Chapter 10
Population

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10 POPULATION

10.1 Introduction

The Population chapter of the Environmental Impact Assessment Report (EIAR) examines the social and economic context of the receiving environment of the BusConnects Galway: Dublin Road Development (hereafter referred to as the Proposed Development). The chapter assesses the potential impacts, both positive and negative, on people living in, working in, or visiting the receiving environment during both the Construction and Operational Phases. This assessment includes an examination of the social impact on communities (community assessment) and economic impacts on commercial businesses (economic assessment) in the study. Furthermore, the chapter assesses the impacts of the Proposed Development on the environment for walking, cycling and public transport and overall encouragement of more sustainable travel.

The Proposed Development provides for a reconfiguration of traffic movements to facilitate improved pedestrian, cyclist and bus accessibility and movement, infrastructural works at certain roads and junctions, and improvements to the public realm along the Dublin Road corridor. The objectives of the Proposed Development are described in Chapter 1 (Introduction), which, fundamentally, seeks to enable and deliver efficient, safe and integrated sustainable transport movement along the corridor, including a tie-in with the BusConnects Cross City Link. The Proposed Development, which is described in Chapter 4 (Proposed Development Description) of this EIAR, has been designed to meet these objectives. Key objectives that are applicable to the assessment in this chapter are to:

- 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, along with upgraded facilities for pedestrians; 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.

Cognisance has been taken in this chapter of other assessments of the Proposed Development which have the potential to cause other environment impacts (see Section 10.2.4). The Chapter is also supported by Figure 10.1 in Volume 3 of this EIAR.

The design of the Proposed Development has evolved through a comprehensive design iteration process, with a particular emphasis on minimising the potential for environmental impacts, where practicable, whilst ensuring the principal objectives are achieved. 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 local population, residents, communities and businesses.

10.2.1 Study Area

The study area captures the Zone of Influence for the Proposed Development and extends for 500m on either side of the R338 Dublin Road. It includes large areas of residential, business, and industrial development and community facilities including hospitals, colleges, schools, sports facilities, religious facilities, community centres, libraries, neighbourhood shops and the Galway HQ of Garda Síochána,
The wider study area for the assessment of impacts on community amenity, land take and accessibility, includes receptors within a corridor comprises of ‘community areas or neighbourhoods’ informed by the Central Statistics Office (CSO) boundaries for Electoral Divisions (ED) and Small Areas (SA), along with associated data from the 2022 Census. The EDs broadly align with parish boundaries and include the contemporary communities of Mervue, Merlin Park and parts of Doughiska to the north of the R338 Dublin

Road, and Renmore, Rosshill and parts of Roscam to the south, as well as neighbourhoods including Glenina Heights, Belmont, Castlepark, Glasan, Woodview, Merlin Park, Lakeshore and Lurgan Park. For practical purposes, it is assumed that the improved bus infrastructure will be most conveniently available to people living within 500m of the route, although the assessment considers areas outside of this corridor which are accessible by bicycle or other transport modes. These community areas are presented in Figure 10.1 in Volume 3 of this EIAR.

The population assessment of the Proposed Development considers potential impacts on community receptors, and commercial businesses. The assessment is addressed for both the construction phase and the operational phase and has been split into two subsections, namely:

- Community assessment: An assessment of the social impacts from the Proposed Development on the local population, residents, and communities; and
- Economic assessment: An assessment to capture the economic impacts from the Proposed Development on commercial receptors, including commercial business viability.

10.2.1.1 Community Assessment

The community assessment considers people and their use of community facilities, as well as public or community land and individual residential properties, including any land parcels being acquired on a temporary and permanent basis to accommodate the Proposed Development.

10.2.1.2 Economic Assessment

The economic assessment considers potential impacts, including land take, on individual commercial businesses within the Zone of Influence of the Proposed Development, as well as any commercial receptors which would experience negative impacts from displaced traffic during the Construction or Operational Phase of the Proposed Development.

10.2.2 Relevant Guidelines, Policy, and Legislation

The following guidance documents have informed the Population Assessment:

- Environmental Protection Agency (May 2022). Guidelines on information to be contained in Environmental Impact Assessment Reports;
- Transport Infrastructure Ireland (2024). Project Appraisal Guidelines for National Road 13.0 - Appraisal of Active Modes;
- Transport Infrastructure Ireland (2024). Population and Human Health Assessment of Proposed National Roads – Standard. In PE-ENV-01108;
- Government of Ireland. (2013) The Design Manual for Urban Roads and Streets (DMURS);
- National Transport Authority. Cycle Design Manual (CDM) (NTA 2023);
- Department of Transport 2022 (updated Nov 2023) Guidelines and standards for roads, greenways and active travel; and
- Highways England. Design Manual for Roads and Bridges (DRMB) LA 112 Population and Human Health (Highways England 2020).

The assessment has been undertaken in accordance with Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU (“EIA Directive”) and has been informed by the following transport or policy documents:

- BusConnects: Sustainability Transport for a Better City https://busconnects.ie/cities/galway/;galway-bus-network-redesign;
- Government of Ireland (2018) Project Ireland 2040 – National Planning Framework;
- Government of Ireland (2018) National Development Plan 2021-2030;
- Climate Action Plan 2024 (GOI 2024) ;
- Northern and Western Regional Assembly (2020). Regional Spatial and Economic Strategy 2020-2032;
- Galway City Council (2023) City Development Plan (CDP) 2023-2029;

- Galway City Council (2024) Local Economic Community Plan, 2024-2029;
- Galway Transport Strategy (2016) https://www.galwaycity.ie/services/roads-and-transport/galway-transport-strategy;
- Cycle Connects – Draft Galway Cycle Network; https://consult.nationaltransport.ie/sites/default/files/CycleConnects%20-%20Galway%20Technical%20Note.pdf;
- Department of Transport (2021). National Investment Framework for Transport in Ireland (NIFTI);
- Transport Infrastructure Ireland. Applying a Gender Lens to TII Public Transport Projects GE-GEN-01007; and
- National Transport Authority (2015). Permeability. Best Practice Guide.

A new Standard (PE-ENV-01108) *Population and Human Health Assessment of Proposed National Roads (TII, September 2024)* has recently been published by Transport Infrastructure Ireland. Section 1.5 of this standard states that where projects have already commenced planning and design, the new standard is to be treated as advice and guidance. In this respect, the former assessment criteria have been retained in this chapter as they already cover the four principal areas of assessment introduced in the new standard, although additional attention has been given to areas such as non-motorised units. The assessment covers the key impact types addressed in the new standard.

10.2.3 Data Collection and Collation

The Population assessment requires an understanding of the community and physical characteristics of the area. The assessment is informed by relevant planning policy, demographic data, information obtained from site visits, local discussions, and consultation feedback from the public, stakeholders, and community representatives.

A desk-based assessment was first undertaken based on drawings and maps provided by the design team, in combination with information on the location of residential development, commercial and industrial development, community facilities and transport infrastructure. Data has also been collected on demographic trends, economic activity, and recreation.

Data sources used for this assessment include:

- Central Statistics Office. Census 2022 –(CSO 2023);
- Central Statistics Office. Census 2016 and 2011;
- Pobal Index of Deprivation 2023 (Pobal 2023) ;
- BusConnects-Dublin Road. Non-Statutory Public Consultation: Submissions Report, rpsgroup.com 2021);
- Proposed Development Design Drawings provided in Volume 3 Figures;
- Google Maps (Google 2023);
- National Public Transport Access Nodes (NaPTAN) (National Transport Authority 2020);
- Reports and submissions from the public consultation process provided by the design team;
- Site visit to confirm land use, transport, and pedestrian movements in the study area in November 2023 and September 2024; and
- The Project Scoping Report and other relevant environmental data considered during the environmental assessment process, particularly traffic, noise, air, landscape and visual, and material assets.

As part of the non-statutory public consultation process, submissions received were reviewed by the BusConnects Design Team. This consultation has helped to inform the Population assessment, specifically as regards general amenity and journey characteristics.

The baseline assessment seeks to establish a full list of population receptors, including local educational, community, recreational and healthcare facilities, as well as commercial receptors (see Section 10.3.2). This is informed by the latest available census data for 2022 from the CSO and the OSI Prime 2 dataset.

10.2.4 Appraisal Method for the Assessment of Impacts

Population is a broad topic which can interact with all other environmental specialisms to one degree or another. The principal interactions for the Population assessment are to be found with the following assessments and should be read in conjunction with these.

- Chapter 2 – Need for the Scheme;
- Chapter 4 – Proposed Development Description;
- Chapter 5 – Construction;
- Chapter 6 – Traffic and Transport;
- Chapter 7 – Air Quality;
- Chapter 9 – Noise and Vibration;
- Chapter 11 – Human Health;
- Chapter 17 – Landscape (Townscape) and Visual; Chapter 19 – Material Assets; and
- Chapter 21 – Cumulative Impacts & Environmental Interactions.

The Assessment commences with a description of the baseline environment (Section 10.3) followed by an assessment of the potential impacts of the Proposed Development (Section 10.4). Section 10.5 sets out the mitigation measures devised to avoid, reduce, and/or mitigate the impacts or effects identified, with details of any residual effects being described in Section 10.6. The list of references used to compile this chapter is presented in Section 10.7.

Impacts or effects are compared between the Do-Minimum and the Do-Something scenarios (see Section 10.4) and result from direct, indirect, secondary and cumulative effects. The new TII Standard for Population and Human Health (2024) has clarified the distinction between the terms impacts and effects. “Impact” is defined as a change to a community resource due to the project and “effect” (or “outcome”) as a change to the receptor population resulting from an impact. It usually follows that impacts of effects on a population are a function of the:

- Location and character of the local environment;
- Sensitivity of the local population and its capacity to absorb change;
- Nature of the environmental effect;
- Scale or extent of the effect in terms of area or population affected;
- Duration and frequency of an effect; and
- Probability of an impact’s occurrence and possibility of effectively reducing the effects.

