Chapter 10
Population

Contents

10. Population

10.1 Introduction

This Chapter of the Environmental Impact Assessment Report (EIAR) has considered the potential community and economic impacts on the human population associated with the Construction and Operational Phases of the Swords to City Centre Core Bus Corridor Scheme (hereafter referred to as the Proposed Scheme).

These potential impacts can affect the way in which people live, work, relate to one another, organise to meet their needs and generally operate as members of society. This population assessment will consider both social impacts on communities (community assessment) as well as economic impacts on commercial businesses (economic assessment). The assessment also considers the ways in which the Proposed Scheme will improve walking, cycling and bus facilities and is anticipated to encourage sustainable modes of transport, therefore reducing the demand for private vehicles / parking along the Proposed Scheme.

This Chapter drew on the outcomes of the assessments in the following EIAR chapters (Volume 2):

- Chapter 6 (Traffic & Transport);
- Chapter 7 (Air Quality);
- Chapter 9 (Noise & Vibration); and
- Chapter 17 (Landscape (Townscape) & Visual).

This Chapter is also supported by Figure 10.1 in Volume 3 of this EIAR and by the following two appendices in Volume 4 of this EIAR:

- Appendix A10.1 Schedule of Commercial Businesses. This is a list of all commercial businesses located along the Proposed Scheme and any businesses in the surrounding road network that are located on a road that is expected to experience a moderate or greater traffic impact from displaced traffic in the AM and PM peak hours (as identified in Chapter 6 (Traffic & Transport)); and
- Appendix A10.2 (The Economic Impact of the Core Bus Corridors Report) (EY 2021). This report is an assessment of the economic impact of the Core Bus Corridors. The impacts have been considered across the short, medium and long term and are based on a review of published literature, including academic papers, wider reports and briefings provided on relevant projects globally. The assessment has not considered each individual corridor separately but rather them all together. The assessment identified five areas that could be influenced by the Core Bus Corridors: local businesses, public realm, health and wellbeing, social cohesion, and adapting to the future. This appendix has been referred to within this population assessment where relevant.

The aim of the Proposed Scheme when in operation is to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which would enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor. The objectives of the Proposed Scheme are described in Chapter 1 (Introduction). The Proposed Scheme as described in Chapter 4 (Proposed Scheme Description) has been designed to meet these objectives. The specific objectives that are applicable to this assessment are:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements;
- Enhance the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable;
- Enable compact growth, regeneration opportunities and more effective use of land in Dublin, for present and future generations, through the provision of safe and efficient sustainable transport networks; and
- Improve accessibility to jobs, education and other social and economic opportunities through the provision of improved sustainable connectivity and integration with other public transport services.

The design of the Proposed Scheme has evolved through a comprehensive design iteration process, with particular emphasis on minimising the potential for environmental impacts, where practicable, whilst ensuring the objectives of the Proposed Scheme are attained. In addition, feedback received from the comprehensive

consultation programme undertaken throughout the option selection and design development process have been incorporated, where appropriate.

10.2 Methodology

This Section presents the study area and appraisal method for the assessment of impacts on the local population, residents, communities and businesses.

10.2.1 Study Area

The population assessment requires potential impacts to be considered and assessed for a wide range of receptors, comprising community facilities, recreational resources, tourism assets, residential properties, and commercial businesses. To capture how these receptors are likely to be impacted by the Proposed Scheme, the population assessment has been split into two sub-assessments. The two sub-assessments are:

- Community Assessment: An assessment to capture impacts from the Proposed Scheme on the local population; residents and communities; and
- Economic Assessment: An assessment to capture impacts from the Proposed Scheme on commercial receptors. Wider economic impacts of all the Core Bus Corridors are discussed in Appendix A10.2 The Economic Impact of the Core Bus Corridors (EY 2021) in Volume 4 of this EIAR.

The study areas for both assessments are described in Section 10.2.1.1 and Section 10.2.1.2.

10.2.1.1 Community Assessment – Study Area

The community assessment considers impacts on individual population receptors, including community facilities and recreational resources, as well as individual residential properties and land parcels being acquired on a temporary and/or permanent basis to accommodate the Proposed Scheme. As such, the community assessment comprises of the following assessment topics:

- Community amenity; and
- Community land use and accessibility.

The study area for the assessment of impacts on community amenity, land take and accessibility consist of ‘community areas’, which are informed by the Central Statistics Office (CSO) 2016 Census parish boundaries (CSO 2016a). Community areas that will either be intersected by or are adjacent to the Proposed Scheme consists of the following:

- Swords;
- River Valley (Swords);
- Larkhill – Whitehall - Santry;
- Marino;
- Drumcondra;
- Glasnevin;
- Iona Road
- North William Street;
- Gardiner Street;
- Berkeley Road;
- Sean McDermott Street;
- Dominick Street; and
- Pro Cathedral.

These community areas are presented in Figure 10.1 in Volume 3 of this EIAR.

Chapter 6 (Traffic & Transport) assessed changing traffic volumes within an indirect study area for the AM and PM peak periods in the Opening Year (2028) and the Design Year (*2043). The results identified key junctions in

the surrounding road network where capacity issues may arise. In this population assessment, the results from the Opening Year (2028) traffic assessment have been considered with respect to accessibility and amenity.

10.2.1.2 Economic Assessment – Study Area

The economic assessment considers impacts on individual commercial businesses along the Proposed Scheme within the community areas listed in Section 10.2.1.1 as well as any businesses in the surrounding road network that are located on a road that is expected to experience a moderate or greater traffic impact from displaced traffic in the AM and PM peak hours. To consider and assess these impacts, the economic assessment has been divided into the follow two assessment topics:

- Commercial amenity; and
- Commercial land use and accessibility.

The study areas for these two assessment topics are the same as those outlined in Section 10.2.2.1.

10.2.2 Relevant Guidelines, Policy and Legislation

Guidelines, policy and legislation specifically relevant to the population assessment are outlined in Table 10.1.

Table 10.1: Relevant Guidelines, Policies and Legislation

Guidance	Description	Relevance to Assessment
Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022)	This document outlines EPA guidance for conducting Environmental Impact Assessments (EIAs) / EIARs and provides the fundamental requirements of the EIAR.	This guidance has been used to inform the significance of effect for all topics in the population assessment.
Design Manual for Roads and Bridges (DMRB) LA 112 Population and human health (hereafter referred to as the DMRB Guidance) (Highways England 2020)	The DMRB Guidance provides guidance on the assessment of land use and accessibility within an EIA.	This DMRB Guidance has been used to inform sensitivity and magnitude for the following assessment topics: • Community land take; and • Commercial land take.
Guidelines for Planning Authorities and An Bord Pleanála on carrying out an Environmental Impact Assessment (Government of Ireland 2018)	This document outlines Ireland specific guidance for consenting authorities carrying out EIA.	This report has been used to inform the development of the assessment methodologies.
Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report (European Commission 2017	This document provides practical insight to those who are involved during the stages of the EIA process, drawing upon experiences in Europe and worldwide.	This guidance has been used to inform the wider EIA methodology as outlined in Chapter 1 (Introduction & Environmental Impact Assessment Process).

10.2.3 Data Collection and Collation

Baseline data has been collected through carrying out a desk study, availing of the most up-to-date available data, at the time of writing. This comprises, the following sources:

- 2016 Census - Demographic, residential, travel to work and employment statistics (CSO 2016a; CSO 2016b; CSO 2016c; CSO 2018a; CSO 2018b);
- Population scoping reports and impacts assessments for other major linear infrastructure projects;
- Ordnance Survey Ireland (OSI) Prime 2 dataset (OSI 2020);
- Geodirectory data (Geodirectory 2019);
- Google maps (Google 2021);
- Proposed Scheme Design Drawings; and
- National Public Transport Access Nodes (NaPTAN) (NTA 2020).

The baseline for the community assessment is founded on the OSI Prime 2 dataset. The OSI Prime 2 dataset was used to establish the number of community receptors, including local educational, recreational and healthcare facilities (see Section 10.3.2).

Desktop research was supplemented by a walkover survey in October 2022 to verify baseline data collection including the commercial businesses listed in Appendix A10.1 Schedule of Commercial Businesses in Volume 4 of this EIAR. As part of the non-statutory public consultation process, submissions received were reviewed by the BusConnects Infrastructure Team. The nature of the submissions varied from business owners, including loss/reduction of parking. Discussions were held with various businesses along the Proposed Scheme to inform them if the Proposed Scheme would impact on their property boundary.

10.2.4 Appraisal Method for the Assessment of Impacts

This Section sets out how each assessment topic has been undertaken and highlights where input from other environmental disciplines has been included within the population assessment.

The population assessment has been adapted from the Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022). The EPA significance of impacts matrix has been used to determine the significance of impact (see Table 10.2).

Table 10.2: EPA Significance Matrix

		Sensitivity				
		Very Low	**Low**	**Medium**	**High**	**Very High**
Magnitude	**Very Low**	Imperceptible	Not significant	Slight	Slight	Slight
	Low	Not Significant	Slight	Moderate	Moderate	Moderate
	Medium	Slight	Moderate	Moderate	Significant	Significant
	High	Slight	Moderate	Significant	Very Significant	Profound
	Very High	Slight	Moderate	Significant	Profound	Profound

In addition to the EPA Guidelines, the assessment of land use and accessibility impacts has been informed by the Design Manual for Roads and Bridges (DMRB) LA 112 Population and Human Health (Land Use and Accessibility) hereafter referred to as the DMRB Guidance) (Highways England 2020). The DMRB Guidance is the standard approach used for road infrastructure schemes across the UK and Ireland, for the assessment of environmental impacts. The DMRB Guidance provides a framework for assessing the impact on land use and accessibility and has therefore been used to determine the sensitivity and magnitude of impact for relevant receptors.

There is no prescribed method for determining the significance of impacts on receptors as a result of a change in amenity. The methodology for this assessment topic is therefore informed by established best practice and experience on other linear infrastructure projects, while the significance of impact is also adapted from the EPA Guidelines (EPA 2022).

The assessment methodologies were applied to assess both the potential impacts during the Construction Phase and the potential impacts during the Operational Phase of the Proposed Scheme, unless otherwise stated.

10.2.4.1 Community Assessment

The methodology for the assessment of community impacts is outlined in this Section.

10.2.4.1.1 Community Amenity

Community amenity describes the perceived character or attractiveness of an area. This community amenity assessment has assessed the potential for people to change how they perceive their communities or how they use community facilities and recreational resources as a result of the Proposed Scheme.

