

Luas Finglas

Environmental Impact Assessment Report 2024

Chapter 3: Need for the Proposed Scheme

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GLOSSARY OF FREQUENTLY USED TERMS

Acronym	Term
CAF	Common Appraisal Framework
CAP	Climate Action Plan
CSO	Central Statistics Office
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ENEVAL	Environmental Evaluation Model - is a software that sits within the NTA's Environmental Appraisal Tool and can be used to estimate the impact of transport related tailpipe emissions.
ERM	East Regional Model
GDA	Greater Dublin Area
GHG	Greenhouse Gas
IÉ	Iarnród Éireann
LRT	Light Rail Transit
LRV	Light Rail Vehicle
NDP	National Development Plan
NIFTI	National Investment Framework for Transport in Ireland
NSO	National Strategic Outcome
NTA	National Transport Authority
RSES	Regional Spatial & Economic Strategy
RSO	Regional Strategic Outcomes
SDRA	Strategic Development and Regeneration Area
TII	Transport Infrastructure Ireland

SECTION 3: NEED FOR THE PROPOSED SCHEME

3.1 Introduction

3.1.1 Purpose of this Report

This Chapter of the Environmental Impact Assessment Report (EIAR) outlines the need for the Luas Finglas Scheme (hereinafter referred to as the proposed Scheme) in the context of the historical development of a Luas through Finglas Village aligning with both the Transport Strategy for the Greater Dublin Area (GDA) 2022-2042 (NTA, 2022) and National Planning Framework objectives of compact growth and the close integration of land use and transport planning.

The need for the proposed Scheme is discussed with reference to the current challenges identified in relevant plans and policy documents and how these challenges would be met by the proposed Scheme. All policy documents referenced in this Chapter are publicly available documents and can be sourced from the documents' authors. Alternatively, key policy and planning documents cited below are also summarised in Chapter 2 (Planning and Policy Context) of this EIAR.

This Chapter is presented in two distinct sections which are as follows:

- Need for the proposed Scheme: A description of the need for the proposed Scheme to respond to current deficiencies in the transport system at a Regional and Local level; and
- Luas Finglas response to Challenges: The provision of context for the need for the proposed Scheme, in terms of describing the benefits of the proposed Scheme as supported by transport, planning and other policy.

3.1.2 Outline Scheme Description

The proposed Scheme comprises a high-capacity, high-frequency light rail running from Broombridge to Charlestown, connecting Finglas and the surrounding areas with Dublin's wider public transport network by providing a reliable, and efficient public transport service to the city centre via Broombridge.

As shown in Volume 4 - Map Figure 1-1, starting from Broombridge, the proposed Scheme travels northwards, crossing the Royal Canal and the Maynooth railway line adjacent to Broome Bridge. It then runs adjacent to the east of Broombridge Road and the Dublin Industrial Estate. It then crosses the Tolka Valley Park before reaching the proposed St Helena's Stop and then proceeds northwards towards the proposed Luas Finglas Village Stop. From here, the route passes through a new corridor created within the Finglas Garda Station car park, making its eastern turn onto Mellows Road. The route then proceeds through Mellows Park, crossing Finglas Road, towards the proposed St Margaret's Road Stop. Thereafter, the proposed line continues along St Margaret's Road before reaching the terminus Stop proposed at Charlestown.

The proposed Scheme has been designed to integrate with the existing and future transport network, providing connections with bus services at all new Stops, mainline rail services at Broombridge, and a Park and Ride facility to intercept traffic on the N/M2. In addition, the proposed Scheme through the inclusion of integrated cycle lanes and cycling infrastructure sets out to facilitate multimodal "cycle- light rail transit (LRT) trips" as a key aspect of the Luas Finglas scheme.

The proposed Scheme will comprise a number of principal elements as outlined in Table 3-1 and Table 3-2. A full description of the proposed Scheme is provided in the following chapters of this EIAR:

- Chapter 1 (Introduction);
- Chapter 5 (Description of the proposed Scheme); and
- Chapter 6 (Construction Activities).

Table 3-1: Overview of the Key Features of the proposed Scheme

Scheme Key Features	Outline Description
Permanent Scheme Elements	
Light Rail track	3.9km extension to the Luas Green Line track from Broombridge to Finglas (2.8km of grass track, 700m of embedded track and 360m of structure track)
Depot Stabling facility	A new stabling facility (with stabling for eight additional LRVs) will be located just south of the existing Broombridge terminus, as an extension of the Hamilton depot area.
Luas Stops	Four Stops located at: St Helena's, Finglas Village, St Margaret's Road and Charlestown to maximise access from the catchment area including the recently re-zoned Jamestown Industrial Estate.
Main structures	<p>Two new Light Rail Transit (LRT) bridges will be constructed as part of the proposed Scheme: a bridge over the River Tolka within the Tolka Valley Park and a bridge over the Royal Canal and the Iarnród Éireann (IÉ) railway line at Broombridge.</p> <p>A number of existing non-residential buildings shall be demolished to facilitate the proposed Scheme. In addition, the existing overbridge at Mellows Park will be demolished.</p>
At grade signalised junctions	10 at grade signalised junctions will be created at: Lagan Road, Ballyboggan Road, Tolka Valley Road, St. Helena's Road, Wellmount Road, Cappagh Road, Mellows Road, North Road (N2), McKee Avenue, Jamestown Business Park entrance. Note: The junction at Charlestown will be reconfigured but does not have a LRT crossing.
Uncontrolled crossings	13 at grade uncontrolled crossings (11 pedestrian / cycle crossings and two local accesses located at: Tolka Valley Park, St Helena's, Farnham pitches, Patrickswell Place, Cardiff Castle Road, Mellows Park, St Margarets Road, and ESB Networks.
Cycle facilities	Cycle lanes are a core part of the proposed Scheme in order to facilitate multimodal "cycle-LRT trips". Approximately 3km of segregated cycle lanes and 100m of non-segregated cycle lanes along the route. Covered cycle storage facilities will be provided at Broombridge Terminus, Finglas Village Stop and St Margaret's Road Stop and within the Park & Ride facility. "Sheffield" type cycle stands will be provided at all stop locations.
Power substations	<p>Two new traction power substations for the proposed Scheme will be located near Finglas Village Stop behind the existing Fire Station, and near the N2 junction before St Margaret's Road Stop where the current spiral access ramp to the pedestrian overbridge is located.</p> <p>A third substation is required for the Park & Ride facility.</p>
Park & Ride facility	<p>A new Park & Ride facility, with e-charging substation, located just off the M50 at St Margaret's Road Stop will be provided with provision for 350 parking spaces and secure cycle storage to facilitate multimodal "cycle-LRT trips". The building will feature photovoltaic (PV) panel roofing and is the location for an additional radio antenna.</p> <p>This strategic Park and Ride facility will intercept traffic on the N/M2, before congestion begins to form.</p>
Temporary Scheme Elements	
Construction compounds	<p>There will be three principal construction compounds, two located west of Broombridge Road and one located at the northern extents of Mellows Park.</p> <p>In addition, there are other secondary site compound locations for small works/storage. Details can be found in Chapter 6 (Construction Activities) of this EIAR.</p>

Table 3-2: Summary of New Bridges of the proposed Scheme

Identity	Location	Description
Royal Canal and Rail Bridge	Approximately 10m east of the existing Broome Bridge and then continuing north, parallel with Broombridge Road on its east side	The proposed bridge is an eight-span structure consisting of two main parts: a variable depth weathering steel composite box girder followed by a constant depth solid concrete slab. The bridge has the following span arrangement: 35 + 47.5 + 30 + 17 + 3x22 + 17m. Steel superstructure extends over the first three spans. The bridge deck is continuous over the full length of 212.5m and has solid approach ramps at both ends.
Tolka Valley Park Bridge	Approximately 30m west of the existing Finglaswood Bridge	A three-span structure with buried end spans, thus appearing as a single span bridge. End spans as well as part of the main span consist of post-tensioned concrete variable depth girder, the central section of the main span is a suspended weathering steel composite box girder. The overall length of the bridge is 65m with spans 10m, 45m, 10m.

3.2 The Need for the Scheme

3.2.1 Introduction

The need for intervention to improve public transport capacity in the Finglas area has been the subject of extensive analysis including the Northwest Corridor Study (National Transport Authority, 2015), refer to Chapter 4 (Alternatives Considered) of this EIAR, that supported the previous iteration of the Greater Dublin Area (GDA) Transport Strategy (National Transport Authority, 2022). The study concluded that Light Rail Transit (LRT) was required in addition to the bus network to support the sustainable growth of the area.

Luas Finglas has consistently emerged as the preferred public transport option for the corridor and is identified within the current GDA Strategy (National Transport Authority, 2022) as a component of the future development of the Luas network. Luas Green Line, from St Stephen's Green to Broombridge, which opened in 2017, was planned as a phase in the development of Dublin's light rail network and built to facilitate a northern extension through Finglas at a future date.

Luas Finglas is part of an integrated transport solution that also includes MetroLink, BusConnects and DART+ all of which are included under Project Ireland 2040. Together these projects will result in reliable, sustainable, affordable, integrated public transport that will support the economy, help Ireland meet its climate change targets in line with both the Climate Action Plan (CAP) 2024, and make Dublin a more liveable and sustainable area. While Luas Finglas is a crucial part of the proposed integrated transport system for the Greater Dublin Area, it is a standalone project that is not dependent on any other projects for its delivery or effective operation.

Luas Finglas will contribute significantly to the transformation of the lives of the 56 thousand people projected to live in the Finglas study area by 2040 (CSO, 2022). The growing population and higher-density housing will create demand for a reliable, high-capacity, sustainable public transport system that helps Ireland meet its climate change commitments of reducing its greenhouse gas (GHG) emissions by 51% by 2030 and setting it on a path to reach net zero no later than the year 2050.

The current public transport service in the Finglas area is insufficient to support the future transport demand associated with a growing population. Without decisive intervention, as the number of residents in the Finglas Area increases in future years, it is likely that:

1. Road traffic congestion will increase, negatively affecting compact and sustainable economic growth;
2. Targets to reduce transport emissions will not be met; and
3. Increased journey times by all modes will result in reduced reliability and diminished quality of life and wellbeing for Finglas residents.

In addition, the requirement for the proposed Scheme is also supported in current policy from national to local level and is included in the National Development Plan (NDP) 2021-2030 (Department of Public Expenditure, NDP Delivery and Reform, 2021) and the Greater Dublin Area Transport Strategy 2022-2042 (National Transport Authority, 2022), as described in section 3.3 below and in Chapter 2 (Planning and Policy Context) of this EIAR.

3.2.2 Definition of the Challenges

Dublin, and Ireland as a whole, face a number of significant challenges moving into the future, most of which are associated with the very successful economy over the last few decades, particularly in the Dublin area. These challenges are becoming more significant as the country needs to transform to a carbon neutral economy. The relevant challenges are discussed here in order to define the onerous conditions that are driving the need for the proposed Scheme, and under the following headings:

1. Catering for existing and future transport demand;
2. Contributing to achieving Climate Action Plan targets;
3. Supporting compact and sustainable economic growth in line with government policy;
4. Encouraging community regeneration and accessibility for all; and
5. The need to deliver an integrated transport network for Dublin.

3.2.2.1 Future Transport Demand

Project Ireland 2040 outlines how the population of Ireland is forecasted to grow to 5.7 million people by 2040. This represents a 11% increase on the population recorded in the 2022 Census. Within the Finglas study area, the population is forecasted to grow by over 10,500 people (23%) by 2035¹(refer to Figure 3-1).