Effects result from direct, indirect, secondary and cumulative impacts on existing environmental conditions, and can be *positive, negative or neutral*. The significance of an effect depends on, among other considerations, the nature of the environmental impact, its magnitude, its timing and duration, and the probability of its occurrence. The significance of an effect is further informed by the relationship between the receptor population’s sensitivity and the magnitude of the effect itself, together with the size of the population affected. Significance is described as *imperceptible, slight, moderate, significant*, *very significant* or *profound*. The effect’s duration may be described as *momentary, brief, temporary, short-term, medium-term, long-term, permanent or reversible* in accordance with the timescales detailed in Table 10-1 below and the *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022), hereafter referred to as the *EPA Guidelines*. The frequency of an impact can also influence significance, i.e. if the effect will occur once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually. For example, disruption to a road for a few hours could be described as having an *imperceptible, negative* and *brief* effect versus the complete closure of a road for a number of months which could be described as a *very significant, negative*, and *temporary* effect.

Table 10-1 Criteria to assess and describe population effects (EPA, 2022)

Quality of effects	
Positive	A change which improves the quality of the environment as realised or perceived by human beings.
Neutral	No effects realised or perceived by human beings, or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative	A change which reduces the quality of the environment as realised or perceived by human beings.
Significance of an effect	
Imperceptible	An effect capable of measurement but without significant consequences on Population.
Not Significant	An effect which causes noticeable changes in the character of the environment as realised or perceived by human beings without affecting its sensitivities.
Slight effects	A small effect which causes noticeable changes in the character of the environment realised or perceived by human beings without affecting its sensitivities.
Moderate effects	An effect that alters the character of the environment as realised or perceived by human beings in a manner that is consistent with existing and emerging baseline trends.
Significant Effects	An effect which, by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment as realised or perceived by human beings.
Very significant Effects	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment as realised or perceived by human beings.
Profound Effects	An effect which profoundly impacts on characteristics of the environment as realised or perceived by human beings, especially as it effects sensitive subsets of the population
Describing the extent and context of effects	
Extent	The size of the area, the number of sites, and the proportion of a population affected by an effect.
Context	Whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Describing the probability of the effects	
Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measure are properly implemented.
Describing the duration and frequency of effects	
Momentary Effects	Effects lasting from seconds to minutes.
Brief Effects	Effects last less than a day.
Temporary Effects	Effects lasting less than a year.
Short-term Effects	Effects lasting one to seven years.
Medium-term Effects	Effects lasting seven to fifteen years.
Long-term Effects	Effects lasting fifteen to sixty years.
Permanent Effects	Effects lasting over sixty years.
Reversible effects	Effects that can be undone, for example through remediation or restoration.

Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hour, daily, weekly, monthly, annually).

A final determination of the significance of effects depends on the relationship between the sensitivity of the receptors and the magnitude (area and/or size) of an effect as set out in Table 10-2 below and informed by Figure 3.2 of the EPA Guidelines:

Table 10-2 Relationship between receptor sensitivity, effect magnitude and significance (adapted from EPA, 2022)

Significance		**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 effects has been informed by the *Design Manual for Roads and Bridges (DMRB) LA 112 Population and Human health (land use and accessibility)* (Highways England 2020). The DMRB Guidance has been used to determine the sensitivity and magnitude of effects on land use and accessibility receptors.

Effects in both subsections are addressed in accordance with the *EPA Guidelines*. This assessment will examine the attributes and characteristics associated with the following impact types:

- Community assessment
  - Community amenity; and
  - Community and private land use and accessibility.
- Economic assessment
  - Commercial amenity and;
  - Commercial land use and accessibility (including land take and accessibility).

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 Development, unless otherwise stated. Some impact criteria may be relevant to only one phase, e.g. land take during construction, or not be relevant to each geographic Section of the Proposed Development.

10.2.4.1 Community Assessment

The Community Assessment addresses effects at a community level, but the effects for individual properties are assessed using the same parameters where impacts are identified by other specialist chapters (such as Noise and Vibration, Air Quality or Material Assets) as being significant and/or where the property is directly impacted or located within close proximity of the Proposed Development. Those communities which fall within the Zone of Influence have been identified using the CSO ED data, namely, from west to east, north of the Dublin Road, and south of the Dublin Road as shown on Figure 10.1 in Volume 3 of this EIAR. Within the boundaries of the ED there are also small areas for which the CSO collects data which is valuable for the assessment of sensitivity. Locally, the following neighbourhoods would be the more familiar to people.

- Wellpark and Glenina Heights (Wellpark ED);
- Belmont (Mervue ED);
- Castlepark, Glasan, Woodview and Merlin Park (Ballybaan ED);
- Lakeshore (Lough Atalia ED);
- Renmore (Renmore ED); and
- Murrough, Lurgan Park, and Roscam (Murrough ED).

10.2.4.1.1 Community amenity

Community amenity describes the perceived character or attractiveness of an area. Observations can be made with regard to effects on community infrastructure for people living in the vicinity of the Proposed Development. The key criterion here is community wellbeing, including local needs, social sustainability and the effect of the Proposed Development on nearby residents. At a community level, direct effects may result in changes in environmental quality, for instance, from noise and vibration, visual intrusion, air quality or traffic and transportation. This situation is classified as an 'in-combination' effect (see below) for which residual effects predicted by the relevant chapters are assessed having already considered the sensitivity of receptors. The effect of noise and air quality on people's health is also specifically addressed in the relevant chapter of this EIAR. Indirect effects can also arise as a consequence of a project or through an inter-relationship between a project and off-site actions at other locations. For example, an indirect effect of construction works could be people choosing to use other routes to access the same destinations with potential negative or positive effects elsewhere, for example a transfer of expenditure to convenience shops or service stations located on another route. In the operational phase, a positive indirect effect could be reductions in private vehicle use outside of the immediate zone of influence due to the connectivity made possible by new public transport infrastructure in the study area.

10.2.4.1.2 Community and private land use and accessibility

Direct temporary or permanent land take is listed in section 5.4.1 of Chapter 5 (Construction) and also by Material Assets (Chapter 18). The assessment in the Population chapter examines the effect of changes in the types of land uses. A review of planning policy has been undertaken to this effect along with an assessment of the capacity of the study area to absorb potential change due to the Proposed Development.

The nature and location of community facilities can be affected by changes in land use and accessibility. The sensitivity of community facilities varies and depends, amongst other things, on the

- Availability of alternatives community facilities;
- Frequency of use; and
- Number of users.

Sensitive subsets will include people with disabilities, older people, children, lone parents, people at risk of social isolation, people subject to socio-economic deprivation, people without access to private transport and people with a high shared dependent on a community resource. Women and minority groups may also represent sensitive subsets depending on the context. Different community facilities are important to the wellbeing of different subsets within the population. These include schools and colleges, health facilities,

places of worship, community centres, libraries, and public spaces or places to relax, including parks, playing pitches and sports grounds. Places of employment, shops and bars are also relevant. Particular importance is attached to community facilities used by sensitive population subsets such as hospitals, schools and some types of green space or park, especially when there are few alternative facilities nearby.

Access is a key consideration when it comes to community facilities, including workplaces. The assessment of accessibility (ease of getting or connecting between journey origin and destination) is inevitably dependent on precisely where an individual journey originates and ends, when it is undertaken (e.g. within or outside peak hours) and by whom it is undertaken, i.e. by drivers, cyclists, users of public transport or pedestrians, including individuals whose transport options may be restricted. Aside from the operational impact on public transport services, the impact of the construction phase of the Proposed Development on accessibility arises mainly from temporary road and footpath closures and diversions. While the significance of the consequent effects varies for each individual journey, common destinations can usually be identified. Effects have been assessed in accordance with the significance criteria outlined in Table 10-2 with positive effects resulting from a decrease in journey length or time, or improved accessibility and connectivity, and negative effects resulting from an increase in journey length or time, diminished accessibility or connectivity. Journey length refers to the distance associated with a particular journey, whilst duration is the time taken to make the journey. Average walking speed for pedestrians is estimated to be 5 km/h while the average cycling speed is estimated to be 20 km/hr[1]. Physical severance, due to factors such as busy roads, an absence of crossing facilities, walls or buildings, may also be a factor in presenting a barrier to access to community facilities and is represented as either new severance or relief from existing severance.

In addition, effects arise due to changes in journey amenity. During the construction phase, these effects arise largely from the nature of any signalling delays or detours required and from the use of the local road network by construction vehicles (including probably a high proportion of HGVs). During the operational phase, the level of traffic on a road, the proximity and separation of footpaths and cycle-paths, the nature of road crossings, the legibility of a journey (including signage), visual intrusion (including sightlines) and safety for all road users, are amongst the factors relevant to the assessment of journey amenity, as are the number and types of people affected. Consequently, the assessment of journey amenity takes into consideration, when appropriate, the in-combination effects arising from impacts identified and assessed in the chapters on noise and vibration, visual, air quality, or traffic and transportation.

10.2.4.2 Economic Assessment

The Economic Assessment examines potential impacts on businesses, including the effect of changes in accessibility for business journeys, deliveries and goods movement, and for changes in traffic, pedestrian and cyclist flows as might affect accessibility for customers or employees.

10.2.4.2.1 Commercial amenity

Commercial amenity refers to the nature of local businesses and their employees, together with the importance of particular businesses for the local community as well as these businesses' reliance on local sales. Sensitive businesses include those manufacturing delicate products which could be vulnerable to environmental impacts due to air quality, visual impacts, noise and vibration, or traffic. Direct and indirect effects may result from these environmental impacts in isolation or in-combination. Changes in the economic environment or context may have effects at a local or regional scale and can be either positive or negative. These may affect the wider community, for example where a number of businesses are impacted, for

[1] Project Appraisal Guidelines for National Roads Unit 13.0 Pedestrian and Cycling Facilities (TII, October 2016).

businesses responsible for a high proportion of local employment, in situations where tourism is affected positively or negatively, or where the retail or business environment of a city / town is impacted.

