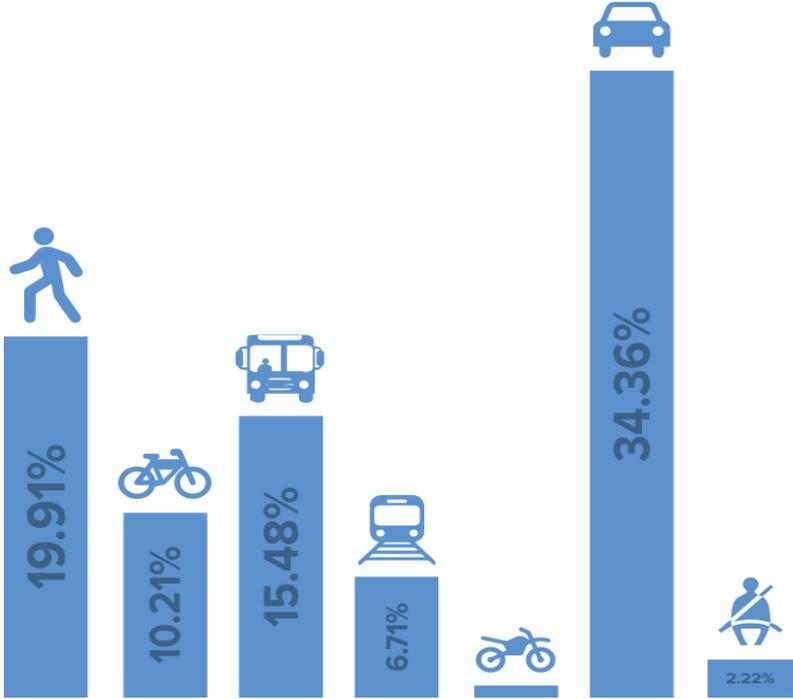


Figure 19 DCC Commuter Census Data

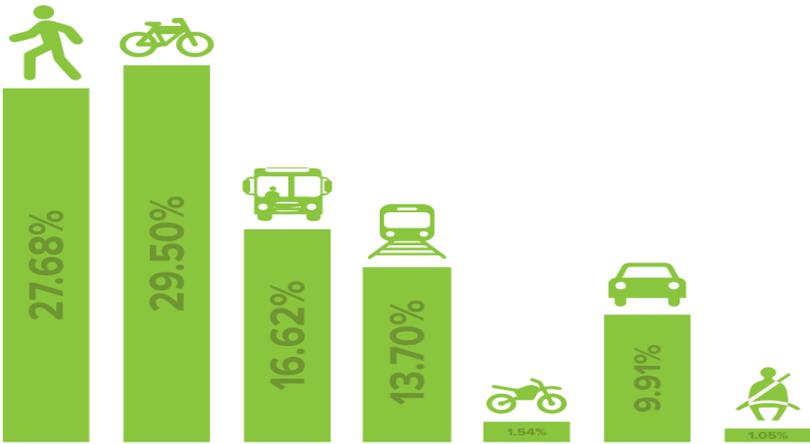


Figure 20 GoCar Member Survey Commuter Data

GoCar has carried out research on GoCar Members and Smart Travel Users. The findings of the GoCar survey are summarised below:

- 80% of users do not own a car;
- Over 60% use public transport at least once a week

- Over 50% cycle at least one a week;
- Over 40% said that if GoCar did not exist, they would buy a car; and
- Over 50% cycle at least one a week.

Cars can be booked in advance through their app and/or website.

It is the experience of GoCar that the demand for spaces become self-regulating. Members will book in advance for planned trips. Should spaces on site not be available at short notice, members will try other locations.

Should members not find a car that is convenient the trip is either postponed to a later date or alternative modes of transport are sought as per the GoCar Member Survey Commuter Data.

The above will help reinforce the multimodality mind set and ensure that people take the best decision depending on the transportation needs.

In addition, restricting car parking provision is a recognised method of reducing car dependence of a development.

5.3 Objective No. 2 - Encouraging Greater Use of Public Transport For The Journey To Work

5.3.1 Introduction

The modest increase from 18% to 30% public transport modal split is based on expected local improvements to the public transport access that will come on stream over the coming years, together with upgrades and increased efficiencies within the existing infrastructure – DART frequencies are have increased in 2019 to every 10 minutes all day between Howth and Bray (accessed directly from the LUAS Red Line) and maximising public transport information to residents.

While the Bus Connects may have no impact on the 5-year targets, in the longer term, its implementation will significantly improve public transport services at the subject site.