¹ Taken from analysis of NTA Planning Sheets developed from Project Ireland 2040 National Planning Framework targets

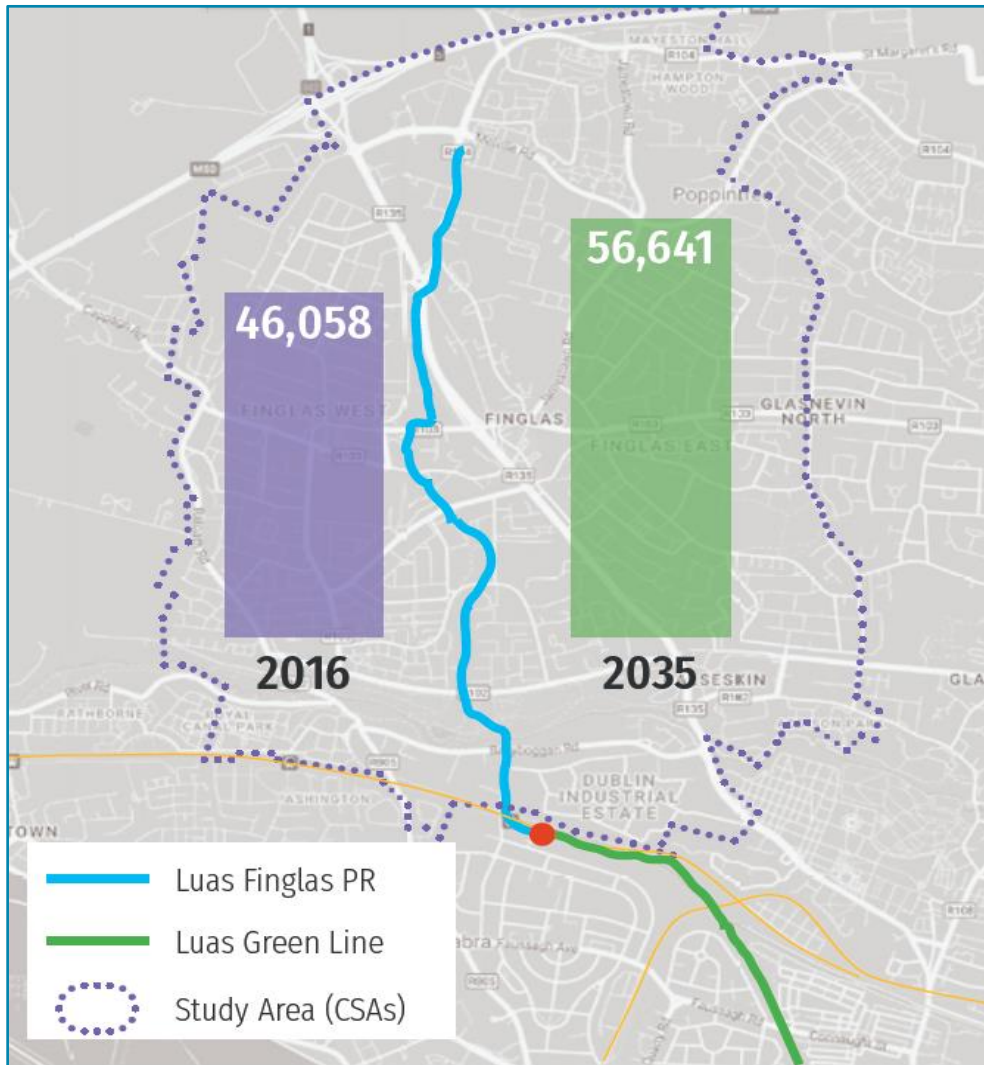


Figure 3-1: Forecast population growth within the Finglas study area (CSO, 2022)

Around 18,000 work-related trips and 9,000 school / college trips take place on an average weekday from the Finglas area². This number is likely to rise as the population grows.

Access to Dublin city centre from the north-western corridor is constrained by a small number of bridge crossings over the Royal Canal at Phibsborough, Broombridge and Ratoath Road. These areas are currently over capacity level. If current rates of car use continue, traffic congestion is likely to increase in the future due to increased demand for transport arising from general population growth and proposed developments in the Finglas area and wider region.

The city centre also experiences congestion and faces challenges in catering for the increasing number of bus services required and planned under BusConnects. Research by transport data analysts Inrix suggested that Dublin was the 5th worst city in the world for time spent in traffic in 2018 and the 10th for the overall impact of congestion. Similar analysis by Tom Tom ranks Dublin as the 17th worst city in the world for urban congestion in 2019 and the 2nd most congested in Europe, with each Dublin commuter spending approximately 19 minutes extra stuck in traffic each rush hour.

² 2022 Census Figures

Modelling in the NTA's East Regional Model (ERM) suggests that, without any intervention in the Finglas area, journey times on average by car from Charlestown to the city centre³ will increase by around 12 minutes by 2035, adding nearly 35% to the journey time (refer to Figure 3-2).

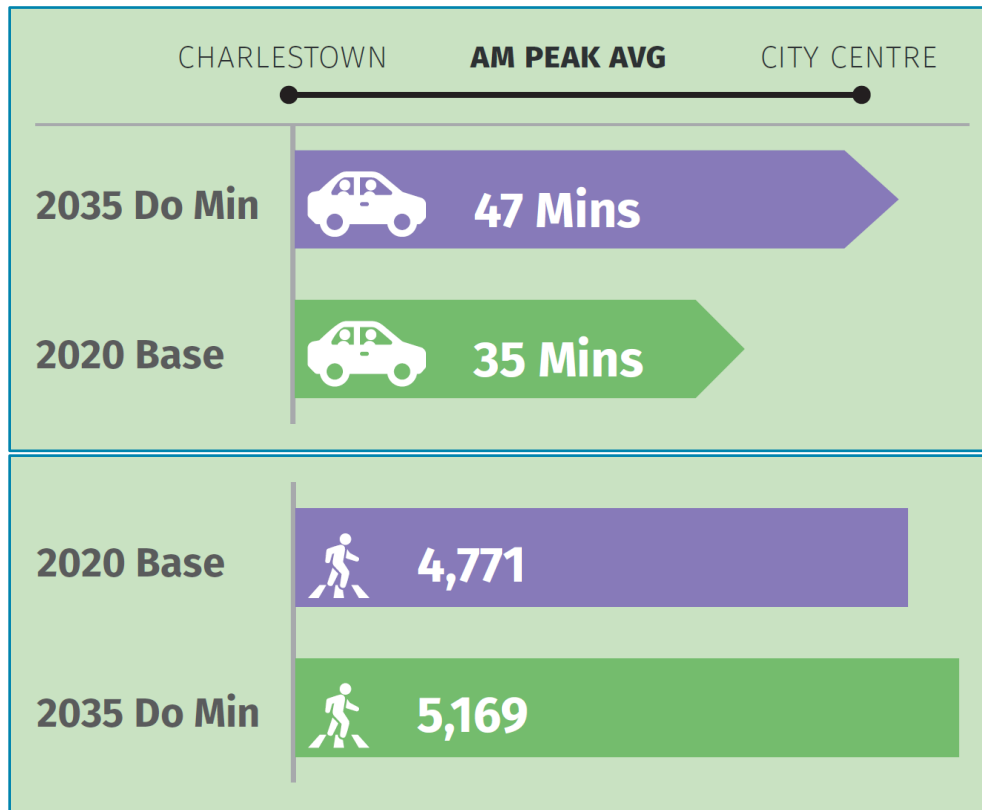


Figure 3-2: Do minimum scenario in the Finglas area (Sourced from Luas Finglas Business Case)

Given these constraints, there is little scope for the capacity of the existing road-based transport network to grow in line with population. Transport modelling analysis forecasts an additional 400 person trips crossing the Royal Canal from the northwest in the 2035 Do Minimum scenario AM peak (i.e. without the delivery of Luas Finglas) compared to a 2020 base scenario. This is including the proposed upgrades to the bus network and infrastructure to be delivered by BusConnects.

This scenario represents a relatively low growth in trips to the city centre given the estimated population increase of around 10,500 persons within the same time period, thus reflecting the transport capacity constraints. This analysis from the transport modelling indicates the need for a high-capacity public transport solution that can act independently of the existing road network to support the development of the Finglas area. Without this, congestion and journey times are likely to continue to grow into the future.

3.2.2.2 Climate Action Plan Targets

In 2022, transport accounted for one-fifth of Ireland's greenhouse gas emissions. It is the second largest contributing sector to climate change and the total emissions from transport are increasing.

Accommodating an increase in demand for transport across the city, while achieving net-zero emissions by 2050, will require significant changes in travel behaviours and the availability of attractive alternatives to the private car.

³ Taken to be Trinity College for the purpose of this analysis

According to Census 2022 data, around 50% of work trips and 42% of school/college trips from Finglas are made using private vehicles. Just 7% of trips for work or education in the Finglas area are made by rail-based modes with the nearest station located at Broombridge.

When compared to the wider Dublin City and suburbs, Finglas has a high proportion of car users for travel to work, and low proportions of walking and cycling. This suggests that to reduce the heavy reliance on the private car there is a need to invest in high-quality public transport and pedestrian and cycle in order to facilitate multimodal “cycle-LRT trip” infrastructure within the Finglas corridor. Without Luas Finglas, the continued growth in car use will result in a worsening of the environmental impacts of traffic congestion, and the road-based transport network will be more unreliable, threatening local economic vitality, development and regeneration.

3.2.2.3 Compact and Sustainable Economic Growth

Finglas has experienced substantial development in the recent past and is expected to develop significantly in the years to come, providing that the transport network supports rather than constrains development. Refer to Figure 3-3.