10.2.4.2.2 Commercial land use and accessibility

Land Take

Land take may impact directly on commercial businesses and land used for economic purposes. This assessment has followed the same approach as set out for community land take. Large areas of business occupancy, including business parks or shopping centres, have been assigned a high sensitivity. Derelict land or unoccupied buildings have been assigned a low sensitivity. The magnitude of the effects on commercial land has been determined by the scale of the impact for each business in line with the DMRB Guidance (Highways England 2020). Where there will be substantial permanent land take from a private property or commercial land holding, a high magnitude has been assigned. A low magnitude would be assigned where there will be minimal disruption to private amenity or operational use of the land.

Accessibility

In general, economic effects are considered in this assessment at a community level, although distinct effects may be addressed where they affect identifiable local business or are detailed in Chapter 18 Material Assets. Businesses are typically dependent on accessibility for sales and inputs. Therefore, changes in access or connectivity can have significant effects on existing businesses or prospects of attracting new businesses to locate in an area. During the Construction Phase, effects may arise from delays due to temporary signalling, from road lane closures or diversions. These types of factors can also affect accessibility to or by clients and customers. The residual effects are informed by Chapter 6 (Traffic and Transport). Effects in the Operational Phase may arise from changes in the road network, pedestrian accessibility, cycling provision and bus infrastructure. The definition of sensitive businesses would include those dependent on passing trade or visibility.

10.2.4.3 New Standard for Population and Human Health

The impact types were chosen to be consistent with previous BusConnects impact assessments (“former impact types”). However, since the time when this assessment was carried out, Transport Infrastructure Ireland has published a new Standard for Population and Human Health Assessment of Proposed National Roads (PE-ENV-01108) (“the new Standard”) as noted above. The Standard states that the Population element of assessment must focus on the following areas:

- Private property and housing;
- Community land and assets;
- Socioeconomics, businesses, and development land; and
- Non-motorised road users (NMU).

The assessment is also called upon to assess, as a minimum, demolition of assets, land take, changes in amenity value, changes to accessibility including the potential for severance, changes in the length of journey for NMUs, and employment generation.

The assessment in this chapter has been reviewed to ensure that each of these effects has been addressed. Impacts on residential areas have hitherto been assessed at a community level, but effects on private property have been assessed in this chapter, although aside from boundary treatments, only the garden and driveway of one private residence is impacted. Table 10-3 below indicates where the assessment of these areas can be found. In some cases, the new Standard’s proposed areas for assessment accommodate more than one of the BusConnects criteria. The BusConnects criteria also includes assessment of effects on local vehicle users which is not overtly captured within the new Standard.

Table 10-3 Alignment between existing BusConnects assessment criteria and new PPH criteria

Former impact types	New PHH Standard principal areas for assessment	New PHH Standard: other areas for assessment
Community assessment		
Community amenity	Private property and housing,	changes in amenity value
Community land use: - land take	Community land and assets	demolition of assets, land take
Community Land use: - accessibility (including pedestrians, cyclists, bus users and private vehicles)	Non-motorised road users	changes in accessibility including potential for severance, changes in the length of journey for NMUs
Economic assessment		
Commercial amenity	Socioeconomics, businesses, and development land	business viability *
Commercial land use: - land take	Socioeconomics, businesses, and development land	demolition of assets, land take
Commercial land use: - accessibility	Socioeconomics, businesses and development land, Non-motorised road users	changes in accessibility including potential for severance, changes in the length of journey for NMUs, employment generation (i.e. access to employment)

Notes: underlining indicates main focus. * business viability is not listed as a specific item in the Standard.

10.2.4.4 Aligning receptors

The assessment of environmental effects as they might affect a community's amenity is informed by the assessments for specific locations provided in the chapters on Traffic and Transport, Noise & Vibration, Air Quality, and Landscape & Visual. Additional effects for Population can arise where there are at least two direct environmental effects on a receptor or a group of receptors. These are termed an in-combination effects. These effects are informed also by the community context where they are realised.

The effect on traffic assessed in Chapter 6 (Traffic and Transport) has a potentially significant impact on community amenity, when combined with other environmental effects. During construction, there may be restrictions on the movement of traffic along the route of a Proposed Development and the surrounding road network due to the residual effect which arises from construction traffic. During operation, the assessment considers changes in traffic volumes and movement and its redistribution in the surrounding road network.

The residual impacts of changes in air quality are taken from the assessment of Chapter 7 (Air Quality). Construction dust has been excluded from the amenity assessment as it is considered to be sufficiently mitigated during construction and is not predicted to result in a significant air quality residual effect.

The residual effects of changes in noise and vibration are taken from the assessment of Chapter 9 (Noise & Vibration) for Noise Sensitive Locations (NSL) which include residential dwellings, hotels and other short-term accommodation, and many of the community facilities listed above, including schools and colleges, hospitals and nursing homes, churches and other religious buildings, recreational and noise sensitive amenity areas and offices. During construction, noise impacts can occur from a variety of activities associated with direct works, activities at construction compounds and movement of HGVs and other

machinery. Where a NSL is affected by more than one noise source, the worst impact has been considered in the amenity assessment.

The residual effects of visual impacts are taken from the assessment of Chapter 16 (Landscape & Visual), The townscape and streetscape assessment in this chapter is used to assign a significance to visual residual effects for all receptor types

10.2.4.4.1 Determining Significance of Effect

An in-combination significance matrix has been used to inform the assessment of localised impacts on individual receptors (see Table 10-4). 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 refers to either negative or positive effects, but not a combination of both. Where both negative and positive effects occur, professional judgement has been used to assign the overall effect on amenity, considering also the duration of effects. Professional judgement has also been used in cases where a particular type of effect has more relevance to certain activities or community facilities as might be the case for noise for guests at a hotel or air quality for a business that produces food products.

Amenity effects that may arise on individual receptors have only been stated separately in the assessment of Potential Effects (Section 10.4)

Table 10-4: 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
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

Environmental Effect 1	Environmental Effect 2	Environmental Effect 3	Environmental Effect 4	Combined Impact
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

10.3 Baseline Environment

This Section presents the baseline environment for the community and economic assessments. The baseline assessment describes the character, significance, and sensitivity of the community through which the Proposed Development will pass, including a description of the various community and commercial receptors in the study area and any notable features along the Proposed Development.

10.3.1 Overview

10.3.1.1 Context and character

The study area includes areas to the north and south of the Dublin Road and the neighbourhoods of Wellpark, Glenina Heights, Belmont, Castlepark, Glasan, Woodview, Merlin Park and parts of Doughiska to the north of the R338 Dublin Road, and Renmore, Murrough, Lurgan Park and Roscam to the south. The area is primarily residential. There is an extensive area of residential estates to the north of the Dublin Road as far as Ballybrit and the N6, extending also to the south as far as the Galway-Dublin railway line. These areas are separated from the community of Doughiska to the north-east and Roscam to the south-east by a large area of woods, parkland and agricultural land comprising Merlin Park Woods and Rosshill Park Woods. Merlin Park University Hospital covers a large area and is situated within these open areas accessible from the Dublin Road and by foot or bicycle from Doughiska.

There are numerous other community facilities as might be expected of such a large residential area. These are located throughout the study area, but with the greater concentration along the Dublin Road. Among the more sensitive receptors are those listed in Table 10-5.

Table 10-5 Examples of Different Types of Sensitive Receptors Along the Proposed Development

Type of Receptor	Examples Along the Proposed Development
Residential	Residences along route, especially those closest to the Proposed Development
Commercial	Service stations, Galway Irish Crystal.
Medical/Healthcare	Merlin Park Hospital, Bon Secours Hospital, Galway Clinic, Sonas Day Centre, Galway Hospice Foundation, hairdressers, Mervue Health Centre
Education	Scoil Radharc na Mara, Scoil Chaitriona, Gaelscoil Dara, Atlantic Technological University, Lakeview School, Rosedale School
Religious	Seventh Day Adventists, Holy Family Church, St. Oliver Plunkett's Church, St. James Cemetery
Community resources	Renmore Scouts, Formative Years Montessori, Mervue Community Creche.
Residential resources	Renmore Community Centre
Tourism	The Connacht Hotel, Flannery's Hotel, G Hotel and Spa, Galway Irish Crystal. B&Bs and guest houses.
Charitable services	Brothers of Charity (Dublin Road & Castlepark Road)
Sports	Castlegar GAA, Galwegians Rugby Football Club, Mervue United AFC, O'Sullivan Athletic on Michael Collins Road, Renmore Playing Fields and Renmore AFC.
Parks and green space	Merlin Woods, Rosshill Park Woods

Medical and healthcare facilities are clearly of a sensitive nature and depend on good accessibility. Churches and religious facilities are sensitive given their type of use and the older profile of many parishioners. Schools and colleges are likewise sensitive given the nature of their use and the age and non-vehicular means of access of many students. Parks are used by sensitive population subsets, both young and old, and the enjoyment of green spaces would be sensitive to noise and other environmental effects. The functioning of the hospitals and of the Garda Regional and Divisional HQ is dependent on good access when responding to emergencies.

Various shops and convenience restaurants are located along Dublin Road. The only dedicated large shopping centre is the Wellpark Retail Centre at the western end of the Dublin Road, which includes also a cinema. There are local medical and dental practices and a reflexology centre. Three hotels are located in the study area. These accommodate tourists and other visitors, but also can also be considered to be local community facilities as they act as meeting places and have gym or spa facilities. Numerous smaller properties provide guest house or bed and breakfast accommodation.

10.3.1.2 Significance

The R338 Dublin Road forms the principal transport artery in the study area and connects the N67 Eastern Approach Road in the east with the R336 Wellpark Road, Bohermore Road and the R338 Sean Mulvoy Road which heads into the city centre. The R865 Ballybane Road dissects the study area north from the Skerritt Roundabout, providing an important local connection with the N6 and Ballybrit to the north. These roads carry high volumes of traffic, including much commuting traffic. Congestion is a feature through much of the day but becomes especially severe during the morning peak hour approaching Moneenageisha Junction.

