TRANSPORTATION

DBFL CONSULTING ENGINEERS

Mixed Use Development, 1-4 East Road, East Wall, Dublin.
Mobility Management Plan

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Appendix A   Purpose of Trip based on Trend Modes in Greater Dublin Area

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CHAPTER 1

Introduction

1.1   BACKGROUND

1.2   STRUCTURE OF REPORT

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1.0   INTRODUCTION

1.1   CONTEXT

1.1.1   DBFL Consulting Engineers have compiled this framework Mobility Management Plan as part of the planning application for a proposed mixed use development at 1-4 East Road, East Wall, Dublin. The proposals seek permission for the construction of 554 number residential apartment units, $344m^2$ of retail, a $539m^2$ crèche, $680m^2$ café/exhibition and $2,444m^2$ enterprise units.

1.1.2   This MMP has been prepared to guide the delivery and management of several coordinated initiatives which ultimately seek to encourage sustainable travel practices for all journeys to and from the proposed development.

1.1.3   This framework document aims to inform five distinct audiences as follows;

- The appointed Mobility Manager who will be responsible for implementing and managing the MMP. Should the manager not be overly familiar with the MMP process they will find the process and context information as outlined in Chapter 2 invaluable. The MMP targets and measures introduced in Chapter 5 and Chapter 6 will be coordinated, administered and updated by the appointed Mobility Manager.

- The Local Authority Officers who will be eager to ensure that the MMP initiatives are appropriately ambitious, deliverable and implemented fully. The officers, who will be very familiar with the MMP process, will be predominately interested in the proposed MMP Targets (Chapter 5) and associated measures (Chapter 6).

- The Residents of the proposed development who may be unfamiliar with the MMP process. They will find the process and context information as outlined in Chapter 2 invaluable. They may also be interested in the MMP targets and measures introduced in Chapter 5 and Chapter 6.

- The Management Company and future Staff of the Enterprise Hub will find the 'workplace' MMP information as outlined in Chapter 8 invaluable.

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1.2   BACKGROUND

1.2.1   This Mobility Management Plan (MMP) has been prepared to guide the delivery and management of a package of integrated initiatives which ultimately seek to encourage sustainable travel practices of all residents and visitors travelling to/from the proposed development at East Road, East Wall, Dublin. This document aims to expand the awareness of and increase travel options for the residents located at the site. The Plan will be used mainly by the appointed Mobility Manager who will be responsible for implementing and managing the MMP for the benefits of the residents and Enterprise Hub staff who may be interested in reading this document to see how it directly affects them.

1.2.2   The purpose of the Mobility Management Plan is to:

- Provide a 'manual' and record for the Mobility Manager who will be appointed to oversee the implementation and development of the measures set out in the document,

- A formal record for the local authority in regard to the type, scale and number of initiatives that the MMP initially proposes and subsequently their level of success in subsequent versions of the MMP which remains a 'live' document to be updated at least initially every 2 to 3 years following its implementation, and

- The MMP will seek to provide a long-term strategy for encouraging residents, Enterprise Hub staff and visitors to reduce their dependency on travelling by car in favour of more sustainable modes of travel.

1.2.3   The aims of the strategy are:

(a) to increase the awareness of residents and visitors to all the transport options available to them and to the potential for travel by more sustainable modes, and

(b) to introduce a package of both 'hard' (physical) and 'soft' (behavioural) measures that will facilitate travel by sustainable modes of travel to/from the subject development.

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1.3   STRUCTURE OF REPORT

1.3.1   Following this introduction, Chapters 2 to 7 are dedicated to the residential element of the proposals (Residential MMP) whilst Chapter 8 concentrates on the Enterprise Hub element (Workplace MMP).

1.3.2   The MMP framework including the definition of a MMP, its objectives, the scope and process involved in compiling and implementing such a plan is outlined in Chapter 2.

1.3.3   The environment within which the proposed development's MMP is placed, such as location and local transportation system is briefly outlined in Chapter 3.

1.3.4   The MMP context in terms of existing local travel trends is established in Chapter 4.

1.3.5   The MMP objectives and adopted targets are established in Chapter 5.

1.3.6   In Chapter 6 the measures and travel initiatives selected to encourage sustainable travel are discussed. These include Mode Specific Measures, Management Measures, Marketing Measures and Monitoring & Review Measures.

1.3.7   With the objective of establishing the basis for discussions with key stakeholders including the local authority, from which an agreed MMP action plan can be adopted, Chapter 7 presents a Preliminary Action Plan for the Phase 2 Residential MMP at the subject East Road Lands.

1.3.8   Chapter 8 discusses the elements of a 'workplace' MMP applicable to the proposed Enterprise Hub of the subject proposals.

1.3.9   The main conclusions and recommendations of the MMP are summarised in Chapter 9.

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CHAPTER 2

Mobility Management
Plan Framework

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2.0 MOBILITY MANAGEMENT PLAN FRAMEWORK

2.1 WHAT IS A MOBILITY MANAGEMENT PLAN?

2.1.1 The Dublin Transportation Office's (which has been subsumed into the National Transportation Authority (NTA) in December 2009) 2001 publication entitled "*The Route to Sustainable Commuting*" defines a MMP as *"... a package of measures put in place by an organisation to encourage and support more sustainable travel patterns ..."*.

2.1.2 The MMP can be developed for an individual site or group of sites and designed specially to respond to a range of different site-specific land uses such as business (offices, retail, industrial etc.), residential and schools/ colleges/ universities.

2.1.3 Whilst the emergence and successful application of residential MMP's has only transpired over the last decade in Ireland, other countries have extensive experience in designing, implementing, marketing and monitoring the successful delivery of MMP's. Accordingly, MMP's are also known by a number of other names including;

- Travel Plans,
- Green Travel Plans,
- Sustainable Mobility Plans, or
- Sustainable Commuter Plans.

2.2 WHAT IS A RESIDENTIAL MOBILITY MANAGEMENT PLAN?

2.2.1 A Residential Mobility Management Plan is a package of measures designed to reduce the number and length of car trips generated by a residential development, while also encouraging more sustainable forms of travel and reducing the overall need to travel. It sets out objectives and targets to achieve sustainable travel patterns.

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

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2.2.3   Mobility Management Plans to date have mainly focussed on the development of destination MMP's and to encourage travel by sustainable modes for employment and school developments. Destination MMP's focus on a particular journey purpose while a residential MMP is concerned with journeys made from a single origin (home) to multiple and changing destinations.

2.2.4   Best Practise guidance is provided in "*Making Residential Travel Plans Work – Good Practice Guidelines For New Development*" published by the Department for Transport (UK) in September 2005 and "*Making Residential Travel Plans Work*" in August 2007. These documents highlight that a Residential MMP will be different to a school or workplace MMP as the pattern of journeys originating at home is more varied with multiple destinations and different needs and travel choices.

2.2.5   The DfT's (UK) "*Making Residential Travel Plans Work – Good Practice Guidelines*" suggest that the growing interest in residential travel planning is being driven by two factors:

- *"the increased acceptance of travel planning as a legitimate part of the transport planning toolkit and an effective mechanism in helping both to reduce congestion and to promote the use of sustainable modes of transport"*
- *"the pressure for new housing and its transport implications in many parts of the country is driving the need to find new ways of ensuring the development of more sustainable communities"*

2.3   WHO IS INVOLVED?

2.3.1   A Residential MMP impacts the following key stakeholders who should all be involved in some form or manner in the process:

- Local Authority Officers,
- Housing developers,
- Future residents at sites that have a MMP,
- Residents in the community surrounding new housing developments with a MMP, and
- Transport Operators

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2.4   OBJECTIVES OF A MOBILITY MANAGEMENT PLAN

2.4.1   The principal objective of an MMP is to reduce levels of private car use by encouraging people to walk, cycle, use public transport, car share or even reduce the number and length of trips undertaken / required.

2.4.2   A comprehensive range of goals, and subsequent complementary secondary level objectives, can be identified with the purpose of achieving the ultimate objective of the MMP. This can be achieved through the delivery of a range of complimentary integrated initiatives which can positively influence travel behaviour and associated travel habits.

2.4.3   The specific objective(s) of an MMP can vary depending upon the organisation, site characteristics and specific land uses which vary with each site. Nevertheless, in the context of a residential MMP objectives can include;

    a) <u>For the Residents</u> –

- Address residents' need for access to a full range of facilities for work, education, health, leisure, recreation and shopping,
- Promote healthy lifestyles and sustainable, vibrant local communities.

    b) <u>The Local Community</u> –

- Reduce the traffic generated by the development for journeys both within the development and on the external road network,
- Make local streets less dangerous, less noisy and less polluted,
- Enhance viability of public transport,
- Improve the environment and the routes available for cycling and walking.

2.5   MOBILITY MANAGEMENT PLAN PROCESS

2.5.1   Once the decision has been made to produce a MMP the process of compiling the plan encompasses the 9 principal steps presented in Graph 2.1 below.

2.5.2   The MMP however remains an 'active' document which continues to evolve and develop during its lifecycle. Accordingly, once the initial nine steps have been successfully completed (including monitoring and reporting

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requirements), the process recommences with the identification of new actions and associated targets which instigates the second generation of the MMP. As a result, subsequent generations of the MMP can be incorporated into the management and operation of the development for as long as necessary or potentially even for the entire existence of the development.

Graph 2.1: MMP Development Process and Status

2.5.3   Once the development's specific objectives are identified "SMART" targets will both assist in defining the specific measures that are included and / or prioritised within the MMP (to reach the objective) and help with the monitoring and evaluation of the level of success achieved by the MMP. SMART targets, which can be agreed with the local authority should be;

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	Specific
S	Well defined. Clear to anyone that has a basic knowledge of the project

	Measurable
M	Know if the goal is obtainable and how far away completion is Know when it has been achieved

	Achievable
A	Agreement with all the stakeholders what the goals should be Make sure this is possible for all levels within group

	Realistic
R	Within the availability of resources, knowledge and time

	Time-Bound
T	Enough time to achieve the goal Not too much time, this can affect project performance?

2.6 MOBILITY MANAGEMENT PLAN NEXT STEP

2.6.1 In the context of the development's operational framework, the local receiving environment and the identification of the Preliminary Action Plan this document should form the basis by which;

(a) the subject East Road development's specific travel characteristics are outlined and presented to the local authority, and

(b) through a partnership approach between the developers and the local planning authority, the Preliminary Action Plan is explored and re-examined with the objective reaching agreement upon the MMP's measures and subsequently the adoption of an 'agreed' MMP Action Plan with targets, initiatives, timescales, responsibilities and resources clearly outlined and approved by both parties.

2.6.2 To enable this process to commence it is proposed that this MMP framework document, as compiled by DBFL is submitted to Dublin City Council. At the request of the local authority a meeting between the local authority officers

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and the developers can take place if required with the objective of formally agreeing a MMP action plan and associated targets for the subject development as proposed at the East Road lands.

2.7   POLICY FRAMEWORK

2.7.1   The MMP for the subject east Road development is supported by The Dublin City Council (DCC) Development Plan 2016-2022, which sets out the policies and objectives for sustainable development in the County up to 2022. These policies generate a range of complementary policy instruments in addition to demands and pressures that clearly necessitate a change in existing travel behaviour. Commencing at EU level and subsequently transferred into national policy and regulations in Ireland the hierarchy continues from regional (Greater Dublin Area) to sub-region (Dublin City) through area (North Lotts & Grand Canal Dock Planning Scheme) eventually arriving at site (or land use) specific policy objectives.
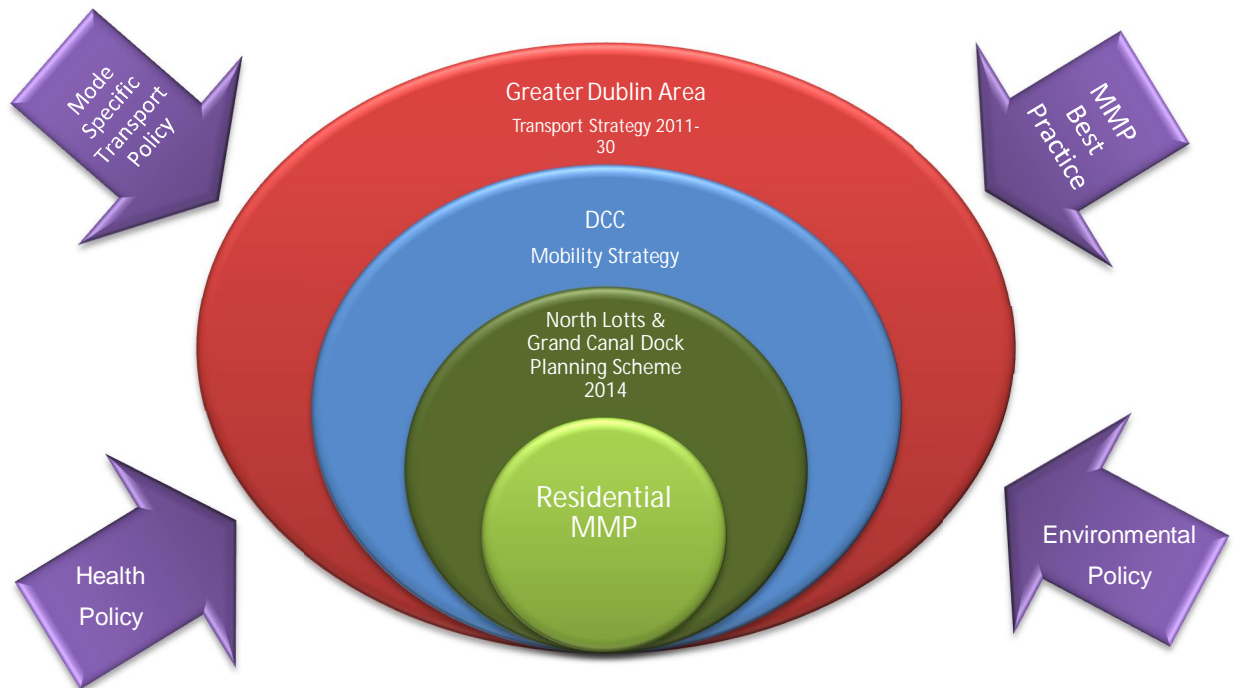

Figure 2.1: East Road MMP Policy Framework and External Influences

National Smarter Travel Policy

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2.7.2   Smarter Travel *A Sustainable Transport Future*, was published in February 2009, and represents a new transport policy for Ireland for the period 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.
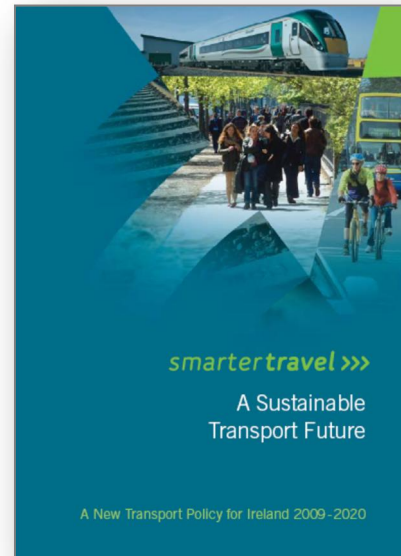
2.7.3   The policy is a direct response to the fact that continued growth in demand for road transport is not sustainable due to the resulting adverse impacts of increasing congestion levels, local air pollution, contribution to global warming, and the additional negative impacts to health through promoting increasingly sedentary lifestyles.

2.7.4   The following five key goals form the basis of the Smarter Travel policy document.

- Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport.
- Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks.
- Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions.
- Reduce overall travel demand and commuting distances travelled by the private car.
- Improve security of energy supply by reducing dependency on imported fossil fuels.

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2.7.5   These aims will be achieved through 49 specific actions, which can be broadly grouped into 4 key areas:

- Actions to reduce distance travelled by private car and encourage smarter travel,
- Actions aimed at ensuring that alternatives to the private car are more widely available,
- Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies, and
- Actions aimed at strengthening institutional arrangements.

2.7.6   The opportunities and potential benefits that could be achieved by the implementation of a MMP are considered under the policy goal of encouraging Smarter Travel.

2.7.7   The Smarter Travel policy also includes for a comprehensive range of supporting 'actions' including mode specific (e.g. walking, cycling and public transport etc.) and behaviour change initiatives which both encourage and provide for sustainable travel practices for all journeys.

Transport Strategy for the Greater Dublin Area 2016-2035

2.7.8   The Transport Strategy for the Greater Dublin Area 2016-2035 is a document compiled by the National Transport Authority which sets out *"a framework for the planning and delivery of transport infrastructure and services in the Greater Dublin Area (GDA)"* up to 2035.

2.7.9   The purpose of the strategy is *"To contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods"*.

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2.7.10   The strategy sets out the necessary transport provision for the period up to 2035 to achieve the above objective and to deliver the objectives of the existing national transport policy, including the mode share target of a maximum of 45% of car-based work commuting established under in *"Smarter Travel – A Sustainable Transport Future"*.

Dublin City Council Development Plan 2016-2022

2.7.11   Adopted in 2016 and covering the period up to 2022 the Dublin City Council Development Plan establishes the regulatory framework against which all development in the county takes place. In both the authorities' transportation objectives and development standards the objectives and subsequent thresholds for the requirements of MMPs/ Travel Plans are clearly detailed in Section 8.5.5 of the Development Plan.

North Lotts & Grand Canal Dock Planning Scheme 2014

2.7.12   The subject site is located immediately to the north if the North Lotts & Grand Canal Dock Planning Scheme 2014 boundary. The scheme governs the development / redevelopment of the Plan area as illustrated in Figure 2.2 below.

Figure 2.2: North Lotts & Grand Canal Dock Planning Scheme 2014 boundary (Source: Extract of North Lotts & Grand Canal Dock Planning Scheme 2014)

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CHAPTER 3

Site Description & Existing Conditions

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3.0   SITE DESCRIPTION & EXISTING CONDITIONS

3.1   SITE DESCRIPTION

3.1.1   The subject brownfield site is currently occupied by Hireco (trailer hire company), with vehicular access currently provided from East Road. The subject lands are situated to the southeast of the East Road corridor, as located on the eastern edge of Dublin City Centre. The site is bound by East Road to the west, the Iarnrod Eireann railway to/from Dublin Port to the south, Merchant's Square residential development to the east and the Teeling Way residential apartments to the north and north-east

3.1.2   The general location of the subject site in relation to the surrounding road network is illustrated in Figure 3.1 below whilst Figure 3.2 indicatively shows the extent of the subject site boundary and neighbouring lands.