The community amenity assessment includes the 'indirect' impact of the following environmental effects which may combine to create a change in amenity:

- Air quality;
- Visual;
- Traffic and transport; and
- Noise and vibration.

Where there is a combination of at least two environmental effects on a receptor, or group of receptors, this is classified as an 'indirect' impact on community amenity. For example, where there are both visual and air quality impacts on a receptor, or a group of receptors, the assessed receptor(s) would be indirectly impacted.

The assessment has considered the residual impact reported for each of the environmental impact under consideration. Therefore, specific sensitivity and magnitude criteria are not required for community amenity. The level of significance from each environmental effect was determined by the individual environmental assessments presented in the following chapters:

- Chapter 6 (Traffic & Transport);
- Chapter 7 (Air Quality);
- Chapter 9 (Noise & Vibration); and
- Chapter 17 (Landscape (Townscape) & Visual).

10.2.4.1.1.1 Aligning Receptors

To determine the impact on community amenity, there needs to be an alignment of receptors across the different contributing environmental assessments.

Chapter 6 (Traffic and Transport) assesses the impacts on 'general traffic' along the Proposed Scheme. The impact on general traffic has been considered as having the greatest potential to create a wider impact on community amenity, when combined with other environmental effects. The amenity assessment has considered residual impacts on general traffic (i.e. those after proposed mitigation measures have been implemented). During construction, the amenity assessment has considered the restrictions to general traffic along the Proposed Scheme as well as the residual impact that will arise from additional construction traffic flows on the surrounding road network. During operation, the amenity assessment has considered the reduction in general traffic along the Proposed Scheme and the redistributed general traffic along the surrounding road network. The residual impact on general traffic along the Proposed Scheme is assigned to all receptors located along the Proposed Scheme, while the impact from construction traffic flows (Construction Phase) or redistributed traffic (Operational Phase) is assigned to all receptors on the surrounding road network.

For the assessment of air quality, the residual impact on human receptors identified in Chapter 7 (Air Quality) were used for all receptors along the Proposed Scheme for construction and operation. Construction dust has been excluded from the amenity assessment as it is considered to be sufficiently mitigated during construction, that it will not result in a significant air quality impact.

Chapter 9 (Noise and Vibration) assesses the impact on Noise Sensitive Locations (NSL) which include: residential dwellings, schools and other educational establishments, hospitals and nursing homes, hotels and other short-term accommodation buildings, buildings of religious sensitivity, recreational and noise sensitive amenity areas and offices. During construction, noise impacts at NSLs can occur from a variety of activity including road widening, upgrading, utility diversion, urban realm landscaping and at the Construction Compounds. In an instance where a NSL is impacted by more than one noise source, the worst impact has been considered in the amenity assessment. Construction Phase traffic impacts were considered when aligning a noise impact to receptors in the surrounding road network. During operation, two assessment topics are considered in the noise

and vibration assessment, namely, traffic noise along the Proposed Scheme and traffic noise on the surrounding road network. The residual impacts reported in respect to these two assessment topics are aligned to community and commercial receptors depending on whether they are situated along the Proposed Scheme or in the surrounding road network.

In Chapter 17 (Landscape (Townscape) & Visual), the assessment of townscape and streetscape has been used to assign a visual impact to all receptors along the Proposed Scheme. In Chapter 17 (Landscape (Townscape) & Visual), the term townscape is used to describe built-up areas of a medium to large extent, generally equivalent to neighbourhood scale or larger. Streetscape is used to define built up areas of largely public space within the confines of a street or road corridor. The townscape and streetscape assessment assigned a significance of impact to sections of road along the Proposed Scheme. These impacts have then been used to align a visual residual impact to all receptors along those sections of road unless Chapter 17 (Landscape (Townscape) & Visual) identified a visual amenity impact on a specific receptor.

10.2.4.1.1.2 Determining Significance of Effect

Following alignment of the environmental effects, an in-combination assessment matrix has been used to determine the significance of localised impacts on individual receptors (see Table 10.3).

The amenity significance matrix is closely aligned with the EPA Guidelines (EPA 2022). The term 'Significant' in the amenity matrix encompasses the EPA terms 'Profound', 'Very Significant' and 'Significant' while, the term 'Not Significant' encompasses the EPA terms 'Not Significant' and 'Imperceptible' as outlined in the EPA Guidelines (EPA 2022). Table 10.3 is used for either negative or positive impacts, but not a combination of both. Where both negative and positive impacts occur, professional judgement has been used to assign the overall impact on amenity.

Whilst the community amenity assessment imposes no duration criteria of its own, where a 'Significant' impact on amenity is identified, the temporal aspects from the environmental effects were examined to determine whether the impacts are likely to occur simultaneously and result in a 'Significant' indirect impact.

With this determination, the nature, significance and duration of impacts for each community area has been reported in line with the EPA Guidelines (EPA 2022). Amenity impacts that may arise on individual receptors have only been stated separately in the Potential Impacts (Section 10.4) for Slight/Moderate, Moderate, Moderate/Significant and Significant amenity impacts. Amenity impacts on individual receptors that are assessed as less than Moderate (Slight, Not Significant and Imperceptible) are not discussed in the amenity assessment. Only individual receptors that are expected to experience a Moderate/Significant or Significant amenity impact are listed in the Residual Impact tables (Section 10.6).

Table 10.3: In-Combination Amenity Significance Matrix (Construction and Operational Phases)

Environmental Effect 1	Environmental Effect 2	Environmental Effect 3	Environmental Effect 4	Combined Impact
Significant	Significant	Significant	Significant	Significant
Significant	Significant	Significant	Moderate	Significant
Significant	Significant	Significant	Slight	Significant
Significant	Significant	Significant	Not Significant	Significant
Significant	Significant	Moderate	Moderate	Significant
Significant	Significant	Moderate	Slight	Moderate / Significant
Significant	Significant	Moderate	Not Significant	Moderate / Significant
Significant	Significant	Slight	Slight	Moderate
Significant	Significant	Slight	Not Significant	Moderate
Significant	Significant	Not Significant	Not Significant	Moderate
Significant	Moderate	Moderate	Moderate	Moderate / Significant
Significant	Moderate	Moderate	Slight	Moderate

Environmental Effect 1	Environmental Effect 2	Environmental Effect 3	Environmental Effect 4	Combined Impact
Significant	Moderate	Moderate	Not Significant	Moderate
Significant	Moderate	Slight	Slight	Moderate
Significant	Moderate	Slight	Not Significant	Moderate
Significant	Moderate	Not Significant	Not Significant	Moderate
Significant	Slight	Slight	Slight	Slight / Moderate
Significant	Slight	Slight	Not Significant	Slight / Moderate
Significant	Slight	Not Significant	Not Significant	Slight
Significant	Not Significant	Not Significant	Not Significant	Not Significant / Potential direct impact on amenity*
Moderate	Moderate	Moderate	Moderate	Moderate / Significant
Moderate	Moderate	Moderate	Slight	Moderate / Significant
Moderate	Moderate	Moderate	Not Significant	Moderate
Moderate	Moderate	Slight	Slight	Moderate
Moderate	Moderate	Slight	Not Significant	Moderate
Moderate	Moderate	Not Significant	Not Significant	Moderate
Moderate	Slight	Slight	Slight	Slight / Moderate
Moderate	Slight	Slight	Not Significant	Slight / Moderate
Moderate	Slight	Not Significant	Not Significant	Slight
Moderate	Not Significant	Not Significant	Not Significant	Not Significant
Slight	Slight	Slight	Slight	Slight / Moderate
Slight	Slight	Slight	Not Significant	Slight / Moderate
Slight	Slight	Not Significant	Not Significant	Slight
Slight	Not Significant	Not Significant	Not Significant	Not Significant
Not Significant	Not Significant	Not Significant	Not Significant	Not Significant

*Potential direct impacts on amenity for commercial businesses is discussed in Section 10.2.4.2.1.

10.2.4.1.2 Community Land Use and Accessibility

10.2.4.1.2.1 Land Take

This assessment considers both temporary and permanent direct land take impacts on community receptors. Temporary land take is considered during the Construction Phase while permanent land take is considered during the Operational Phase. In this assessment community receptors include community land and assets such as parks and public rights of way as well as residential land, including gardens, paths and driveways within the Proposed Scheme boundary. Direct land take impacts can lead to a temporary or permanent restriction in the ability of a user to use a property or a community facility.

Following the DMRB Guidance (Highways England 2020), residential land has been assigned a high sensitivity. A high sensitivity for residential properties ensures that all populations are considered in the assessment including vulnerable groups such as young children, elderly, and people with disabilities.

The sensitivity of community facilities varies, and therefore, specific aspects were considered using professional judgement to assess the sensitivity of these receptors, such as:

- Availability of viable alternatives;
- Frequency of use; and
- Number of users on an average visit.

Some other examples of different sensitivities include:

- A hospital would be assigned a very high sensitivity;
- A nature reserve that attracts visitors from across Dublin City with no alternatives would be assigned a high sensitivity;
- A golf course, frequented daily, with no immediate alternative would be assigned a medium sensitivity;
- A small local park, with no extra amenities or features would be assigned a low sensitivity; and
- Derelict land or unoccupied buildings would be assigned a very low sensitivity.

The magnitude of impact of land take has been determined by the degree of loss of the resource including acquisition of gardens and private landings / driveways, as set out in DMRB Guidance (Highways England 2020) and supported by professional judgement. In general, direct acquisition of a property has been categorised with a high or very high magnitude. A medium magnitude would be assigned where there will be changes to access or the acquisition of land, but the changes overall will not compromise the overall ability to use a property. A low magnitude has been assigned where there will be a minor loss of land, or where severance will be introduced but adequate accessibility will be maintained throughout the Construction Phase or provided during the Operational Phase. The assessment has been reported by community area with the nature, significance, and duration of effect assigned using the EPA Guidelines (EPA 2022).

10.2.4.1.2.2 Accessibility

Community accessibility relates to the ability of users to access community facilities, recreational resources and residential properties. Change in access to facilities can significantly affect users, particularly if these are important facilities (e.g., hospitals), or if there are a lack of alternative facilities available. Changes in traffic flow, parking provision, public transport services and walking and cycling provision can also impact the ability of users to access certain community facilities.

During the Construction Phase, temporary diversions and temporary road closures will be required for short periods of time with designated detour routes in place and local access accommodated. Lane closures may be required during different Construction Phases which will reduce traffic capacity. Chapter 6 (Traffic & Transport) has qualitatively assessed the potential impacts on pedestrians, cyclists, bus users and private vehicles as a result of construction activity. The residual impacts assigned to each user type within Chapter 6 (Traffic & Transport) informs the qualitative accessibility assessment in this Chapter. As such, the impact on access to community receptors during construction has been reported by each user type and for each community area, in line with EPA Guidelines (EPA 2022).