There are bus lanes in both directions on Dublin Road, but these are not continuous, especially eastbound, with the result that buses are caught up in the traffic congestion. This affects the frequency and reliability of the local bus services (402, 404, 409) service as well as private, regional and national buses which use Dublin Road. The bus route network is due to change from 2025 to include services along Dublin Road,

through the suburb of Renmore and to Merlin Park Hospital.[2] Cycling in the study area is currently severely discouraged by high traffic volumes and a paucity of cycle facilities. There are no dedicated cycle lanes and heavy traffic, its proximity and the narrowness of sections of the road, combine with vehicle pollution to discourage higher levels of cycling. Currently, Galway City Public Bike Share has only a single station in the study area at Glenina in Ballybane. However, the City Development Plan, Policy 4.4, has the objective of facilitating cycling along the proposed BusConnects Routes, including the connecting Cross-City Link. It also contains proposals to extend the bikeshare infrastructure and for a new cycle path primary network through Ballybane and Merlin Woods which would link with the Dublin Road and secondary and feeder routes to the east in Renmore and Mervue. In addition, the proposed greenway to Oranmore would follow the railway line in the south of the study area with connections from Renmore and Roscam. These Proposed Developments would add more cycle traffic to the area, increasing the need for improved urban cycle infrastructure. The City Council is also progressing a number of 'School Zones' to increase pedestrian and cycle journeys. Gaelscoil Dara, the Atlantic Technological University (ATU) and several sports clubs are located beside or in close vicinity of the Dublin Road.

10.3.1.3 Sensitivity

As well as contributing to poor journey amenity generally, traffic congestion impacts on emergency services access, which is an especially important consideration given the concentration of hospitals, other medical facilities and the Garda station. The study area includes schools, churches and other facilities which are frequented by sensitive subsets such as children and young people, older people, and people with disabilities. These subsets typically walk to community facilities and often must do so in the vicinity of heavy traffic or by crossing busy roads. There is only a modest level of cycling in the study area (see below), but for some people this may represent the primary means of accessing community facilities, including in the case of young people accessing schools, colleges and sports facilities

High traffic volumes, the paucity of crossing islands or signalised crossings (restricted at present to east of Woodlands Campus, Renmore Road junction, Michael Collins Road junction, Ballyloughane Road junction, Murrough Drive, Coast Road junction and Doughiska Road junction) along with limited public transport connections, affect the ability of these groups to access facilities or bus stops safely.

10.3.2 Community Baseline

10.3.2.1 Community Facilities and Recreational Receptors

Figure 10-1 shows that most of the study area is zoned for 'Residential' with an area off the Rosshill Road and below the railway line zoned as Low Density Residential. Other large areas are zoned for 'Recreation and Amenity', including neighbourhood parks and playing fields and the surroundings of Merlin Park Hospital, including Merlin Park Woods. There are also areas zoned for 'Community, Culture and Institutional' taking in sites occupied by community facilities including the (1) Brothers of Charity Lakeview School and Rosedale School, (2) Bon Secours Hospital, Galway Hospice Foundation and Scoil Chaitríona, (3) Connacht Hotel, (4) Galwegians Rugby Club, (5) the Atlantic Technological University, (6) Gaelscoil Dara and Garda Síochána, (7) Merlin Park Hospital, (8) Holy Family Church and Radharc na Mara Primary School, and (9) the Brothers of Charity Pope John Paul Centre, amongst others.

[2] https://www.nationaltransport.ie/news/nta-publishes-final-new-bus-network-for-galway/

Figure 10-1 Land use zonings

The Proposed Development therefore includes a number of community and recreational receptors, the number and types of which are presented by community area in Table 10-6.

Table 10-6 Community Receptor Types by Community Area

Community Area (based on CSO Small Areas)	Hospital / Health Centre	Places of Worship	Schools/Colleges/ Montessori	Sports and recreation
Wellpark	0	0	0	0
Michael Collins/Belmont	1	1	2	5
Ballybane/Merlin Park	2	1	2	1
Doughiska	0	0	3	5
Renmore	2	2	4	2
Murrough Av./Lurgan Park	0	1	2	1
Roshill, Rocam	1	0	0	3

Table 10-6 demonstrates that the Dublin Road has the highest concentration of community facilities. These include the health facilities of the Bon Secours Hospital, Galway Hospice Foundation and Merlin Park Hospital, which although set back from the road, is accessible from it. The Brothers of Charity could be included under this heading. ATU Galway is located on Dublin Road as is the Garda Regional and Divisional HQ. Various shops, pubs and convenience restaurants are located on the road and so too are a modest number of residential properties. Galwegians Rugby Football Club and Castlegar GAA are accessible from Dublin Road. Other sports clubs and playing fields are located throughout the study area, including a block or two away from Dublin Road. Merlin Meadows and Rosshill Woods cover large areas with the former extending into Merlin Park Woods, and adjoining Dublin Road. Three schools (Lakeview, Rosedale and Gaelscoil Dara), and a church (St. Oliver Plunkett), are located within 100m of Dublin Road in Renmore. St. James Cemetery is located 100m from Dublin Road. Rather few other community facilities are located more than 200 metres from Dublin Road, but these include more schools (Padharc na Mara, Scoil Chaitriona (Jnr and Snr) and Merlin Woods Primary), a college (Merlin College), playing fields, neighbourhood parks, green spaces and playgrounds, and a library. The community facilities which attract most users are:

- Bon Secours Hospital;
- Atlantic Technological University, Galway;
- Merlin Park Hospital;
- Merlin Park Woods/Meadows; and
- Castlegar GAA and Galwegians Rugby Football Club on match days.

10.3.2.2 Demographic analysis

The community baseline is best introduced through a demographic analysis based on data from the Censuses of 2022, 2016 and 2011. Between 2011 and 2022, the population of Galway City (less environs) increased by 10.5% from 75,529 to 84,414 while that of County Galway increased by 10.8% to 277,737. These figures are comparable with the national figures for Ireland of an increase of 7.6% over the same time frame to 4,761,865.

Table 10-7 Population – Galway City (CSO, 2022)

Area	Population 2011	Population 2016	Population 2022	% change 2011-16	% change 2016-22
Galway City	75,529	78,668	84,414	4.1%	7.3%
Galway County	175,124	179,390	193,323	2.4%	7.7%
Total	250,653	258,058	277,737	3.0%	7.6%

More detail is provided at the level of Electoral Divisions (ED) and for CSO Small Areas. The Proposed Development and its immediate catchment area fall within the EDs of Wellpark, Mervue, Ballybaan, Lough Atalia, Renmore and Murroogh (see Figure 10-2). Table 10-8 compares the data from the 2022 Census and shows the population change from the previous 2016 Census and 2011 Census. The first three EDs in the table are separated from the latter three to the south by the R338 Dublin Road. The table shows a significant increase in population in Mervue ED which is located north (west) of Dublin Road. It also shows a recovery to population growth in Wellpark ED in the west and Renmore ED to the south(west) of Dublin Road. Overall, however, the combined population of the EDs in the study area has maintained a modest increase in population of 4.8%. There were 8,378 households within the study area EDs and 22,318 persons living in these households.

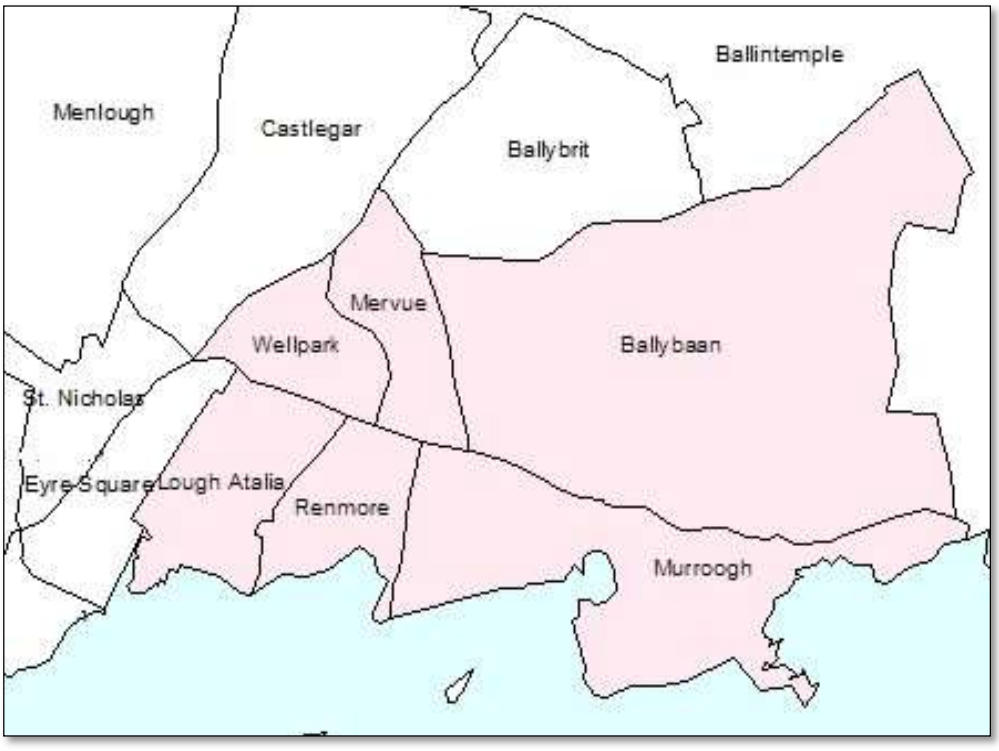

Figure 10-2 Electoral Divisions in the study area.