3.1.3   The site is located in the East Wall area of Dublin and is accessed from East Wall Road from the North and Sheriff Street from the south. Dublin Port is located to the east of the subject site.
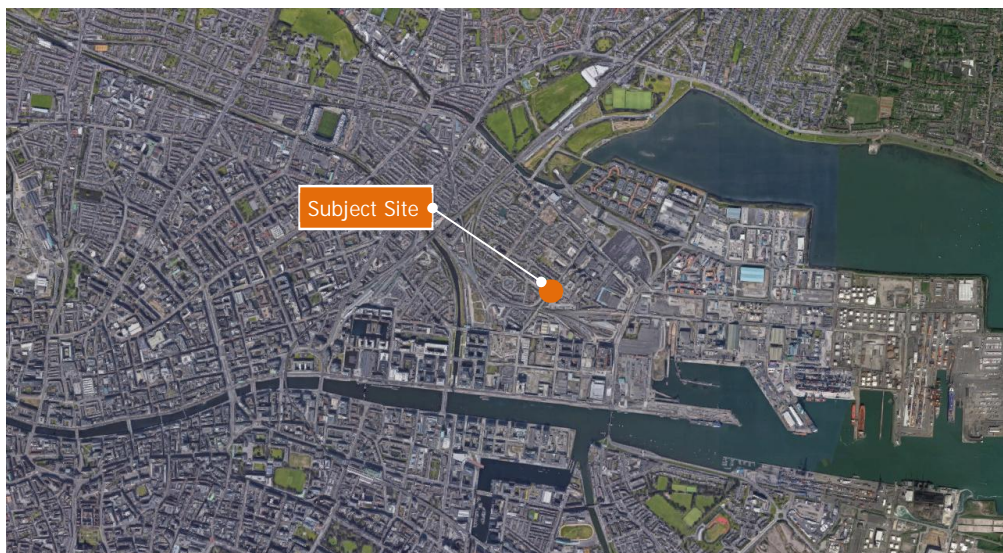
Figure 3.1: Site Location (Reference: google maps)

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Figure 3.2: Indicative Site Boundary (source: googlemaps)

3.2   PROPOSED DEVELOPMENT

3.2.1   As detailed in Table 3.1 below, the proposals seek permission for the provision of 554 residential apartment units. Furthermore, a non-residential element is proposed a part of the subject scheme ad discussed further in Chapter 8 of this report.

Unit Type	Studio	1-bed	2-bed	3-bed	Total
Quantum	72	202	232	48	554

Table 3.1: Proposed Development Schedule

3.2.2   Further details of the development proposals including the site layout and transport network arrangements are illustrated in the architects' scheme layout and engineering drawings as submitted with this planning application.

3.3   PROPOSED SITE ACCESS

Vehicle Access

3.3.1   The existing site is accessed via a priority controlled junction. The subject scheme proposals include for an upgraded junction arrangement from the existing priority controlled junction to a signal controlled junction as presented in Figure 3.3 below. Further details of the upgraded junction arrangement and surrounding road network are presented in DBFL Drawing No. 170200-2000 as submitted with this planning application.

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Figure 3.3: Existing & Proposed Site Access

Pedestrian & Cyclist Access

3.3.2   The subject site will be highly accessible to pedestrians and cyclists from East Road. Pedestrians will be given priority within the internal site layout to ensure desire lines within the site are accommodated providing a good level of service and ensures the risk of vehicle/pedestrian conflict with vehicles is minimised.

3.3.3   The proposed upgraded junction arrangement at the site access junction will provide dedicated pedestrian crossing facilities (for all travel desire lines).

3.3.4   The development proposals include the provision of approximately 82m north-eastbound and 124m south-westbound of cycle lanes along the subject site boundary on East Road.

3.4   EXISTING TRANSPORT FACILITIES & SERVICES

Existing Pedestrian Environment

3.4.1   All pedestrian routes leading to/from the subject site benefit from the provision of street lighting in addition to good quality pedestrian footways. There are controlled pedestrian crossing facilities available adjacent to the subject site at the East Rd/Church Rd junction and to the south at the East Rd/Sheriff St Upper junction.

Existing Cycling Environment

3.4.2   In the immediate vicinity of the subject site cyclists must share the road carriageway with general vehicular traffic, nonetheless cyclists traveling

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to/from the subject site from the surrounding area can benefit from the provision of a variety of cycle facilities (cycle lanes/tracks) along Seville Place (750m to the west), Guild Street (700m to the southwest), North Strand Rd (1.4km to the northwest) and the Quays (600m to the south). The NTA's Cycle Network Plan for the Greater Dublin Area includes proposals for the provision of a secondary cycle route along East Road adjacent to the subject (Figure 3.4).

3.4.3   There are also a number of dublinbikes stations (Figure 3.5) located surrounding the subject site area on North Wall Quay, Custom House Quay and City Quay. The bike station on North Wall Quay is accessible within approximately 650m walking distance of the subject site.

Figure 3.4: Existing Cycle Facilities (source: Sheet E1 GDA Cycle Network Plan)

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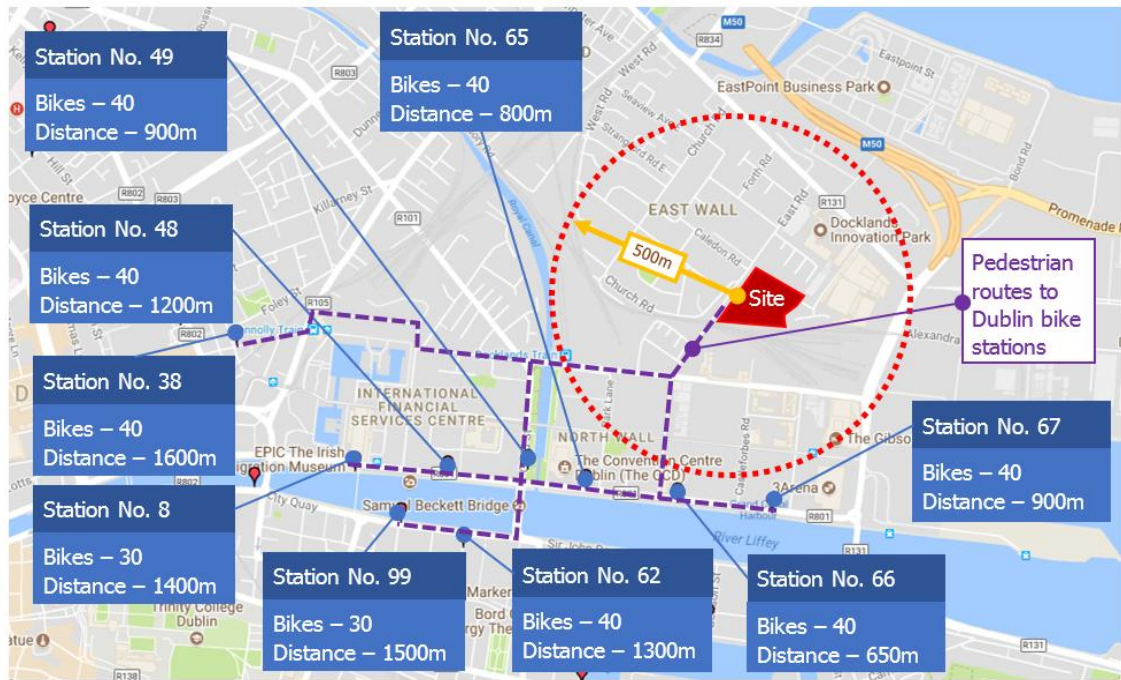
Figure 3.5: Dublinbikes Stations

Public Transport

3.4.4   As graphically illustrated in Figure 3.6 below the site is ideally situated to benefit from a comprehensive range of transport connections which result in the site benefiting from excellent accessibility levels for all modes of travel. Furthermore, the range and proximity of a number of existing (and emerging) public transport interchanges further enhances the sustainability characteristics of the site. These include both the Docklands Rail Station and the LUAS Red Line (Spencer Dock interchange) being only 550m and 650m, respectively, from the proposed development. In addition, Connolly Station and the proposed Clongriffin-Tallaght BRT interchange are within 1.4km from the site, whilst the proposed interchange for the proposed Dart Underground is located at the Docklands Rail Station, approximately 550m from the subject site.

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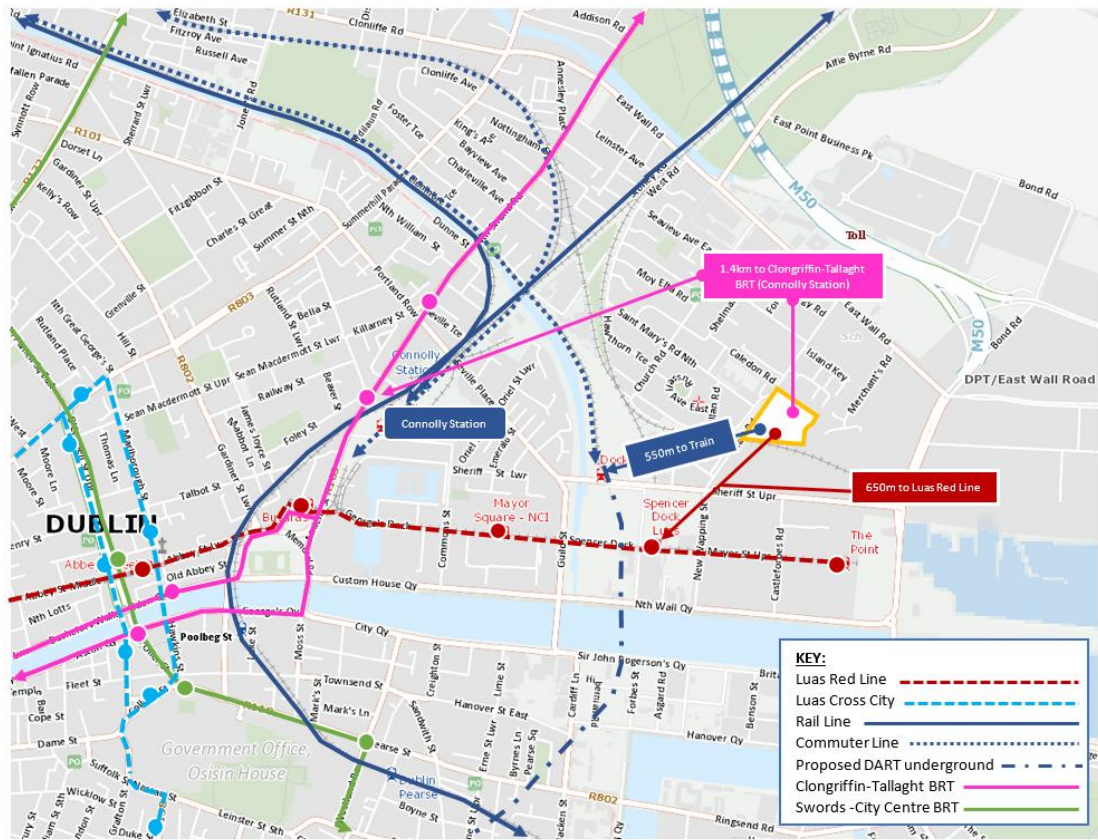
Figure 3.6: Existing & Proposed Public Transport Connections

Public Transport – Bus

3.4.5   Dublin Bus operates route numbers 53 and 151 along the East Road corridor, travelling in both directions providing links to Dublin City Centre and Dublin Ferryport. Routes 33b, 33x, 41x, 142 and 151, in addition to Airlink bus routes 747 and 757 operate along East Wall Road (to the north of the subject site) providing links to/from Dublin City centre and Dublin Airport.

3.4.6   Route numbers Route numbers 53 and 151 are highly accessible with the closest interchange opportunities within 85m of the subject site access whilst route numbers 33b, 33x, 41x, 142, 747 and 757 are accessible within 450m of the subject site access as detailed in Figure 3.7 below.

3.4.7   The Swords Express, which operates daily services, is also accessible along the East Wall Road approximately 950m southeast of the subject site.

3.4.8   These Dublin Bus operated bus services operate on a daily basis and offer relatively frequent schedules as summarised in Table 3.2 below.

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Figure 3.7: Bus Interchange Locations

Route No.	Route	Mon – Fri	Sat	Sun
53	Talbot St – Dublin Ferryport	13	13	7
151	Docklands (East Rd) – Foxborough (Balgaddy Rd)	48	46	31
33b	Swords – Portrane	24	22	18
33x	Custom House Quay/ St. Stephen's Green – Skerries	5*	no service	no service
41x	UCD Belfield – Knocksedan	3*	no service	no service
	Knocksedan – UCD Belfield	6*	no service	no service
142	Portmarnock – UCD Belfield	11	no service	no service
747	Heuston Station – Dublin Airport	43	43	60
757	Camden St (Charlotte Way) – Dublin Airport	38	38	35

*excluding Bank Holidays

Table 3.2: Dublin Bus Service Frequency – no. of services (Source www.dublinbus.ie)

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Public Transport - Heavy Rail Network

3.4.9   The Docklands Train Station is located approximately 600m (8-minute walk) walking distance to the south west of the subject site. This interchange provides access to DART and regional Commuter rail services.

Public Transport – LUAS

3.4.10   The Red Line Luas is also accessible with the 'Spencer Dock' interchange located approximately 600m (8-minute walk) walking distance to the south of the subject site. The LUAS Red Line currently provides access to Busaras, Connolly Station, Dublin City Centre, Tallaght and Saggart in addition to other destinations along its route.
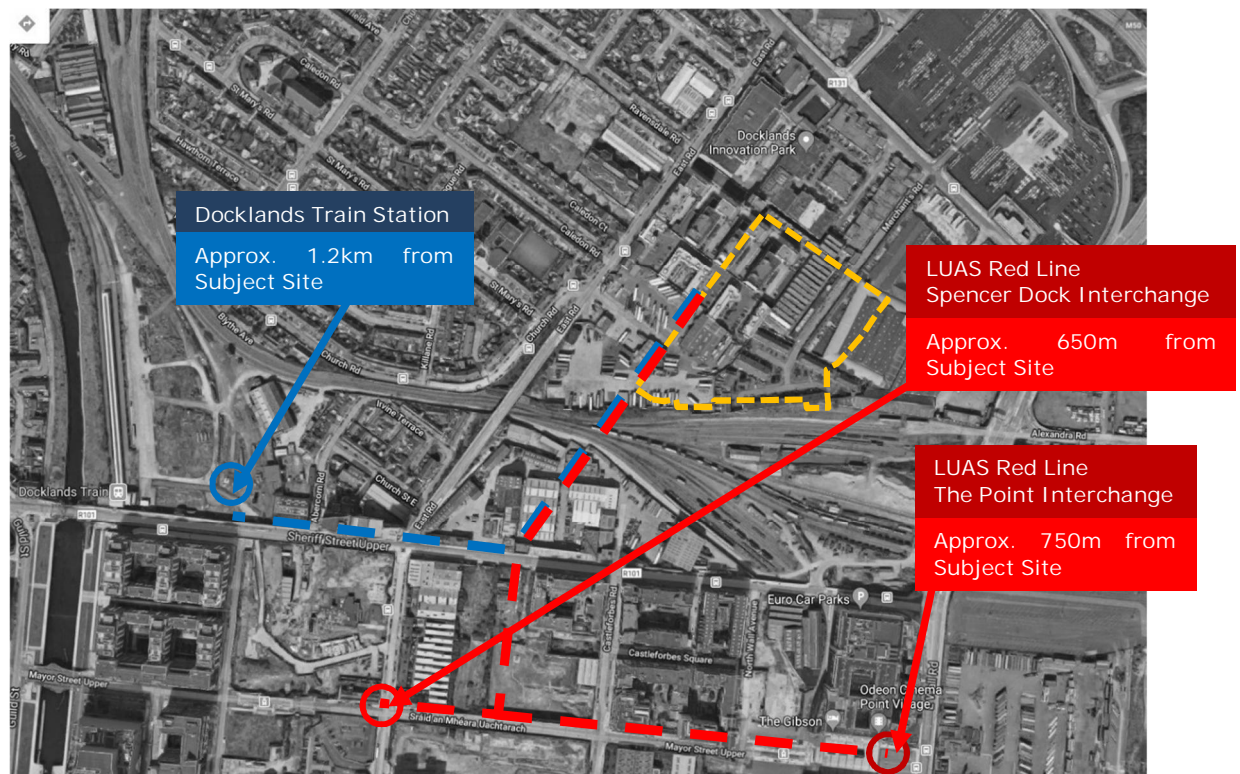
Figure 3.8: Train Station and LUAS Interchange Locations

3.5   FUTURE FACILITIES

Cycle Network Proposals

3.5.1   The subject site is located within the *'Dublin City Centre Sector'* within the Greater Dublin Area Cycle Network Plan (2013). *'The Dublin City Centre Sector is defined by the Royal Canal and Grand Canal ring on the northern, eastern*

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and southern side. The western boundary is taken as about 0.5km west of a north-south line between Phibsborough and Harold's Cross, and includes areas such as Pimlico, Thomas Street, Manor Street and Grangegorman. This area includes the commercial heart of the city where most employment is concentrated. It excludes the mostly residential areas within the canal ring further west, as these are in effect inner suburbs that do not attract significant numbers of non-local inward trips. On the other hand, the recently redeveloped Docklands area spreads a little way east of the canal ring and has been included in the City Centre sector as it contains significant employment'.

3.5.2   In the vicinity of the subject site the following route additions are proposed (Figure 3.9):-

- Secondary Route 1E (adjacent to the site) - *branches off Route 1A at Clontarf Road and provides an alternative link to the Docklands area via East Wall;*

- *Primary Route 5:* Docklands to the North West Sector along the Liffey Quays to Heuston Station, and then through the Phoenix Park to Castleknock and Blanchardstown;

- *Royal Canal Greenway from Sheriff Street in the Docklands to Drumcondra Road past Croke Park stadium (partly in place west of North Strand)*

- Primary Route NO1: *North Circular Route at the outer edge of the city centre, from Route 1 at Five Lamps westwards to Phibsborough and eastwards to the Docklands; and*

- Secondary Route C8: *- North Circular Road East: From Royal Canal Bank at Phibsborough eastward to Docklands.*

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Figure 3.9: Proposed Cycle Network Enhancements (extract Sheet N1a GDA CNP)

Public Transport Proposals

3.5.3 Map J of the Dublin City Development Plan 2016-2022 presents both the existing and proposed public transport routes in the region. An extract of this map illustrating the existing and proposed routes in the vicinity of the subject development site is presented in Figure 3.10 below.