The emerging Bus Connects Dublin plan (Ref: Core Bus Corridors Project Report June 2018) proposes revisions to Dublin’s bus system through: -

- building a network of new bus corridors on the busiest bus routes to make bus journeys faster, predictable and reliable;
- completely redesigning the network of bus routes to provide a more efficient network, connecting more places and carrying more passengers;
- developing a state-of-the-art ticketing system using credit and debit cards or mobile phones to link with payment accounts and making payment much more convenient;
- implementing a cashless payment system to vastly speed up passenger boarding times;
- revamping the fare system to provide a simpler fare structure, allowing seamless movement between different transport services without financial penalty;
- implementing a new bus livery providing a modern look and feel to the new bus system;
- rolling out new bus stops with better signage and information and increasing the provision of additional bus shelters; and
- transitioning - starting now - to a new bus fleet using low emission vehicle technologies.

The Dublin Area Bus Network Redesign (which is currently under review following the public consultation stage) aims “to provide a network designed around the needs of Dublin today and tomorrow, rather than based on the past”.

Figure 21 below presents the proposed public transport provision in the vicinity of the subject site compared to the existing provision. The main difference between the existing and proposed is the

inclusion of a new bus interchange within the Citywest Shopping Centre located in the immediate vicinity of the subject development site.

As part of the Dublin Area Bus Network Redesign Dublin Bus routes 65B and 77a will be replaced by a new Route W8 between Citywest and Tallaght which is also proposed to provide a direct service to Maynooth / Celbridge. Improved service frequencies are proposed to destinations to the east via several proposed new routes.

The existing 77x bus route will be replaced by new orbital routes (S6 / S7) which will provide direct Dublin Bus route 69 is proposed to be replaced by a new route 63 which does not result in a change to the existing service between Citywest and the City Centre.

Go-Ahead Bus route 175 is not proposed to be subject to change as part of the Bus Connects scheme.

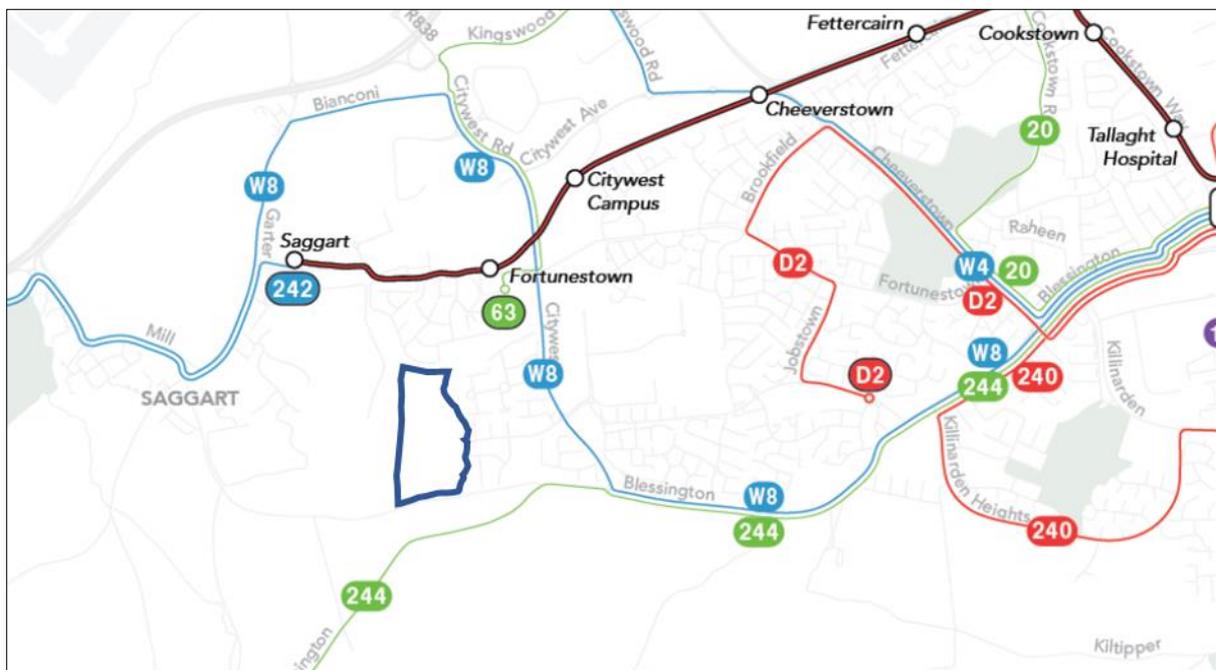


Figure 21 Bus Connects (Source: Map 2 of Bus Connects)

5.3.2 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, DART and ultimately 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.