Table 10-8 Population - Electoral Divisions (CSO, 2011, 2016, 2022)

Electoral Division	Population 2011	Population 2016	Population 2022	% change 2011-16	% change 2016-22
Wellpark	1,843	1,668	1,851	-9.5%	11.0%
Mervue	1,796	1,831	2,276	1.9%	24.3%
Ballybaan	12,298	13,019	13,217	5.9%	1.5%
Lough Atalia	920	910	886	-1.1%	-2.6%
Renmore	1,394	1,319	1,440	-5.4%	9.2%
Murroogh	2,414	2,846	2,949	17.9%	3.6%
Total	**20,665**	**21,593**	**22,619**	**4.5%**	**4.8%**

Table 10-9 shows the most recent socio-economic status of the population as of 2022. It reveals a relatively low proportion of people in employment in Mervue, Lough Atalia and Renmore compared with the other EDs, although this is largely explained by the high proportions who are retired in the latter two EDs. By comparison, the level of unemployment is highest in Ballybaan at 6%, noting that the numbers of retired people here is also lowest, although this figure represents a significant improvement when compared with 2016 when unemployment here was 10.0%. The student population is relatively high in Ballybaan, Mervue and Murrough which, in part, is likely to be due to the proximity of ATU Galway.

Table 10-10 shows social class in the study area, revealing also a higher proportion of non-manual social classes in Lough Atalia and a correspondingly higher proportion of semi-skilled social classes in Mervue. The table also shows higher proportions of professional and managerial/technical groups in Lough Atalia, Renmore and Murrough (Murroogh ED). The proportions of people in the professional classes have increased slightly in most EDs since 2016, but so too have those of semi-skilled workers.

Table 10-9 Socio-economic status 2022 (CSO, 2023)

Electoral Division	**at work**	**Looking first job**	**Short-term unemployed**	**Long-term unemployed**	**Student**	**home maker**	**retired**	**Unable to work**	**other**
Wellpark	60.1%	1.3%	2.1%	3.0%	10.2%	4.6%	12.2%	5.5%	1%
Mervue	51.8%	0.8%	2.2%	3.0%	12.0%	5.8%	17.5%	5.9%	1%
Ballybaan	60.5%	1.1%	2.3%	3.7%	14.1%	4.9%	7.0%	5.7%	1%
Lough Atalia	51.8%	0.4%	1.3%	2.7%	8.1%	4.3%	27.0%	4.2%	0%
Renmore	50.2%	0.5%	1.5%	1.5%	8.2%	6.2%	27.6%	3.7%	1%
Murroogh	60.7%	1.0%	1.8%	2.6%	12.9%	4.8%	12.8%	2.7%	1%
Average	***55.8%***	***0.8%***	***1.9%***	***2.7%***	***10.9%***	***5.1%***	***17.4%***	***4.6%***	***0.7%***

Table 10-10 Social class 2022 (CSO, 2023)

Electoral Division	**professional**	**managerial/ technical**	**non-manual**	**skilled**	**semi-skilled**	**unskilled**	**others**
Wellpark	7.3%	24.9%	12.2%	9.5%	12.7%	2.5%	30.8%
Mervue	6.6%	19.3%	15.3%	13.3%	18.5%	4.4%	22.6%
Ballybaan	7.6%	22.3%	12.4%	10.1%	16.1%	4.1%	27.5%
Lough Atalia	10.2%	29.4%	19.3%	10.0%	12.3%	2.4%	16.4%
Renmore	12.2%	33.2%	16.8%	7.1%	10.9%	1.7%	18.2%
Murroogh	10.2%	28.8%	14.2%	8.6%	14.5%	2.6%	21.0%
Average	***9.0%***	***26.3%***	***15.0%***	***9.8%***	***14.2%***	***2.9%***	***22.7%***

The tables combined indicate higher levels of disadvantage in Mervue and parts of Ballybaan. This is confirmed by Table 10-11 which lists levels of relative social and economic disadvantage by ED as identified

by the Pobal HP Deprivation index[3]. The figures are relevant to considerations of accessibility and social inclusion given that improved transport links are especially important for people without a car who need to access workplaces and community facilities. This consideration especially applies to women, more marginalised and sensitive subsets. The figures are also relevant to human health.

The deprivation index captures several of the individual social and socio-economic statistics provided by the CSO as a composite index. It is based on criteria of age dependency, parental situation, education and employment. The index captures deprivation relative to average levels across the country for each census period.

For 2022, the figures indicate an improvement in deprivation in the study area since 2016, although Table 10-11 shows that this improvement has been only modest for Mervue and Ballybaan while indicating some reversion for Lough Atalia. At ED level, the figures can conceal local pockets of deprivation. In particular, Small Area 068022005, which broadly corresponds to the residential estate between Walter Macken Place and Quinn Terrace, has a relative HP index value of -35.63 and is defined as Extremely Disadvantaged.

Table 10-11 Pobal index core of relative deprivation 2011-2022 (Pobal, 2023)

ED	2011	2016	2022	Description
Wellpark	5.98	1.70	3.92	Marginally above average
Mervue	-5.26	-3.37	-3.02	Marginally *below* average
Ballybaan	0.86	1.20	1.23	Marginally above average
Lough Atalia	-0.40	4.83	0.91	Marginally above average
Renmore	2.82	0.65	3.46	Marginally above average
Murroogh	6.49	6.91	7.07	Marginally above average

Table 10-12 provides a further observation on disadvantage with relevance also to travel by showing the level of disability in the study area in 2022. The nature of disability is not broken down within the Census. The official figures show an apparent increase over those from the 2016 Census, although this change is mainly due to the inclusion of more disability response options in the most recent Census question.

Table 10-12 Disability 2022 (CSO, 2023)

	Wellpark	Mervue	Ballybaan	L. Atalia	Renmore	Murrough
Males	47.1%	50.5%	48.6%	44.3%	48.4%	48.0%
Females	52.9%	49.5%	51.4%	55.7%	51.6%	52.0%
Total number	**463**	**659**	**2,665**	**228**	**401**	**627**

Residential Properties and Households

In CSO Small Areas within 500m of the Proposed Development, there are 4,756 residential properties as of the 2022 Census, comprising of 3,672 houses and 1,084 apartments.[4]

Commute to Work

Table 10-13a shows the mode of travel for those people travelling to work as of the 2022 Census. The figures show a reasonably high baseline level of bus use, especially in the Murrough ED, but with this being least in Lough Atalia where parts of the ED are close to the city centre, while other estates are distant from

[3] https://data.pobal.ie/portal/apps/sites/#/pobal-maps

[4] Area bordered by Tara Grove, Walter Macken Road, Clareview Park, Coill Tire, eastern boundary Roscam, railway line and east shore of Lough Atalia.

bus routes. The highest proportion of people walking to work is to be found in Wellpark ED, followed by Mervue ED which is also close to the city, but which also contains some large commercial and industrial employers. Around half of work journeys are made by car, as either a driver or passenger, with this figure being lowest for Wellpark and highest for Ballybaan which is the more distant ED from the centre, but also the one closest to the regional road network (note that this ED extends north out of the study area). Trips by bicycle are modest but have increased since 2016 in EDs north of the Dublin Road despite the limited infrastructure for cycling in the study area. In addition, the proportion of people working from home has increased by between 8% and 10% since the 2016 Census which was undertaken prior to the Covid pandemic. If people working from home are taken out of the equation, then 57% of commuting journeys are by car on average with an additional 6% as a passenger. Note that these figures compare with the observation that 61% of journeys in the Galway and Oranmore areas are by car (Chapter 6, Traffic and Transport).

Table 10-13a Travel to work 2022 where stated (CSO, 2023)

	walk	cycle	bus	train	Car driver	Car passenger	van	other	Work at home
Wellpark	21.5%	5.4%	15.0%	0.5%	40.7%	3.8%	3.5%	0.1%	9.6%
Mervue	17.0%	5.8%	9.5%	0.1%	47.4%	4.4%	4.7%	0.2%	11.0%
Ballybaan	7.9%	3.1%	11.6%	0.2%	57.2%	5.9%	3.4%	0.3%	10.1%
L. Atalia	15.7%	5.6%	6.3%	0.0%	47.2%	4.3%	2.0%	0.0%	12.1%
Renmore	12.1%	5.8%	6.6%	0.2%	49.8%	6.9%	2.9%	0.2%	10.2%
Murroogh	7.5%	4.2%	13.4%	0.2%	46.5%	4.6%	2.4%	0.2%	12.2%
Average	***13.6%***	***5.0%***	***10.4%***	***0.2%***	***48.1%***	***5.0%***	***2.8%***	***0.2%***	***10.9%***

Journeys to school or college as of 2022 are shown in Table 10-13b. The figures reveal the relative importance of public and school buses (not distinguished by the CSO data). After private car, walking is the principal mode used in the study, except in Mervue ED where the figure is only slightly below bus use. Journeys by car, mainly as a passenger, account for between 35.4% and 50.6% being highest again in Ballybaan. In all EDs, a fall of a few percentage points in the share of car has been realised since 2016. The proportions of journeys by bicycle to either school or college have risen slightly but remain mostly below those of journeys to work. The figures for cycling to school or college vary by ED, being just 1.7% of trips in Murrough, but above 6% in Lough Atalia and Renmore EDs where they have increased slightly since 2016.

Table 10-13b: Travel to school or college 2022 where stated (CSO, 2023)

	walk	cycle	bus	train	Car driver	Car passenger	van	other	Work at home
Wellpark	30.5%	4.9%	20.2%	2.2%	7.6%	31.8%	0.9%	0.9%	0.9%
Mervue	23.6%	2.6%	25.9%	0.8%	4.1%	42.0%	0.8%	0.0%	0.2%
Ballybaan	25.0%	1.8%	21.2%	0.5%	4.9%	45.7%	0.2%	0.1%	0.6%
L. Atalia	34.0%	8.3%	18.1%	0.0%	2.8%	36.1%	0.0%	0.0%	0.7%
Renmore	35.8%	6.2%	19.3%	0.4%	1.8%	33.6%	0.0%	0.0%	0.7%
Murroogh	22.8%	1.7%	19.0%	0.4%	7.4%	38.3%	0.3%	0.4%	0.4%
Average	***28.6%***	***4.3%***	***20.6%***	***0.7%***	***4.8%***	***37.9%***	***0.4%***	***0.2%***	***0.6%***

Table 10-14 shows that despite the regular traffic congestion, around one third of trips to work, school or college in all EDs are achieved within 15 minutes with a further third typically undertaken within 15 and 30 minutes. The figures for journeys of less than 15 minutes have fallen slightly since 2016. The highest proportion of trips of over 30 minutes is recorded for Renmore and Murroogh EDs and is most likely influenced by the proximity of the nearby regional and motorway network in the case of the latter. The data is not comprehensive as the duration of trips was not stated by between around 10% and 22% of respondents.