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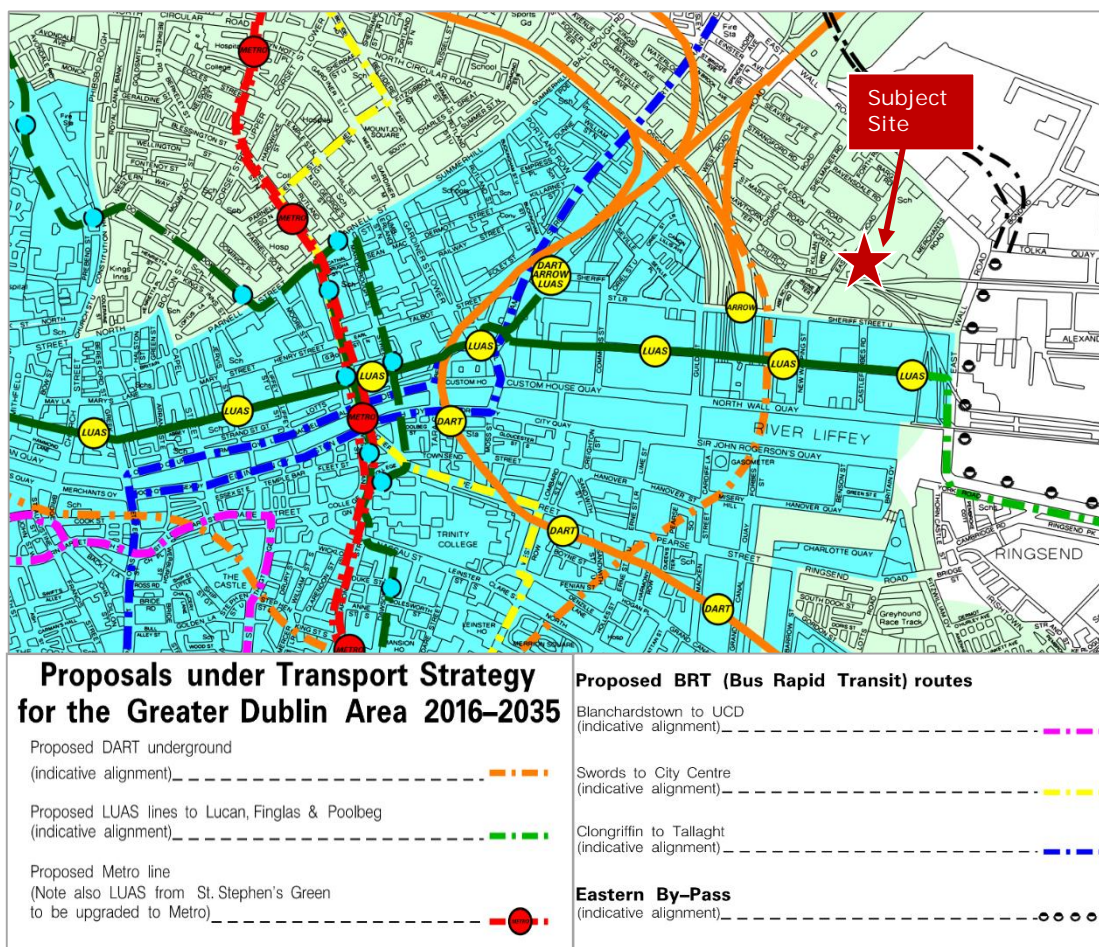
Figure 3.10: DCC Existing & Proposed Public Transport Routes in the
Vicinity of the Subject Site

Bus Route Proposals

3.5.4   The Transport Strategy for the Greater Dublin Area (2016-2035) introduces the following three potential Bus Rapid Transit (BRT) routes:-

- Airport/Swords – City Centre (subject to amendments in parallel with new Metro North scheme proposals),
- Clongriffin – Tallaght, and
- Blanchardstown – UCD.

3.5.5   Figure 3.11 below presents the proposed routes for these three BRT schemes. The proposed Clongriffin – Tallaght BRT will, when operational, be easily accessible from the subject site with the nearest proposed stop located within walking distance to the east at Connolly Station.

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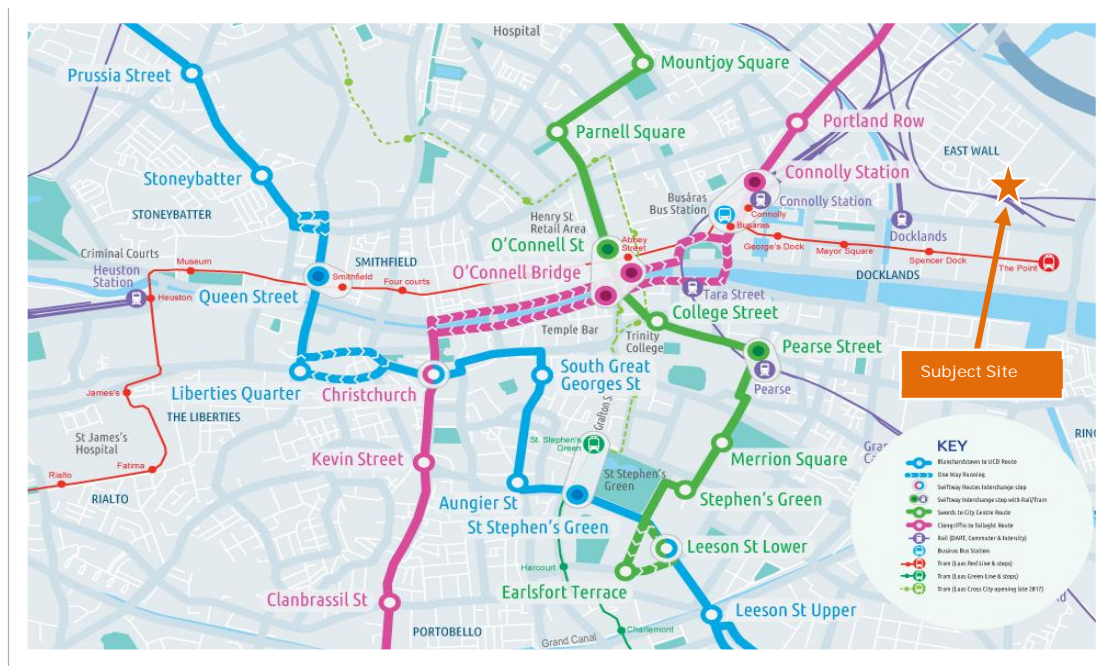
Figure 3.11: Proposed Bus Rapid Transit Schemes

DART Proposals

3.5.6   "The DART Expansion Programme is a series of projects that will create a full metropolitan area DART network for Dublin with all of the lines linked and connected.

The initial sequencing of investment will focus on delivery of non-underground tunnel elements of the programme using the recently opened rail link and existing connector tunnel under the Phoenix Park. This includes buying additional fleet for the DART network and measures such as re-signalling, junction and station changes to provide expanded services.

The next step will be to provide fast, high-frequency electrified services to Drogheda on the Northern Line, Celbridge/Hazelhatch on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/Sligo Line, while continuing to provide DART services on the South-Eastern Line as far south as Greystones. It will also include new stations to provide interchange with bus, LUAS and Metro networks".

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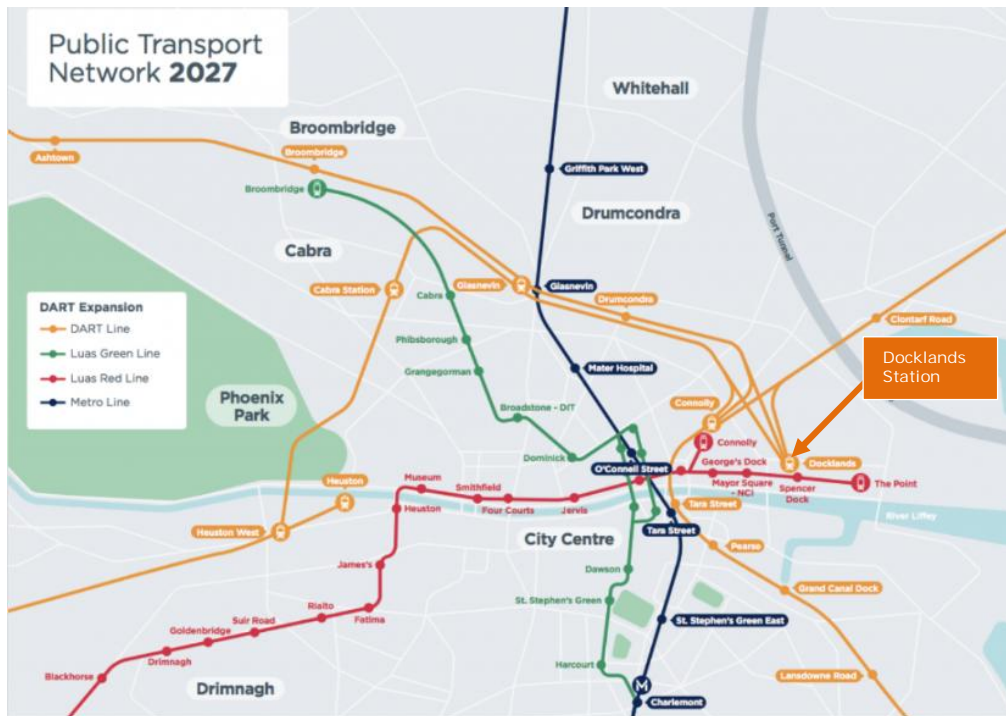
Figure 3.12: Proposed 2027 Public Transport Network (Source: NTA)

Road & Bridge Infrastructure Proposals

3.5.7   As outlined within both the Dublin City Council Development Plan (2016-2022), and the North Lotts & Grand Canal Dock Planning Scheme 2014, there are objectives for the provision of the following road and bridge infrastructure/improvement schemes within the six year period of the Development Plan (Ref. Figure 3.13):-

- *Roads*
  - *East Wall Road/Sheriff Street to North Quays*
- *Bridges*
  - *Dodder Bridge*
  - *Three new bridges proposed as part of the North Lotts and Grand Canal Dock SDZ.*

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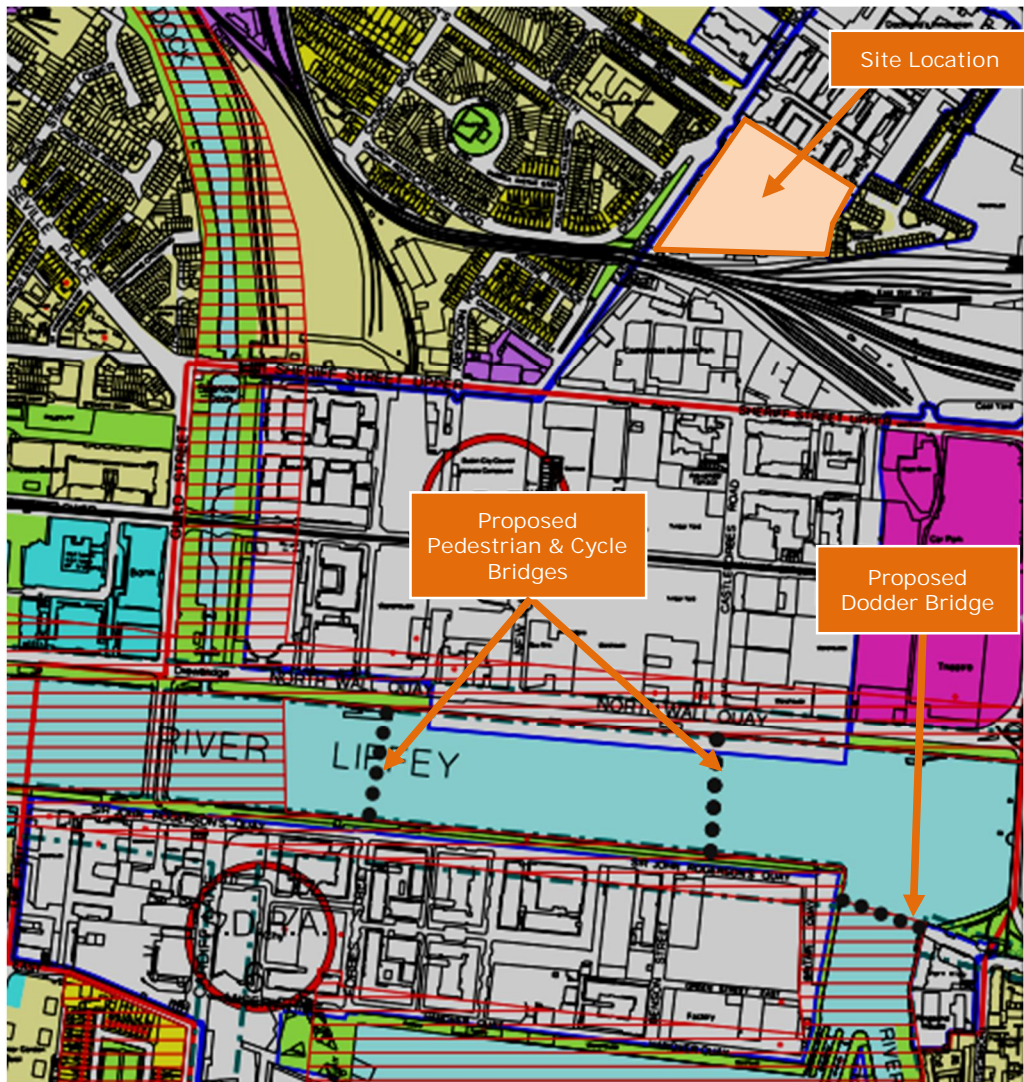
Figure 3.13: Proposed Bridge Infrastructure (Ref. DCC Development Plan Map E)

Timescales

3.5.8 The implementation of the above infrastructure schemes will be subject to further design, public consultation, approval, and importantly availability of funding and resources.

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CHAPTER 4

Commuter Trends & Transport Needs

4.1   INTRODUCTION

4.2   SUBJECT SITE PROPOSED
       MODAL SPLIT

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4.0   COMMUTER TRENDS & TRANSPORT NEEDS

4.1   INTRODUCTION

4.1.1   It is important where feasible to establish travel trends and area specific transport needs when initially developing a MMP. The subject site is located within a primarily residential area although there are other land uses nearby within walking distances such as schools, retail, employment and leisure. It is necessary to predict the nature of the proposed traffic to/from the site and investigate whether it is possible to influence the mode of travel of the commuters from the proposed development.

4.1.2   Varying demographic profiles that have an immediate impact on the traffic network indicate commuters travelling to/from work as well as other journey types such as school pick-up/drop-off and shopping trips. These can have their trip patterns influenced. Visitors are more difficult to influence in their trip patterns as they can be unpredictable.

4.1.3   The current modal share for the Greater Dublin Area is indicated in the Figure 4.1 below.
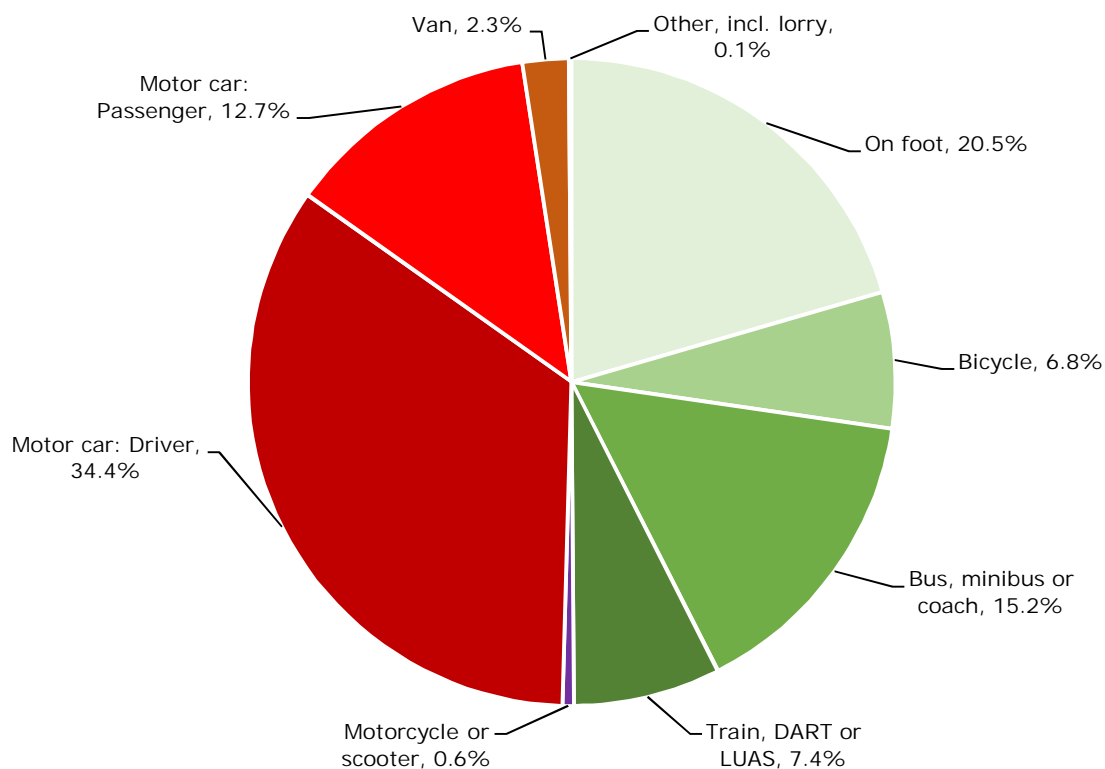
Figure 4.1: Modal Share in Greater Dublin Area (Census 2016)

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4.1.4   Table 4.1 below summarises the mode share based on trip purpose (i.e. shopping, leisure, work, education etc.). These mode shares are illustrated in the pie charts contained within Appendix A of this document.

Trip Purpose \ Mode	Car/Van	Taxi	Bus	Train/ DART	Luas	Bicycle	Walking
Grocery Shopping	31%	17%	21%	4%	12%	16%	29%
Leisure/Sport	19%	47%	23%	31%	30%	46%	42%
Travelling to Work	18%	7%	16%	25%	21%	17%	6%
Other Shopping	14%	10%	20%	16%	17%	7%	12%
Education	9%	3%	11%	3%	6%	9%	6%
Business as part of work	7%	6%	5%	12%	9%	3%	3%
Other purpose	2%	11%	5%	10%	4%	1%	3%

Table 4.1: Purpose of Trip based by Modal of Travel (source: www.nationaltransport.ie)

4.1.5   The Central Statistics Office's SAPMAP (Small Areas Population Map) data has also been investigated to determine the travel trends within the local vicinity of the subject East Road development. SAPMAP is an interactive mapping tool that allows users to pinpoint a location on the map and access 2016 census data related to that area.