Changes in access to community receptors as a result of the Operational Phase of the Proposed Scheme were considered in respect to the outcomes of a changed walking environment for pedestrians, cycling provision for cyclists and bus infrastructure for bus users. The community accessibility assessment has drawn on the outcomes of the qualitative assessment metrics identified in Chapter 6 (Traffic & Transport). These qualitative assessments were considered collectively in order to assess the significance of impacts on access for each community area during the Operational Phase. The assessment has been reported by community area and by different user types (bus users, cyclists, pedestrians and private vehicles). Where a road is expected to experience an impact to accessibility, moderate and above, this has been reported individually, alongside the community receptors that are likely to be impacted as a result. The nature, significance and duration of effect for each receptor has been assigned using the EPA Guidelines (EPA 2022).

A parking assessment has been undertaken in Chapter 6 (Traffic & Transport) and therefore is not considered further in this Population assessment unless a negative, significant impact is identified at any point along the Proposed Scheme.

10.2.4.2 Economic Assessment

The methodology for the assessment of economic impacts is outlined in this Section.

10.2.4.2.1 Commercial Amenity

The commercial amenity assessment has included consideration of ‘direct’ and ‘indirect’ impacts on commercial amenity. An indirect amenity impact on commercial receptors has been assessed using the same method as for

community amenity (Section 10.2.4.1.1). As before, an indirect amenity assessment matrix has been used to determine the significance of localised impacts on individual receptors (see Table 10.3). The amenity significance matrix is closely aligned with the EPA Guidelines (EPA 2022).

In some cases, a single (direct) environmental effect in isolation can result in an impact on commercial amenity where a business has a particular sensitivity. For example, certain activities can be sensitive to noise and vibration impacts (i.e., performing arts, advanced manufacturing, and sound recording facilities). The assessment has therefore included an assessment of direct impacts on amenity for commercial receptors. Appendix A10.1 Schedule of Commercial Businesses in Volume 4 of this EIAR provides a list of all commercial businesses located along the Proposed Scheme and any businesses in the surrounding road network that are located on a road that is expected to experience a moderate or greater traffic impact from displaced traffic in the AM and PM peak hours (as identified in Chapter 6 (Traffic & Transport)). This appendix has been referred to in the assessment section, where appropriate.

The following approach has been taken for the assessment of direct amenity:

- The sensitivity of each commercial receptor has been considered from the perspective of the following environmental effects:
  - Air quality;
  - Visual;
  - Noise and vibration; and
  - Traffic.
- The following example questions were posed to assess the sensitivity of commercial receptors:
  - Is this business providing support to vulnerable people or people with disabilities who may be sensitive to noise disturbance?
  - Does the operation of the business rely on the visual landscape to attract trade (e.g., a restaurant, hotel or tourism asset)?

The magnitude of impact on each commercial receptor has been informed by the residual significance of impacts identified within each environmental assessment. The nature, significance and duration of effect for each receptor has been assigned using the EPA Guidelines (EPA 2022).

10.2.4.2.2 Commercial Land Use and Accessibility

10.2.4.2.2.1 Land Take

This assessment considers direct land take on commercial properties / land and designated car parking. The impact on private landings, which can be used for a variety of reasons by businesses, has also been considered. This assessment has only considered commercial properties within the Proposed Scheme boundary that would be expected to experience direct land take. This assessment has followed the same approach as set out for community land take (Section 10.2.4.1.2.1). This assessment has only considered commercial businesses identified through a site walkover and desktop research (including businesses operating from residential properties where visible) and has not considered people choosing to work from home.

Large areas of commercial land, such as a business park or shopping centre, were assigned a high sensitivity. Derelict land or unoccupied buildings were assigned a low sensitivity. The magnitude of impact on commercial land has been determined by the degree of loss of the resource as per the DMRB Guidance (Highways England 2020). Where there will be substantial permanent land take from a commercial land holding, a high magnitude has been assigned. A low magnitude would be assigned where there will be minimal disruption to non-operational land or a car park.

The nature, significance and duration of impact for each receptor has been assigned using the DMRB Guidance (Highways England 2020) and EPA Guidelines (EPA 2022).

10.2.4.2.2.2 Accessibility

Commercial accessibility relates to the ability of users and employees to access commercial businesses. Changes in access to commercial business (i.e., changes in traffic flow, public transport services and walking and cycling

provision) can significantly affect the level of usage experienced by commercial receptors, which may affect the ability of a business to operate successfully. The accessibility assessment has considered the commercial properties along the Proposed Scheme as well as those areas that are expected to experience positive and negative changes in traffic flows in the adjacent road network. Appendix A10.1 (Schedule of Commercial Businesses) in Volume 4 of this EIAR provides a list of all commercial businesses along the Proposed Scheme and any businesses in the surrounding road network that are located on a road that is expected to experience a moderate or greater traffic impact from displaced traffic in the AM and PM peak hours (as identified in Chapter 6 (Traffic & Transport) and has been referred to in the assessment section, where appropriate.

During the Construction Phase, temporary diversions may be required for short periods of time with designated detour routes in place and local access accommodated as required. Lane closures will be required during different Construction Phases which will reduce traffic capacity. Chapter 6 (Traffic & Transport) has qualitatively assessed the potential impacts on pedestrians, cyclists and bus users and private vehicles as a result of construction activity. The residual impacts assigned to each user type within Chapter 6 (Traffic & Transport) informs the accessibility assessment in this Chapter. As such, the impact on access to commercial receptors during construction has been reported by each user type and for each community area, in line with EPA Guidelines (EPA 2022).

Changes in access to commercial receptors as a result of the Operational Phase of the Proposed Scheme were considered in respect to the outcomes of a changed walking environment for pedestrians, cycling provision for cyclists and bus infrastructure for bus users and changes to general traffic for private vehicles. The community accessibility assessment has therefore drawn on the outcomes of the qualitative assessment metrics identified in the Chapter 6 (Traffic & Transport). These qualitative assessments were considered collectively in order to assess the significance of impacts on access during the Operational Phase. The assessment has been reported by community area and by different user types (bus users, cyclists, pedestrians and private vehicles). However, where a road is expected to experience an impact to accessibility, moderate and above, this has been reported individually, alongside the commercial receptors that are likely to be impacted as a result. The nature, significance and duration of effect for each receptor has been assigned using the EPA Guidelines (EPA 2022).

10.3 Baseline Environment

This Section presents the baseline environment for the community and economic assessments. The baseline includes a brief description of the community areas near or intercepted by the Proposed Scheme. Details about the different types of community and commercial receptors in the study area and any notable features along the Proposed Scheme.

10.3.1 Overview

The Proposed Scheme will commence in the community area of Swords, a large suburb north of Dublin City and one of the fastest growing urban areas in the State. The Proposed Scheme will continue south from Swords and will pass Dublin Airport before it will cross under the M50 Motorway into Dublin City. The route from Swords to the M50 Motorway is a mixture of residential and commercial areas, with some farmlands located both north and south of Dublin Airport. Once passed the M50 Motorway, the Proposed Scheme will continue through largely residential and mixed commercial / residential areas of Santry and Whitehall, both located in the community area of Larkhill – Whitehall – Santry. The Proposed Scheme will then pass through the community areas of Drumcondra, Marino, Glasnevin, North William Street, Iona Road and Gardiner Street before it will cross the Royal Canal into Dublin City Centre. Here, the area that will surround the Proposed Scheme is more urban in character, with more commercial and fewer residential properties. The Proposed Scheme will terminate in the City Centre in the community areas of Pro Cathedral, Berkeley Road and Dominick Street. The study area for the Proposed Scheme consists of 13 community areas which have an approximate total population of 116,000 according to the 2016 Census (CSO 2016a).

For more details on the extent of the Proposed Scheme in the areas outlined above, please see Chapter 4 (Proposed Scheme Description).

10.3.2 Community Baseline

10.3.2.1 Community Facilities and Recreational Receptors

The Proposed Scheme is located in the vicinity of a number of community and recreational receptors. The number and type of receptors are presented by community area in Table 10.4.

Table 10.4: Community Receptor Type by Community Area (OSI 2020)

Community and Recreation Receptors	Place of Worship	Hospital / Health Centre	Schools	Recreation
Swords	3	2	9	18
River Valley (Swords)	1	0	2	3
Larkhill-Whitehall-Santry	5	1	6	15
Marino	6	3	12	4
Drumcondra	2	2	5	3
Glasnevin	4	1	7	5
Iona Road	6	1	4	1
North William Street	2	0	6	10
Gardiner Street	1	3	4	2
Berkeley Road	1	3	2	2
Sean McDermott Street	2	2	3	5
Dominick Street	4	0	3	2
Pro Cathedral	3	1	4	1
Study Area Total	**40**	**19**	**67**	**71**

Table 10.4 demonstrates that Marino has a high concentration of schools relative to the rest of the study area, while Swords has a considerably larger number of recreational resources in comparison to all other community

areas. Examples of community receptors along the Proposed Scheme which draw a large number of users include:

- Highfield Healthcare Centre, Marino;
- Dublin City University (DCU) St. Patrick's Campus, Drumcondra;
- DCU All Hallows Campus, Marino;
- Mater Misericordiae University Hospital, Berkeley Road; and
- Rotunda Hospital, Pro Cathedral.

Within the study area there is one national trail, the National Famine Way, used for walking and other recreational activities.

10.3.2.2 Residential Land

There are approximately 31,200 residential properties and 230 apartment buildings within the community study area (OSI 2020).

10.3.2.3 Commute to Work

There are approximately 54,700 commuters across the Proposed Scheme study area and 23% of those travel by public transport (bus or train) (CSO 2016b). The method of travel to work by community area is presented in Table 10.5. Commuters residing in Swords and River Valley (Swords), located the furthest from the City Centre, have the greatest proportion of commuters travelling by car or van, with over 60% of the commuters choosing this option. The proportion of residents travelling to work by bus is fairly consistent across the Proposed Scheme, averaging 19% across the community areas.