Table 10-14 Travel time to work, school or college 2022 (CSO, 2023)

	< 15 mins	15-30 mins	30-45 mins	45-60 mins	60-90 mins	> 90 mins	not stated
Wellpark	28.8%	31.3%	11.8%	2.3%	2.5%	1.0%	22.3%
Mervue	36.3%	34.4%	13.3%	3.2%	2.4%	0.9%	9.6%
Ballybaan	30.8%	30.7%	14.1%	3.0%	2.4%	1.0%	18.1%
L. Atalia	30.3%	37.7%	13.8%	3.7%	1.0%	1.8%	11.6%
Renmore	32.4%	34.3%	15.4%	2.8%	2.7%	0.9%	11.5%
Murroogh	31.5%	34.3%	15.4%	3.6%	2.5%	1.0%	11.8%
Average	***31.7%***	***33.8%***	***14.0%***	***3.1%***	***2.2%***	***1.1%***	***14.1%***

Finally, Figure 10-3 throws further light on the role of both disadvantage and the importance of public transport options, by showing the proportions of people in the study area with and without access to a private car, revealing lower car ownership in Wellpark and Mervue.

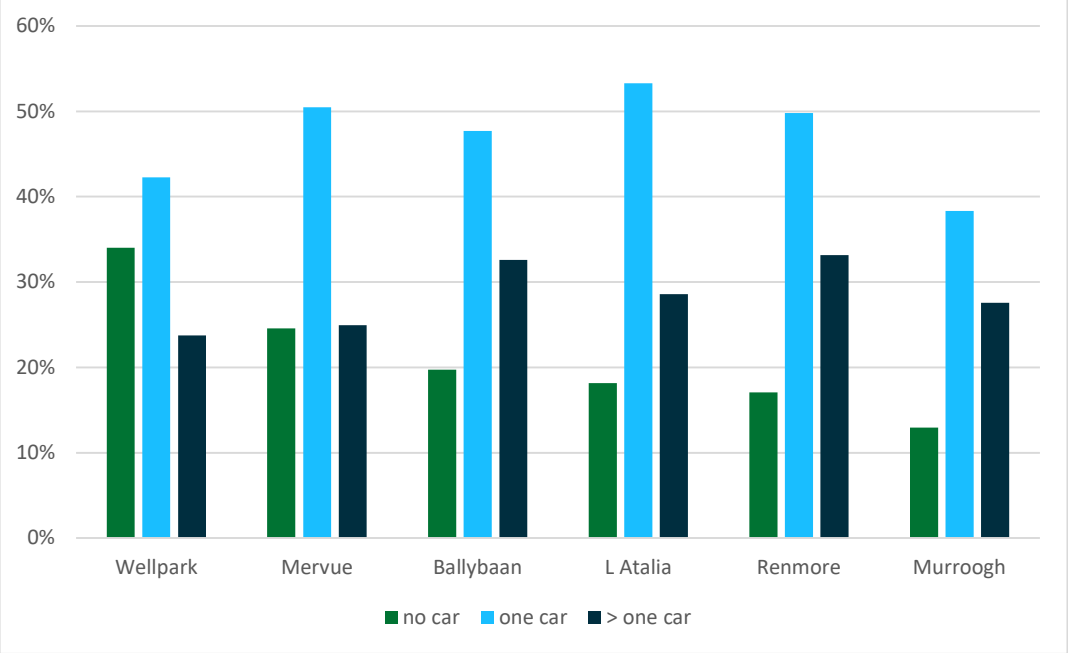

Figure 10-3 Car ownership 2022 (CSO, 2023)

10.3.3 Economic Baseline

10.3.3.1 Commercial Receptors

The number of commercial employers in the study area are presented in

Table 10-15. Areas zoned for 'Enterprise, Light Industry and Commercial' are shown in Figure 10.1 and include the Wellpark Centre at the corner of Wellpark Road and Dublin Road which has several large retail units, a cinema and the G-Hotel and Spa, an area between Wellpark Grove and Dublin Road which includes a car dealership, builders providers and three retail/commercial units on the ground of an apartment complex, and as yet undeveloped area at the corner of Ballybane Road and Dublin Road that used to be occupied by the Corrib Great Southern Hotel. An area on Michael Collins Road is zoned for 'Enterprise and Industry'.

Table 10-15 Commercial Receptors within each Community Area

Community Area (based on CSO Small Areas)	Commercial Receptors
Wellpark	20
Michael Collins/Belmont	2
Ballybane	3
Doughiska	4
Renmore	11
Murrough Av./Lurgan Park	6
Roshill, Rocam	6

Rather few large businesses are located within the Zone of Influence of the Proposed Development, with the main exception being the Wellpark Retail Park noted above. However, there are some large commercial receptors located at the northern end of Michael Collins Road (connecting with Connolly Avenue), namely Medronic and Thermo King. The latter is contiguous with the Mervue Business Park which is just outside the study area and in which there are 13 commercial entities with access provided by the R339. Hotels are important employers with a tourism value and include the G-Hotel, Connacht Hotel and Flannery's Hotel which are located on the Dublin Road. Galway Crystal is in an area zoned as Residential and is also located on Dublin Road and includes a visitor centre.

In addition to the facilities listed above, there are smaller local facilities and businesses on Dublin Road which include grocery stores, convenience restaurants, a post office branch, hardware store, car showroom, service station, tyre centre, pharmacies, off licenses, barber shop, bars and several guest houses. Many nearby services are concentrated in Mervue in the vicinity of Michael Collins Road or in Renmore. Guest houses are not included in

Table 10-15 and tend to be located beside the Dublin Road or signposted as being just off it, with a concentration found in Woodhaven. A commercial business park is located off Doughiska Road near to the Martin Roundabout with the N67.

10.3.3.2 Employment

The Census data shows that an average of nearly 60% of people were in employment as of 2022 compared with 54% in 2016. The Live Register figures for September 2024 for County Galway list 8,039 people as being on the Register.

Key centres of employment within the study area include:

- Galway City Council;
- Merlin Park Hospital;
- Bon Secours Hospital;
- ATU Galway; and
- Metronics.

Figure 10-4 presents the breakdown of employment in the wider study area, indicating that Manufacturing (22%), Professional Services (22%), and Commerce and Trade (18%) account of the largest proportions of employment as of 2022.

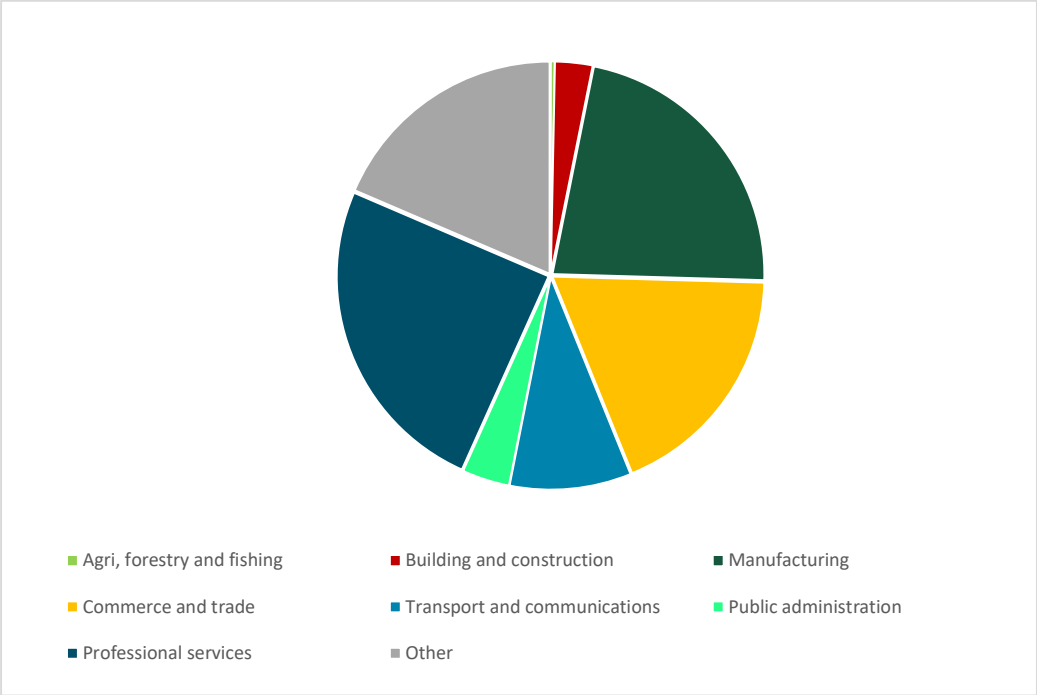

Figure 10-4 Employment by Industry within the Study Area 2022 (%)

10.4 Potential Impacts

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

10.4.1 Characterisation of the Proposed Development

10.4.1.1 Do Nothing Scenario

At present, there is a footpath on both sides of the road and a bus lane only on the south inbound side of the road between Skerritt Roundabout and Rosshill Road. There is only a single footpath and bus lane on the inbound section between Rosshill Road and Doughiska Junction. East of here, there are no dedicated facilities for non-motorised road users, namely pedestrians and cyclists, or for public transport before the junction with the N67.