4.1.6   A number of residential developments close to the subject site were analysed to establish current commuter trends in the area of East Road. This analysis will form the basis of the initial travel characteristics that could be generated by the proposed residential units of the subject development at East Road.

4.1.7   Figure 4.2 below illustrates the areas selected for this analysis. These residential sites were selected due to their proximity to the subject site and as such best represents the development's future travel trends prior to the positive influence of the MMP initiative detailed within this MMP. The selected sites all comprise residential apartment units only thereby provide a good

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representation of the subject scheme characteristics. The following list includes the residential areas selected as part of the subject study: -

1. Hill of Down House, Longford House, Kirkpatrick House

2. Riverstown House, Spencer Dock

3. Thomastown House, Copebridge House

4. Saunders House

5. Baltrasna House, Killashee House

6. Blackwater House, Cloncurry House

7. IFSC

8. Beresford house, IFSC Aparnments

9. Castleforbes Apartments

10. The Liffey Trust Centre

11. Castleforbes Square

12. Gandon House

13. Malton House
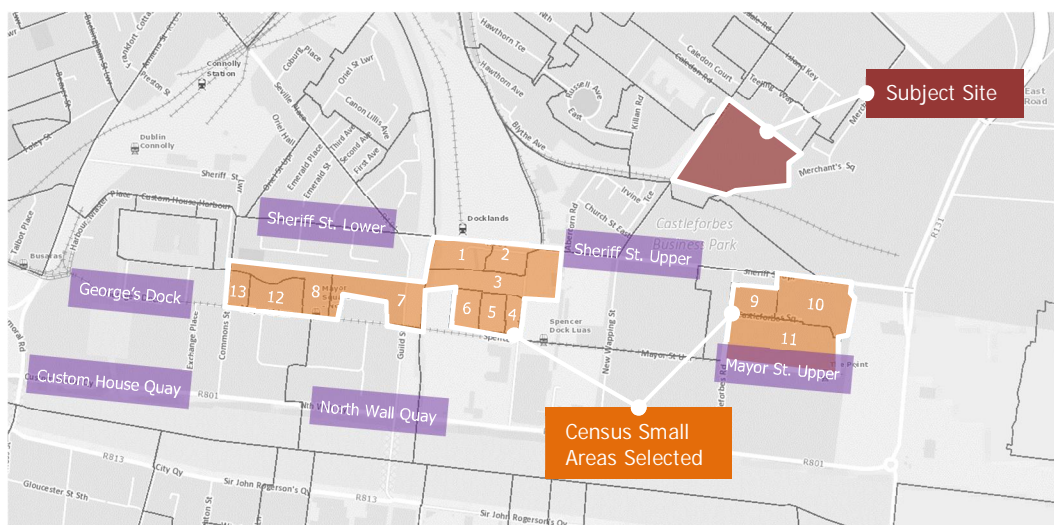
Figure 4.2: Residential Areas of Interest for Trend Analysis (source: http://census.cso.ie/sapmap/)

4.1.8   The analysis highlighted the trend in modes used by the residents when travelling to work or school / college from their homes. The summary of the data for the selected sites have been summarised and illustrated in the following Graph 4.1.

4.1.9   This graph reveals that the majority (67.3%) of those travelling to work do so by active modes of travel (walking – 53.2%, cycling – 33.8%) whilst 22%

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travel by public transport. 9.6% of the working population in this area travel as a car driver and a further 0.7% travel as a car passenger.
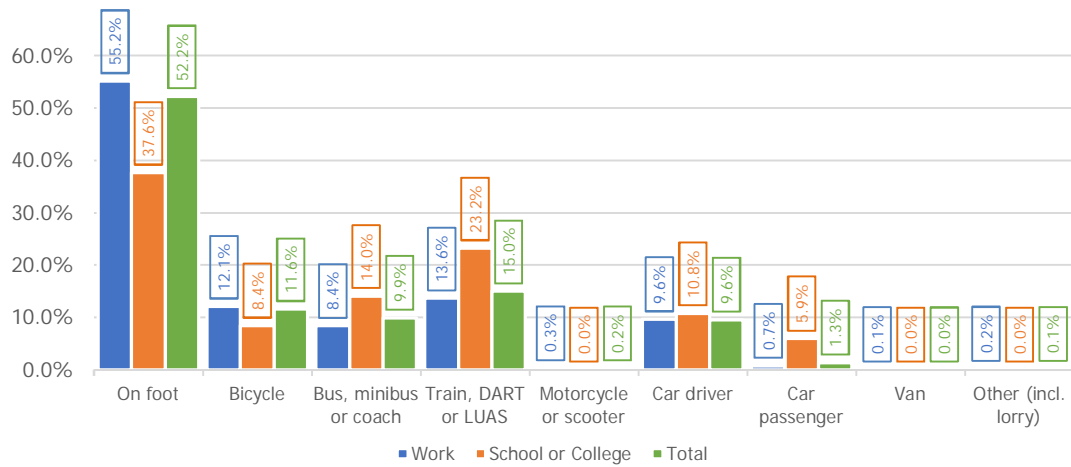
Graph 4.1: Current (2016) Modal Share for Existing Residential Developments

4.1.10   Just over one third (37.6%) of residents travelling to school or college do so on foot whilst 8.4% travel by bicycle which equates to 46% of pupils / students travelling to school / college using active modes of travel. 37.2% travel to school or college using public transport whilst just 16.7% travel via car or as a car passenger.

4.1.11   The Census data discussed above portrays that the vast majority of residents residing in apartment units located in this area of Dublin City travel to work / school / college by non-car modes.

4.2   SUBJECT DEVELOPMENT PROPOSED MODAL SPLIT

4.2.1   It is considered that an appropriate aim of the MMP would be to reduce the level of single occupancy car trips from the subject site and promote the utilisation of sustainable modes of travel. The key target of this MMP will therefore be to promote the relatively sustainable travel trends associated with similar residential developments in the surrounding area as discussed above. Therefore, the aim if this MMP will be to align the potential car based trip proportions to work / school / college with those observed in surrounding residential areas (approx.10% for car drivers).

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4.2.2 The MMP would subsequently seek to promote the following modes / travel options:

- LUAS

- Bus

- Cycle

- Walking, and

- Car Sharing

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CHAPTER 5

Objectives & Targets

5.1   INTRODUCTION

5.2   MMP OBJECTIVES

5.3   MMP ACTIONS & TARGETS

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5.0 OBJECTIVES & TARGETS

5.1 INTRODUCTION

5.1.1 In order to measure the ongoing success of the Mobility Management Plan and its various measures it is important that a series of objectives are set in conjunction to a range of associated targets. The proposed objectives and targets are set out in this section of the MMP.

5.2 MMP OBJECTIVES

5.2.1 The overall aim of this MMP is to reduce the dependency on the use of the private car by increasing residents' awareness to the other travel alternatives available.

5.2.2 To support this principal objective, several sub-objectives have been set out:

(a) Reduce existing levels of private car use by encouraging people to walk, cycle, use public transport, car share or even reduce the number of trips undertaken / required;

(b) Make all residents aware of the sustainable transport options available to them;

(c) Encourage the use of sustainable modes of transport;

(d) Encourage the most efficient use of cars and other vehicles;

(e) Reduce any transport impacts of the development on the local community;

(f) Promote walking and cycling as a health benefit to residents;

(g) Managing the ongoing development and delivery of the Mobility Management Plan with future residents;

(h) Promoting smarter working and living practices that reduce the need to travel overall; and

(i) Promote healthy lifestyles and sustainable, vibrant local communities.

5.2.3 The above objectives can be achieved through the integrated provision of hard and soft initiatives. Soft measures include the dissemination of important information regarding:

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- Routeing, timetable and ticketing information for bus and train services;

- The location and most convenient routes to / from local services (e.g. shops, medical facilities and schools etc.);

- Safe routes to school literature;

- Cost data comparing public transport and private car journeys; and,

- The health benefits of walking and cycling to include safety advice.

5.2.4   Without such information, residents may choose the easiest option available to them which is often perceived to be the car, even if from a cost and duration of journey perspective this may not always be the case.

5.2.5   Similarly, if a resident is unaware of the availability of service and proximity of local shops and facilities, they may choose to travel a greater distance than necessary in order to access a service.

5.2.6   Accordingly, the objectives of this MMP can therefore be summarised as follows:

- Consider the needs of residents in relation to accessing facilities for employment, education, health, leisure, recreation and shopping purposes, including identifying local amenities available that reduce the need to travel longer distances;

- Reduce the vehicular traffic generated by the development to a lower level of car trips than that predicted within the Traffic and Transport Assessment; and

- Develop good urban design by ensuring permeability of the development to neighbouring areas and provision of cycle facilities including storage.

5.3   MMP ACTIONS & TARGETS

5.3.1   Targets are important as they give the MMP direction from its inception, providing measurable goals. When setting site-specific targets, it is important that they are 'SMART' (Specific, Measurable, Achievable, Realistic and Time-

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bound) in order that the outcome can be quantified and an assessment of what the MMP has or will achieve can be made.

5.3.2   Since the overall aim of the MMP is to reduce reliance upon the private car, it is appropriate to set a target which relates to this objective. It is also necessary to collect data to identify and understand the baseline travel habits, against which the MMP's progress can be measured. It is recommended that residents' questionnaires are circulated once the site reaches 35% occupancy. These questionnaires will establish the baseline travel data for the subject site.

5.3.3   The Mobility Management Plan's initial actions (A) are set out below:

A1 - The appointment of a Mobility Manager prior to occupation of the site;

A2 - Provision of a MMP website and app that includes information on all travel opportunities from the site that is made available to all residents prior to site occupation;

A3 – In consultation with key stakeholders including the local authority, continually develop, implement, monitor, evaluate and review the progress of the MMP towards achieving the targets;

A4 - To undertake a baseline travel survey when 35% of the residential units are occupied;

A5 – Identify modal split targets which can be reviewed once the baseline travel characteristics are established.

5.3.4   The Mobility Management Plan's principal targets (T) are set out below:

T1 - To support the development of East Road lands as a sustainable community;

T2 - To provide sustainability in all ways including cost, health and environment – reducing the impact on traffic congestion and air quality;

T3 - To achieve a 95% resident awareness of the MMP and its aims and objectives;

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T4 - To facilitate and encourage greater use of sustainable transport modes (walking, cycling, public transport) in preference to the use of the private car;

T5 – Achieve the identified modal split travel targets (Reference Section 4.2)

5.3.5   The above targets will be achieved by introducing an integrated package of measures that focus on promoting travel to and from the subject site by sustainable modes of transport as a viable alternative to the private car. These means and supporting strategies will seek to encourage residents and visitors to consider lower carbon travel alternatives in everyday journeys.

5.3.6   Baseline surveys cannot be collated at this time as the scheme does not physically exist. Nevertheless, interim mode share MMP targets have been identified for the first year after initial occupation of the proposed development (e.g. approx. 100 units). These targets will be reviewed within six months of the baseline travel survey of residents being completed. This baseline data will provide a better understanding about what is achievable and what measures best suit the subject East Road site.

5.3.7   The interim mode split targets for the subject site are set out in Table 5.1. These targets are based on CSO 2016 census data, as recorded at adjoining residential areas as previously introduced in Chapter 4.

Mode of Travel	Local Area Mode Split (Census, 2016)	1st Year Target (2020)	MMP 5-year Target (2025)
On Foot	52.2%	54.00%	55.00%
Bicycle	11.6%	13.00%	17.00%
Bus/Minibus/Coach	9.9%	10.00%	10.00%
Train/DART/LUAS	15.0%	15.00%	16.00%
Motorcycle/Scooter	0.2%	0.20%	0.20%
Car Driver	9.6%	6.60%	1.10%
Car Passenger	1.3%	1.00%	0.50%
Van	0.1%	0.10%	0.10%
Other (incl. lorry)	0.1%	0.10%	0.10%

Table 5.1 Interim Mode Share Targets for East Road Development (Travel to Work / School / College)

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5.3.8   The above targets are intended to be both realistic and aspirational as to act as a motivation for the MMP in general whilst remains attainable. These targets are subject to ongoing revision following the completion of the baseline surveys (and subsequent surveys) once the site is occupied and the input of the MMP's key stakeholders.

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CHAPTER 6

MMP Measures

6.1   INTRODUCTION

6.2   MODE SPECIFIC MEASURES

6.3   MANAGEMENT &
       MONITORING MEASURES

6.4   MARKETING & PROMOTION
       MEASURES

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6.0   MMP MEASURES

6.1   INTRODUCTION

6.1.1   Mobility management plans have a wide range of possible "hard" and "soft" tools from which to choose from with the objective of influencing travel choices. The following section introduces of potential strategy measures that could be considered at the East Road development. The range of initiatives discussed here is by no means exhaustive but is indicative of the kind of measures available and the processes and resources required to implement them.

6.1.2   The 5 tier Travel Plan Pyramid below has been developed to illustrate the key elements of a successful Mobility Management Plan. (Reference: *Good Practice Guidelines: Delivering Travel Plans through the Planning System*, DfT (UK), 2009)

Promotional Strategy

Services & Facilities
Public transport, car sharing etc.

Coordinator
To develop further measures and oversee the plan on an ongoing basis

Built Environment
Site design, public transport infrastructure, facilities to reduce the need to travel

Location
Proximity to existing facilities and services
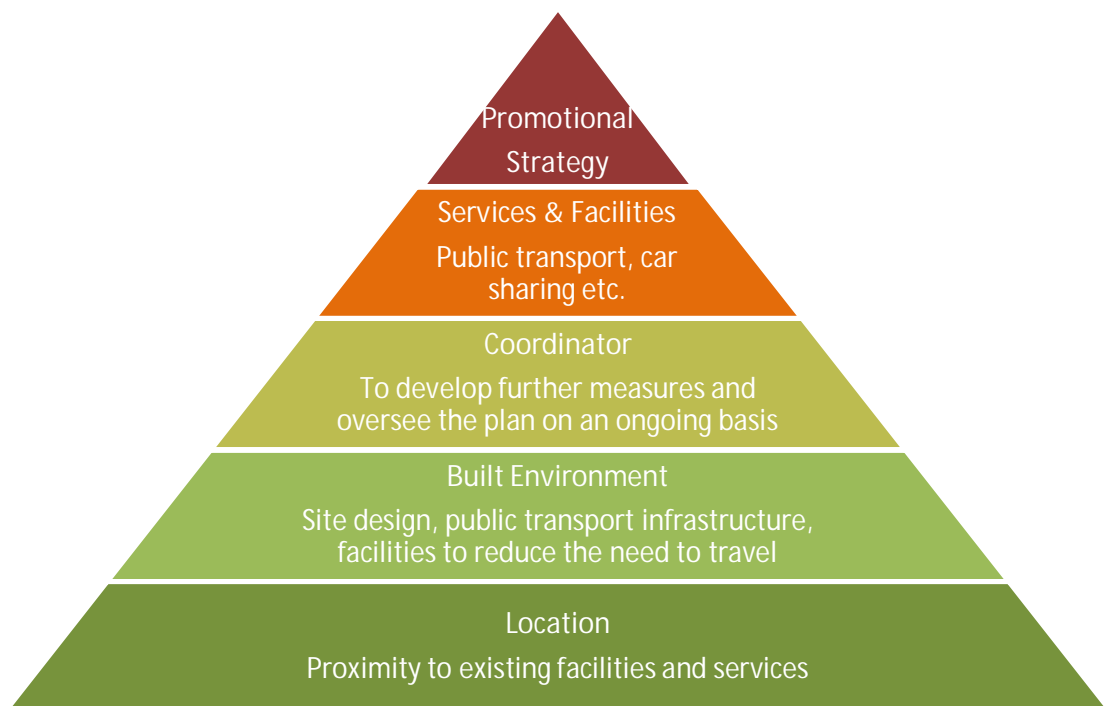
6.1.3   Accordingly, the East Road development MMP is organised as a series of integrated sub-strategies covering the different modes of travel and associated management and awareness related issues to all modes.

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Figure 6.1 Subject Development MMP Action Plan Strategies

6.2   MODE SPECIFIC MEASURES

6.2.1   The following initiatives could be promoted to enable the objectives to be fulfilled, to encourage the best choice of travel other than private car.

a) Walking - provision of facilities
b) Cycling – discounted cycle purchase, bike service workshops, cycle training
c) Public Transport (Bus, Luas) – discounted travel tickets
d) Private Car Strategy including car sharing and car clubs

6.3   MANAGEMENT & MONITORING MEASURES

6.3.1   Ensuring the success of a Mobility Management Plan, defining a management structure is critical to its effective implementation. Therefore, a Mobility Manager must be appointed, and a Resident's Group should be established if possible. This will ensure the ongoing success of the MMP.

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6.3.2   A programme of monitoring has been designed to generate information by which the success of the MMP can be evaluated. This will be the responsibility of the Mobility Manager.

6.3.3   The MMP information will be reviewed and updated regularly. This is achieved by research into the travel options and liaising with the residents to determine the most appropriate and useful information to communicate. The Mobility Manager will also be responsible for managing the annual review of the MMP including the surveys to be undertaken by the residents.

6.4   MARKETING & PROMOTION MEASURES

6.4.1   The Mobility Manager will be involved in the promotion of the MMP and to make residents aware of its existence.

6.4.2   The most important and cost-effective measure to be introduced as part of this MMP is the 'Welcome Travel Pack', which will be issued to all new residents of the site when they move in.

6.4.3   The Pack will contain information about all modes of transport available for journeys to and from the site. It includes information related to journeys to a number of local destinations which are considered to be key to residents. These include local shops, schools, health facilities, bus stops and Luas stops within the area of East Road.

6.4.4   Information within the Pack will include details of the listed destinations and the services and facilities they offer. In addition, contact details of the Mobility Manager will be provided. The Pack will also give details of safe pedestrian and cycle routes from the site, fare and timetable information for public transport.

6.4.5   A simple cost-benefit analysis of public transport versus the use of the private car will also be set out in the Travel Pack. This, along with all of the information contained within the Pack will be available prior to occupation and will be reviewed annually and updated as necessary.