Table 10.5: Method of Travel to Work for Bus, Train, Car and Foot / Bike

Community Area	Travel by Bus / Minibus or Coach	Travel by Car / Van	Travel by Train	Travel by Foot / Bike	Other
Swords	17%	61%	2%	11%	9%
River Valley (Swords)	19%	65%	0%	9%	6%
Larkhill-Whitehall-Santry	24%	53%	1%	15%	7%
Marino	19%	46%	4%	23%	8%
Drumcondra	20%	45%	2%	26%	8%
Glasnevin	22%	47%	2%	24%	5%
Iona Road	19%	35%	4%	29%	12%
North William Street	16%	26%	5%	41%	13%
Gardiner Street	21%	13%	5%	41%	19%
Berkeley Road	20%	15%	3%	43%	19%
Sean McDermott Street	15%	10%	9%	46%	21%
Dominick Street	18%	9%	8%	48%	17%
Pro Cathedral	16%	7%	8%	38%	30%
Study Area Average	**19%**	**33%**	**4%**	**30%**	**13%**
County Dublin	**12%**	**54%**	**8%**	**17%**	**9%**

NaPTAN data published by the NTA (NTA 2020) identifies the access points for bus stops, rail stations, airports, tram stops, which provides an indication of the level of availability of public transport within community areas. There are a total of 649 public transport access points across the study area, as shown in Table 10.6. The largest proportion of public transport stops are located in Swords (30%) which reflects the nature of the area as a commuter town.

Table 10.6: Number of Public Transport Access Points Across the Study Area

Community Areas	Number of Public Transport Access Points	Percent of Stops Across the Study Area
Swords	192	30%
River Valley (Swords)	26	4%
Larkhill - Whitehall - Santry	73	11%
Marino	45	7%
Drumcondra	22	3%
Glasnevin	21	3%
Iona Road	36	6%
North William Street	19	3%
Gardiner Street	16	2%
Berkeley Road	32	5%
Sean Mc Dermott Street	48	7%
Dominick Street	18	3%
Pro Cathedral	101	16%
Study Area Total	**649**	

10.3.3 Economic Baseline

10.3.3.1 Commercial Receptors

The Proposed Scheme will pass a significant number of industrial estates and business parks, particularly near Dublin Airport. The number of commercial receptors in the study area are presented in Table 10.7. Appendix A10.1 Schedule of Commercial Businesses in Volume 4 of this EIAR provides a list of all commercial businesses along the Proposed Scheme, approximately 375 businesses were identified, which is almost 6% of the commercial businesses across the total study area.

Table 10.7: Commercial Receptors by Community Area (Geodirectory 2019)

Community Area	Commercial Receptors
Swords	1,310
River Valley (Swords)	44
Larkhill - Whitehall - Santry	773
Marino	241
Drumcondra	65
Glasnevin	116
Iona Road	523
North William Street	294
Gardiner Street	484
Berkeley Road	405
Sean Mc Dermott Street	389
Dominick Street	703
Pro Cathedral	1,042
Study Area Total	**6,389**

Table 10.7 shows that the largest number of commercial receptors are located in Swords and Pro Cathedral and the smallest number of commercial receptors are in the River Valley (Swords) and Drumcondra community areas.

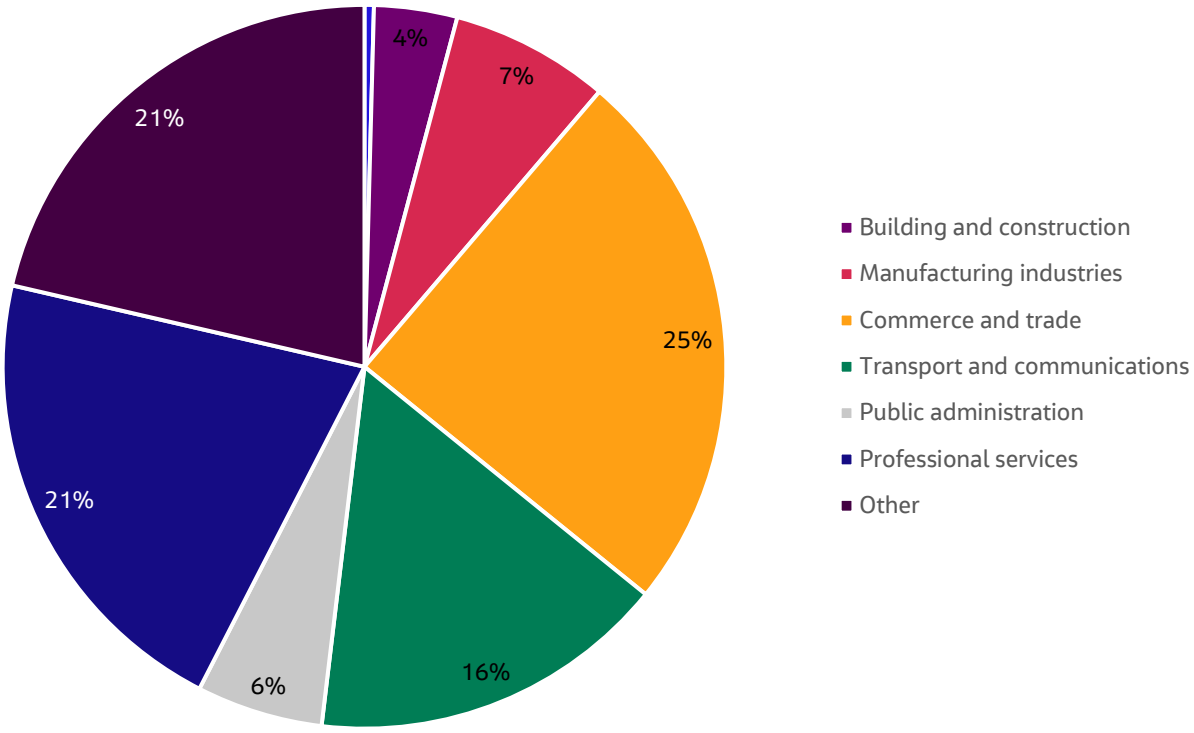
10.3.3.2 Employment

Within the study area there are approximately 58,500 people in employment (51% of the total study area population). Of the working age population, over 6,500 people are unemployed (11% of the working age population), across the study area population and this equates to 6% being unemployed (CSO 2016c).

The Proposed Scheme will provide a direct route from Dublin City Centre to Dublin Airport, a key employment location. A study on Dublin Airport found that the airport directly, indirectly and through spending in the wider economy (induced) created a total of 37,300 jobs (DAA, 2015). Other key centres of employment along the study area include:

- Airside Retail Park, Swords;
- The Pavilions Shopping Centre, Swords;
- Dublin Airport, Swords;
- Omni Shopping Centre, Larkhill – Whitehall – Santry;
- Furry Park Industrial Estate, Larkhill – Whitehall – Santry;
- Airways Industrial Estate, Larkhill – Whitehall – Santry;
- Croke Park, North William Street; and
- Ilac Shopping Centre, Pro Cathedral.

Graph 10.1 presents a breakdown of employment across the study area. The largest sectors of employment are professional services (23%), commerce and trade (23%), and other (29%) (CSO 2016c).



Graph 10.1: Employment by Industry Within the Study Area (%)

10.4 Potential Impacts

Potential impacts are typically those that could occur in the absence of mitigation, which then inform the need for mitigation or monitoring (refer to Section 10.5) and enables residual impacts to be determined. However, as explained in Section 10.2, the population assessment presented in this chapter is partly informed by the residual impacts identified in other topic chapters forming part of this EIAR, and as such the potential impacts in the following section already take into account mitigation proposed in those chapters.

10.4.1 Characteristics of the Proposed Scheme

The Proposed Scheme has an overall length of approximately 12km and commences south of Swords at Pinnock Hill Roundabout and travels in a southerly direction along the R132 Swords Road past Airside Retail Park, Dublin Airport and Santry Park. The route continues on the R132 past Santry Park/Morton Stadium, where the Swords Road joins the R104 at Coolock Lane. The route continues on the R132 in a southerly direction through Santry village. It continues along the Swords Road past Whitehall to Griffith Avenue. The route follows Drumcondra Road Upper past the DCU St Patrick's Campus to the River Tolka where an independent pedestrian and cycle bridge over the River Tolka will be required to allow the proposed bus lanes to be accommodated over the existing bridge. It continues through Drumcondra, on Drumcondra Road Lower to Binns Bridge on the Royal Canal. From there it continues on Dorset Street Lower as far as Eccles Street, from where it continues on Dorset Street Upper to North Frederick Street and Granby Row.

The Proposed Scheme includes an upgrade of the existing bus priority and cycle facilities. The scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane resulting in improved journey time reliability. Throughout the Proposed Scheme bus stops will be enhanced to improve the overall journey experience for bus passengers and cycle facilities will be substantially improved with segregated cycle tracks provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions.

Moreover, pedestrian facilities will be upgraded, and additional signalised crossings will be provided. In addition, urban realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrians experience, an example of this can be seen at the Frank Flood Bridge in Drumcondra.

As per Chapter 5 (Construction), during the Construction Phase, the anticipated site staff numbers working on the Proposed Scheme will be 200 to 250, rising to 300 workers at peak construction. This level of employment will provide a positive economic impact to the economy in terms of associated spending from construction works, although a proportion will already reside locally. As discussed in Appendix A10.2 (The Economic Impact of the Core Bus Corridors Report), the operation of the Proposed Scheme will give households along the route access to wider and better job opportunities (EY 2021). The availability of public transport is expected to reduce the time taken to commute to workplaces, this would have a particular impact for low-income households and people with a disability. Appendix A10.2 (The Economic Impact of the Core Bus Corridors Report) also identifies that there is expected to be an increase in job satisfaction as well as an increase in job retention.

Bus passenger numbers are projected to increase as a result of the Proposed Scheme through the realisation of faster journey times and better reliability, which will be coupled with the opportunity to increase capacity through more frequent services if required. In addition, the provision of enhanced cycling facilities should also increase the number of cyclists utilising the infrastructure.

Temporary land take along the Proposed scheme will be required for 59 residential properties, 11 community facilities and 61 commercial businesses. Permanent land take along the Proposed Scheme will be required from 55 residential properties, 9 community facilities and 60 commercial businesses. All permanent land acquisition will be required to facilitate the widening of the carriageway and to allow for the provision of improved pedestrian, cycle and bus infrastructure.

The Proposed Scheme will have five Construction Compounds along its length, as listed below:

- Construction Compound SW1: Cloghran Roundabout;
- Construction Compound SW2: Collinstown Cross/Old Airport Road junction;
- Construction Compound SW3: Coolock Lane;
- Construction Compound SW4: Collins Avenue; and
- Construction Compound SW5: Drumcondra Bridge.