In the 'Do Nothing' scenario the Proposed Development would not be implemented. There would be no change to land use as a result and no changes to or improvement in pedestrian, cyclist or bus journey amenity and access. Bus journey duration would likely continue to lengthen in line with growth in travel demand and punctuality would deteriorate as public transport would continue to use the same lanes in places as private vehicles and be subject to the same congestion. Pedestrian journey amenity would fail to improve. Due to the need to share the road with a high volume of traffic, cyclist journey amenity would continue to be very poor. In the absence of continuous and segregated cycle infrastructure, there would be no increase in modal transfer to cycling above the marginal increases recorded by the most recent Census data and no improvement in the safety of cycle journeys. For local residents, environmental quality, due to effects such as elevated noise levels and poor air quality, would continue to be poor and there would be a continued high level of severance for people wishing to cross the Dublin Road to access community facilities on the far side or for accessibility to destinations in the city centre or elsewhere in an east-west direction.

10.4.1.2 Construction Phase

10.4.1.2.1 General

Construction will occur over 24 months with a proposed commencement year of 2026, unless a decision is made to expediate the works. To minimise disruption, works will occur in largely sequential phases beginning in Section 1 until Month 13, Section 3 in Month 10 to 20, and Skerritt Junction from Month 19.The months are approximate, however, as an important concern is to allow works at Skerritt Junction to be undertaken during the summer months outside of the college term of ATU and so avoid adding to traffic congestion or inconvenience to students.

Works requiring temporary land take, boundary replacement or changes to access are shown are shown in Fencing and Boundary Treatment (BCG-BW-00-9001). Land take is proposed at eleven locations listed in Section 5.4.1 of Chapter 5 (Construction). Eight of these areas are public or privately owned green space, one is on a garden and driveway of a private dwelling and, one on a disused industrial site and two have implications for customer car parking. These impacts are assessed under either Community Amenity or Community Land Use in Sections 1 and 2.

10.4.1.2.2 Community Assessment

Community Amenity

Dublin Road contains numerous community facilities and areas of residential development. Inevitably, construction works will have an adverse effect on local residential and journey amenity due to construction traffic, noise, and impacts on visual amenity amongst other environmental impacts, but it will be possible to mitigate the significance of these impacts. The greater instances of temporary moderate to significant noise effects are likely to arise from the use of road planers, road widening and boundary treatments where these are in close proximity to noise sensitive locations such as community facilities or houses (see Chapter 9 Noise and Vibration). Slight to moderate temporary negative visual impacts are assed for some properties and green areas (see Chapter 16 Landscape and Visual). Aside from preparations within the construction compound, almost all works will be undertaken in daytime hours between 07:00 and 19:00, although some weekend works will be needed too between 08:00 and 14:00. In specific circumstances, nighttime works may be necessary such as for road crossings and resurfacing. Tower mounted lights will be used where good light is needed, but these will be cowled and angled downwards to minimise impacts on residents' amenity and the journey amenity of road users. Construction vehicles will be subject to regular washing to minimise the effect of dust on air quality and the amenity of local residents and road users.

Community and Private Land Use and Land Take

It is proposed to site a construction compound on an area of green space immediately to the west of the Connaght Hotel. Works in this area are expected to have an at least slight to moderate temporary negative noise effect in the immediate area on weekdays and at least significant effect at weekends, prior to mitigation, including potentially for guests at the hotel (see Chapter 9, Noise and Vibration). Road widening to allow for bus and cycle tracks, and widened pedestrian footpaths, combined with environmental impacts from, for example, noise, will have an impact on green space and trees during construction and therefore a temporary negative effect on amenity. A total of 446 trees are expected to be removed which will have a temporary negative effect on amenity, although 408 are proposed to be planted for the long term. Some green spaces are landscaped, for example Glenina Heights and Lios An Uisce, include trees and raised flower beds, but amenity use is largely confined to journey amenity, strolls and evening dog walking. There is some limited seating at the ATU Campus. Some green spaces and trees provide a visual buffer from vehicle traffic.

Community Accessibility

The Construction Environmental Management Plan (CEMP) aims to facilitate the movement of pedestrians, cyclists, public transport, and private vehicles in this hierarchical order. For example, bus movements will be prioritised over those of private vehicles. Consideration will be given to all pedestrians, including

wheelchair users, mobility impaired pedestrians and pushchair users. Safe diversions around works will be provided matching the existing access. Where this is not practicable, pedestrians will be directed to controlled crossing points to access footpaths on the opposite side of the road, although this will introduce a slight negative severance effect due to delay and inconvenience. Consideration will be given to a reduction in speed limits to 30km in front of sensitive community facilities such as schools. Where temporary access arrangements are necessary, these will be discussed with all residents affected on a case-by-case basis. No road closures or road diversions are anticipated, although temporary lane closures will be needed in each section using stop/go systems. Temporary closure of sections of bus lane will also be needed. Some bus stops will need to be temporarily relocated to accommodate works but will be located to allow for safe access. Access will be maintained throughout for vehicles emerging from side roads or building entrances unless works are occurring at that exact point in which case there could be a brief impact. Overall, effects on access are likely to be negative and of slight significance.

The CEMP, and Construction Stage Mobility Management Plan (CSMMP) for construction workers, include measures to minimise the number of construction traffic movements. Vehicle movements will be managed between 7:00 and 9:00 and 17:00 and 19:00 to minimise impacts on peak time traffic flow. Use will be made of the R338 Dublin Road itself and local roads R336 and R865 for construction vehicle access in addition to national roads outside of the study area. Efforts will be made to limit the volume of materials brought into the construction area and to reduce the number of construction vehicles to a minimum to avoid excessive interactions with pedestrians and other roads users. The estimated number of lorries is anticipated to be three per day in the Skerritt Junction section, but six elsewhere, along with two dumper vehicle movements in each section (see Table 5-4, Chapter 5: Construction). There will be a need for temporary lane closures in each section on Dublin Road and this is likely to have a negative and significant effect on journey time reliability and journey amenity. However, if congestion becomes severe, there is the provision for a temporary suspension of construction works where these will allow for the freer movement of traffic. Although phased lane closures are likely, two-way traffic movement will be maintained using full width lanes. In Stage A, works will be undertaken on the north side of the road with traffic realigned to the south side. When these switch to the south side in Stage B, the reverse will apply. Road surface finishing works in Stage C will require single lane shuttles where these works occur at any one time.

10.4.1.2.3 Economic assessment

Commercial amenity

The construction phase will require the employment of approximately 50 people or 70 at peak times. The CTMP aims to minimise the number of workers moving into the construction area by private car and there may be opportunities for workers to overnight in some of the numerous accommodation options in the study area with modest economic benefits from local expenditure.

Commercial Accessibility

Temporary access arrangements will be discussed with all businesses affected. Overall, access effects are likely to be negative and of slight significance.

Section 1

Construction works in Section 1 will occur first with these continuing until month 13. This section contains some important and sensitive community facilities including the Bon Secours Hospital, Galway Hospice Foundation, St Vincent de Pauls, Lakeview, and Rosedale Schools and Galwegians RFC, as well as local facilities such as doctors' surgeries. The section also includes tourism-related businesses such as the Connacht Hotel and Flannery's Hotel, and local businesses such as grocery stores, car dealerships, builders providers, dental services and barber shops.

Community Amenity

The more significant noise impacts from general construction works in this section prior to mitigation, are likely between Renmore Road and Ballyloughane Road affecting residential amenity at locations such as Glenina Heights and along the southside of Dublin Road opposite the Connacht Hotel and Glaswegians RFC (see Chapter 9, Noise and Vibration). Slight to moderate temporary negative visual effects are assessed for these same locations prior to mitigation (see Chapter 16: Landscape and Visual). Bon Secours Hospital and Galway Hospice Foundation are located in this area, but residual effects are moderated here as they are set back from the works at more than 50m behind areas of car parking. Similarly, Flannery's Hotel is also set back from the road behind car parking. Road widening and boundary works would also introduce moderate to significant noise effects before mitigation in these same areas and in front of the Brothers of Charity and apartments along Sáilín, although most of the former buildings are set back at more than 50m behind an area of green space. Further east, road widening and boundary works are assessed to introduce significant to very significant noise effects, although proposed mitigation would reduce effects on residential amenity between Ballyloughane and Skerritt Junction. Neutral effects are air quality are assessed during the construction phase throughout the study area (see Chapter 7, Air Quality).

Community and Private Land Use and Land Take

Prior to construction work on the busway, two single story buildings at the Brothers of Charity premises in Renmore will be demolished. For safety and amenity, the site here will be contained within hoardings to minimise noise and dust. Boundary walls will also be removed and replaced at various localities. The construction compound is proposed for green space beside and to the west of the Connaght Hotel. There is currently no public access to this space, but the 1.7-hectare plot has recently been identified by the Council as a site for New Lawn Cemetery (see Chapter 20: Cumulative Effects).

Boundary walls will also be removed at the Brothers of Charity and the Connacht Hotel and rebuilt using the same stone at the new boundary location.

Small areas of permanent and temporary land take in this section are identified too. Temporary and some permanent land take will be necessary to allow for cross-sectional widening to provide space for the proposed cycle track, footpath, and a portion of the bus lane. Of community facilities, this will mainly affect part of the landscaped areas in front of Bon Secours Hospital, along with the frontage of the Galway Hospice and Galwegians RFC. A small area of land take from in front of the Brothers of Charity will be used to accommodate a brief off-road section of the footpath and cycle track and for landscaping. A very small area of land take from public green space at the end of Wellpark will be used to accommodate a bus stop and a short off-road section of footpath and cycle track. This land take is imperceptible from the perspective of community use of these facilities. Some slight use of public greenspace at Glenina Heights will be necessary to construct a section of off-road footpath and cycle track and involve some short-term negative effects on visual amenity or due to noise (as noted above) before mitigation. Mature trees will not be impacted. Some permanent land take is required on the inbound side to provide for the proposed footpath, including a significant negative impact on the garden and driveway of one private property on Dublin Road.