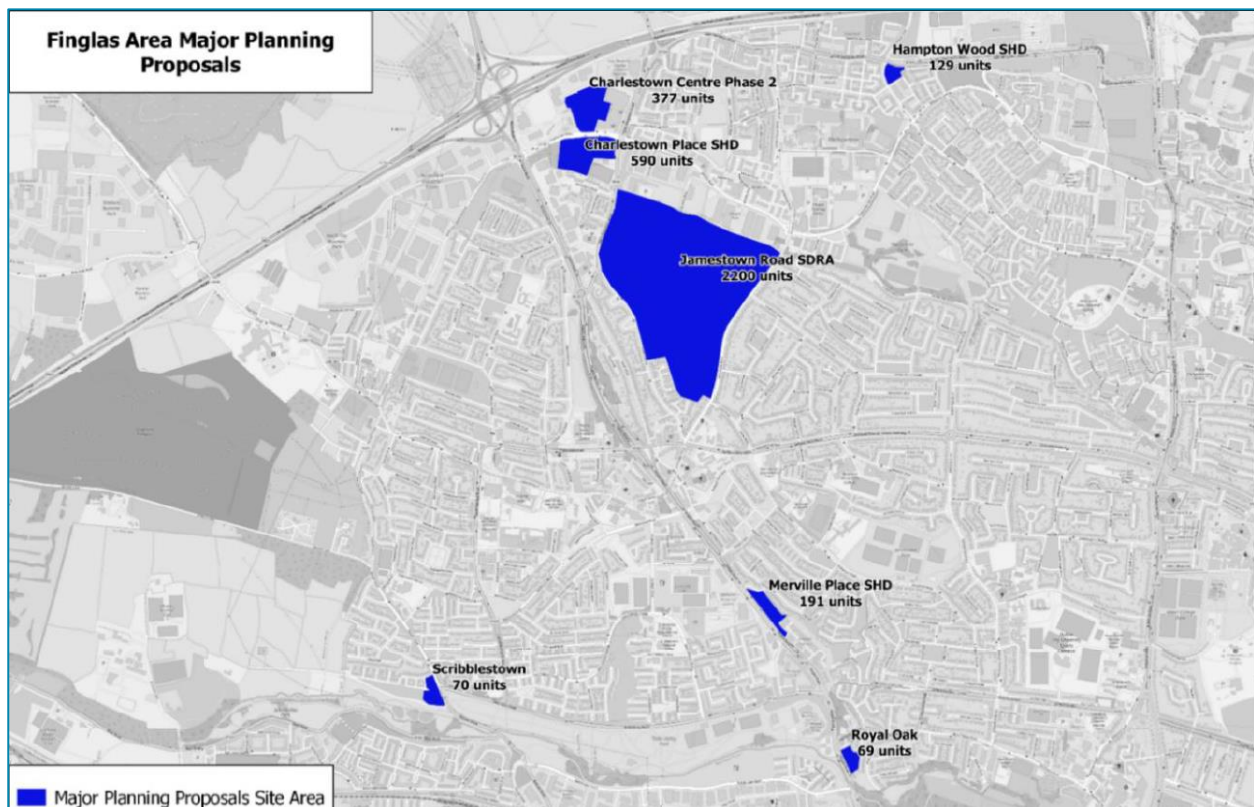


Figure 3-3: Finglas Area Major Planning Proposals

For example, Charlestown has planning permission for an additional 967 units, and the Jamestown Industrial Park, recently rezoned as a Strategic Development and Regeneration Area (SDRA), has 52 hectares of land for redevelopment and indicative targets for an additional 3,500-3,800 residential units. If the current car use profile in Finglas continues, the additional transport demand arising from population growth will result in increased congestion making the developments less attractive to both developers and those wanting to live in the area.

In offering a high quality and high-capacity service, Luas Finglas presents an attractive prospect and a certainty for developers in allowing them to bring forward a more sustainable development earlier and at potentially higher densities and value than scenarios without Luas.

3.2.2.4 Community Regeneration and Accessibility for All

The Pobal Deprivation Indices 2022⁴ highlight a number of areas in Finglas classified as ‘Disadvantaged’ or ‘Very Disadvantaged’ (illustrated in Figure 3-4).

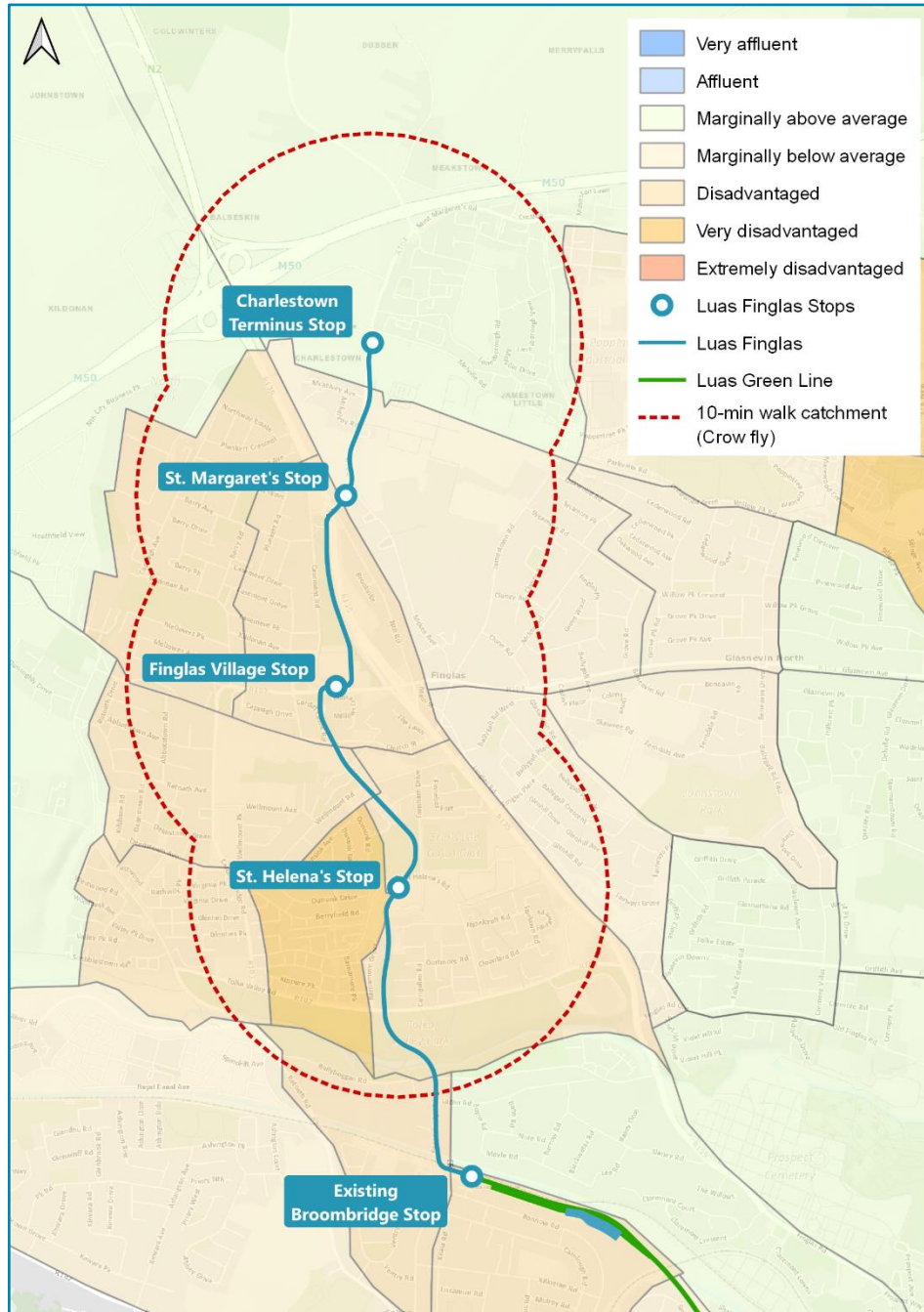


Figure 3-4: Pobal Deprivation Index (Census Small Area, 2022)

Analysis of census data indicates that around a quarter of households within the Finglas area do not have access to a private car (refer to Figure 3-5). There is a need to support households without access to a car to avoid increased car ownership. However, poor levels of accessibility to employment areas and

⁴ <https://maps.pobal.ie/WebApps/DeprivationIndices/index.html>

educational facilities by public transport are a significant barrier to employment for residents who don't own or have access to a car.

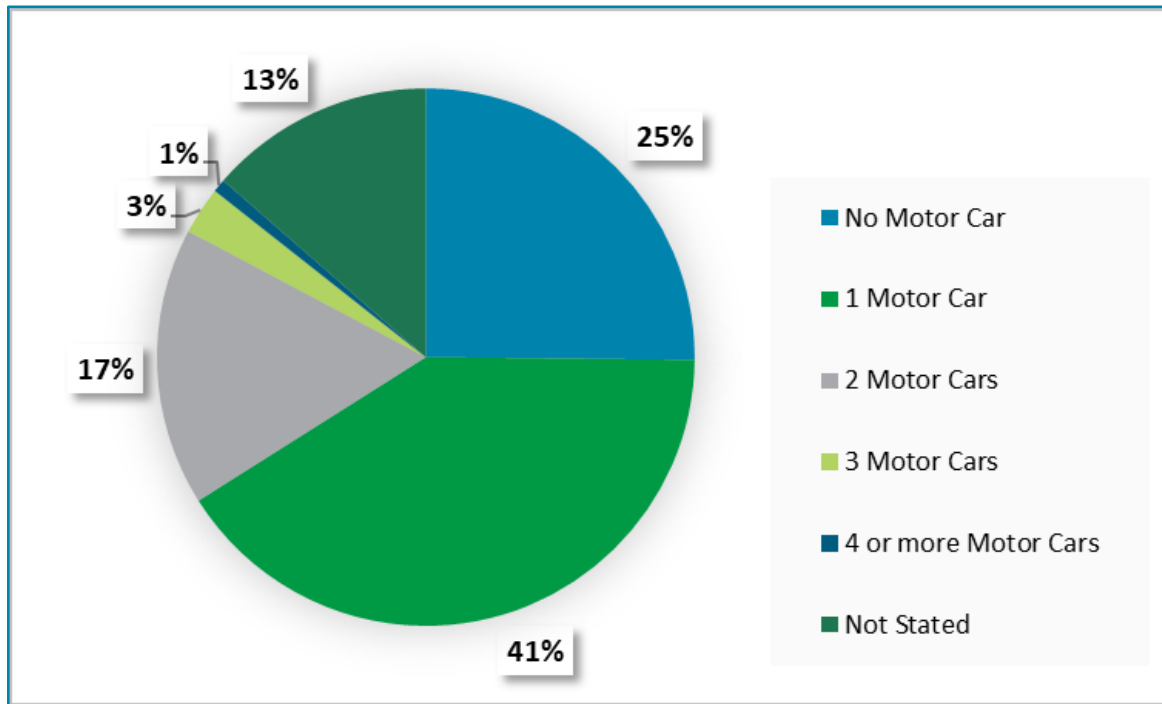


Figure 3-5: Car ownership within Finglas area (Census 2022)

In order to support the regeneration of Finglas, and improve accessibility for residents, investment in a high-quality public transport solution is required to connect more people to a wider range of employment, education and recreational services. The benefits of Luas in accessing jobs and services will be particularly apparent for those with impairments, who might find existing bus-based public transport difficult to access. Light rail in general is a proven driver of economic growth and social regeneration in previously under-served communities. This can be seen with the various community improvements to Tallaght Town Centre, post Luas integration to this area.

3.2.2.5 Integrated Transport Network

A well-developed integrated transport network is required to support accessibility and bring about economic benefits. Without further developing an integrated transport network for Dublin, issues such as congestion will impact the attractiveness of the City. This would directly impact on the cost of doing business due to time lost, increased operating costs and reduced accessibility to the labour market, thereby resulting in damaging impacts on the broader economy. Within the Finglas corridor, an underdeveloped integrated transport network will impact on the attractiveness of Finglas as a place to live and do business, hindering the sustainable economic growth of the area.

It is widely recognised in national and regional policy that an integrated public transport solution is required to encourage a shift to sustainable modes. Luas Cross City, an extension of the Green Line from St Stephen's Green to Broombridge, opened to passengers in 2017. It was designed and built to accommodate a future extension of the Luas network to Finglas.