10.4.2 'Do Nothing' Scenario

In the 'Do Nothing' scenario the Proposed Scheme would not be implemented and therefore be no changes to pedestrian, cycling or bus amenity and access, and no change to land use as a result of the Proposed Scheme. Therefore, there would be a Neutral impact on land use and potential Negative impacts on amenity and accessibility under the 'Do Nothing' scenario.

10.4.3 Construction Phase

10.4.3.1 Community Assessment

10.4.3.1.1 Community Amenity

Community amenity impacts arise from a combination of traffic, air quality, noise and visual impacts as discussed in Section 10.2.4.1.1.

Chapter 6 (Traffic & Transport) identified a residual Negative, Moderate and Temporary impact on general traffic along the Proposed Scheme and a Negative, Slight and Temporary impact in the surrounding road network as a result of additional construction traffic from the Proposed Scheme.

Chapter 7 (Air Quality) identified residual road traffic impacts on local human receptors to be Neutral and Short-Term during construction.

Chapter 9 (Noise & Vibration) identified a number of noise impacts for NSLs at varying distances to the Proposed Scheme:

- A Negative, Moderate to Significant and Temporary impact is expected at the following community receptors:
  - Mater Private Hospital; and
  - Rotunda Hospital.
- A Negative, Not Significant and Temporary impact is expected at the following community receptors:
  - Dardistown Cemetery;
  - Highfield Hospital;
  - Plunkett College;
  - Royal College of Surgeons Sportsground;
  - St Mary's Primary School; and
  - Tara Winthrop Private Clinic.

As a result of construction traffic, community facilities on the following roads within 1km of the Proposed Scheme are expected to experience the following impacts:

- Negative, Moderate to Significant and Temporary – Home Farm Road;
- Negative, Moderate and Temporary – Seven Oaks and Grace Park Manor;
- Negative, Slight to Moderate and Temporary – Clare Road and Hollybank Road.

Chapter 17 (Landscape (Townscape) & Visual) identified the following townscape and streetscape impacts during construction:

- A Negative, Slight/Moderate and Temporary/Short-Term impact between Pinnock Hill to Airside Junction;
- A Negative, Slight/Moderate and Temporary/Short-Term impact between Airside Junction and Northwood Avenue;
- A Negative, Significant and Temporary/Short-Term impact between Northwood Avenue and Shantalla Road;
- A Negative, Significant and Temporary/Short-Term impact between Shantalla Road and Botanic Avenue; and
- A Negative, Moderate/Significant and Temporary/Short-Term impact between Botanic Avenue and Granby Row.

Chapter 17 (Landscape (Townscape) & Visual) also identifies these impacts on townscape represent the visual impact experienced by community receptors along the Proposed Scheme. The following amenity designations are expected to be impacted during the Construction Phase of the Proposed Scheme:

- Santry Demesne – Negative, Moderate to Significant and Short-Term;
- Our Lady's Park, Drumcondra – Negative, Significant and Short-Term; and
- Santry River, Royal Canal and Parnell Square – Negative, Moderate and Short-Term.

These environmental impacts have been considered together to identify if there will be in-combination impacts acting upon the same community facilities.

The assessment concluded that these residual air quality, noise, traffic, and visual impacts will combine to create a largely Negative, Moderate and Temporary/Short-Term impact on community amenity within the portions of the community areas located directly along the entire length of the Proposed Scheme (Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral).

Rotunda Hospital and Mater Private Hospital, located in community areas Pro Cathedral and Sean McDermott Street respectively, are expected to experience a Negative, Moderate to Significant and Temporary/Short-Term impact on amenity, largely due to greater noise impacts than elsewhere along the Proposed Scheme.

The wider areas of the aforementioned community areas are not expected to be significantly negatively impacted however, as such impacts on amenity resulting from the construction of the Proposed Scheme are considered to be localised. Therefore, the overall impact on the community amenity of community areas along the Proposed Scheme is considered to be Negative, Not Significant and Temporary/Short-term.

Whilst there is a receptor with a Negative, Moderate to Significant and Short-Term impact within the Sean McDermott Street community area, this does not affect the overall community area impact assessment. The community area itself is situated within proximity but away from the Proposed Scheme, and therefore is expected to experience a Neutral, Not Significant and Temporary/Short-Term impact on community amenity.

10.4.3.1.2 Community Land Use and Accessibility

10.4.3.1.2.1 Land Take

The assessment of community land take during the Construction Phase assesses the temporary land take acquired to accommodate construction works and the potential impacts this has on community facilities and residential properties.

A total of 114 community receptors (66 residential properties and 48 community facilities) are impacted by temporary land take as a result of the Proposed Scheme. Table 10.8 summarises the findings of the community land take assessment for residential properties along the Proposed Scheme during the construction phase.

Table 10.8: Land Take Impacts on Residential Properties during the Construction Phase

Community Area	Nature of Effect / Number of Residential Properties Affected			
	Imperceptible / Not Significant	Slight	Moderate	Significant
Swords	0	5	6	0
Larkhill – Whitehall - Santry	0	2	9	41
Marino	0	0	3	0
Total	**0**	**7**	**18**	**41**

Table 10.8 shows that 41 residential properties are expected to experience Negative, Significant and Short-Term land take impacts during the Construction Phase, all of which are in the Larkhill – Whitehall – Santry community area, mostly located between 244 and 304 Swords Road, and require about half their front gardens to accommodate the construction activity.

Nine properties in Larkhill – Whitehall – Santry community area are expected to experience Negative, Moderate and Short-Term land take impacts, with located along Swords Road (two in Dardistown). Two properties along Drumcondra Road Upper, one along Griffith Avenue, located in Marino community area, and two properties in Nevinstown West, located in Swords community area, are expected to experience Negative, Moderate and Short-Term land take impacts.

Table 10.9 summarises the findings of the community land take assessment for community facilities along the Proposed Scheme during the construction phase.

Table 10.9: Land Take Impacts on Community Facilities during the Construction Phase

Community Area	Nature of Effect / Number of Community Facilities Affected			
	Imperceptible / Not Significant	Slight	Moderate	Significant
Swords	9	5	0	0
Larkhill – Whitehall – Santry	14	6	6	0
Marino	0	2	0	0
Drumcondra	0	3	0	0
Glasnevin	0	0	1	0
Iona Road	1	0	0	0
River Valley (Swords)	0	1	0	0
Total	**24**	**17**	**7**	**0**

Table 10.9 shows that no community facilities are expected to experience significant land take impacts during the construction phase of the Proposed Scheme. Most community facilities affected are areas of green space.

Six community facilities located in Larkhill – Whitehall – Santry community area (Swords Medical Practice, Santry Park, Public Car Park on Thatch Road, Plunkett College and Magenta Hall green space) are expected to experience Negative, Moderate and Short-Term land take impacts, along with and Our Lady's Park in Glasnevin community area.

Overall, the impact of land take on community facilities and residential dwellings across the Larkhill – Whitehall – Santry community area as a whole is considered Negative, Slight and Temporary/Short-Term during the Construction Phase. Community areas Swords, Marino, Drumcondra, Iona Road, River Valley and Glasnevin are

considered to have a Negative, Not Significant and Temporary/Short-Term impact. No other community areas are predicted to be impacted by land take during the Construction Phase.

10.4.3.1.2.2 Accessibility

Community accessibility relates to the ability of users to access community facilities, recreational resources, and residential properties. The nature of the Proposed Scheme means accessibility impacts will differ based on the mode of travel used. The assessment has therefore separately assessed accessibility impacts on pedestrians, cyclists, bus users and private vehicles.

Pedestrians and Cyclists

Pedestrian and cyclist safety measures are discussed in Chapter 5 (Construction). These safety measures are intended to allow the safe continuation of access along the route of the Proposed Scheme during the Construction Phase. It is expected that, as roads, cycle lanes and footpaths are being upgraded, there will be some level of disruption to users and their ability to access community facilities. It is important to note that as the Construction Phase will be undertaken in sections, construction impacts would be limited to where the work is being undertaken and for a limited duration. As outlined in Section 5.5 of Chapter 5 (Construction), measures will be undertaken by the appointed contractor to ensure that access and parking are maintained during construction, wherever possible, to reduce the impact on accessibility along the Proposed Scheme.

Chapter 6 (Traffic & Transport) has identified a residual Negative, Slight and Temporary impact on walking and a Negative, Moderate and Temporary impact on cycling along the Proposed Scheme during the Construction Phase. Taking into consideration the mitigation measures presented in Chapter 5 (Construction) and Appendix A5.1 (Construction Environmental Management Plan (CEMP)) in Volume 4 of the EIAR, it is expected that access to community receptors along the Proposed Scheme will also likely be negatively impacted during the Construction Phase.

Bus Users

As confirmed in Chapter 5 (Construction), existing bus routes will be maintained during the Construction Phase. Bus stop locations may need to be temporarily relocated to accommodate the works. Use of buses to access community facilities will continue throughout construction, albeit there may be a change in the distance required to walk between the temporary bus stops and these community facilities.

Chapter 6 (Traffic & Transport) has identified a residual Negative, Slight and Temporary/Short-term impact on bus users along the Proposed Scheme. Taking into consideration the measures in Chapter 5 (Construction), it is expected that the impact on access to community receptors along the Proposed Scheme will also be negatively impacted during the Construction Phase.

Private Vehicles

Chapter 5 (Construction) outlines temporary traffic management measures which may affect accessibility to parking provision and community facilities along certain parts of the Proposed Scheme, particularly where road diversions will be required. Road diversions will be temporary and may result in an increase in the time taken to get to a community facility via private vehicle, but that overall access to that facility will not be prohibited. The impact on specific parking and loading provision is discussed in Chapter 6 (Traffic & Transport).

Chapter 6 (Traffic & Transport) has identified a residual Negative, Moderate and Temporary/Short-term impact on general traffic travelling along the Proposed Scheme during construction. Taking into consideration the measures in Chapter 5 (Construction), it is expected that the impact on access to community receptors from private vehicles along the Proposed Scheme will be Negative, Moderate and Temporary/Short-term during construction. Additional construction traffic flows on the surrounding road network are expected to result in a Negative, Slight and Temporary impact on general traffic. This will not include the impact of construction access vehicles which are considered in Chapter 6 (Traffic and Transport). Private vehicles may therefore be negatively affected on the surrounding road network although this is only expected to be Negative, Slight and Temporary/Short-term during the Construction Phase.

Summary

The impacts identified above are expected to be experienced by community areas located predominately along the length of the Proposed Scheme where construction activity and road diversions are expected. It is acknowledged that users will travel between community areas to access community facilities within other community areas. However, the impact of construction activity will be experienced where the facility is located. The community areas that are expected to experience a Negative, Slight, and Temporary/Short-term impact (pedestrians and bus users) and a Negative, Moderate and Temporary/Short-term impact (cyclists and private vehicles) as a result of changes in access are Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral.