5.4 Objective No. 3 - Encouraging More Residents to Walk/Cycle To Third Level Institutions

Cycling will be a favoured transport option for a predicted 20% of residents at the proposed development on its day of opening, increasing to 30% five years thereafter.

It is reasonable to assume a slight increase in this modal share over values pertaining in the locality, within the first 5 years after the opening of the residential component of the facility given the provision of 546 No. parking spaces for bikes throughout the subject site.

This level of cycle parking provision will cater for local trips by customers/students/residents and will mitigate the reduced level of car parking supply. The Applicant's will review the uptake in cycle parking and monitor the demand should additional spaces be required in the future.

Bike parking will not be provided within individual apartments. Secure, communal parking will be provided at basement level adjacent to the main entrances.

A total of 797 cycle spaces will be provided which is in excess of South Dublin County Council's Development Plan 2016-2022.

5.5 Measures

5.5.1 Introduction

The below measures are suggested only, and future changes may be made over the course of the travel plan in conjunction with the local authority, to ensure that appropriate measures are in place.

5.5.2 Travel Awareness

Good accurate information on the range of services and travel initiatives available at the site will be a critical element of a successful travel plan.

The Travel Plan Coordinator will make new employees aware of the existence of the travel plan by producing an information leaflet summarising the travel plan. The leaflet will be provided to new residents as part of a welcome pack, which would be issued on appointment of each position, prior to occupation, to ensure that sustainable travel patterns are created from the outset.

Given the local employment opportunities, there is opportunity to foster greater work base trips on foot or via bike as they fall with 2km and 5km isochrones respectively.

The welcome pack will include, though not exclusively, the following:

- Introductory leaflet providing a summary of the travel plan, listing any key measures along with the contact details for the Travel Plan Coordinator;
- A map showing the location of the development in relation to the local area, highlighting the nearby bus and Awas stops and key local facilities within easy walking distance of the site;
- Public transport information, including:
 - A map showing the location of the store in relation to the local area, highlighting nearby bus and Luas stops;
 - Bus and Luas timetables of existing local services from nearby bus and Luas stops;
- Active travel information, including:
 - A map showing local cycle and walking routes, which would also indicate the locations of cycle parking and cycle shops in the area.
 - Details of local bike repair shops/retailers and available discounts/promotions, along with available training and maintenance sessions;
 - Health information and details of local walk buddy and bike buddy groups.
- Information about car sharing.
- Details of local taxi firms.

The Travel Plan Coordinator will ensure that any changes to the travel plan or any relevant information such as timetable seasonal changes are passed on to residents and visitors on a biannual basis in leaflet form and/or via noticeboards.

The Travel Plan Coordinator will promote and encourage residents to participate in national and local events, organised by local groups or the local authority, aimed at promoting awareness of sustainable transport.

The range of events that will be promoted will be agreed and co-ordinated with South Dublin Council.

5.5.3 Walking

The Travel Plan Coordinator will encourage walking as a mode of travel to work. The following initiatives will be implemented:

- Provide a map showing walking routes as part of the welcome pack, indicating distances and times to key local facilities near to the site;
- Raise awareness of the health benefits of walking through promotional material in the welcome pack and on noticeboards;
- Encourage employees to sign up to the 'Carma' or similar schemes which offers a journey matching service for journeys to work, or other journeys such as leisure / recreation;
- Audit the local footway and footpath network on an annual basis and report any defects and/or maintenance issues to the highway authority; and
- Liaise with a local taxi firm to provide competitive rates for employees in case of emergency to replace the work walk journey.

5.5.4 Cycling

The Travel Plan Coordinator will encourage cycling as an alternative mode of travel to work:

- Provide parking for up to 797 No. residents and visitor cycles at any one time on the site;
- Provide and promote personal storage areas for employees' cycle kit;
- Promote the availability of cycling information, including route maps and useful tips and guidance,
- Provide information to residents and visitors on any local cycle proficiency 'Bikeability' courses;
- Promote Bike to Work Week
- Set up a Bicycle User Group (BUG);
- Audit the local cycleway network on an annual basis and report any defects and / or maintenance issues to the highway authority;
- Liaise regularly with the cycling officer at the local authority to ensure that up-to-date information is available regarding cycle routes, proficiency classes and other facilities for cyclists in the vicinity of the site; and,
- Liaise with a local taxi firm to provide competitive rates for employees in case of emergency
- to replace the work cycle journey.