‘Luas Broombridge is just one phase in the creation of a light rail network for Dublin. Future phases, which will impact on Luas Broombridge, include possible extensions to Lucan (Line F) and northwest from Broombridge via Finglas⁵’

There are a number of future public transport schemes in the north and north-western corridor of Dublin advancing through the planning process, including:

- **BusConnects:** The Preliminary Business Case for BusConnects has been approved by Government and planning applications for the 12 individual corridors have been submitted to An Bord Pleanála (hereafter refer to as “the Board”), with three schemes (the Finglas to City Centre Core Bus Corridor Scheme, the Liffey Valley to City Centre Core Bus Corridor Scheme and the Clongriffin to City Centre Core Bus Corridor Scheme) having been approved by the Board. The BusConnects Network Redesign implementation is ongoing, bringing about the phased introduction of enhanced bus services across the city. The F-Spine serving Finglas is to be launched as an upcoming phase of the network redesign.
- **DART+:** The DART+ Programme will significantly increase the frequency and capacity of the suburban rail network within the Greater Dublin Area. The DART+ West Railway Order application, which will see the electrification of the DART line to Maynooth and increased service frequency, has been submitted to the Board for approval. The Oral Hearing took place from 28th September to 13th October 2023. At the time of writing this chapter, no decision has been made by the Board. Broombridge station is located within the DART+ west corridor and provides an existing interchange with Luas Green Line, and a future interchange with Luas Finglas.
- **MetroLink:** MetroLink is the proposed high-capacity, high-frequency rail line running from Swords to Charlemont, linking Dublin Airport, Iarnród Éireann, DART, bus and Luas services. The Preliminary Business Case for MetroLink has been approved by Government and a Railway Order application was lodged in September 2022. The Oral Hearing took place from 19th February to 28th March 2024. At the time of writing this chapter, no decision has been made by the Board.

The Luas Finglas extension to the Luas Green Line will complement the BusConnects and DART+ proposals, with the improvements throughout the corridor providing greater connectivity between the north-western corridor to the city centre and beyond, driving transport demand increases and maximising the value of previous investments in public transport.

Investments in high-quality public transport infrastructure and systems have been proven to result in significant modal shift. Indeed, Ireland’s public transport network has achieved a historic milestone in 2023, recording over 308 million passenger journeys, the highest ever in a single year, according to preliminary figures released by the NTA.

3.3 Objectives

A set of overall objectives have been developed to ensure the proposed Scheme addresses the transport related challenges facing the wider Finglas area and aligns with government policy as discussed.

The Overarching Objectives for Luas Finglas are:

- Serve existing and future transport demand;
- Provide a safe, frequent, reliable, efficient and sustainable public transport connection from Charlestown and St Margaret’s Road (where it will also serve a strategic Park & Ride facility) to the city centre, via Finglas;
- Reduce public transport journey times between Charlestown, Finglas and the city centre compared to private car trips;

⁵ Source: Luas Broombridge (i.e. Luas Cross City) Updated Detailed Business Case 9th November 2012
https://www.nationaltransport.ie/wp-content/uploads/2012/03/Updated_Detailed_BusCase-Issued_Final201311.pdf

- Contribute to the Climate Action Plan targets for the decarbonisation of transport; and
- Promote economic growth for the residents and businesses of Charlestown, Finglas and the surrounding areas.

Aligning with the overarching scheme objectives, the following sub-objectives have been developed in line with the Department of Transport's Common Appraisal Framework (CAF) heading for Economy, Safety, Environment, Accessibility and Social inclusion, Integration and Physical Activity.

- Economy;
 - Efficiently provide capacity for transport demand within the study area, supporting existing and future development; and
 - Improve journey time reliability and reduce public transport journey times within the study area.
- Safety;
 - Improve safety for transport users by providing additional alternatives to the private car.
- Environment;
 - Reduce the impact of the delivery of transport infrastructure on the natural environment; and
 - Encourage the use of sustainable transport to reduce the levels of harmful transport emissions.
- Accessibility & Social Inclusion;
 - Improve accessibility to socially deprived areas within the study area by providing enhanced opportunities to access education and employment facilities; and
 - Enhance the quality of transport to encourage and support regeneration, investment and employment opportunities in the identified development areas of Jamestown and Charlestown and elsewhere along the transport corridor.
- Integration;
 - Improve integration between transport modes and the opportunity for interchange; and
 - Deliver strategic transport infrastructure to support wider goals for the future sustainable development of the study area as envisaged in Project Ireland 2040 and other relevant national, regional and local policy.
- Physical Activity.
 - Encourage increased levels of physical activity to support the health and wellbeing of the population of the study area.

3.4 Alignment with Government Policy

3.4.1 Introduction

The proposed Scheme aligns with important national and local policy as described in section 2.2 of Chapter 2 (Planning and Policy Context) of this EIAR and summarised below.

This section should be read in conjunction with Chapter 2 (Planning and Policy Context) of this EIAR.

3.4.2 Climate Action Plan 2024

As detailed in section 2.2.3.7 of Chapter 2 (Planning and Policy Context) of this EIAR, CAP24 implements the carbon budgets and sectoral emissions ceilings required to halve our emissions by 2030 and reach net zero no later than 2050.

CAP24 sets out necessarily ambitious targets for the decarbonisation of transport, including a ‘20% reduction in total vehicle kilometres, a reduction in fuel usage, and significant increases to sustainable transport trips and modal share’. CAP24 acknowledges the need for investment in public transport to significantly improve the attractiveness, capacity, and frequency of public transport to achieve the level of modal shift and associated reduction in fossil-fuelled vehicle kilometres travelled.

The proposed Scheme will contribute positively to the transformational change in the transport sector advocated in CAP24, including identified key performance indicators to deliver abatement requirements in the form of significant increases to sustainable transport trips and modal share. It represents an expansion of an electrified rail service which will offset reductions in car and fuel usage whilst increasing daily public transport journeys. This is supported by the findings of the operational phase assessments included in Chapter 14 (Climate), which states that the proposed Scheme is predicted to result in a carbon emission reduction estimated at approximately 180 tCO₂eq per annum or 10,800 tCO₂eq over the 60-year lifetime of the proposed Scheme.

3.4.3 National Sustainable Mobility Policy (2022)

The policy, as detailed in section 2.2.3.12 of Chapter 2 (Planning and Policy Context) of this EIAR, and published in 2022, has three principles:

- safe and green mobility;
- people focused mobility; and
- better integrated mobility.

These priorities are underscored by a series of goals, many of which are applicable to the opportunity to improve transport in the Finglas area.

The policy emphasises ‘the need to rebalance transport movement in metropolitan areas and other urban centres away from the private car and towards active travel and public transport’ and confirms that ‘the overarching objective in urban centres should be to focus more on the movement of people rather than the movement of the private car.’

The proposed Scheme supports the delivery of all of the identified principles and goals of the National Sustainability Mobility Policy. It will enhance and expand the public transport network to serve an enlarged catchment in the metropolitan area, commensurate with safety standards. By offering an accessible, convenient, attractive and sustainable public transport option, it will foster modal shift away from the private car. The integration of the proposed Scheme with areas of strategic future residential development (ref. Jamestown Masterplan and Pre-Draft Baile Bogáin (Ballyboggan) LAP 2024-2030) will ensure positive integration between land use and transportation planning.

The associated Action Plan 2022-2025 includes continued appraisal and planning of new light rail in Dublin as a core action.

3.4.4 Project Ireland 2040: National Planning Framework and National Development Plan 2021 – 2030 (2021)

As detailed in section 2.2.3.1 of Chapter 2 (Planning and Policy Context) of this EIAR, Project Ireland 2040 comprises the National Planning Framework (NPF) and the National Development Plan (NDP).

Luas Finglas directly supports four of the 10 Project Ireland 2040 National Strategic Outcomes (NSOs):

- NSO 1: Compact growth;
- NSO 4: Sustainable mobility;
- NSO 5: A strong economy, supported by enterprise, innovation and skills; and
- NSO 8: Transition to a climate-neutral and climate resilient society.

Light rail is one of the strategic investment priorities identified under the NSO 4 of Sustainable Mobility. The NDP explicitly references Luas Finglas stating that *‘the NDP will permit the project continue to progress.’*

3.4.5 National Investment Framework for Transport in Ireland (2021)

The Department of Transport’s National Investment Framework for Transport in Ireland (NIFTI) was published in December 2021 (Department of Transport, 2021). Its purpose is to ensure that future transport financing is aligned with and enables Project Ireland 2040. It does so by establishing priorities for investment in Ireland’s transport infrastructure having regard to the need to deliver on the 10 NSOs in the NFP.

To enable the NSOs, particularly around decarbonising the transport system and delivering compact growth, NIFTI promotes a significant shift from low-occupancy private vehicles to more sustainable modes of travel. It sets out a hierarchy of travel modes to be accommodated and encouraged when investments and other interventions are made based on: 1. Active Travel; 2. Public Transport, and 3. Private Vehicles. Refer to section 2.2.3.3 of Chapter 2 (Planning and Policy Context) of this EIAR.

Luas Finglas is very well aligned to three of the four National Investment Framework for Transport in Ireland (NIFTI) investment priorities as shown in Figure 3-6:

- Decarbonisation;
- Mobility of people and goods in urban areas; and
- Enhanced regional and rural connectivity.

Luas will be extended through the inclusion of a strategic Park & Ride facility linked to the national road network, thereby delivering enhanced regional and rural connectivity.

Through the provision of walking, cycling and public transport, Luas Finglas aligns strongly with the modal hierarchy set out in NIFTI.

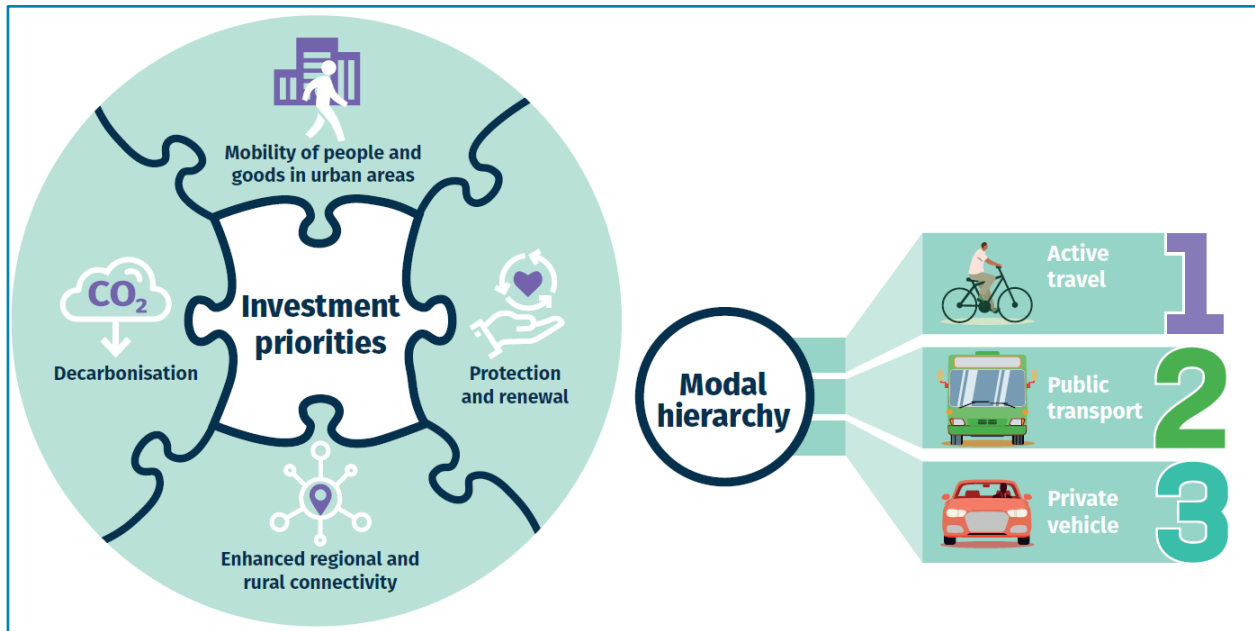


Figure 3-6: NIFTI investment hierarchy (NIFTY, 2021)

3.4.6 Regional Spatial & Economic Strategy 2019-2031 (2019)

The Regional Spatial & Economic Strategy (RSES) from the Eastern & Midland Regional Assembly outlines 16 Regional Strategic Outcomes (RSOs). The RSOs that most closely relate to meeting the transport needs of Finglas, and which will be supported by Luas Finglas, are:

- Healthy Placemaking: Sustainable settlement patterns; Compact growth and urban regeneration; Healthy communities;
- Climate Action: Integrated transport and land use; and
- Economic Opportunity: Improve education, skills and social inclusion; Enhance regional connectivity.