Pedestrians, cyclists, and bus users in Sean Mc Dermott Street are expected to experience a Neutral and Temporary impact as the community area is situated in proximity but away from the Proposed Scheme, where no change in existing user facilities is proposed as part of the Proposed Scheme. Private vehicles within Sean Mc Dermott Street will experience a Negative, Slight and Temporary/Short-term impact however as a result of changes to access during the Construction Phase of the Proposed Scheme.

10.4.3.2 Economic Assessment

10.4.3.2.1 Commercial Amenity

As outlined above in Section 10.2.4.2.1, commercial amenity impacts can arise indirectly from a combination of traffic, air quality, noise, and visual impacts or directly where a single environmental impact is significant enough to affect the amenity of a commercial business and potentially having implications on the ability of the business to operate successfully.

Chapter 6 (Traffic & Transport) identified a residual Negative, Moderate and Temporary impact on general traffic along the Proposed Scheme and a Negative, Slight and Temporary impact in the surrounding road network as a result of additional construction traffic from the Proposed Scheme.

Chapter 7 (Air Quality) identified residual road traffic impacts on local human receptors to be Neutral and Short-Term during construction.

Chapter 9 (Noise & Vibration) identified that a Negative, Moderate to Significant and Temporary impact is expected at the following commercial receptors: Carlton Hotel, Travelodge Dublin Airport, Airport Business Campus and Offices along the west of the R132.

As a result of construction traffic, commercial receptors on the following roads within 1km of the Proposed Scheme are expected to experience the following Noise impacts:

- Negative, Moderate to Significant and Temporary – Home Farm Road;
- Negative, Moderate and Temporary – Seven Oaks and Grace Park Manor;
- Negative, Slight to Moderate and Temporary – Clare Road and Hollybank Road.

Chapter 17 (Landscape (Townscape) & Visual) identified the following townscape and streetscape impacts during construction:

- A Negative, Slight to Moderate and Short-Term impact between Pinnock Hill to Airside Junction;
- A Negative, Moderate and Short-Term impact between Airside Junction and Northwood Avenue;
- A Negative, Significant and Short-Term impact between Northwood Avenue and Shantalla Road;
- A Negative, Significant and Short-Term impact between Shantalla Road and Botanic Avenue; and
- A Negative, Moderate to Significant and Short-Term impact between Botanic Avenue and Granby Row.

Chapter 17 (Landscape (Townscape) & Visual) identified these impacts on townscape represent the visual impact experienced by commercial receptors along the Proposed Scheme. The following commercial receptors are also

expected to experience Negative, Significant and Short-Term landscape and visual impacts as a result of the construction of the Proposed Scheme:

- Commercial Businesses at Collinstown Cross to Northwood Avenue.

These environmental impacts have been considered together to identify if there will be a combination of impacts acting on the same commercial receptor.

The assessment concluded that these residual air quality, noise, traffic, and visual impacts will combine to create a Negative, Slight to Moderate and Temporary / Short-Term impact on commercial amenity within the portions of the community areas located directly along the entire length of the Proposed Scheme (Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral). Appendix A10.1 (Schedule of Commercial Businesses) in Volume 4 of this EIAR provides a schedule of all commercial businesses along the Proposed Scheme.

The wider areas of the aforementioned community areas are not expected to be significantly negatively impacted. However, as such, impacts on amenity resulting from the construction of the Proposed Scheme are considered to be localized. Therefore, the overall impact on the commercial amenity of community areas along the Proposed Scheme is considered to be Negative, Not Significant and Temporary/Short-Term, while the community area of Sean McDermott Street, which is situated within proximity but away from the Proposed Scheme is expected to experience a Neutral, Not Significant and Temporary/Short-Term impact on commercial amenity.

As discussed in Section 10.2.4.2.1, a single significant environmental effect in isolation can result in a direct impact on commercial amenity where a business has a particular sensitivity. No direct amenity impacts were identified on any commercial receptors during the Construction Phase of the Proposed Scheme.

10.4.3.2.2 Commercial Land Use and Accessibility

10.4.3.2.2.1 Land Take

The assessment of commercial land take during the construction phase assesses the temporary land take acquired and the potential impacts this has on commercial businesses.

A total of 58 commercial receptors are impacted by temporary land take as a result of the Proposed Scheme. Table 10.10 summarises the findings of the commercial land take assessment for the proposed Scheme.

Table 10.10: Land Take Impacts on Commercial Receptors during the Construction Phase

Community Area	Nature of Effect / Number of Commercial Receptors Affected				
	Imperceptible / Not Significant	Slight	Moderate	Significant	Profound
Swords	0	1	10	0	0
Larkhill – Whitehall – Santry	0	15	31	0	1
Marino	0	0	1	0	0
Total	**0**	**16**	**42**	**0**	**1**

Table 10.10 shows one commercial receptor, Collinstown Cross Industrial Estate, is expected to experience a Negative, Profound land take impact due to the demolition at the edge of the industrial estate, principally the building used by the Mini Fix auto-repair business, to create a new entrance to the industrial estate on Swords Road to allow for construction of a new, upgraded junction to the north.

42 commercial receptors are expected to experience a Negative, Moderate, Temporary/Short-Term impact, many of which are located along Swords Road, and require parts of the frontages, and car parking spaces to be taken for construction.

Overall, the impact of land take on commercial receptors across the Larkhill – Whitehall – Santry community area as a whole is considered Negative, Slight and Temporary/Short-Term during the Construction Phase. The community area Swords is considered to have a Negative, Not Significant and Temporary/Short-Term impact, with Marino likewise. No other community areas are predicted to be impacted by land take during the Construction Phase.

10.4.3.2.2.2 Accessibility

Commercial accessibility relates to the ability of users to access commercial businesses as customers or employees. The nature of the Proposed Scheme means that accessibility impacts will differ based on the mode of travel used. The assessment, similar to the community accessibility assessment (Section 10.4.3.1.2.2) has separately assessed accessibility impacts on pedestrians and cyclists, bus users and private vehicles. As the Construction Phase mitigation measures presented in Chapter 5 (Construction) and the residual impacts presented in Chapter 6 (Traffic & Transport) are the same for each mode of travel, the impacts on commercial accessibility are the same as those reported in Section 10.4.3.1.2 for community accessibility.

A parking assessment has been undertaken in Chapter 6 (Traffic and Transport). No significant impacts on parking along the Proposed Scheme route were identified.

10.4.4 Operational Phase

10.4.4.1 Community Assessment

10.4.4.1.1 Community Amenity

Community amenity impacts arise from a combination of traffic, air quality, noise and visual impacts as discussed in Section 10.2.4.1.1.

Chapter 6 (Traffic & Transport) identified a Positive, Moderate and Long-Term impact from a reduction in general traffic along the Proposed Scheme and a Negative, Slight and Long-Term impact from redistributed traffic along the surrounding road network. No road junctions in the surrounding road network are expected to be significantly impacted by the operation of the Proposed Scheme.

Chapter 7 (Air Quality) identified a residual Neutral and Long-Term impact on local human receptors from road traffic impacts during the Operational Phase.

Chapter 9 (Noise & Vibration) identified a Positive, Imperceptible, and Short to Medium-Term to Negative, Not Significant to Slight to Moderate, Short to Medium Term direct impact along the Proposed Scheme due to a reduction in traffic volumes during the opening year (2028). An indirect Neutral, Imperceptible, and Short to Medium-Term to Negative, Moderate, and Short to Medium Term impact has been identified from traffic noise on the surrounding road network. Due to increased traffic noise levels during the Opening Year (2028), Negative, Moderate and Short to Medium Term impacts were identified on Wellington Street Lower (community area Berkeley Road), Gardiner Row (community area Gardiner Street) and St. Alphonsus Road Lower (community area Iona Road). Community receptors likely impacted by such increased noise levels in the surrounding network during the Opening Year (2028) are as follows:

- Crosscare Wellington Support Centre;
- St. Maximus & St. Domatius Coptic Orthodox Church; and
- Mount Olive Tamil Church.

Chapter 17 (Landscape (Townscape) & Visual) identified the following impacts on townscape and streetscape character during the Operational Phase of the Proposed Scheme:

- A Negative, Slight/Moderate and Short-Term impact between Pinnock Hill to Airside Junction;
- A Negative, Slight and Short-Term impact between Airside Junction and Northwood Avenue;
- A Negative, Moderate and Short-Term impact between Northwood Avenue and Shantalla Road;
- A Negative, Moderate and Short-Term impact between Shantalla Road and Botanic Avenue; and

- A Positive, Moderate and Short-Term impact between Botanic Avenue and Granby Row.

These impacts on townscape represent the visual impact experienced by community receptors along these stretches of road, one year post-construction and are expected to improve over time (see Chapter 17 (Landscape (Townscape) & Visual)). The following amenity designations are expected to be impacted during the Operational Phase of the Proposed Scheme:

- Santry Demesne – Negative, Moderate and Short-Term;
- Open space at Chadwicks – Negative, Moderate and Short-Term;
- Open space at Coolock Lane – Negative, Moderate/Significant and Short-Term;
- Open space at Santry – Negative, Moderate/Significant and Short-Term;
- Our Lady's Park, Drumcondra – Negative, Moderate/Significant and Short-Term; and
- Santry River, Royal Canal and Parnell Square – Neutral, Not Significant/Slight and Short-Term.

These environmental impacts have been considered together to identify if there will be in-combination impacts acting upon the same community facilities.

The assessment concluded that there would be a range of impacts on community amenity as a result of the Operational Phase of the Proposed Scheme. The impact on community amenity in community areas predominantly along the Proposed Scheme (Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral) differs depending on location, however, is expected to range between Negative, Slight and Long-Term to Positive, Not Significant and Long-Term. A summary of the findings of the community amenity assessment of the Operational Phase of the Proposed Scheme is as follows:

- Negative, Slight and Long-Term – Swords, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, Gardiner Street, Berkeley Road and Pro Cathedral;
- Negative, Not Significant and Long-Term – Swords and Larkhill – Whitehall – Santry;
- Positive, Not Significant and Long-Term – Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral.

It should be noted that the impacts outlined above are considered to be localized, and as such, the wider community areas located along the Proposed Scheme (Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral) are expected to experience a Neutral to Positive, Not Significant and Long-Term impact on community amenity, while the amenity of those community areas situated away from the Proposed Scheme (Sean McDermott Street) are expected to experience a Neutral, Not Significant and Long-Term impact during the Operational Phase.