5.5.5 Public Transport

The Travel Plan Coordinator will actively promote public transport with the following specific measures to be implemented:

- Provide up-to-date public transport information, including route maps and timetables, within welcome packs and on-site noticeboards;
- Provide details of season tickets and any discounts that can be secured for residents with the local public transport operators;
- Details of local taxi firms will be provided within the welcome pack;
- The Travel Plan Coordinator will provide details of websites and telephone advice services to enable employees to obtain details on their individual journey requirements; and,
- Liaise regularly with public transport operators to ensure that information remains valid.

5.5.6 Personalised Journey Planning

Targeting individual journeys can be the most effective way of reducing car travel and encouraging use of sustainable modes. This initiative is most effective for those who currently travel by car and have no constraints to travel by sustainable modes.

The Travel Plan Coordinator will assist residents in the development of a personalised journey plan for commutes. The journey plan could include (dependent on which modes of transport are identified as being of most interest):

- Maps showing the location of the bus and Luas stops to use at either end of the journey, along with the accompanying walk route to their origin and destination;
- Details of how and where to buy tickets, including the current cost for travel;
- Suggestions of how to incorporate elements of the journey to sustainable modes; and
- Timetable information for public transport services used on their journey.
- Offer information relating to tax saver commuter tickets.

6 ROLE OF THE TRAVEL PLAN COORDINATOR FOR THE PROPOSED DEVELOPMENT

6.1 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 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.

6.2 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.

It is the intention of the on-site management team that a Travel Plan Framework Coordinator be appointed to administer, implement, monitor and review mobility 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.

There are a range of measures that will be undertaken by facility managers in order to aid in the reduction of car-based journeys to work.

The co-ordinator will have a vital role in encouraging and enabling organisations on the subject site to adopt the measures listed within the document to achieve the objectives listed above within Section 6. 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

6.3 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, providing information on issues such as available public transport services, where to buy a bike, the health benefits of cycling / walking, and a list of co-residents who might potentially car-share.

6.4 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. Also, 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.

6.5 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 in the vicinity of the candidate site to make the local road network more pedestrian friendly.

6.6 Promoting Luas 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, local public transport stops and route planning, together with information on annual and monthly public transport tickets, carrying potential tax benefits for commuters.

6.7 Monitoring The Modal Splits For The Residents' Journey To Work

6.7.1 Introduction

In order to maximise the effectiveness of the Travel Plan Framework, 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.

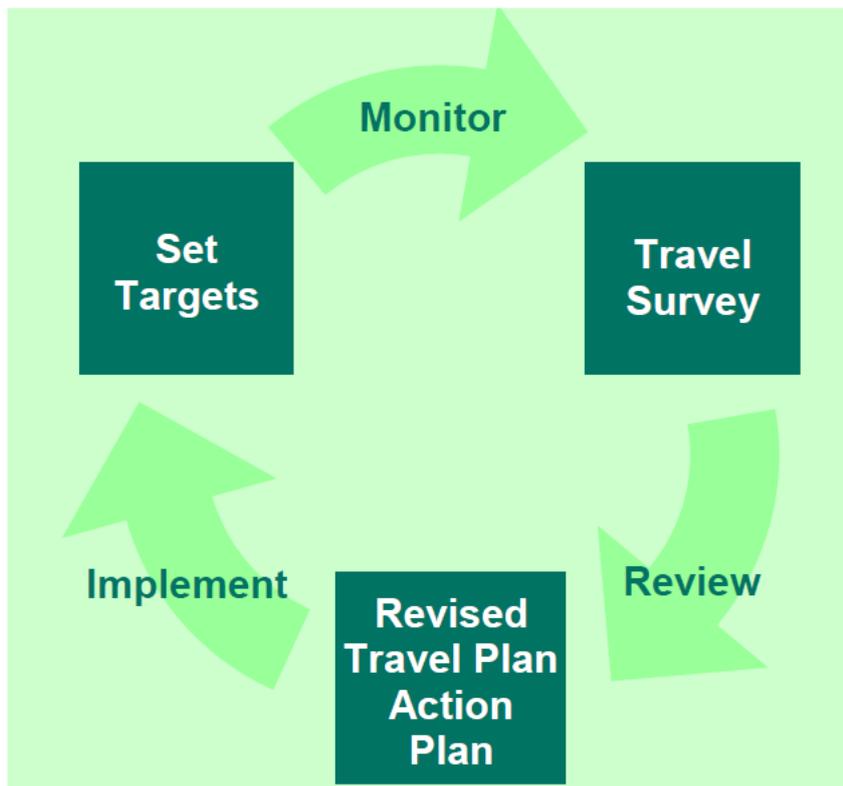


Figure 22 Monitoring Process

Monitoring this Travel Plan is an essential part of the whole process. Monitoring means regularly checking the progress towards the targets with activities such as residents travel surveys or vehicle counts. It enables the Travel Plan Coordinator to see whether or not the Travel Plan initiatives are having the desired effect on people's travel behaviour.