The Dublin Area Strategic Masterplan is part of the RSES. It recognises a number of key future transport infrastructure schemes, including the Luas Green Line extension to Finglas from Broombridge. Refer to section 2.2.4.1 of Chapter 2 (Planning and Policy Context) of this EIAR.

3.4.7 Greater Dublin Area Transport Strategy 2022-2042 (2022)

The review of the Greater Dublin Area Transport Strategy acknowledges the success of Luas from when it first arrived in Dublin in 2004, and that light rail remains a valuable tool in the transport solution for the city. The strategy proposes an expansion of the Luas network up until 2042 and beyond. Luas Finglas is identified in the Strategy as a scheme to be delivered in the medium term (2031-2036) to expand the reach of Luas across Dublin as shown in Figure 3-7.

The Cycle Network Plan is a core component of the Strategy (refer to section 2.2.4.3 of Chapter 2 (Planning and Policy Context) of this EIAR). It establishes a framework to support the growth of cycling, improving the safety, efficiency and directness for trips under 10km whilst acknowledging that longer distance cycling commutes and recreational trips will also take place.

Core to the proposed Scheme is the delivery of infrastructure to facilitate multimodal "cycle - LRT trips", through the delivery of integrated Luas and cycling infrastructure, in accordance with the Greater Dublin Area Cycle Network Plan. It will provide convenient, family-friendly, and sustainable integration between the Scheme and the surrounding areas.

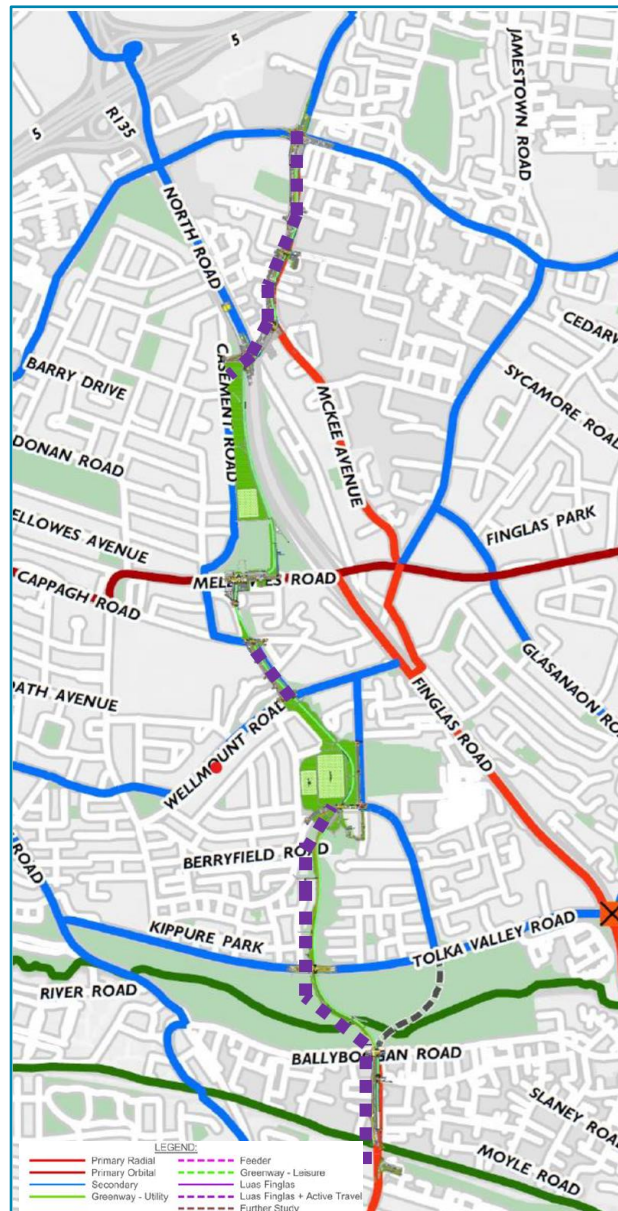


Figure 3-7: Luas Finglas Active Travel Proposals and NTA Cycle Network Plan, 2022

3.4.8 Dublin City Development Plan 2022-2028 (2022)

The Dublin City Development Plan, adopted in November 2022, recognises that Finglas is one of twelve Key Urban Villages in Dublin, as it is a focal point for jobs, services, shopping and other activities. The development plan looks ahead and takes into account future infrastructure, including the delivery of the Luas Green Line extension to Finglas.

The Plan has identified areas across the city that have land available for development. This includes 52 hectares located in and around Finglas Village and Jamestown earmarked as an SDRA, and the Dublin Industrial Estate site adjacent to the Broombridge Luas interchange. The Plan relies on Luas Finglas and bus improvements, once delivered, to serve these regeneration areas.

3.4.9 Fingal County Council Development Plan 2023-2029 (2023)

The Fingal County Development Plan that came into effect in April 2023 prioritises the achievement of compact and sustainable growth structured around an accessible, high quality and integrated public transport system.

The Plan has identified areas across the county with available land for development, relying on the future delivery of Luas Finglas and bus improvements to serve these regeneration areas. As noted in section 3.2.2.2, Finglas has a high proportion of car users for commuting to work, and relatively low proportions of walking and cycling. Census 2022 data shows that approximately 50% of work trips and 42% of school/college trips from Finglas are made using private vehicles, while only 7% of trips for work or education in the Finglas area are made by rail-based modes, with the nearest station located at Broombridge.

3.4.10 Understanding Life in Ireland: The Well-being Framework (2023)

Ireland's Well-being Framework was first launched in July 2021, with the aim of moving beyond using just economic measures in gauging our progress as a country, by encompassing economic, environmental and social issues together, rather than separately or in isolation. It focuses on quality of life, with a particular emphasis on equality and sustainability, which can help better align policy decisions with people's experiences. There are 11 dimensions alongside two important cross-cutting issues of equality and sustainability. The key dimensions identified and incorporated into the appraisal are:

- Subjective Well-being;
- Mental and Physical Health;
- Income and Wealth;
- Knowledge, Skills and Innovation;
- Housing and the Built Environment;
- Environment, Climate and Biodiversity;
- Safety and Security;
- Work and Job Quality;
- Time Use;
- Connections, Community and Participation; and
- Civic Engagement, Trust and Cultural Expression

The 'Understanding Life in Ireland: The Well-being Framework' report from 2023 shows that Ireland's performance is positive across 10 of the 11 wellbeing framework dimensions with only one dimension, the Environment, Climate and Biodiversity dimension, showing a negative performance. The proposed Scheme objectives described in section 3.3, specifically those mentioned under the environmental topic, will provide a path to perform better within this dimension, continually improving the lives of Ireland's population.

3.5 Luas Finglas Response to Challenges

3.5.1 Introduction

The proposed Scheme has been designed to facilitate improved efficiency of the transport network through the improvement of the infrastructure for active (walking and cycling) and public transport modes, making them attractive alternatives to car-based journeys. Central to the design is the optimisation of roadway space with a focus on the movement of people rather than vehicles along the route and through the junctions. Consequently, by prioritising the movement of light rail over cars, significantly more people can be transported. Proposing and making space for improved pedestrian infrastructure and segregated cycle lanes can significantly benefit these sustainable modes and encourage multimodal "cycle-LRT trips".

The proposed Scheme design involves the prioritisation of People Movement, focusing on maximising the sustainable modes of travel throughout (i.e. Walking, Cycling and Light Rail modes).

As evidenced within this section, the proposed Scheme will address sustainable mode transport infrastructure constraints while contributing to an overall integrated sustainable transport system as

proposed in the GDA Strategy. It will increase the effectiveness and attractiveness of the public transport network within the area and will result in more people benefiting from faster journey times and improved journey time reliability.

The proposed Scheme and its objectives fit within the current planning frameworks that are described in Chapter 2 (Policy and Planning Context) of this EIAR. The proposed Scheme will help deliver many of the objectives at an international, national, regional and local level.

Overall, the proposed Scheme will make a significant contribution to the overall aims and objectives of the GDA Strategy and allow the city to grow sustainably into the future, which would not be possible in the absence of the proposed Scheme.

3.5.2 Economic Impacts

3.5.2.1 Serve existing and future transport demand

Luas Finglas unlocks sustainable development potential along the north-western corridor where 52 hectares have been identified for development across the Finglas and Jamestown SDRA. At the time of writing this EIAR, the draft Jamestown SDRA Masterplan includes for 3,500 – 3,800 new residential units. Further work is also ongoing for the redevelopment of the Dublin Industrial Estate lands with a Ballyboggan Local Area Plan being developed to help regenerate the area.

These areas will be directly served by Luas Finglas. The four stops on Luas Finglas are located to maximise access from the catchment area and can provide sustainable transport capacity to ensure that new development areas become less reliant on the private car.

In its opening year (assumed to be 2035), it is estimated that Luas Finglas will contribute to an annual increase of around 3.7 million public transport boardings within its 1km catchment area as per Figure 3-8. This is an increase of 46% when compared to a scenario without the delivery of Luas Finglas. Whilst some of these boardings will be interchanges from existing bus services, the Luas will support significantly higher levels of demand for public transport.

Transport modelling indicates that the level of demand at Charlestown Place and St Margaret's Road will exceed 800 passengers in the morning peak hour when the service is available in 2035. This level of demand rivals some of the highest demand Green Line stations at Stillorgan, Balally and Dundrum as recorded in the 2019 Luas Census. Even the Stop with the lowest boardings along the planned extension, St Helena's (568 passengers), will attract higher boarding numbers than many of the stations along the existing Green Line.

The catchment area of Luas Finglas is extended beyond its immediate catchment by the inclusion of a 350-space Park & Ride facility with e-charging points, located with easy access just off the R135-N2/M2 Corridor at St Margaret's Road.

Transport modelling indicates that the level of demand at Charlestown Place and St Margaret's Road will exceed 800 passengers in the morning peak hour when the service is available. This level of demand rivals some of the highest demand Green Line stations at Stillorgan, Balally and Dundrum as recorded in the 2019 Luas Census. Even the station with the lowest boardings along the planned extension, St Helena's (568 passengers), will attract higher boarding numbers than many of the stations along the existing Green Line.