10.4.4.1.2 Community Land Use and Accessibility

10.4.4.1.2.1 Land Take

The assessment of community land take during the Operational Phase assesses the impact of permanent land take acquisition on community facilities and residential properties.

A total of 105 community receptors (64 residential properties and 41 community facilities) require permanent land take as a result of the Proposed Scheme. Table 10.11 summarises the findings of the community land take assessment for residential properties along the Proposed Scheme during the operational phase.

Table 10.11: Land Take Impacts on Residential Properties during the Operational Phase

Community Area	Nature of Effect / Number of Residential Properties Affected			
	Imperceptible / Not Significant	Slight	Moderate	Significant
Swords	0	3	6	0
Larkhill – Whitehall – Santry	0	12	42	0
Marino	0	3	0	0
Total	**0**	**18**	**48**	**0**

Table 10.11 shows there are no residential properties significantly affected by permanent land take during the operational phase of the Proposed Scheme. 42 properties in the Larkhill – Whitehall – Santry community area are expected to experience Negative, Moderate and Long-Term land take impacts as a result of the Proposed Scheme, most of which are located along Swords Road and will experience a small proportion of their front gardens and driveways to be acquired.

Table 10.12 summarises the findings of the community land take assessment for community facilities along the Proposed Scheme during the Operational Phase.

Table 10.12: Land Take Impacts on Community Facilities during the Operational Phase

Community Area	Nature of Effect / Number of Community Facilities Affected			
	Imperceptible / Not Significant	Slight	Moderate	Significant
Larkhill – Whitehall – Santry	14	6	3	0
Marino	0	2	0	0
Drumcondra	0	3	0	0
Glasnevin	0	0	1	0
Iona Road	1	0	0	0
River Valley (Swords)	0	1	0	0
Swords	6	5	0	0
Total	**21**	**17**	**4**	**0**

Table 10.12 shows there are no community facilities that are expected to experience a significant permanent land take during the Operational Phase of the Proposed Scheme. The four receptors expected to experience a Negative, Moderate and Long-Term land take effect are Santry Park, Swords Medical Practice, Magenta Hall and Our Lady's Park. Most community facilities affected are areas of green space.

Overall, the impact of land-take on community receptors and residential dwellings across the Larkhill – Whitehall – Santry community area as a whole is considered Negative, Not Significant to Slight and Long-Term during the operational phase. Community areas Swords, Marino, Glasnevin, Iona Road, Drumcondra and River Valley

(Swords) are considered to have a Negative, Not Significant and Long-Term impact. Other community areas are not predicted to be impacted by land take during the operational phase.

10.4.4.1.2.2 Accessibility

Community accessibility relates to the ability of users to access community facilities, recreational resources, and residential properties. The nature of the Proposed Scheme means that accessibility impacts will differ based on the mode of travel used. The assessment has therefore separately assessed accessibility impacts on pedestrians, cyclists, bus users and private vehicles.

The significant improvements to the walking, cycling and bus facilities included within the Proposed Scheme will encourage sustainable modes of transport, therefore reducing the demand for private vehicles / parking along the Proposed Scheme. Improved accessibility is also expected to increase social cohesion within the local community as discussed further in Appendix A10.2 (The Economic Impact of the Core Bus Corridors) (EY 2021) in Volume 4 of this EIAR.

Pedestrians and Cyclists

In general, the Proposed Scheme will not alter the existing arrangement of footpaths along its length. However, minor adjustments are proposed to the width of such pedestrian facilities in a number of places, where appropriate.

Chapter 6 (Traffic and Transport) identified a Positive, Moderate to Very Significant and Long-Term impact on pedestrian infrastructure and a Positive, Slight to Very Significant and Long-Term impact on cycling infrastructure along the Proposed Scheme. The beneficial impacts on pedestrian and cycling infrastructure is expected to lead to improvements in access to community facilities along the Proposed Scheme will improve for those choosing to walk or cycle as there will be increased provision for these modes of travel.

A Neutral, Not Significant and Long-Term impact is anticipated in the community areas of Sean Mc Dermott Street as they are situated away from the Proposed Scheme, with no changes to pedestrian and cycling infrastructure proposed.

Bus Users

Chapter 6 (Traffic and Transport) identified a Positive, Moderate to Profound and Long-Term impact on bus infrastructure and a Positive, Significant and Long-Term impact on bus network performance (which includes journey times and journey time reliability). It is therefore expected that access to community facilities by bus users will also improve along the Proposed Scheme.

These impacts on access to community facilities for pedestrians, cyclists and bus users are expected to be experienced by community areas located predominantly along the Proposed Scheme as these will be where signal controlled junctions and improved footpath and cycle tracks will be provided. The community areas likely to experience these positive impacts are Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral.

Whilst situated away from the Proposed Scheme, the community area of Sean Mc Dermott Street is still expected to experience the benefits expected on the wider bus network performance and as such there is a Positive, Slight and Long-term impact on bus users in this community area.

Private Vehicles

Chapter 6 (Traffic and Transport) identified a Positive, Moderate and Long-Term impact from the reduction in general traffic along the Proposed Scheme and a Negative, Slight and Long-Term impact from redistributed traffic in the surrounding road network. Chapter 6 (Traffic and Transport) did not identify any localized impacts during the AM and PM peak period at any junctions in the surrounding network of the Proposed Scheme as a result of displaced traffic.

On the whole, the community areas that are likely to experience Positive, Moderate and Long-Term impacts on change in access to community facilities, as a result of the reduction in general traffic, are those situated along

the Proposed Scheme, such as Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral.

Negative, Slight and Long-Term impacts on change in access to community facilities, as a result of the redistribution of traffic in the surrounding road network, are likely to be experienced in community areas situated away from the Proposed Scheme, namely Sean Mc Dermott Street.

10.4.4.2 Economic Assessment

10.4.4.2.1 Commercial Amenity

Commercial amenity impacts arise from a combination of traffic, air quality, noise and visual impacts as discussed in Section 10.2.4.2.1.

Chapter 6 (Traffic & Transport) identified a Positive, Significant and Long-Term impact from a reduction in general traffic along the Proposed Scheme and a Negative, Slight and Long-Term impact from redistributed traffic along the surrounding road network. No road junctions in the surrounding road network are expected to be significantly impacted by the operation of the Proposed Scheme.

Chapter 7 (Air Quality) identified a residual Neutral and Long-Term impact on local human receptors from road traffic impacts during the Operational Phase.

Chapter 9 (Noise & Vibration) identified a Positive, Imperceptible, Short to Medium Term to Negative, Not Significant to Slight to Moderate, Short to Medium Term direct impact along the Proposed Scheme due to a reduction in traffic volumes during the opening year (2028). An indirect Neutral, Imperceptible, Short to Medium Term to indirect Negative, Moderate Short to Medium Term impact has also been identified from traffic noise on the surrounding road network. Due to increased traffic noise levels during the Opening Year (2028), a Negative, Moderate, Short to Medium Term impacts were identified on Wellington Street Lower (community area Berkeley Road), Gardiner Row (community area Gardiner Street) and St. Alphonsus Road Lower (community area Iona Road). Community receptors likely impacted by such increased noise levels in the surrounding network during the Opening Year (2028) are as follows:

- Castle Hotel;
- Castle Vaults;
- National Economic and Social Council Office;
- Office of the Director of Corporate Enforcement; and
- The Berkeley Pub.

Chapter 17 (Landscape (Townscape) & Visual) identified the following impacts on townscape and streetscape character during the Operational Phase:

- A Negative, Slight to Moderate and Short-Term impact between Pinnock Hill to Airside Junction;
- A Negative, Slight and Short-Term impact between Airside Junction and Northwood Avenue;
- A Negative, Moderate and Short-Term impact between Northwood Avenue and Shantalla Road;
- A Negative, Moderate to Significant and Short-Term impact between Shantalla Road and Botanic Avenue; and
- A Negative, Moderate and Short-Term impact between Botanic Avenue and Granby Row.

Commercial receptors at Collinstown Cross Industrial Estate are also expected to experience Negative, Moderate to Significant and Short-Term landscape and visual impacts as a result of the construction of the Proposed Scheme.

These environmental impacts have been considered together to identify if there will be in-combination impacts acting upon the same commercial receptor.

The assessment concluded that there would be a range of impacts on commercial amenity as a result of the Operational Phase of the Proposed Scheme. The impact on commercial amenity in community areas

predominantly along the Proposed Scheme (Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral) differs depending on location, however, is expected to range between Negative, Not Significant and Long-Term to Negative, Slight and Long-Term. A summary of the findings of the commercial amenity assessment of the Operational Phase of the Proposed Scheme is as follows:

- Negative, Not Significant and Long-Term – Swords, Larkhill – Whitehall – Santry, Drumcondra, Dominick Street and Pro Cathedral.
- Negative, Slight and Long-Term – Swords, Larkhill – Whitehall – Santry, Marino, Drumcondra, Iona Road, North William Street, Gardiner Street and Berkeley Road.

It should be noted that the impacts outlined above are considered to be localized, and as such, the wider areas of the community areas located along the Proposed Scheme are expected to experience a Negative to Neutral, Not Significant and Long-Term impact on commercial amenity, while the amenity of the community area situated away from the Proposed Scheme (Sean McDermott Street) is expected to experience a Neutral, Not Significant and Long-Term impact during the Operational Phase.

10.4.4.2.2 Commercial Land Use and Accessibility

10.4.4.2.2.1 Land Take

The assessment of commercial land take during the Operational Phase assesses the permanent land take acquired and the potential impacts this has on commercial businesses.

A total of 57 commercial receptors require permanent land take as a result of the Proposed Scheme. Table 10.13 summarises the findings of the commercial land take assessment for the Proposed Scheme during the operational phase.

Table 10.13: Land Take Impacts on Commercial Receptors during the Operational Phase

Community Area	Nature of Effect / Number of Commercial Receptors Affected				
	Imperceptible / Not Significant	Slight	Moderate	Significant	Profound
Swords	0	5	5	0	0
Larkhill – Whitehall – Santry	0	22	23	0	1
Marino	0	1	0	0	0
Total	**0**	**28**	**28**	**0**	**1**

Table 10.13 shows that one commercial receptor, Collinstown Cross Industrial Estate, is expected to experience a Negative, Profound and Long-Term land take impact due to the demolition of the building used principally by Mini Fix.