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CHAPTER 7

Preliminary Action Plan

7.1   OVERVIEW

7.2   MANAGEMENT & MONITORING STRATEGY

7.3   WALKING STRATEGY

7.4   CYCLING STRATEGY

7.5   PUBLIC TRANSPORT STRATEGY

7.6   PRIVATE CAR STRATEGY

7.7   MARKETING & PROMOTION STRATEGY

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7.0   PRELIMINARY ACTION PLAN

7.1   OVERVIEW

7.1.1   The coordinated application of the following 6 integrated sub-strategies ensures that the success of the MMP will be a product of the sum of all sub-strategies.

7.1.2   The following sections consider each specific sub-strategy within which details of the proposed actions are identified for the period of this plan. The proposed timescale of each MMP initiative are categorised as either Completed, Short Term (1 year), Medium Term (3 years) or Long Term (5 years).

7.2   MANAGEMENT AND MONITORING STRATEGY

MMP Management

7.2.1   The development, implementation and coordination of the MMP in the short, medium and long term require management support and resources if it is to be successful in achieving its long-term aspirations and targets. Funding for many of the specific actions will need to be assigned appropriate budgets. Where full funding is not available from internal sources, external funding sources will be investigated. Some of the measures may in the longer-term result in cost savings. The role of management will also actively seek a partnership approach with other organisations as part of the continued development of the MMP.

MMP Monitoring

7.2.2   It is essential that the continued rollout and subsequent impact of the MMP initiatives is monitored on a regular basis for the following principal reasons;

- To demonstrate that the various targets are being achieved (or not met, at which point the measures being used should be reviewed) as people only value what they can measure and relate to,
- To ensure that the MMP continues to receive the support of residents and management,
- To show that both financial and resource input is being utilised to maximum effect.

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7.2.3   To ensure that the MMP is responsive to emerging opportunities and operational requirements, the status of the principal management and monitoring focused initiatives of the East Road Residential MMP are outlined in Table 7.1 below.

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Table 7.1 Preliminary Schedule of MMP Management & Monitoring Initiatives

Ref	Initiative	Status / Timescale				Lead Party	Comments
		Completed	Short (1 year)	Medium (3 years)	Long (5 years)		
MMS 1	Appointment of a Mobility Manager	-	✓	-	-		
MMS 2	Establish MMP Steering Group and meeting / reporting arrangements	-	✓	-	-		
MMS 3	Nominate MMP 'Champion' and role (Senior Management)	-	✓	-	-		
MMS 4	Establish MMP 'Charter' and confirm senior management support for: • MMS 4a – MMP memorandum of understanding • MMS 4b – Identify and agree MMP objectives • MMS 4c – Review and establish MMP targets	-	✓ ✓ ✓	- - ✓	- - ✓		
MMS 5	In partnership with Local Authority review funding opportunities and potential budgets for: • MMS 5a – Setting up and launching MMP • MMS 5b – Annual MMP management costs • MMS 5c – Participation in calendar of events • MMS 5d – MMP incentives • MMS 5e – MMP facilities • MMS 5f – MMP training requirements	-	✓ ✓ - - - ✓	- - ✓ ✓ ✓ -	- - ✓ ✓ - -		
MMS 6	Establish 'External' engagement contacts and collaboration programme	-	✓	-	-		
MMS 7	Agree Monitoring and Reporting Programme with respect to: • MMS 7a – Resident Travel Surveys • MMS 7b – Roll out / uptake of MMP initiatives • MMS 7c – MMP Budgets • MMS 7d – MMP performance (KPI's)	-	✓ - ✓ ✓	- ✓ ✓ -	✓ ✓ ✓ -		
MMS 8	Explore the opportunity and benefit of establishing mode specific 'user' groups (e.g. walking, cycling etc.)	-	-	✓	-		

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MMS 9	Review travel practises by trip purpose and implement policy to encourage sustainable travel practices	-	-	-	✓		
MMS 10	Explore the opportunity of appointing a resident 'Champion' for each mode specific 'user' group (e.g. walking, cycling, public transport etc.)	-	-	-	✓		
MMS 11	A Sustainable Travel Pack to be provided to new residents	-	✓	✓	-		

7.2.4   The identified Management and Monitoring strategy promotes a total of 21 measures. The implementation schedules of these measures are outlined in Graph 7.1 below.
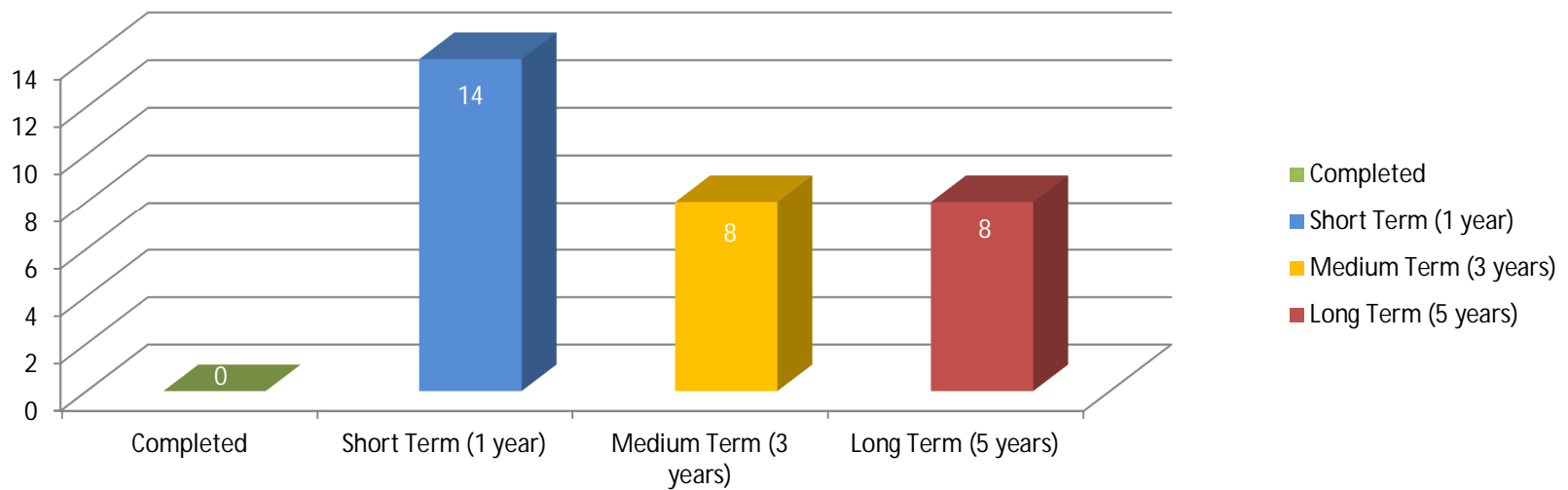
Graph 7.1 Roll-out of MMP's Management & Monitoring Initiatives

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7.3   WALKING STRATEGY

7.3.1   The status and preliminary scheduling of the principal walking focused initiatives of the Residential MMP are outlined in the Table 7.2 below.

Table 7.2 Preliminary Schedule of MMP's Walking Initiatives

Ref	Initiative	Status / Timescale				Lead Party	Comments
		Completed	Short (1 year)	Medium (3 years)	Long (5 Years)		
WS 1	Develop a 'Walking' Accessibility Sheet for the site	-	✔	-	-		
WS 2	Explore the opportunity of creating a calendar of 'Walking' Events and incentives: • WS 2a - Walk to work / school week • WS 2b - Walk on Wednesdays • WS 2c - Pedestrian Training • WS 2d - Travel diary with incentive / awards scheme • WS 2e – Coordinated with PT events	- - - - -	- - - - -	- - - - -	✔ ✔ ✔ ✔ ✔		
WS 3	Investigate the potential benefit and uptake of setting up a 'buddying' scheme to address personal security issues of walking: • WS 3a - Commuters • WS 3b - School children	- -	- -	✔ ✔	- -		
WS 4	Undertake route audit and implement a review program to ensure appropriate infrastructure is provided / upgraded to meet walking and accessibility requirements for: • WS 4a - Internal routes on-site • WS 4b - External routes to key off-site destinations	- -	- -	- -	✔ ✔		
WS 5	Develop a 'Walking' Fact Sheet	-	✔	-	-		

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7.3.2   The MMP's Walking Strategy promotes a total of 11 measures. The preliminary implementation schedule of these walking initiatives is outlined in Graph 7.2 below.

Graph 7.2 Roll-out of MMP's Walking Initiatives

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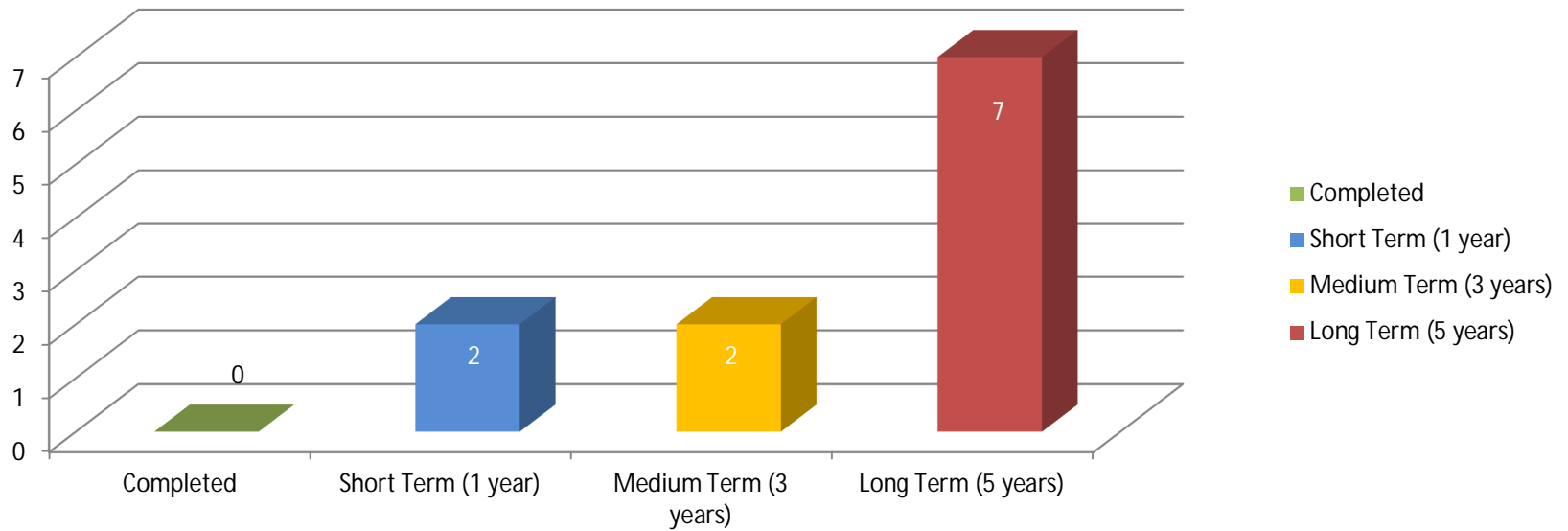Mobility Management Plan

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7.4   CYCLING STRATEGY

7.4.1   The status and preliminary scheduling of the principal cycling focused initiatives of the Residential MMP are outlined in the Table 7.3 below.

Table 7.3 Preliminary Schedule of MMP's Cycling Initiatives

Ref	Initiative	Status / Timescale				Lead Party	Comments
		Completed	Short (1 year)	Medium (3 years)	Long (5 Years)		
CS 1	Investigate the potential benefit and uptake of setting up a 'buddying' scheme to address personal security issues associated with cycling	-	-	-	✔		
CS 2	Explore the opportunity of establishing a Bike Users Group	-	-	-	✔		
CS 3	Develop a 'Cycling' Accessibility Sheet for the site	-	✔	-	-		
CS 4	Explore the opportunity of creating a calendar of 'Cycling' Events and incentives	-	-	✔	-		
CS 5	Undertake route audit and implement a review program to ensure appropriate infrastructure is provided / upgraded to meet cycling requirements for external routes to key off-site destinations	-	-	-	✔		
CS 6	Investigate the potential demand for providing cycle training	-	-	-	✔		
CS 7	Explore the potential for launching a Travel Diary incentive / awards scheme	-	-	-	✔		
CS 8	Examine the opportunity and potential benefits and uptake of Bike service / maintenance workshops	-	-	✔	-		
CS 9	Market / Publicise the potential availability of employer operated discounted cycle purchase incentives	-	-	✔	-		

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7.4.2   The MMP's Cycling Strategy promotes a total of 9 measures. The preliminary implementation schedule of these cycling initiatives is outlined in Graph 7.3 below.

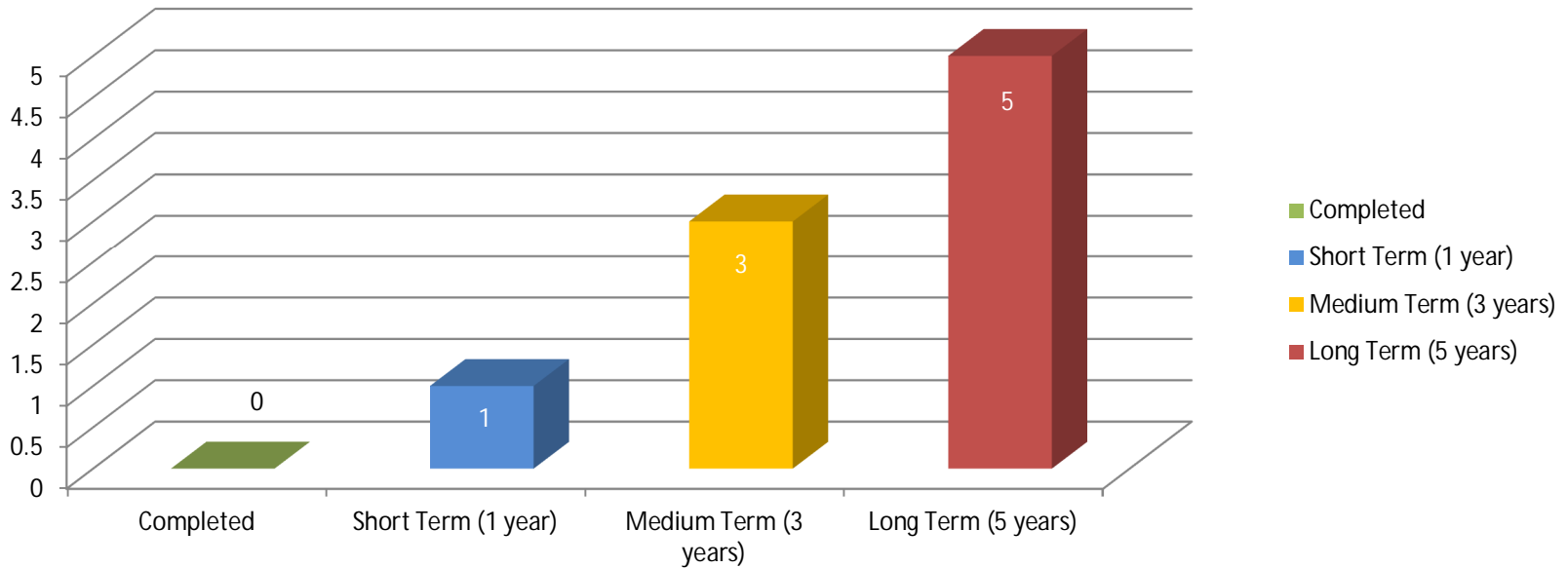Graph 7.3 Roll-out of MMP's Cycling Initiatives

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7.5   PUBLIC TRANSPORT STRATEGY

7.5.1   The status and preliminary scheduling of the principal public transport focused initiatives of the East Road Residential MMP are outlined in the Table 7.4 below.

<u>Table 7.4 Preliminary Schedule of MMP's Public Transport Initiatives</u>

Ref	Initiative	Status / Timescale				Lead Party	Comments
		Completed	Short (1 year)	Medium (3 years)	Long (5 Years)		
PTS 1	Explore the opportunities of: • PTS 1a - maintaining the existing bus services • PTS 1b - Enhancing the catchment of this service	✓ -	- -	- -	- ✓		
PTS 2	Market / Publicise the potential for residents through their employers to purchase both annual and monthly TaxSaver tickets	-	✓	-	-		
PTS 3	Investigate the potential benefits of establishing a Public Transport Users Group	-	-	-	✓		
PTS 4	Develop a 'Public Transport' Accessibility Sheet for the site	-	✓	-	-		
PTS 5	Compile and disseminate a 'Public Transport' Fact Sheet	-	✓	-	-		
PTS 6	Explore the opportunity of implementing a calendar of 'Public Transport' Events and incentives	-	-	-	✓		
PTS 7	In partnership with Dublin Bus /LUAS and local authority ensure all local bus / Luas interchanges display up to date timetables, fare and route information	-	-	✓	-		
PTS 8	Encourage the use / initiatives for buses / LUAS where feasible for a range of different travel purposes	-	✓	-	-		
PTS 9	Promote the availability of the TaxSaver scheme	-	✓	-	-		
PTS 10	Explore the potential of a Travel Diary incentive / awards scheme	-	-	-	✓		

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7.5.2   The identified Public Transport strategy promotes a total of 11 measures. The implementation schedule of these measures is outlined in Graph 7.4 below.
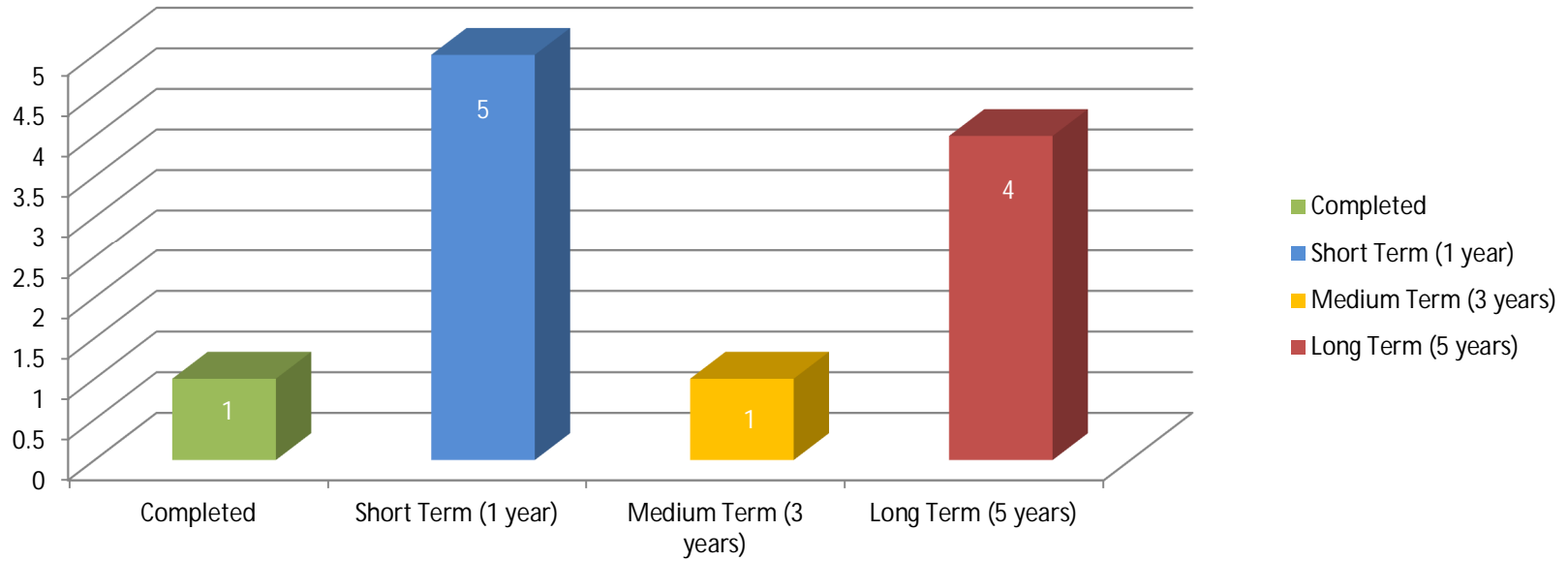
Graph 7.4 Roll-out of MMP's Public Transport Initiatives

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7.6   PRIVATE CAR STRATEGY

7.6.1   The identified action plan and preliminary scheduling of the principal private car focused initiatives of the East Road Residential MMP are outlined in the Table 7.5 below.