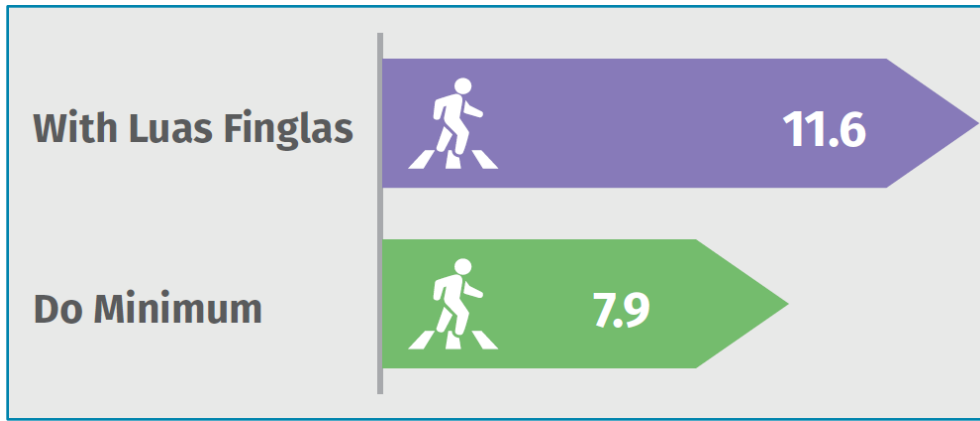


Figure 3-8: 2035 Annual Boardings (millions) – Luas Finglas catchment (Sourced from Luas Finglas Business Case)

3.5.2.2 Reduce public transport journey times between the Finglas area and the city centre

The proposed Scheme will run mostly off-road from Broombridge to Charlestown, with carefully configured access routes, by foot or cycle, to the Luas Stops. It will connect with Luas Cross City (the northern section of the Green Line), which is completely segregated from traffic until Dominick Street in the north inner city. Therefore, together with the current Luas infrastructure between Broombridge and the City Centre, Luas Finglas will operate within a 7.5km high-capacity and reliable rail corridor in north-west Dublin, almost free from road constraints.

Luas Finglas will significantly reduce public transport journey times between the Finglas area and the city centre by an average of 12% during the AM peak hour. When compared to travel via private car, the delivery of Luas Finglas will lead to an average reduction in journey times to the city centre of 15 minutes (over 30%) during the congested peak periods. As an example, journey time by Luas Finglas from Charlestown to the city centre⁶ is expected to be around 30 minutes in the AM peak, whilst the equivalent trip by car in the opening year is estimated to take approximately 47 minutes as per Figure 3-9.

The delivery of Luas Finglas will create a largely off-road, protected rail-based corridor from the Charlestown or Finglas to O'Connell Street that can deliver more reliable journey times. This is of particular benefit to existing road users who decide to switch to Luas Finglas. Increases in transport demand throughout the appraisal period will put additional pressure on the already congested road network, with Luas Finglas offering an increasingly attractive alternative to the car leading to modal shift to Luas. It is estimated that the delivery of Luas Finglas will lead to an effective saving in journey time variability of over 4 minutes in the AM and PM peaks, over and above the average journey time differential noted above. Knowing exactly how long a journey will take provides a greater level of confidence and assurance to passengers, and this allows them to plan their time more efficiently.

⁶ For the purpose this analysis, the 'city centre' has been defined as Trinity College.

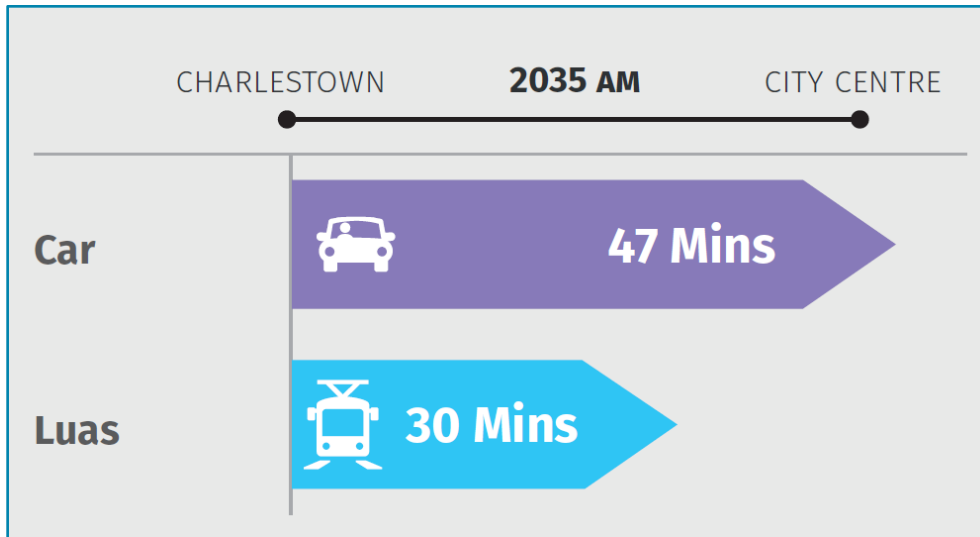


Figure 3-9: Journey time comparison (Sourced from Luas Finglas Business Case)

3.5.2.3 Promote economic growth for the residents and businesses of Charlestown, Finglas and the surrounding areas

Through the substantial increase in public transport capacity and improvements to journey times and reliability due to the delivery of Luas Finglas, the scheme will have a significant economic impact, improving the attractiveness of the Finglas area supporting the delivery of regeneration and development investment, and providing capacity to enable medium and long-term compact and sustainable economic growth. Of particular benefit will be the areas in and around Finglas Village and Jamestown earmarked as a Strategic Development and Regeneration Area (SDRA).

The proposed Scheme will support and promote economic vitality and growth in the Finglas and Charlestown areas, initially through the investment in the local area, which includes the delivery of improved walking and cycling access routes and links, and expenditure on local urban realm and environmental mitigation measures such as new and improved planting.

The improved connectivity offered by the extension to the Luas Green Line will widen employment opportunities and improve access to education and health facilities, leading to improved economic, health and social outcomes, thereby reducing social exclusion and supporting improvement in the quality of life for residents in the area. These benefits will be particularly important for those residents, employees and visitors with a mobility impairment through increased physical accessibility to the transport network and the available work, education and community facilities.

In addition, the inclusion of additional walking and cycling facilities in the Finglas design will increase the catchment areas for Luas and, importantly, deliver local connectivity benefits to encourage modal shift from car for short distance journeys in the Finglas area.

3.5.3 Safety

3.5.3.1 Improve safety for transport users by providing additional alternatives to the private car

Light rail is an attractive form of travel and will reduce the number of private cars on the road network as motorists opt for the convenient, fast journeys that Luas offers. For pedestrians and cyclists, the provision of new complementary infrastructure will allow active journeys to be made away from busy roads resulting in a reduced chance of collision with motorised vehicles. The cycle and pedestrian components of the proposed Scheme are designed with everyone in mind, adopting principles of universal design to achieve the highest possible levels of accessibility for all, promote multimodal “cycle-LRT trips” and to mitigate any exposure to safety risks associated with the proposed Scheme

In terms of improving highway safety, transport modelling using the NTA's ERM and COBALT (Cost and Benefit to Accidents – Light Touch) analysis tool has shown that, over the appraisal period, the proposed Scheme is forecast to deliver €547,000 of road safety benefits due to a reduction in the number and the severity of collisions. This is in part derived from the reduction in traffic volumes driven by modal shift from car to Luas leading to fewer collisions on the network. Luas Finglas is estimated to lead to an annual reduction in around 440,000 vehicle trips on the road network along the corridor in the opening year 2035.

The proposed Scheme also delivers safety benefits for cyclists and pedestrians, with the dedicated infrastructure running parallel to Luas Finglas providing an active travel environment mostly away from motorised vehicles and, therefore, greatly reducing the likelihood of a collision. Active design measures will mitigate safety risks where pedestrians and cyclists interact with Luas, including at stops and in crossing the Luas route. The delivery of the active travel elements of the scheme will provide €5.4m in benefits over the 30-year appraisal period due to the improved quality and safety of the walking and cycling infrastructure.

3.5.4 Integration

3.5.4.1 Improve integration between transport modes and the opportunity for interchange

The design of the proposed Scheme ensures it serves communities, with four Stops along its approximate 4km route, integrating in multiple locations with existing bus services as well as connecting with (Department of Public Expenditure, NDP Delivery and Reform, 2021) services at Broombridge and providing a new Park & Ride facility near the St Margaret's Road Stop. As Luas Finglas is an extension of the existing Luas Green Line, it offers many more integration opportunities further south such as the Luas Red Line and city centre bus and rail services. Luas Finglas has been planned with an outlook on the future, with integration with BusConnects, including with the E2, F1, F2, F3, 23, 24, N4, N6 and L89 routes and consideration of the future delivery of DART+ West and MetroLink. The delivery of walking and cycling infrastructure, along with cycle parking at the new stations also supports the integration between active modes and public transport use such the "cycle-LRT trips".

In addition, the provision of a 350-space Park & Ride site located just off the M50, adjacent to the North Road near the St Margaret's Road Stop, significantly extends the catchment area of Luas Finglas, connecting the N2/M50 to the city centre and the entire Luas network. Integrating Luas Finglas with the road network at this location supports the reduction of vehicular traffic closer to the city centre, providing a viable public transport alternative for people living further away outside the M50.

Modelling analysis indicates there will be 1,024 public transport interchanges in the AM peak hour within the north-west of the city during the opening year of Luas Finglas (assumed to be 2035). Please refer to Figure 3-10. This is well over twice as many that would occur without the delivery of the scheme. This high number of public transport interchanges illustrates the integration of Luas Finglas with the wider network.

The same models indicate that during the AM peak hour in 2035, people using the Park & Ride and Luas Finglas will save 8.7 minutes on average when compared to completing their journey by car. This is also likely to be a conservative estimate, as it does not include the time taken searching for a parking space in the city centre when travelling by car. The journey time benefits provided by the Park & Ride facility will encourage its usage, thus increasing sustainable trips to the city centre and beyond.

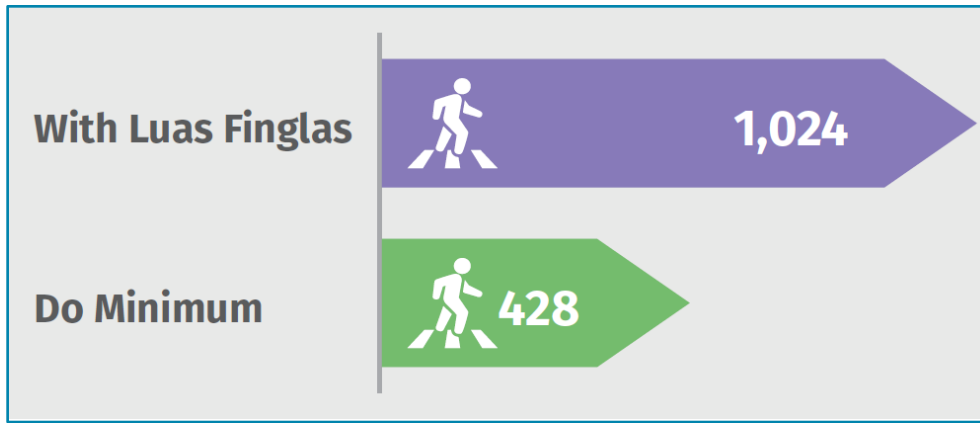


Figure 3-10: 2035 AM Peak Hour Interchanges (sourced from Luas Finglas Business Case)

3.5.4.2 Supporting future sustainable development

Luas Finglas will pass close to a number of significant development areas, including:

- 101 residential units in and around Charlestown;
- 69 residential units on Cappagh Road;
- the recently delivered 92 residential units in Hampton Wood;
- 70 residential units in Scribblestown; and
- the recently delivered 46 residential units in Royal Canal Park.

In addition, the 52-hectare site identified for redevelopment as part of the Jamestown Strategic Development and Regeneration Area indicates plans for 3,500 – 3,800 new homes.

It is expected that 73% of the forecasted population growth in Finglas will be within a 10-minute walk of a Luas stop. Furthermore, 55% will be within a short 5-minute walk. Luas Finglas will bring high-quality public transport mobility to more people and, in doing so, support the sustainable growth of the city as per Figure 3-11.