23 commercial receptors, located in Larkhill – Whitehall – Santry community area, are expected to experience Negative, Moderate, Long-Term land take impacts, the majority are expected to have a small amount of land taken from the front of their businesses, with no significant impact on business viability expected.

Overall, the impact of land take on commercial receptors across the Larkhill – Whitehall – Santry community area as a whole is considered Negative, Slight to Moderate and Long-Term during the Operational Phase. Community areas Swords and Marino are considered to have a Negative, Not Significant and Long-Term impact. Other community areas are not predicted to be impacted by land take during the Operational Phase.

10.4.4.2.2.2 Accessibility

Commercial accessibility relates to the ability of users and employees to access commercial businesses. The nature of the proposed works means accessibility impacts will differ based on the mode of travel used. The assessment has therefore separately assessed accessibility impacts on pedestrians, cyclists, bus users and private vehicles.

Chapter 6 (Traffic and Transport) assessed that people movement would significantly increase along the Proposed Scheme. It is therefore expected that all businesses along the Proposed Scheme will, to some extent, benefit from the increase in passing trade. Commercial businesses located along the Proposed Scheme are listed in Appendix A10.1 (Schedule of Commercial Businesses) in Volume 4 of this EIAR.

Pedestrians, Cyclists and Bus Users

The positive impacts of improved accessibility to pedestrians, cyclists and bus users will predominantly be experienced by community areas located along the length of the Proposed Scheme as these will be the locations of improved footpaths and cycle paths. The community areas that are expected to experience a Positive, Moderate to Very Significant and Long-Term impact on pedestrians, a Positive, Slight to Very Significant and Long-Term impact on cyclists and a Positive, Moderate to Profound and Long-Term impact on bus users, as a result of changes to access are Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral.

Chapter 6 (Traffic and Transport) identified a Positive, Moderate to Profound and Long-Term impact on bus infrastructure and a Positive, Significant and Long-Term impact on bus network performance (which includes journey times and journey time reliability)

A Neutral, Long-term impact is anticipated in the community area of Sean Mc Dermott Street as it is situated away from the Proposed Scheme, where no changes to pedestrian, cyclist or bus infrastructure is proposed.

Private Vehicles

Chapter 6 (Traffic and Transport) identified a Positive, Moderate and Long-Term impact from the reduction in general traffic along the Proposed Scheme and a Negative, Slight and Long-Term impact from the redistribution of traffic in the surrounding road network. Chapter 6 (Traffic and Transport) did not identify any localised capacity impacts during the AM and PM peak period at any junctions in the surrounding network of the Proposed Scheme as a result of displaced traffic.

The impact on access to commercial businesses along the Proposed Scheme for private vehicles is considered to be Positive, Moderate and Long-Term. The community areas that are expected to experience this impact this are Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral.

The impact on access to commercial businesses in the surrounding road network, a result of redistributed traffic, is considered to be Negative, Moderate and Long-Term. The community areas that are expected to experience this impact as a result of changes in access to commercial businesses during the Operational Phase of the Proposed Scheme are those situated away from the Proposed Scheme, namely Sean Mc Dermott Street

A parking assessment has been undertaken in Chapter 6 (Traffic & Transport). No Significant impacts on parking were identified along the proposed Scheme.

10.5 Mitigation and Monitoring Measures

The design of the Proposed Scheme has evolved through comprehensive design iteration, with particular emphasis on minimising the potential for environmental impacts, where practicable, whilst ensuring the objectives of the Proposed Scheme are attained. This population assessment takes account of the design outlined in Chapter 4 (Proposed Scheme Description). The Proposed Scheme will ensure that there is no permanent disruption to services and that all temporary disruptions are kept to a minimum.

The population assessment presented in Section 10.4 has been informed by the residual impacts reported in Chapter 6 (Traffic & Transport), Chapter 7 (Air Quality), Chapter 9 (Noise & Vibration) and Chapter 17 (Landscape (Townscape) & Visual). The reported residual impacts in these chapters take into account any topic-specific mitigation identified within the respective chapters. No further mitigation is proposed over and above that set out in individual topic chapters.

10.6 Residual Impacts

No additional mitigation measures have been proposed for this population assessment and therefore the residual impacts are the same as the potential effects detailed in Section 10.4.

10.6.1 Construction Phase

Table 10.14 summarises the residual impacts (same as predicted impacts) of the population assessment during Construction Phase of the Proposed Scheme. This includes all community and economic assessment topics.

Table 10.14: Summary of Construction Phase Significant Residual Impacts

Assessment Topic	Predicted Impact (Residual Impacts) for Community Areas	Significant Residual Impact (Receptor Specific)
Community Assessment		
Community amenity	Negative, Not Significant and Temporary/Short-term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Temporary/Short-Term – Sean McDermott Street.	Rotunda Hospital and Mater Private Hospital – Negative, Moderate to Significant and Short-Term.
Community land take	Negative, Slight and Temporary/Short-Term – Larkhill – Whitehall – Santry. Negative, Not Significant and Temporary/Short-Term – Swords, Marino, Drumcondra, Iona Road, River Valley, Glasnevin.	41 Residential – Negative, Significant and Temporary/Short-Term – along Swords Road.
Community accessibility	**Pedestrians** Negative, Slight and Temporary/Short-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Temporary/Short-Term – Sean McDermott Street. **Cyclists** Negative, Moderate and Temporary/Short-term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Temporary/Short-Term – Sean McDermott Street. **Bus Users** Negative, Slight and Temporary/Short-term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Temporary/Short-Term – Sean McDermott Street. **Private Vehicles** Negative, Moderate and Temporary/Short-term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Slight and Temporary/Short-Term – Sean McDermott Street.	
Economic Assessment		
Commercial amenity	Negative, Not Significant and Temporary/Short-term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street.	No Significant Impacts
Commercial land take	Negative, Slight and Short-Term – Larkhill – Whitehall – Santry. Negative, Not Significant and Short-Term – Swords, Marino	Demolition of Mini Fix at Collinstown Cross Industrial Estate – Negative, Profound
Commercial accessibility	**Pedestrians** Negative, Slight and Temporary – Swords, Larkhill – Whitehall – Santry, River Valley, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral	

Assessment Topic	Predicted Impact (Residual Impacts) for Community Areas	Significant Residual Impact (Receptor Specific)
	Neutral, Not Significant and Short-Term – Sean McDermott Street. **Cyclists** Negative, Moderate and Temporary – Swords, Larkhill – Whitehall – Santry, River Valley, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street. **Bus Users** Negative, Slight and Temporary – Swords, Larkhill – Whitehall – Santry, River Valley, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street. **Private Vehicles** Negative, Moderate and Temporary – Swords, Larkhill – Whitehall – Santry, River Valley, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Negative, Slight and Short-Term – Sean McDermott Street.	

10.6.2 Operational Phase

Table 10.15 summarises the predicted impacts (same as residual impacts) of the population assessment during operation of the Proposed Scheme. This includes all community and economic assessment topics.

Table 10.15: Summary of Operational Phase Significant Residual Impacts

Assessment Topic	Predicted Impact (Residual Impacts) for Community Areas	Significant Residual Impact (Receptor Specific)
Community Assessment		
Community amenity	Neutral to Positive, Not Significant and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street	No Significant Impacts
Community land take	Negative, Not Significant to Slight and Long-Term – Larkhill – Whitehall – Santry. Negative, Not Significant and Long-Term – Swords, Marino, Glasnevin. Iona Road, Drumcondra, River Valley	No Significant Impacts
Community accessibility	**Pedestrians** Positive, Moderate to Very Significant and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Long-Term – Sean McDermott Street **Cyclists** Positive, Slight to Very Significant and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street **Bus Users** Positive, Moderate to Profound and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Positive, Slight and Long-term – Sean McDermott Street **Private Vehicles** Positive, Moderate and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Negative, Slight and Long-Term – Sean McDermott Street	

Assessment Topic	Predicted Impact (Residual Impacts) for Community Areas	Significant Residual Impact (Receptor Specific)
Economic Assessment		
Commercial amenity	Negative to Neutral, Not Significant and Long-Term – Swords, River Valley Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street	No Significant Impacts
Commercial land take	Negative, Slight to Moderate and Long-Term – Larkhill – Whitehall – Santry. Negative, Not Significant and Long-Term – Swords	Demolition of Mini Fix at Collinstown Cross Industrial Estate – Negative, Profound and Long-Term
Commercial accessibility	**Pedestrians** Positive, Moderate to Very Significant and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Long-Term – Sean McDermott Street. **Cyclists** Positive, Slight to Very Significant and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Neutral, Not Significant and Short-Term – Sean McDermott Street. **Bus Users** Positive, Moderate to Profound and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Positive, Slight and Long-term – Sean McDermott Street. **Private Vehicles** Positive, Moderate and Long-Term – Swords, River Valley, Larkhill – Whitehall – Santry, Marino, Drumcondra, Glasnevin, Iona Road, North William Street, Gardiner Street, Berkeley Road, Dominick Street and Pro Cathedral Negative, Slight and Long-Term – Sean McDermott Street.	

As outlined within Section 10.4.4 (Operational Phase) and summarised in Table 10.12, the Proposed Scheme will deliver positive impacts in terms of accessibility to community facilities and commercial businesses for pedestrians, cyclists and bus users during the Operational Phase. The Proposed Scheme is also expected to benefit individuals and businesses whose workers live along the corridor. Retail and leisure businesses along the route could gain a double benefit from both increased sales and improved staff productivity (see Appendix A10.2 (The Economic Impact of the Core Bus Corridors Report) (EY 2021) in Volume 4 of this EIAR).

These improvements will help to achieve the aims and objectives of the Proposed Scheme by providing an attractive alternative to the use of private vehicles and promoting a modal shift to walking, cycling and public transport, allowing for greater capacity along the corridor to access residential, community and commercial receptors. As discussed in Appendix A10.2 the Proposed Scheme will also ensure to connect people with essential services such as healthcare facilities and jobs (EY 2021).

In order to accommodate the Proposed Scheme and to ensure it can be readily utilised by sustainable modes of transport, localised impacts from permanent land take are expected on a number of properties. Slight negative impacts are expected on private vehicles travelling in the surrounding road network. However, the design of the Proposed Scheme, which is a result of a detailed design iteration process, ensures that the surrounding road network will have the capacity to accommodate the redistributed traffic during the operation whilst still achieving the aims and objectives of the Proposed Scheme.

Accordingly, it is concluded that the Proposed Scheme will deliver strong benefits for users of sustainable modes of transport, with positive accessibility and amenity impacts for community areas in the study area and align with specific objectives identified in Section 10.1.

10.7 References

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