The following will be the key cornerstones of how the Travel Plan will be monitored:

- Baseline travel figures need to be established very early on so that there is something to benchmark progress against.
- Travel Plan monitoring needs to take place at regular, agreed intervals (1,3,5 & 10 years). Monitoring enables you to test whether the Travel Plan initiatives have been a success or whether interventions are required.
- Monitoring allows the Travel Plan Co Ordinator to review your progress towards the targets and objectives.
- Regular monitoring is a requirement for Travel Plans secured through the planning process and the frequency of reports needs to be agreed with the Local Authority.
- Travel Plan objectives and targets should form the basis of the monitoring strategy as it is these that you are monitoring your progress against.
- Different types of monitoring tools can be used to collect the travel data required.

6.7.2 Responsibility

Monitoring is generally the responsibility of the Travel Plan Coordinator, which will be supplemented by external parties to undertake traffic counts, surveys or questionnaires on your behalf if and when required.

This Travel Plans accompanies a planning application, therefore responsibility for monitoring lies with the developer or occupier. It's their responsibility to provide the Local Authority with the monitoring results, including a written report at each of the agreed monitoring dates as outlined in Table 4, Section 4.2.

6.7.3 Baseline

For the purpose of this application, general modal data has been used to assess the opening year modal split. In order to monitor a Travel Plan's success, it's important to get accurate baseline modal figures in year 1.

A resident's travel survey will be carried out within 12 months of opening in order to establish an accurate baseline figure on how residents get to work, so future success can be compared with these results.

Baseline travel numbers are also essential for setting Travel Plan targets, therefore, the targets referenced in Table 4, Section 4.2 will be reassessed.

Monitoring needs to take place at regular, agreed intervals. It is advised that monitoring is carried out annually for the first few years so you can see if the Travel Plan measures are working.

The frequency of the surveys has been agreed with the Local Authority as summarised in Table 4, Section 4.2.

Monitoring should be carried out at the same time each year. It is recommended that surveys are carried out during the spring and autumn, and that school holiday periods are avoided.

It's a good idea to keep the format of questionnaires and surveys similar year on year in order to ensure that the results are comparable to your previous findings.

6.7.4 Tool Kits

There are several different methods of gathering the data that you will need to monitor your travel plan:

- Travel questionnaires aimed at residents or customers. An example survey is located in Appendixes.
- On site vehicle counts.

- Business travel audits that look at mileage claims, requests for public transport tickets, cycle mileage claims, and distances travelled.
- Accessibility assessment – how accessible is your site for all different modes of transport?

At the intervals set out in Table 4, Section 4.2, the Occupier will submit a monitoring report which will contain:

- Details of progress made since the submission of the previous annual report and any other changes which have occurred over the year which are significant to the Plan.
- An assessment of travel survey results and any other monitoring such as vehicle counts.
- An assessment of whether targets have been met or are on track to be met.
- Any revisions to be made to the Travel Plan.
- Whether or not remedial measures are to be implemented at this stage.
- Actions for the forthcoming year which should be set out in a Travel Plan Action Plan.

6.7.5 Corrective Actions

It is important to establish a remedial strategy within the Travel Plan document so that all interested parties are clear what will happen if targets are not achieved, or if it looks unlikely that they will be achieved.

By including a remedial strategy in the Travel Plan, it also helps to demonstrate the Applicant's commitment to achieving these targets.

The remedial strategy will include specific ideas for actions, access controls or the addition of extra measures. The aim of any remedial strategy should be to ensure that the organisation can work to meet the objectives of their Travel Plan.

In the event that the Travel Plan is failing to meet the agreed targets, the remedial strategy should be put into practice in order to help get the Travel Plan 'back on track' as soon

7 CONCLUSION & SUMMARY

7.1 Introduction

This Travel Plan framework is required to insure the sustainability of the limited parking provision at the subject site.

This Travel Plan Framework will actively manage the parking provision and further reduce car usage at the subject site by detailing objectives for the achievement of a sustainable travel culture for residents at the development, by listing measures to achieve these objectives and by committing to appoint a travel plan coordinator to oversee and monitor progress towards the improved modal splits predicted for the site five years after opening and in the longer term into the future.

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