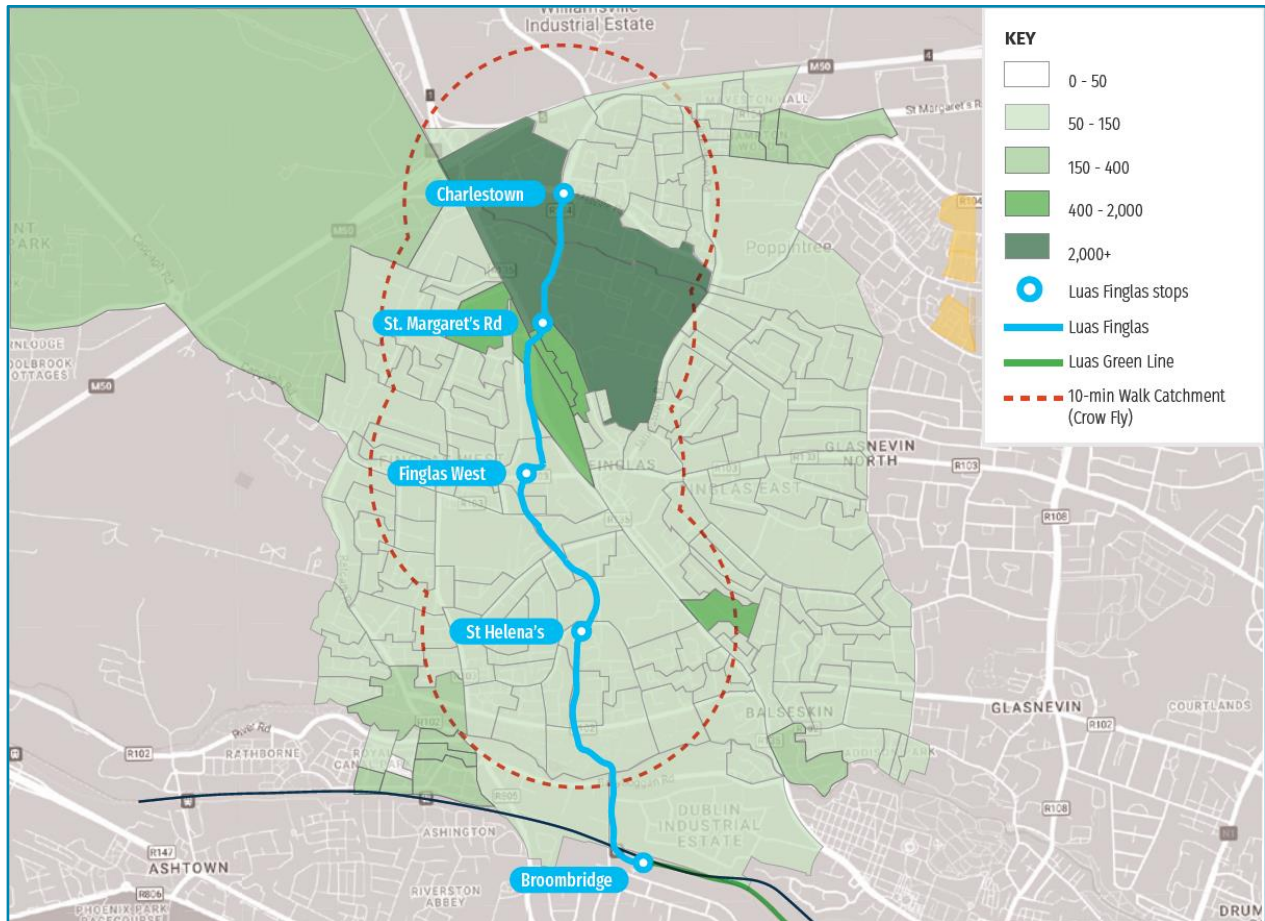


Figure 3-11: 2035 Population Growth (sourced from Luas Finglas Business Case)

The integration of Luas Finglas into the city's public transport network offers new opportunities to make multi-leg journeys. It complements the delivery of other schemes in the area such as the roll-out of the BusConnects network and infrastructure, along with the DART+ West Rail upgrades, to create an integrated public transport offering.

3.5.5 Environmental Impact

3.5.5.1 Reduce the impact of the delivery of transport infrastructure on the natural environment

A comprehensive Sustainability Plan has been developed for the proposed Scheme outlining how the scheme addresses key sustainability challenges, risks and opportunities (refer to Volume 5 – Appendix A5.2). The proposed Scheme has incorporated sustainability objectives into its design, construction and operation, and thereby contribute to the economic efficiency, develop, protect, and enhance the environment and contribute to the overall well-being of society.

A Biodiversity Net Gain (BNG) approach has been applied to deliver improvements through the creation or enhancement of ecological habitats, and an extensive landscape strategy has been developed to replant many more trees than will be removed during construction. Design mitigation measures, especially in sensitive areas crossing Tolka Valley Park and Mellows Park are outlined to avoid, negate, or minimise adverse Construction and Operational Phase impacts on identified ecological features or designated sites. Where possible, the project design has included the use of grass track to integrate with the surrounding areas and improve the visual impact of the scheme. Further details on the mitigation measures identified to reduce the impact of the delivery of Luas Finglas on the natural environment are outlined in chapter 9 (Biodiversity) of this EIAR.

3.5.5.2 Encourage the use of a sustainable transport connection from Charlestown to City Centre, via Finglas

Luas is highly efficient, transporting large volumes of people whilst requiring little land take, providing opportunities to integrate into urban environment through careful design features, such as surface treatment and new planting. There is a real opportunity to reduce the impact of transport provision on the local environment through both design features and modal shift from the private car to Luas.

As an extension of the Green Line, Luas Finglas leverages past investment by increasing usage of the northern section of the Luas Green Line, balancing existing and forecasted passenger flows. It allows for an expansion in transport capacity to the city centre, but without the need to take any additional capacity from the existing bus and road networks. This aligns with the GDA Transport Strategy, which promotes the use of existing infrastructure to deliver significant uplifts in accessibility whereby new services can effectively “plug-in” to an already established network.

This also aligns with the National Investment Framework for Transport in Ireland (NIFTI) hierarchy of investment as it both optimises and improves the use of the recently constructed Luas Green Line corridor, leveraging previous investment and utilising an existing large capacity / high level of segregation at no additional investment cost.

Active travel is at the top of the NIFTI hierarchy of investment options. Luas Finglas is accompanied by active travel infrastructure along most of the route. During the two non-statutory public consultations on the proposed Scheme, the opportunity to construct parallel footpaths and cycle lanes along the proposed route received strong support. Cycle parking facilities are provided at each of the new stations to support cycle-LRT trips and further encourage sustainable travel choices.

The proposed Scheme has a very comprehensive and well-defined scope of works as per Chapter 5 (Description of the proposed Scheme) and Chapter 6 (Construction Activities) of this EIAR. With regard to the planning process, the two non-statutory public consultations - already completed and described in Chapter 1 (Introduction) of this EIAR - have identified potential risks and mitigation measures which were developed through this EIA and through design processes.

Mitigation measures through design and construction phases include innovative grass track, both new and replacement planting to integrate with the surrounding areas, and these will improve the visual impact of the scheme. The Preferred Route has been designed to limit the impact on biodiversity, and an extensive landscape strategy is incorporated into the design to replant many more trees than would be removed during construction.

3.5.5.3 Contribute to the Climate Action Plan targets for the decarbonisation of transport

Luas Finglas will lead to a significant reduction in journey times for residents in the area and support an increase in public transport usage. In the opening year 2035, Luas Finglas will deliver an increase of 1.3 million low carbon public transport trips per annum. This represents an 11% increase in public transport trips due to the delivery of Luas Finglas.

In 2050, this increases to an additional 1.8 million public transport trips which represents a 13% increase due to the delivery of Luas Finglas.

These results indicate that Luas Finglas will lead to an overall decrease in car mode share of around 1% for the north-west of the city, as shown in Figure 3-12. In percentage terms, this might seem modest. However, in absolute trip numbers, it represents a significant increase in sustainable travel.

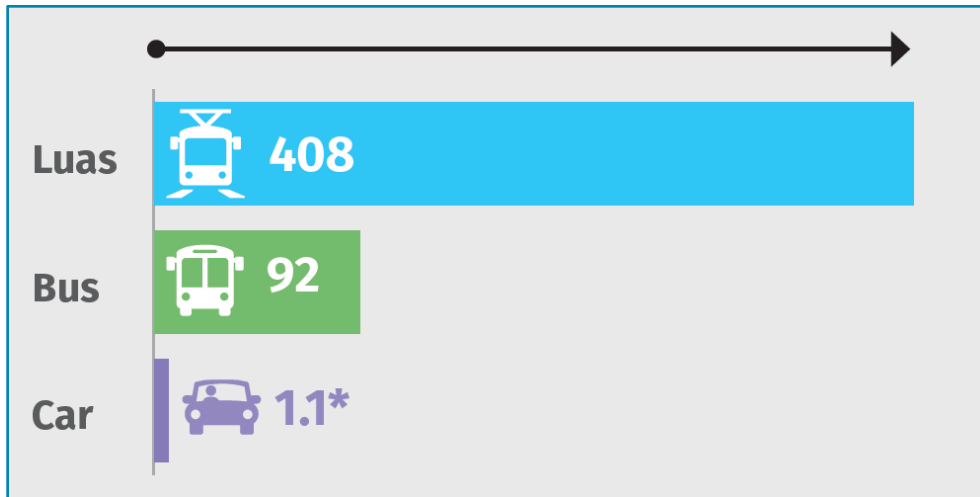


Figure 3-12: Passengers per vehicle type (*Average car occupancy from survey data)

The increase in sustainable trips due to Luas Finglas will have a positive impact on the environment.

One Light Rail Vehicle (LRV) can carry the same number of passengers as around 370 cars with lower carbon emission and energy consumption per person. For example, the latest 2022 UK Defra statistics show that an average petrol car emits 170g of carbon dioxide versus 96g for an average bus, and 28g for LRV per passenger km.

Emissions analysis undertaken using NTA's Environmental Evaluation Model (ENEVAL) indicate that in the opening year 2035, the delivery of Luas Finglas will lead to reductions in NO₂, particulate matter (PM₁₀ and PM_{2.5}), CO₂, and other emissions that harm the natural environment and human health. In total, it is estimated that Luas Finglas will deliver reductions in carbon emissions from transport of approximately 300 tonnes per annum. Luas Finglas also provides significant environmental resilience on the network, removing a number of car-based trips and freeing up road space for buses and active travel modes along the Finglas corridor.

This aligns with CAP24, which aims to achieve a 51% reduction in greenhouse gas emissions by 2030, setting us on a path to reach net-zero emissions by 2050.

3.5.6 Accessibility and Social Inclusion

As discussed in section 3.2.2, some areas around the proposed Scheme are classed as disadvantaged by the Pobal HP deprivation index. In total, 10,212 people who are identified as disadvantaged will live within a 10-minute straight-line catchment of a Luas Finglas Stop.

Developing and constructing Luas Finglas will support improvement through increased accessibility to work, education, health and community facilities. It will provide direct connectivity to TU Dublin and Trinity College, and in general bring education, jobs, and leisure activities to within greater reach of a significant number of currently disadvantaged residents.