<u>Table 7.5 Preliminary Schedule of MMP's Private Car Initiatives</u>

Ref	Initiative	Status / Timescale				Lead Party	Comments
		Completed	Short (1 year)	Medium (3 years)	Long (5 Years)		
PCS 1	Investigate the benefits of developing a 'Car' Fact Sheet	-	✔	-	-		-
PCS 2	Explore the opportunities of encouraging informal arrangements between residents for 'shared' travel to work practices	-	-	✔	-		
PCS 3	Encourage use of existing formal car sharing website (www.carsharing.ie)	-	✔	-	-		
PCS 4	Explore the opportunities of informal arrangements between residents for travel to school / college	-	-	✔	-		
PCS 5	Determine the suitability / potential / benefits of a local Car Club scheme	✔	-	-	-		-

7.6.2   The MMP's Private Car Strategy promotes a total of 5 measures. The preliminary implementation schedule of these private car focused initiatives is outlined in Graph 7.5 below.

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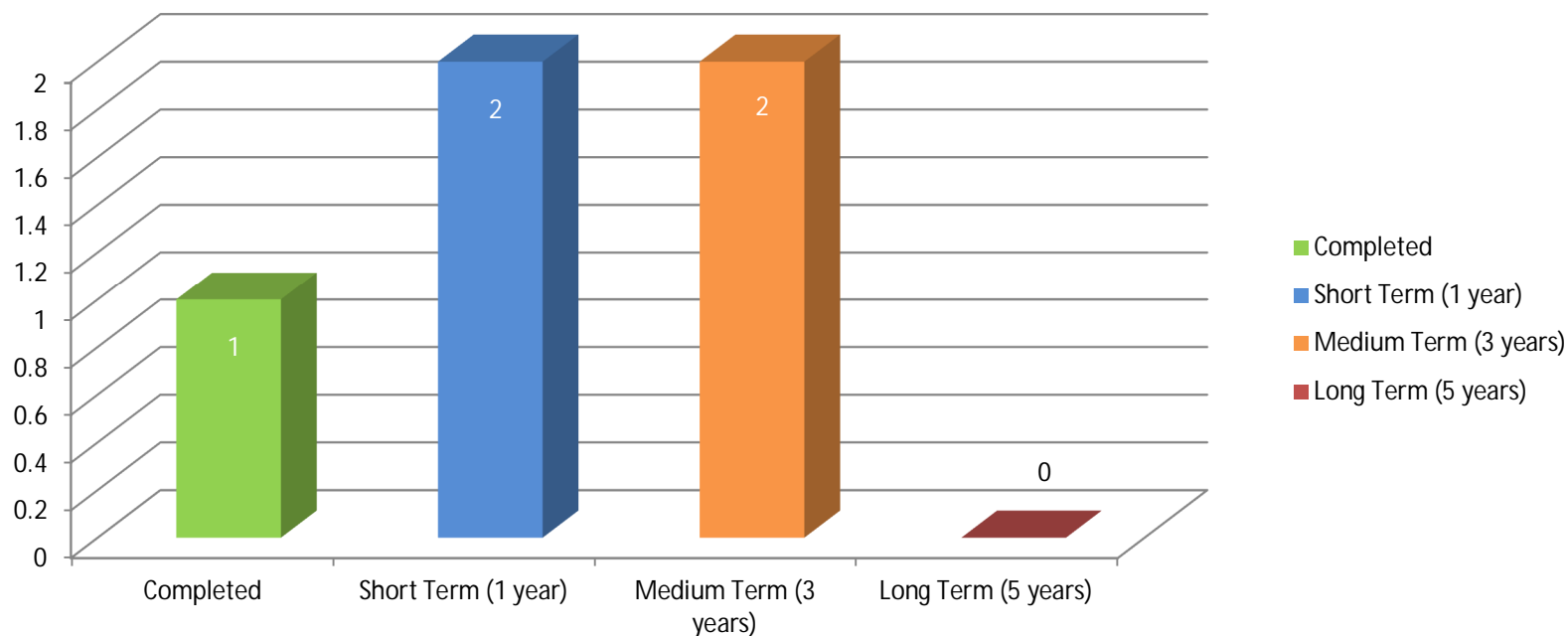
Graph 7.5 Roll-out of MMP's private Car Initiatives

7.7   MARKETING AND PROMOTION STRATEGY

7.7.1   Increasingly referenced as the 'softer' form of initiatives, the provision of detailed information, raising awareness and promotion of the MMP and its measures is imperative to its success. The strategy involves the marketing and communication of the benefits of alternative active and more sustainable travel, increasing awareness of the adverse impacts of travel and transport on the environment, health and communities (local and nationally), by identifying ways in which individuals can make a difference will be an important element of the MMP. The Marketing and Promotion strategy also supports a number of the other interdependent MMP sub-strategies.

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Table 7.6 Preliminary Schedule of MMP's Marketing & Promotion Initiatives

Ref	Initiative	Status / Timescale				Lead Party	Comments
		Completed	Short (1 year)	Medium (3 years)	Long (5 Years)		
MPS 1	Develop a marketing plan for the MMP	-	✔	-	-		
MPS 2	Compile formal 'Sustainable Travel' induction package or 'Welcome Travel Pack' for each dwelling	-	✔	-	-		
MPS 3	Explore the cost benefits of developing a dedicated MMP website	-	✔	-	-		
MPS 4	Investigate the opportunity of developing an events calendar with 2 to 4 events per year and a supporting promotion strategy to market each event	-	-	✔	-		
MPS 5	Incorporate section / report success etc. of MMP process in local newsletters and other information dissemination initiatives	-	-	-	✔		
MPS 6	As part of Induction Sales Meeting with residents introduce the residential MMP, its objectives and recommended travel practices	-	✔	-	-		
MPS 7	Explore the cost benefits of developing a MMP App to enhance access to MMP information and events	-	✔	-	-		
MPS 8	Investigate the opportunity for a MMP annual newsletter for distribution to all residents	-	✔	-	-		

7.7.2   The preliminary Marketing and Promotion sub-strategy promotes a total of 8 measures. The implementation schedule of these measures is outlined in Graph 7.6 below.

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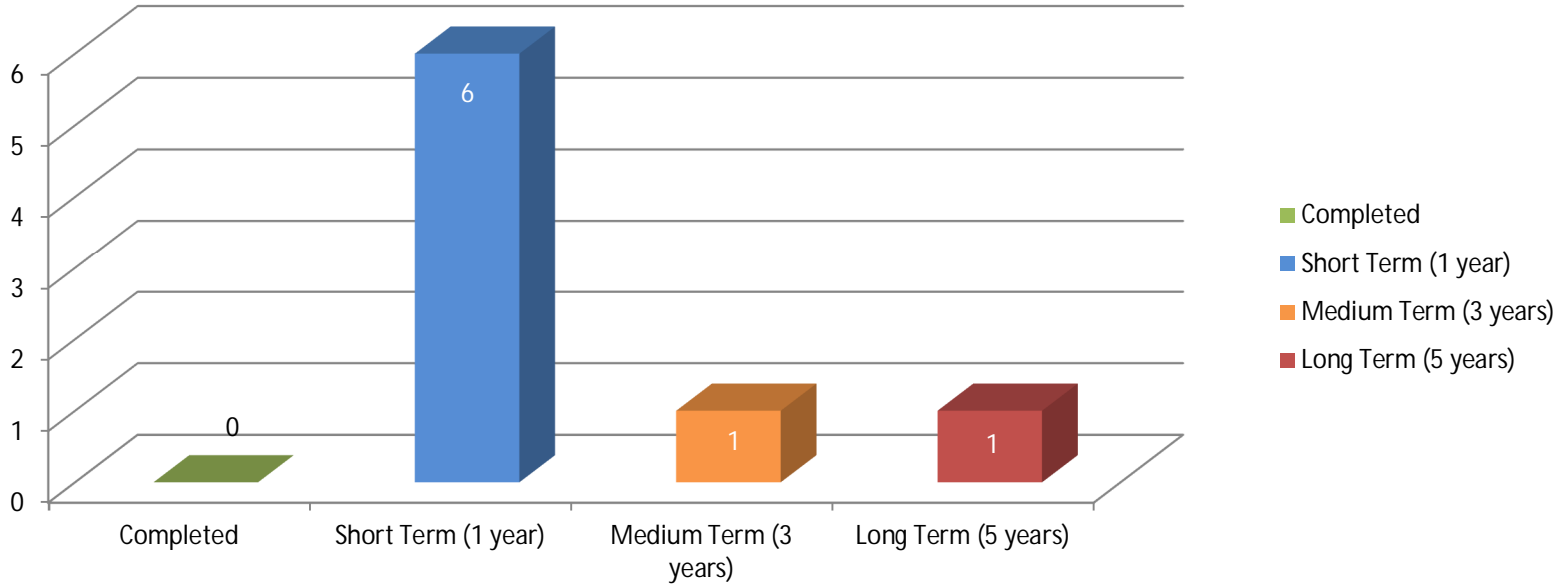
Graph 7.6 Roll-out of MMP's Marketing & Promotion Initiatives

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CHAPTER 8

Enterprise Hub MMP

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8.0   ENTERPRISE HUB

8.1   OVERVIEW

8.1.1   The proposed Enterprise Hub is considered in the context of the larger residential development proposed for East Road. This section focuses on the Enterprise Hub and a future workplace MMP seeking to provide a long-term strategy which may be implemented by the Enterprise Hub Management Company for encouraging staff and visitors to the proposed Enterprise Hub to reduce their dependency on travelling as single occupancy car drivers in favour of more sustainable modes of travel.

8.1.2   The aims of the Enterprise Hub MMP are:

(a) to increase the awareness of employees and visitors to all the transport options available to them and to inform them of the potential for travel by more sustainable modes, and

(b) to introduce a package of both 'hard' (physical) and 'soft' (behavioural) measures that will facilitate travel by other modes.

8.2   OBJECTIVES AND TARGETS

Enterprise Hub MMP Objectives

8.2.1   The overall aim of the Enterprise Hub MMP is to reduce the dependency on the use of the private car by increasing visitors to the site and employees based at the site awareness to the other travel alternatives available.

8.2.2   To support this principal objective, several sub-objectives have been set out:

(a) minimise private car use by encouraging people to walk, cycle, use public transport, car share or even reduce the number of trips undertaken / required;

(b) Make all visitors and staff aware of the sustainable transport options available to them;

(c) Encourage the use of sustainable modes of transport;

(d) Encourage the most efficient use of cars and other vehicles;

(e) Reduce any transport impacts of the development on the local community;

(f) Promote walking and cycling as a health benefit to visitors and staff;

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(g) Managing the ongoing development and delivery of the Mobility Management Plan with future visitors/staff;

(h) Promoting smarter education and living practices that reduce the need to travel overall; and

(i) Promote healthy lifestyles and sustainable, vibrant local communities.

8.2.3   The above objectives can be achieved through the integrated provision of hard and soft initiatives. Soft measures include the dissemination of important information regarding:

- Routing, timetable and ticketing information for bus and train services;

- The location and most convenient routes to / from local amenities (e.g. shops, medical facilities etc.);

- Safe routes to work information/ literature;

- Cost data comparing public transport and private car journeys; and

- The health benefits of walking and cycling including safety advice.

8.2.4   Without such information, individuals may choose the perceived most convenient option available to them which is often the car, even if from a cost and duration of journey perspective this may not be the case.

8.2.5   Similarly, if an individual is unaware of the availability of local shops and services, they may choose to travel a greater distance than necessary in order to access a service.

8.2.6   Accordingly, the objectives of this MMP can therefore be summarised as follows:-

- To increase the awareness of visitors/employees based at the Enterprise Hub to the suite of mobility management schemes available and to promote increased usage of sustainable modes of transport; and

- Develop good urban design by ensuring permeability of the development to neighbouring areas and provision of cycle facilities including cycle storage/parking.

Enterprise Hub MMP Actions & Targets

8.2.7   Since the overall aim of this MMP is to minimise reliance upon the private car, it is appropriate to set a target which relates to this objective. It is also necessary to collect data to identify and understand the baseline travel habits, against which the MMP's progress can be measured. It is recommended that questionnaires are circulated after

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opening to staff based at the site, as these questionnaires will establish the baseline travel data for the subject site.

8.2.8   The Enterprise Hub's Mobility Management Plan's initial actions (A) are set out below:

A1 - The appointment of a Mobility Manager prior to occupation of the site;

A2 - Provision of a MMP website and app that includes information on all travel opportunities to/from the site that is made available to all employees based at the subject site prior to commencement of employment;

A3 – In consultation with key stakeholders including the local authority and the various occupiers of the Enterprise Hub, continually develop, implement, monitor, evaluate and review the progress of the MMP towards achieving the targets;

A4 - To undertake a baseline travel survey when the Enterprise Hub is operational;

A5 – Update modal split targets which can be reviewed once the baseline travel characteristics are established.

8.2.9   The Enterprise Hub's Mobility Management Plan's principal targets (T) are set out below:

T1 - To support the establishment of the Enterprise Hub as a sustainable workplace;

T2 - To provide sustainability in all ways including cost, health and environment – reducing the impact on traffic congestion and air quality;

T3 - To achieve an overall 95% employee awareness of the MMP and its aims and objectives;

T4 - To facilitate and encourage greater use of sustainable transport modes (walking, cycling, public transport) in preference to the use of the private car;

T5 – Achieve the identified modal split travel targets based on baseline travel survey data.

8.2.10   The above targets will be achieved by introducing an integrated package of measures that focus on promoting travel to/from the proposed Enterprise Hub by sustainable modes of transport as a viable alternative to the private car. These means and

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supporting strategies will seek to encourage staff and visitors to consider lower carbon travel alternatives in everyday journeys.

8.3   ENTERPRISE HUB MMP MEASURES

Mode Specific Measures

8.3.1   The following initiatives could be promoted to enable the objectives of the MMP to be fulfilled, to encourage the best choice of travel other than private car.

   a) Walking – provision of facilities
   b) Cycling – discounted cycle purchase, bike service workshops, cycle training
   c) Public Transport (Bus, LUAS, Heavy Rail) – discounted travel tickets
   d) Private Car Strategy including car sharing and car clubs

Management and Monitoring Measures

8.3.2   Ensuring the success of a Mobility Management Plan, defining a management structure is critical to its effective implementation. Therefore, a Mobility Manager must be appointed and a Steering Group for the overall site should be established. This will ensure the ongoing success of the MMP.

8.3.3   A programme of monitoring has been designed to generate information by which the success of the MMP can be evaluated. This monitoring programme will be the responsibility of the Mobility Manager for the overall site. The MMP's from the various occupiers of the development will feed into the monitoring programme.

8.3.4   The MMP information will be reviewed and updated regularly. This is achieved by research into the travel options and liaising with employees based at the site to determine the most appropriate and useful information to communicate. The Mobility Manager will also be responsible for managing the annual review of the MMP including the surveys to be undertaken by employees based at the site.

8.3.5   The various occupiers will be responsible for undertaking surveys within their own companies and then relay the data back to the overall site mobility manager.

Marketing and Promotional Measures

8.3.6   The Mobility Manager in conjunction with the Mobility Manager for each occupier will be involved in the promotion of the MMP and to make employees based at the site aware of its existence.

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8.3.7   The most important and cost effective measure to be introduced as part of this MMP is the 'Welcome Travel Pack', which will be issued to all new employees of the site prior to commencement of employment or at employee induction.

8.3.8   The Pack will contain information about all modes of transport available for journeys to and from the site. It includes information related to journeys to a number of local destinations which are considered to be key to employees. These include local shops, health facilities, and bus, LUAS and Heavy rail interchanges within the local area.

8.3.9   Information within the Pack will include details of the listed destinations and the services and facilities they offer. In addition, contact details of the Mobility Manager will be provided. The Pack will also give details of safe pedestrian and cycle routes to/from the site, fare and timetable information for public transport.

8.3.10 A simple cost-benefit analysis of public transport versus the use of the private car will also be set out in the Travel Pack. This, along with all of the information contained within the Pack will be available prior to commencement of employment or at induction and will be reviewed annually and updated as necessary.

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CHAPTER 9

Summary & Conclusion

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9.0 SUMMARY AND CONCLUSIONS

9.1 SUMMARY

9.1.1 This Framework Mobility Management Plan has been prepared in support of a planning application for the subject development at East Road, East Wall, Dublin. The proposals seek permission for the construction of 554 number residential apartment units, enterprise space, retail units, foodhub /café / exhibition space, residential amenity, crèche and men's shed.