Through an integrated public transport network, the proposed Scheme will support accessibility to major destinations beyond the direct catchment of the extension. For example, St James' Hospital and the new National Children's Hospital will be accessible via Luas Finglas and a single transfer to the Luas Red Line. St Vincent's Hospital can be accessed via interchange with the future DART at Broombridge or bus connections via transfer in the city centre.

With a strong emphasis on legible and physical accessibility to stops and level boarding to the Luas vehicles, accessibility will be significantly increased for all users, including those with mobility, visual, hearing and sensory impairments.

The delivery of Luas Finglas will help unlock potential capacity for people movements to and from the north-west corridor. Modelling analysis indicates that in the opening year 2035, the delivery of Luas Finglas will lead to a 50% increase in transport capacity utilisation for trips travelling south towards the city centre in the AM peak. Without Luas Finglas, travel from the north-western corridor is constrained by pinch points on the road network for both cars and bus-based public transport crossing the Royal Canal at Phibsborough, Broombridge and Ratoath Rd.

3.5.7 Physical Activity

The proposed Scheme includes the provision of footpaths and cycle lanes running parallel to the Luas line. These will be segregated from vehicular traffic in parts and as such will provide a pleasant environment to walk and cycle. This will also raise the attractiveness of the local area and boost civic pride. Each Luas stop will include cycle parking facilities, making it even easier to undertake multimodal trips (i.e. Cycle+LRT) and include physical activity as part of daily life.

Measured monetary benefits due to the increase in the levels of physical activity constitute the key performance indicator that demonstrates the success of the scheme in meeting this criterion. TII's TEAM tool indicates that the scheme will deliver €6.1m of benefits over the 30-year appraisal period due to improvements in modal shift and general health and wellbeing.

The proposed segregated walk and cycle infrastructure will link a number of residential areas, local schools, parks and recreational facilities along the route encouraging sustainable travel, in particular for vulnerable road users and less confident cyclists. There are 11 primary and 3 secondary schools within approximately 1km of the Luas Finglas alignment. In total about 3,000 primary school children and 1,500 secondary school pupils attend these schools. The new active travel facilities delivered as part of the proposed Scheme will also provide a connection to the Royal Canal Way which offers a mainly off-road link towards Dublin city and is also a great local amenity for recreational trips along with the Tolka Valley Greenway.

3.6 The Effects of the COVID-19 Pandemic

The COVID-19 pandemic and the consequent public health advice concerning social distancing, as well as encouraging more people to work from home, resulted in a short-term change in travel patterns in the Greater Dublin Area (this led, for example, to a significant decline in the demand for commuter and business-related travel and, in turn, public transport use).

However, as of September 2021, existing public transport networks returned to full capacity following successful implementation of public health measures to manage COVID-19 such as the vaccination programme.

TII has observed that the road network returned to near-normal levels (approximately 80%) very quickly following lockdown events – meaning the capacity constraints and challenges identified at the beginning of this Chapter will persist after COVID-19 – unless the proposed Scheme and other key elements of an integrated public transport network are developed.

Work from home trends have become more prevalent in those industries where it is possible, with some people spending more days working from home than in the office. The business case for the proposed Scheme has had regard to potential for lower patronage due to hybrid working patterns and the analysis undertaken in that report still strongly supports the provision of Luas Finglas scheme.

Nearly a quarter of the workforce was still working remotely in the third quarter of 2022, new figures from the Central Statistics Office (CSO) show.

The agency's Labour Force Survey employment series also showed that from those classified as "usually working from home" accounted for 22.5 per cent of people in employment between July and September, compared with 7.3 per cent in the third quarter in 2019.

It should be noted however, that figures published by the CSO, have identified that Dublin public transport usage at the end of June 2024 (for week 26) continues to increase with 5,268,579 passenger journeys per week on bus services, compared to 3,527,023 passenger journeys per week for the same week in 2019. These are the highest levels of public transport usage with growth trends continuing.

When it comes to public transport, it is apparent that in June 2023, the number of bus journeys continued to exceed pre-pandemic figures, with an increase of 9% in Dublin for week 26 of 2023 (the week beginning 26 June 2023) when compared with the same week in 2019. The number of bus journeys outside of Dublin for week 26 of 2023 was 11% higher compared with the number of journeys in the same week in 2019. Luas journeys for week 26 of 2023 increased by 25% and 7% in comparison to the same week in 2022 and 2019, respectively.

3.7 Overall Need for the Scheme

Three major public transport projects proposed under the GDA Transport Strategy 2022-2042 (National Transport Authority, 2022), namely MetroLink, BusConnects and DART+, have been developed as independent standalone projects. However, these projects (together with the existing transport network and other public transport projects) are designed to provide a fully integrated transport system that will support the Irish economy while helping Ireland reduce its carbon emissions and contribute in the transition towards a climate neutral economy by 2050. Luas Finglas is vital for this integrated transport solution.

Luas Finglas will make Dublin a more liveable and sustainable city and is critical to the overall transport strategy for Dublin for the following reasons:

- Luas Finglas is crucial as it is the only public transport option capable of meeting the future passenger demand along the Finglas to Dublin City Centre corridor, while facilitating compact, sustainable growth along the alignment at a scale unattainable with other transport options. The Transport modelling analysis undertaken as part of the development of the GDA Transport Strategy 2022 – 2042 indicates that by 2042, the Finglas corridor could see public transport demand exceeding 5,000 passengers per hour per direction during the AM peak. As illustrated in Figure 3-13, Light Rail Transit (LRT) is the only mode capable of handling this projected demand, making Luas Finglas essential for the corridor's future;

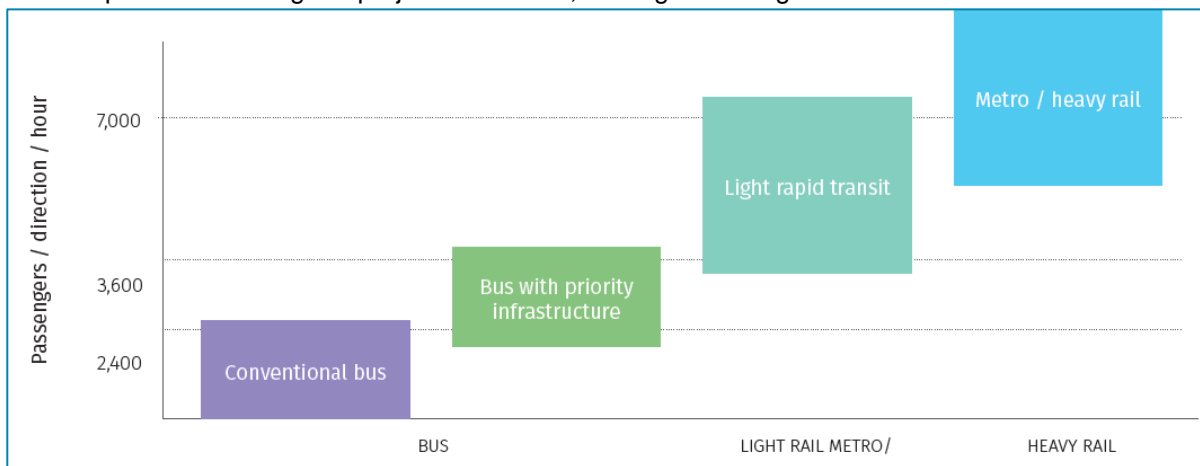


Figure 3-13: Public Transport Capacity Ranges

- Luas Finglas is essential for providing a frequent and reliable public transport alternative to the private car, promoting significant modal shift towards active travel and public transport along this corridor. By offering dedicated active travel infrastructure and ample cycle parking near Luas Stops, the proposed Scheme supports sustainable commuting options. The protected, largely off-road rail-based corridor will cut public transport journey times between Finglas and the city centre by an average of 12% during peak morning hours. Compared to driving, Luas Finglas will reduce city centre travel times by 15 minutes (over 30%) during peak congestion periods, and also decrease journey time variability by over 4 minutes

in both AM and PM peaks. This predictability enhances passenger confidence, enabling more efficient time management;

- Luas Finglas is key to achieve the Climate Action Plan targets for the decarbonisation of transport. Emissions analysis using ENEVAL shows that by its opening year in 2035, Luas Finglas will significantly reduce harmful emissions, including NO₂, particulate matter (PM₁₀ and PM_{2.5}), and CO₂. The proposed Scheme is expected to cut carbon emissions from transport by approximately 300 tonnes annually (a 0.04% reduction). Additionally, Luas Finglas will enhance environmental resilience by reducing car-based trips (an estimate annual reduction of 440,000 vehicle trips along the corridor in the opening year) and freeing up road space for buses and active travel modes. With each tram capable of carrying the same number of passengers as about 370 cars while emitting less carbon, this project aligns with the Climate Action Plan 2024, which targets a 51% reduction in greenhouse gas emissions by 2030, paving the way toward net-zero emissions by 2050;
- The existing road-based transport network has limited capacity to accommodate future growth in the areas that will be served by Luas Finglas, making the proposed Scheme an essential infrastructure. Transport modelling predicts an additional 400 person trips crossing the Royal Canal from the northwest during the 2035 AM peak hour in a scenario without Luas Finglas. This modest increase, despite significant population growth of around 10,500 people and planned BusConnects upgrades, highlights the pressing need for Luas Finglas to address the transport capacity constraints and ensure the network can meet future demand;
- The proposed Scheme is a key transport link for improving connectivity to Dublin city centre from areas beyond the M50. A key element is the 350-space Park & Ride facility at St Margaret's Road, just off the M50, which significantly expands the Luas Finglas catchment area by linking the N2/M50 corridor to the city centre and the broader Luas network. This integration supports the reduction of vehicular traffic closer to the city centre by offering a viable public transport alternative for those living further out. Modelling analysis for 2035 shows that during the AM peak hour, users of the Park & Ride and Luas Finglas will save an average of 8.7 minutes compared to driving directly into the city, not accounting for additional time spent searching for parking. This time-saving benefit is expected to encourage Park & Ride usage, thereby increasing sustainable travel into the city centre and beyond;
- Finglas has experienced substantial development in the recent past and is expected to develop significantly in the years to come, particularly in areas like Ballyboggan, Jamestown and Charlestown areas). Luas Finglas is essential for supporting compact development, providing the confidence needed to deliver new housing within its catchment area. The proposed Scheme is also vital for stimulating economic growth and creating an attractive environment for businesses investment. By enhancing connectivity, the proposed Scheme will improve productivity, reduce businesses costs, and boost worker productivity through better access to jobs and an increase in people entering the labour market;
- The enhanced public transport options will allow enhanced access for passengers in the surrounding communities to access childcare, educational and medical facilities within the area. There are 11 primary and three secondary schools within approximately 1km of the proposed Scheme. In total about 3,000 primary school children and 1,500 secondary school pupils attend these schools. Luas Finglas will also extend direct high-capacity public transport connectivity to two of the largest 3rd level institutions in Ireland, namely Grangegorman TU Dublin and Trinity College Dublin. Similarly, the delivery of Luas Finglas will provide improved accessibility to Dublin city centre reducing journey times to the Rotunda Hospital along with a wide range of pharmacies, GPs, opticians and other healthcare facilities. Through an integrated public transport network, Luas Finglas will support accessibility to other major healthcare destinations beyond the direct catchment of the extension. For example, St James' Hospital and the new National Children's Hospital will be accessible via Luas Finglas and a single transfer to the Red Luas Line.

3.8 Difficulties Encountered in Compiling Information

No difficulties were encountered during the preparation of this Chapter of the EIAR.

3.9 References

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