9.1.2 This MMP focuses on how residents, Enterprise Hub staff and visitors can be encouraged to use sustainable means of transport when travelling to and from the site.

9.1.3 DBFL Consulting Engineers have compiled this framework MMP as the basis for discussions between the developers and planning officers from Dublin City Council. Through these scoping discussions the preferred strategy (and supporting measures and targets) will emerge with the resulting MMP detailing the agreed approach, actions and targets.

9.1.4 The measures proposed in this document will not only benefit the residents of the proposed East Road development but will also help to mitigate any transport impacts of the development on the wider local community.

9.1.5 The identified preliminary action plan promotes a total of 65 initiatives across 6 sub strategy themes as presented in the Pie Chart below.

Graph 9.1 East Road Residential Development: MMP Initiatives by Strategy

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9.1.6   The implementation schedule of identified 65 MMP initiatives is outlined in Graph 9.2 below. A total of 2 initiatives (or 3.1%) of the action plan have already been completed, with a further 30 initiatives (or 46.1%) to be implemented within 1 year of the development being occupied.
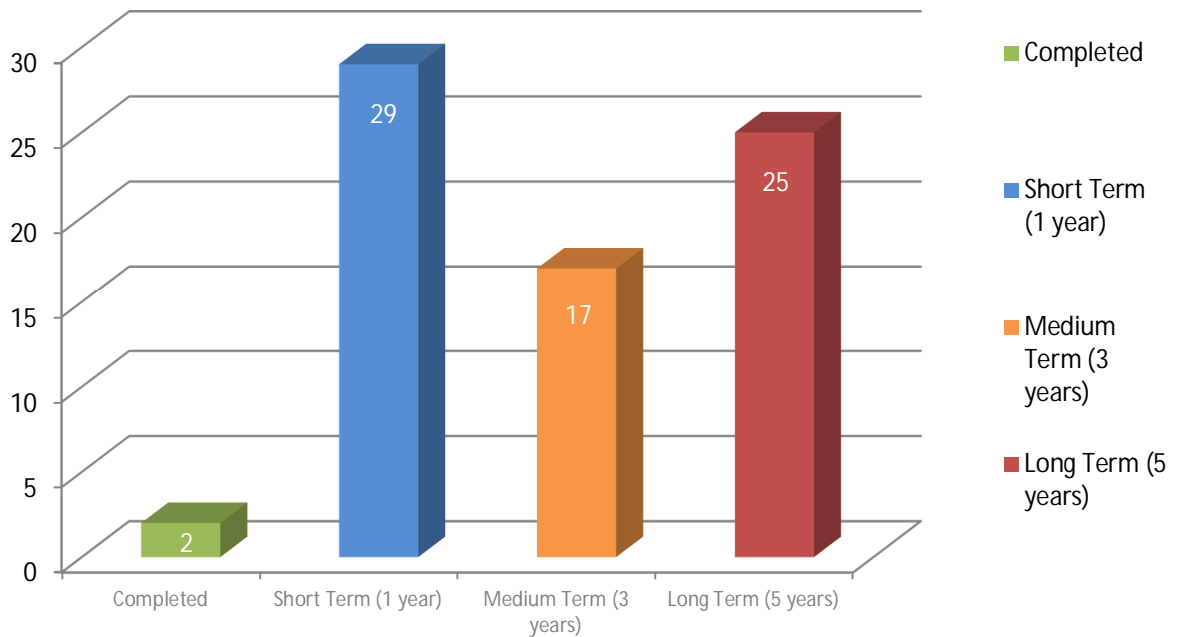
Graph 9.2 Roll-out of MMP's Initiatives

9.1.7   In the context of the subject development's operational framework, the local receiving environment and the identification of the Preliminary Action Plan as summarised previously, this document seeks to form the basis by which;

- the specific travel characteristics for the proposed residential units and Enterprise Hub are outlined and presented to the local authority, and

- through a partnership approach between the developers and the local planning authority, the Preliminary Action Plan is explored and re-examined with the objective of reaching agreement upon the MMP's measures and subsequently the adoption of an 'agreed' MMP Action Plan with specific targets, initiatives, timescales, responsibilities and resources clearly outlined and approved by both parties.

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APPENDICES

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Appendix A

Mode Share per Journey Purpose

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Chart A1: Purpose of Trip made by Car/Van

Business as part of work
7%

Other Purpose
2%

Education
9%

Other Shopping
14%

Grocery shopping
31%

Travelling to Work
18%

Leisure/ Sport
19%

- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose

Chart A2: Purpose of Trip made by Taxi

Business as part of work
6%

Education
3%

Other Shopping
10%

Travelling to Work
7%

Other Purpose
10%

Grocery shopping
17%

Leisure/ Sport
47%

- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose

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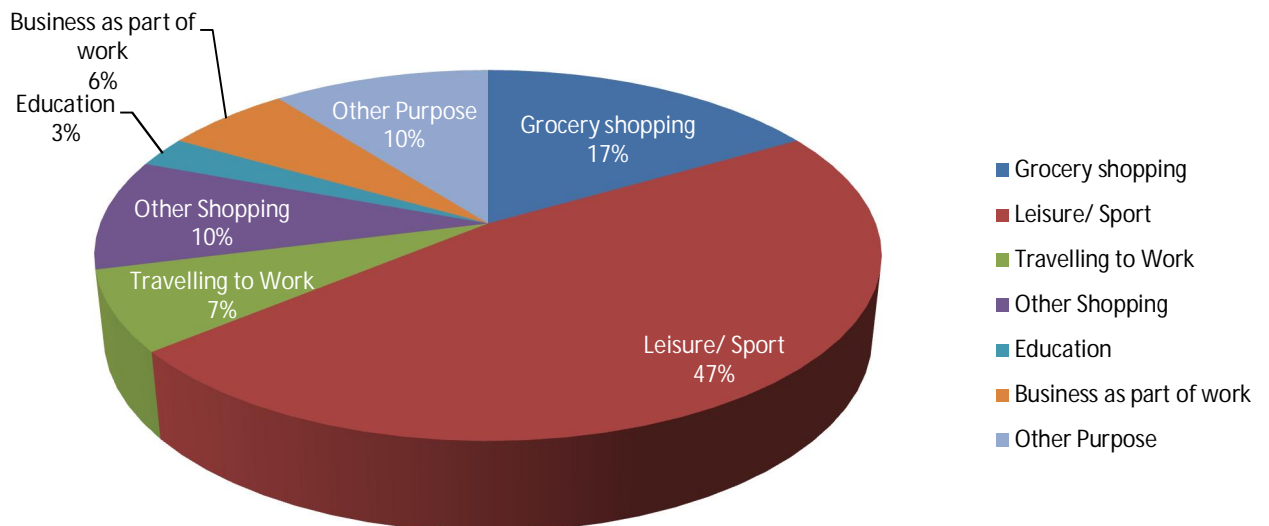
Chart A3: Purpose of Trip made by Bus

Business as part of work
5%

Other Purpose
5%

Education
10%

Grocery shopping
21%

Other Shopping
20%

Leisure/ Sport
23%

Travelling to Work
16%

- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose
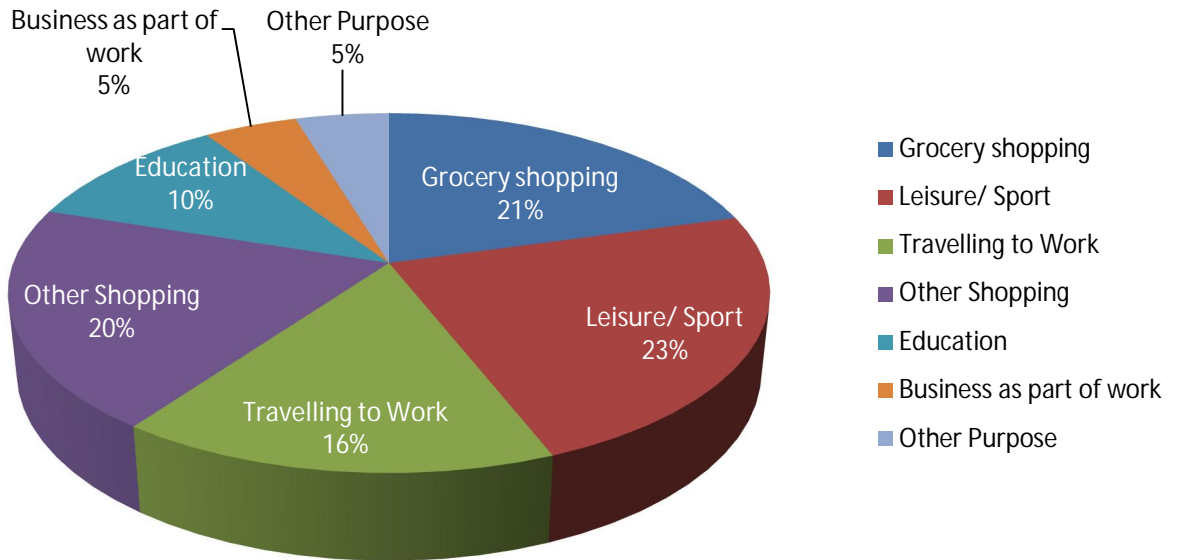
Chart A4: Purpose of Trip made by Train/DART

Grocery shopping
4%

Business as part of work
12%

Other Purpose
10%

Education
3%

Other Shopping
16%

Leisure/ Sport
30%

Travelling to Work
25%

- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose

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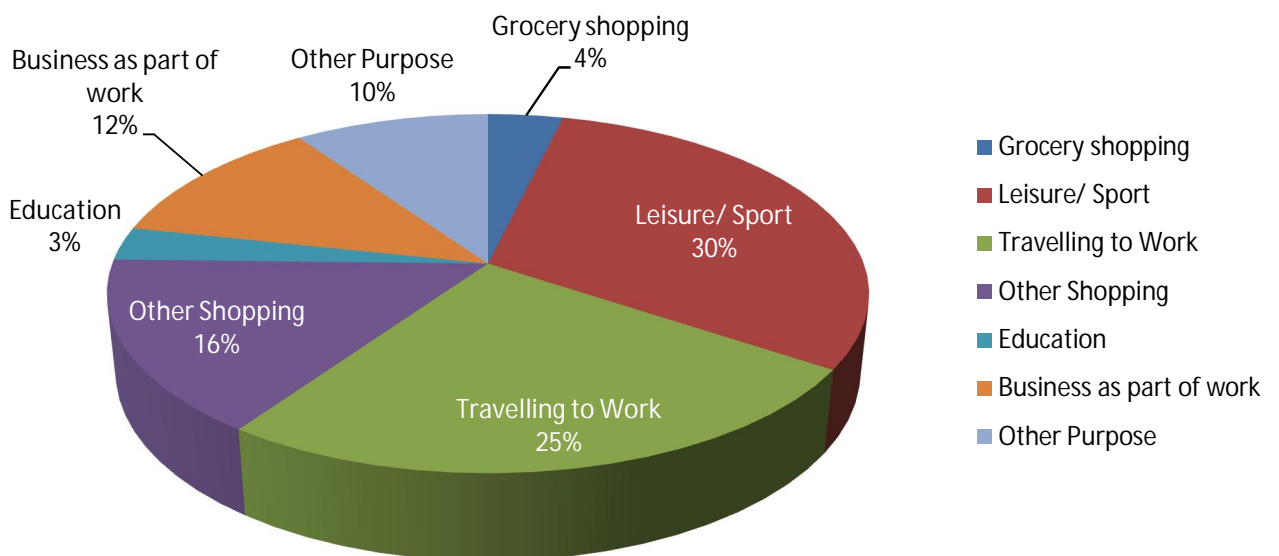
Chart A5: Purpose of Trip made by LUAS

Business as part of work 9%

Other Purpose 4%

Education 6%

Grocery shopping 13%

Other Shopping 17%

Leisure/ Sport 30%

Travelling to Work 21%

- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose
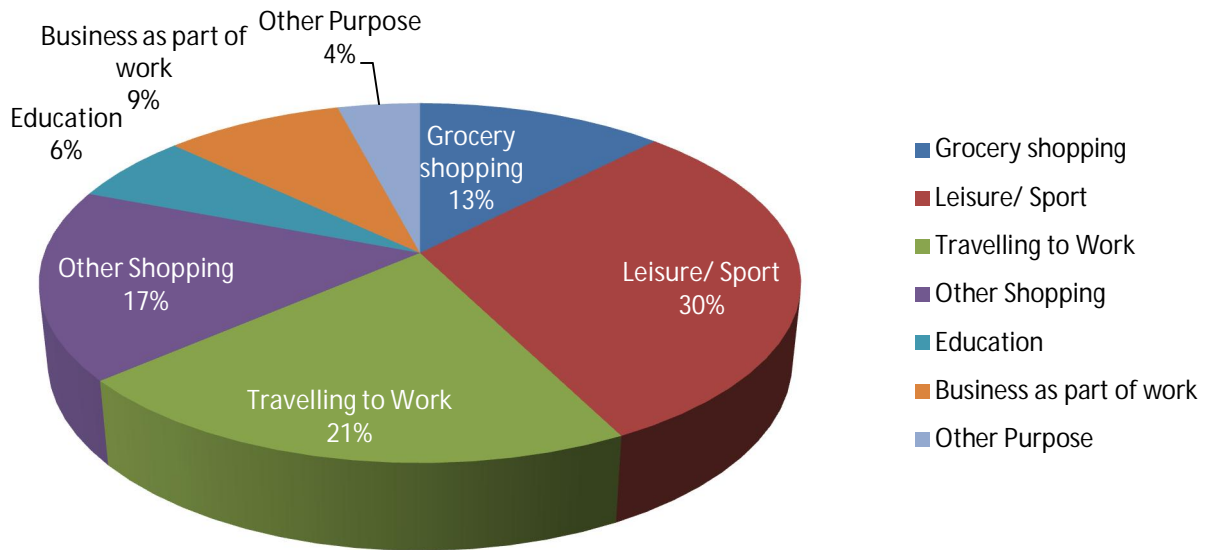
Chart A6: Purpose of Trip made by Bicycle

Business as part of work 4%

Other Purpose 1%

Education 9%

Other Shopping 7%

Grocery shopping 16%

Travelling to Work 17%

Leisure/ Sport 46%

- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose

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Chart A7: Purpose of Trip made by Walking

Pie chart legend:
- Grocery shopping
- Leisure/ Sport
- Travelling to Work
- Other Shopping
- Education
- Business as part of work
- Other Purpose

Chart segments:
- Grocery shopping 29%
- Leisure/ Sport 42%
- Travelling to Work 6%
- Other Shopping 11%
- Education 6%
- Business as part of work 3%
- Other Purpose 3%

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Appendix B

Mode Share Trends of Existing Residential Developments in the Vicinity of the Subject East Road Development Site

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Chart B1: Hill of Down, Longford House, Kirkpatrick House

0.8%   0.0%   0.0%
0.8%
9.2%
10.9%
6.7%
16.0%
55.5%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)
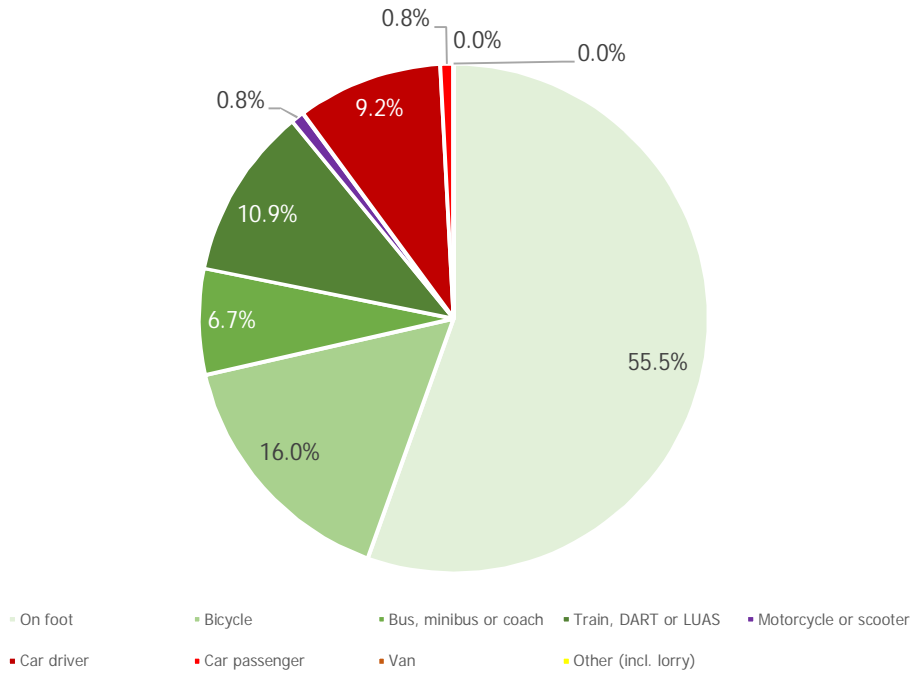
Chart B2: Riverstown House, Spencer Dock

0.0%   0.0%   0.0%
0.0%
11.1%
13.7%
6.0%
12.8%
56.4%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)

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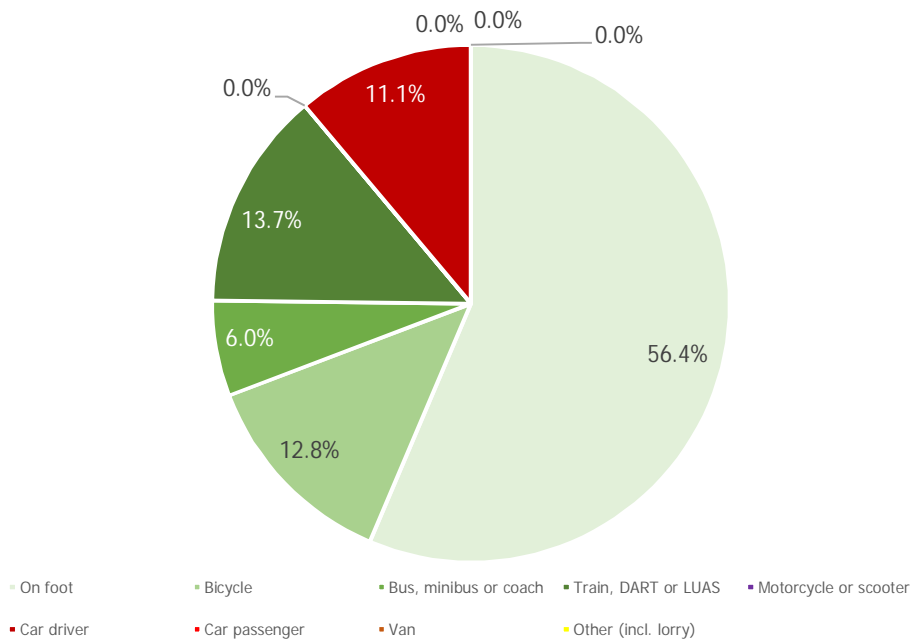
Chart B3: Thomastown House/Copebridge House

Legend				
On foot	Bicycle	Bus, minibus or coach	Train, DART or LUAS	Motorcycle or scooter
Car driver	Car passenger	Van	Other (incl. lorry)	

Chart B4: Saunders House

Legend				
On foot	Bicycle	Bus, minibus or coach	Train, DART or LUAS	Motorcycle or scooter
Car driver	Car passenger	Van	Other (incl. lorry)	

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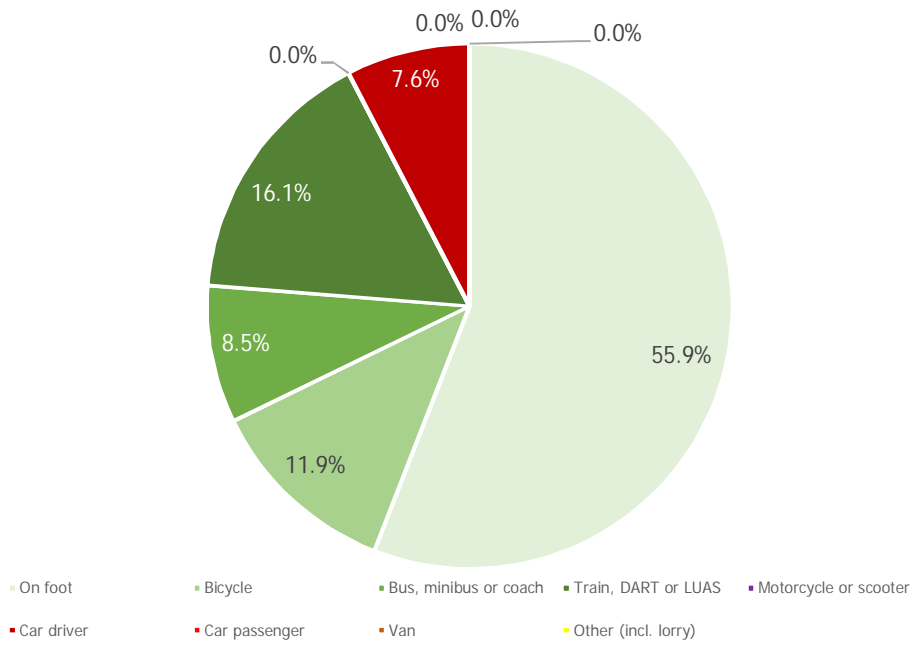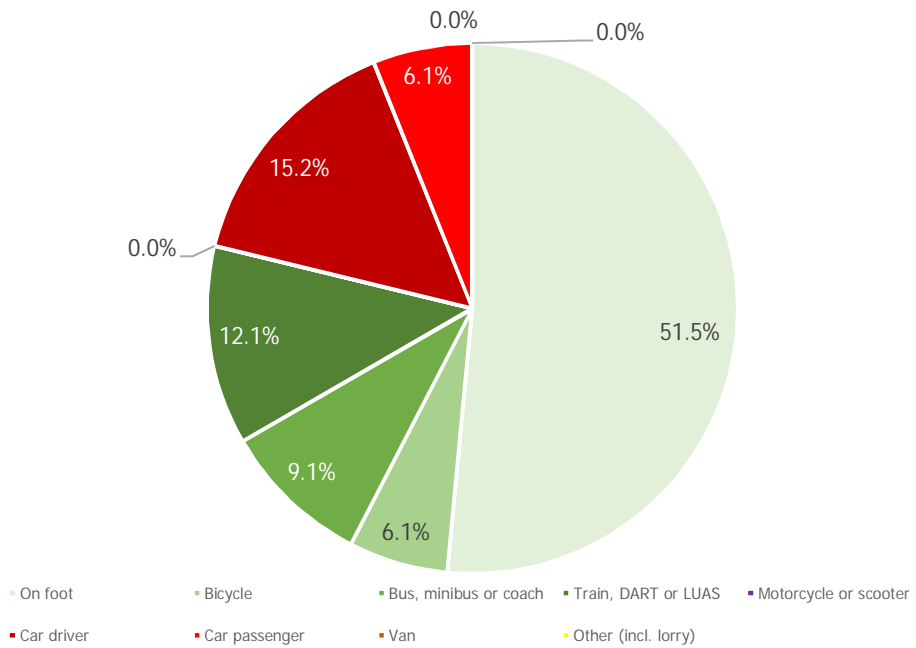
Chart B5: Baltrasna House/Killashee House

1.9%   0.0%   0.9%

0.0%

7.5%

10.4%

6.6%

15.1%

57.5%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)
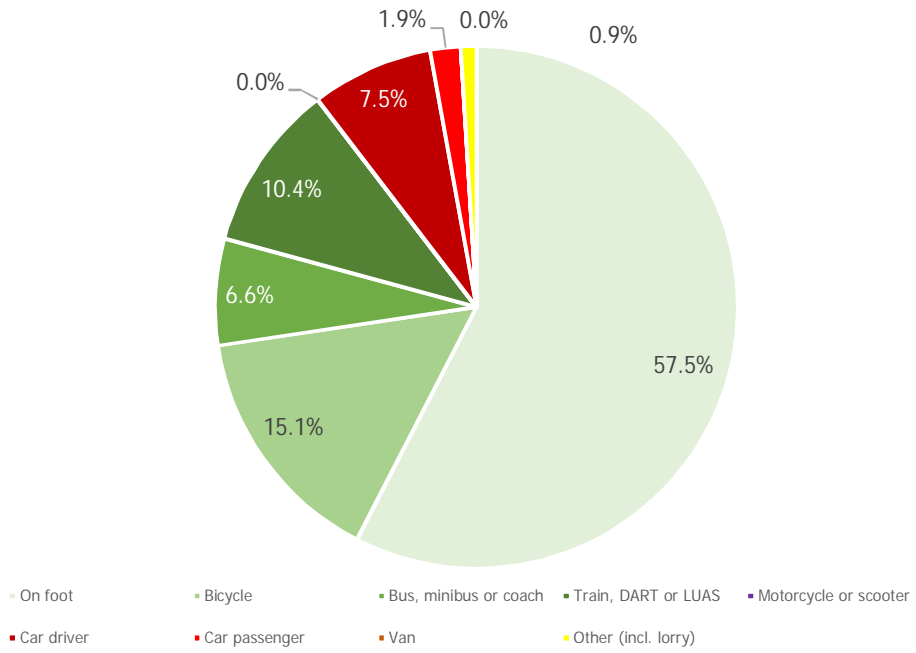
Chart B6: Blackwater House/Cloncurry House

1.0%   0.0%   0.0%

0.0%

11.0%

8.0%

20.0%

46.0%

14.0%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)

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Chart B7: IFSC

1.6%   0.0%   0.4%
0.0%   8.6%
13.2%
8.2%
5.8%   62.1%

■ On foot   ■ Bicycle   ■ Bus, minibus or coach   ■ Train, DART or LUAS   ■ Motorcycle or scooter
■ Car driver   ■ Car passenger   ■ Van   ■ Other (incl. lorry)
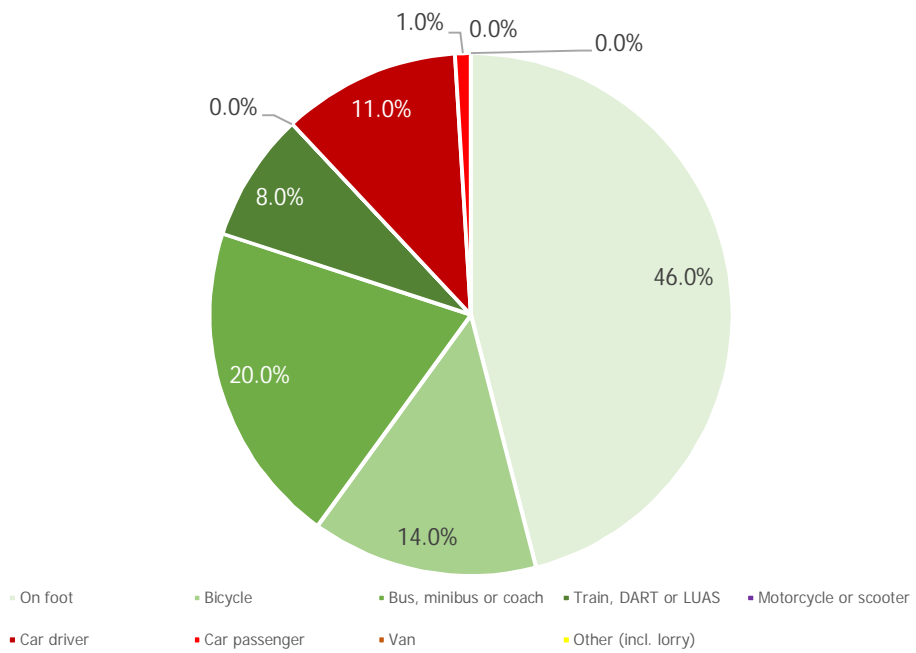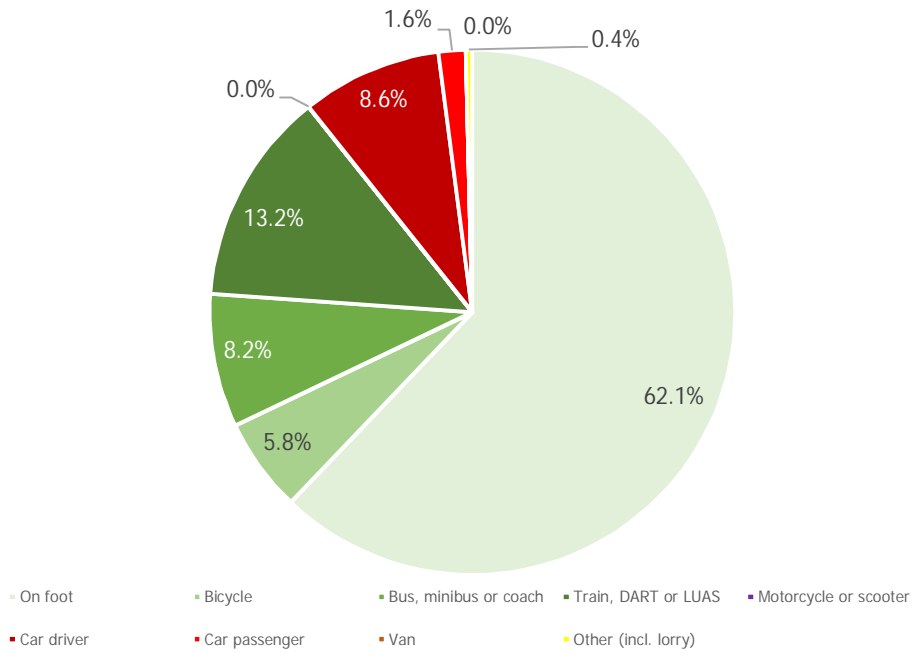
Chart B8: Beresford House/IFSC Dublin City Apartments

0.0%   0.0%
0.0%   7.9%   0.6%
15.8%
9.6%
10.7%   55.4%

■ On foot   ■ Bicycle   ■ Bus, minibus or coach   ■ Train, DART or LUAS   ■ Motorcycle or scooter
■ Car driver   ■ Car passenger   ■ Van   ■ Other (incl. lorry)

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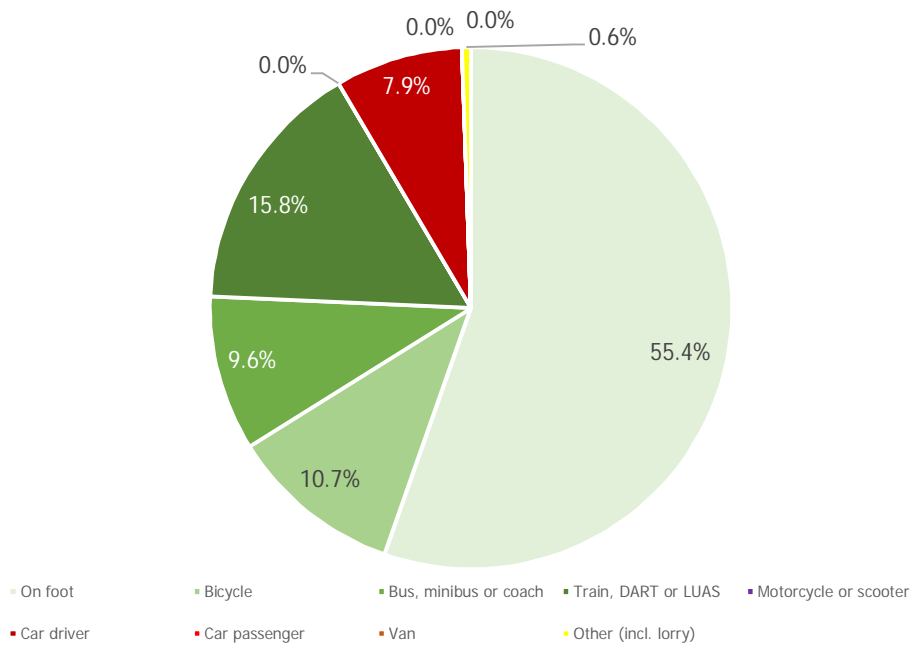
Chart B9: Castleforbes Apartments

0.0% 0.0% 0.0%
10.4%
0.6%
18.9%
48.8%
10.4%
11.0%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)
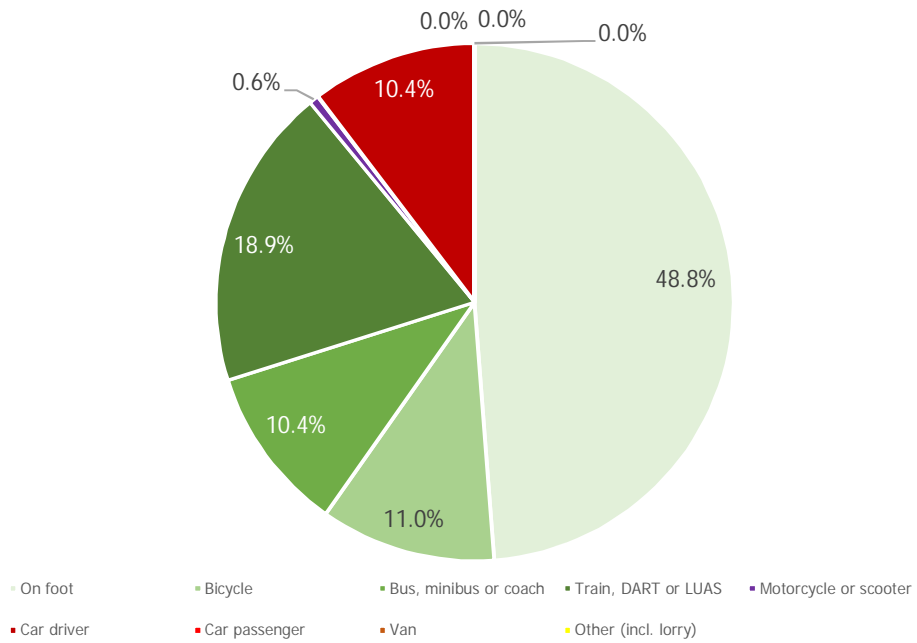
Chart B10: The Liffey Trust Centre

0.0% 0.0%
3.8%
8.4%
1.5%
20.6%
32.8%
17.6%
15.3%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)

Mixed Use Development, 1-4 East Road, East Wall, Dublin.
Mobility Management Plan

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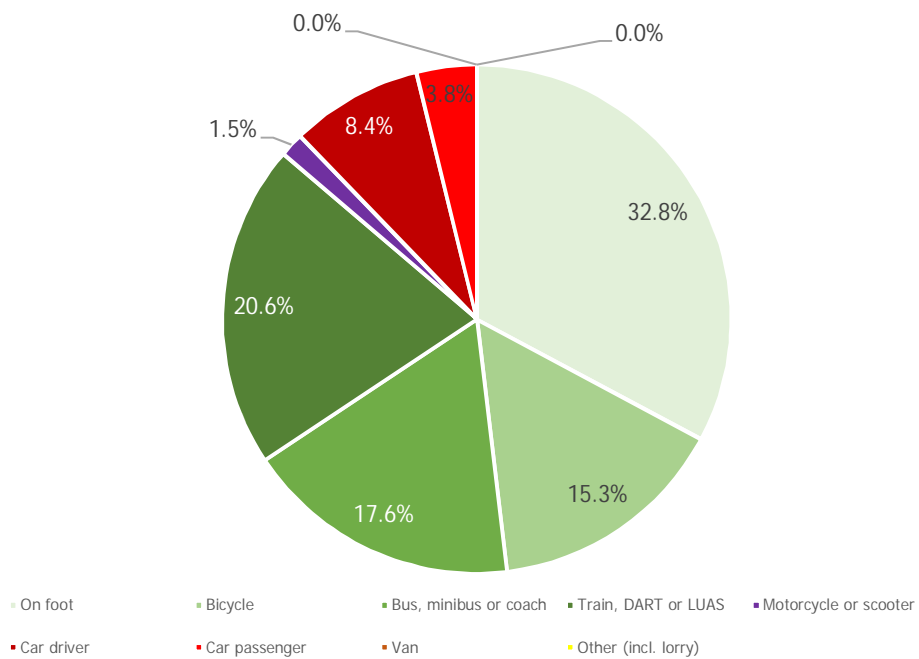
Chart B11: Castleforbes Square

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)

Chart B12: Gandon House

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)

Mixed Use Development, 1-4 East Road, East Wall, Dublin.
Mobility Management Plan

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Chart B13: Malton House

2.9% 0.7%
0.0%   0.0%
15.3%

12.4%   59.9%

8.8%

- On foot
- Bicycle
- Bus, minibus or coach
- Train, DART or LUAS
- Motorcycle or scooter
- Car driver
- Car passenger
- Van
- Other (incl. lorry)