Community Accessibility

A full list of impacts on access is given in Chapter 4: Proposed Development Description. Slight disruption will occur at the accesses to Lakeview and Rosedale Schools, the Brothers of Charity and Galwegians RFC while works are underway, but continuous access will be maintained. Continuous unrestricted access will be essential for Renmore Road which serves the Bon Secours Hospital. Renmore Road also provides access to several housing estates and a connection with Renmore Avenue which serves several community facilities including soccer and GAA playing fields, St. Oliver Plunkett Church, Scoil Chaitríona, Renmore Community Centre, Renmore Scouts, Renmore AFC, Jason Mitchell Fitness, and the Kingfisher Fitness Club and Cafe. This road connects with Ballyloughane Road to which good access is also needed during construction given that the road connects with more residential estates to the south and to Gaelscoil Dara. The road also provides access to the popular Ballyloughane Beach and Liam Mellows GAA south of the

railway line. In addition, continued good access at the proposed signalised junction with Michael Collins Road will be needed to the Galway Hospice Foundation and, on the north side, to more residential estates in Mervue, and community facilities which include the Holy Family Church, Radharc na Mara Primary School, Mervue Health Centre, The Little Acorn Crèche, St. James Cemetery, St. James GAA and Mervue United AFC. Works will be required on a new signalised junction with Renmore Road. Michael Collins Road/Hospice access, and Belmont Road/Ballyoughane Road. The last of these will require a realignment of Belmont Road across public green space immediately to the east, but without significant long-term impact. With good access maintained, and only minor disruption due to stop-go lane restrictions at times when direct works are underway, the effect on accessibility to community facilities will be negative, but brief and slight. The exception would be for journeys by public transport or private vehicle at peak travel times where a community facility has a direct connection with Dublin Road or a cumulative effect arises from journey connections with Dublin Road, where the effect will be of higher significance as discussed below.

Pedestrians, cyclists, bus users and private vehicles

Continued access will be provided to pedestrians and cyclists during the Construction Phase. Effects on access and journey duration for pedestrians and cyclists will be slight and temporary, although journey amenity will be affected to a slight to moderate negative degree by environmental impacts, such as noise, and for cyclists at locations where lane narrowing is considered necessary. Bus movements will be prioritised over private vehicles during the Construction Phase so effects on journey time for bus users will be slight to moderate negative at peak travel times. For the drivers of private vehicles, effects at peak travel times are likely to be moderate to significant temporary negative such that connectivity may be affected in that some drivers will choose to use alternative routes (although options here are limited). Efforts will be made to limit the volume of materials brought into the construction area and to reduce the number of construction vehicle movements to a minimum to avoid interactions with pedestrians and other road users.

Morning peak hour congestion inbound regularly accumulates from before the location proposed for the construction compound, although the site is located off the freer flowing outbound lane. Nevertheless, there is a potential risk of adding to congestion which builds up from the existing signalised junction with Michael Collins Road to the east at peak times in the afternoon.

10.4.1.2.4 Economic assessment

Commercial Amenity

There will be a slight effect on commercial amenity from the loss of some of the landscaped boundaries to the Connaght Hotel. Slight to moderate, negative, and short-term noise effects from the proximity of the proposed construction compound are likely on weekdays prior to mitigation for the hotel (see Chapter 9, Noise and Vibration).

At Flannery's Hotel, slight land take will be necessary from the entrance and boundary to permit space for vehicles, buses, the cycle track, and footpath before the proposed signalisation of the junction with Belmont/Ballyloughane Road. The land take from the hotels will, however, have no functional, but for the loss of one parking space. Noise effects following mitigation are not expected to be of a significance that would affect the attractiveness of either hotel as a place to stay. Journey delays for vehicles in Section 1 could have a short-term impact, although any such temporary effects must be compared with the significant delays experienced from peak time congestion in the baseline situation and a Do-Nothing scenario.

Commercial Land Use and Land Take

Temporary and permanent land take will affect the boundaries of DPL Builders Providers and Bathroom World. At the Connacht Hotel, there will be an impact on the narrow-landscaped frontage to allow space for a right-hand turning lane, a bus lane and pedestrian and cycle facilities. Similarly, land take will be needed inbound from the junction with Renmore Road where Duggan's Spar grocery store is located. No significant effect is likely for car parking for the grocery store. The frontage of an industrial building to the west of Ballylougane Road will be impacted by land take, but the nearest building is current disused.

Commercial Accessibility

Temporary access arrangements will be needed for some businesses. Existing accesses will be returned or improved at the Brothers of Charity, Kia dealership, the adjacent shopping complex, DPL/Bathroom World, the Connacht Hotel and Flannery's Hotel. A slight negative effect will occur while these works are underway at each location, but continuous access will be maintained unless very brief surfacing work is required at the access point.

For employees arriving by private vehicle and for deliveries, there will be negative, but short-term effects on journey duration at peak travel times. Some drivers may choose to use alternative routes, although options here are limited. As with community facilities, continued good access at the proposed signalised junction with Michael Collins Road will be needed for access to the R339 arterial road and important businesses and employers in the Mervue Industrial Park including Medtronic, Thermo King and Royal Tara China. With good access maintained, there will be no significant effect on the accessibility of these or other nearby businesses.

Skerritt Junction Section

Construction works in the Skerritt Junction Section will occur after Sections 1 and 2 and begin in month 19 with these continuing until month 24. This section contains several community facilities including the Atlantic Technological University (ATU) and the Garda Headquarters. There are no commercial businesses except for a guest house beside the section on Ballybane Road.

Community Amenity

Only slight to moderate short-term effects on amenity due to noise are assessed for Ballybane Road to the north and Lurgan Park to the south where effects on amenity are moderated given that the nearest residences are situated at 50m or more away from Dublin Road. However, it is assessed that effects would rise to significant to very significant at weekends, and be moderate to significant for GMIT Library, although prior to mitigation (see Chapter 9: Noise and Vibration).

Community and Private Land Use and Land Take

A narrow area of land take will be needed along the entire outbound lane of Dublin Road in this section. Between Ballyloughane Road and the Skerritt Roundabout, land take is needed for the proposed footpath, cycle track, a portion of the bus lane, a left turning lane, a double island bus stop and a landscaped area. This will impact on part of the existing landscaped area to ATU, the boundary and access to Gaelscoil Dara's playing field, and the boundary and landscaped area of Garda Headquarters. This land take will have an imperceptible to slight effect on community use of these facilities. The entrance to the former Corrib Great Southern Hotel immediately east of Skerritt Roundabout will be affected, but as the land is vacant there is no community or commercial impact here. Retaining walls will be built along 50m of the boundary of the site to replace the existing wire fence. Land take will be needed from a small area of green space at Woodhaven. At Lurgan Park estate on the opposite side of the roundabout, the boundary of part of the existing green space will be removed and set further back behind a short off-road section of the cycle track. This will have a imperceptible to slight effect on amenity.

Community Accessibility

Use will be made of the R865 for some construction vehicle movements. Consideration will be given to a reduction in speed limits to 30km in the vicinity of sensitive community facilities which could include ATU. Continued good access will be needed during the construction phase to community facilities to the north including the Pope John Paul Centre, Radharc na Mara school (together with Michael Collins Road), and a Tesco supermarket, as well as to a crèche and student accommodation. With good access maintained, and only minor disruption due to stop-go lane restrictions at times when direct works are underway, the effect on accessibility to community facilities will be imperceptible or slight but could be higher where a community facility has a direct connection with Dublin Road.

Pedestrians, cyclists, bus users and private vehicles

Continued access will be provided to pedestrians and cyclists during the Construction Phase. Effects on access and journey duration for pedestrians and cyclists will be negative, temporary, and slight, although journey amenity will be impacted to a slight to moderate degree by environmental effects associated with construction works and for cyclists at locations where lane narrowing is necessary. Bus movements will be prioritised over private vehicles during the Construction Phase so effects on journey time for bus users will be slight to moderate negative at peak travel times. For the drivers of private vehicles, effects at peak travel times are likely to be negative and moderate when lane closures or on-road works are underway.

Section 2

Construction works in Section 2 will commence in month 10, including some overlap for three months with Section 1, and will continue until month 20. Section 3 includes low density units comprising the HSE Merlin Park University Hospital. The extensive green space of Merlin Park Woods, the Meadows and agricultural land surrounding the hospital, represent an important local amenity and wildlife habitat. The suburb of Roscam covers an extensive area to the south-east. The suburb of Doughiska is located to the north but is largely separated from Dublin Road by an eastern extension of Merlin Meadows. Where removal of boundary walls is necessary these will be rebuilt at the new boundary location to match the existing conditions unless otherwise agreed with the landowner.

Community Assessment

Community and Private Land Use and Land Take

Land use in this section is predominantly zoned for amenity and agricultural and includes both Merlin Park Woods and The Meadows and also Rosshill Park Woods to the south of the Dublin Road west of Roscam. Aside from Merlin Park Hospital, community facilities include Galway Seventh Day Adventist Church, Castlegar GAA club, Lion Judo Club, and a fitness centre on the south side of the Dublin Road.

There will be slight land take from green space in front of the Lios an Uisce estate to accommodate a proposed new bus stop, but there is no significant effect here. On the northside of Dublin Road, there will be some loss of green space in front of Woodhaven due to road widening. Although there will be some boundary land take from The Meadows and Rosshill Park Woods, this is not significant in the context of the total area of green space and agricultural grazing use of the section north of Dublin Road. Slightly greater land take will be needed east of the junction with Coast Road where an on-road footpath and cycle track is proposed to the north of Dublin Road as far as the Doughiska Junction, but again there is no significant effect.

Community Amenity

Between slight and significant to very noise effects from general construction works prior to mitigation are projected along the north side of the road potentially affecting residential properties in the vicinity of Woodhaven, but more especially along the south side of Dublin Road in the vicinity of some properties on Merlin Gate affecting residential amenity. Effects on visual amenity of up to moderate significance prior to mitigation are assessed for properties facing Dublin Road at Woodhaven and for those beside Merlin Gate This will also affect commercial amenity (see below), noting also that some of these businesses operate as community facilities including pubs and shops.

Community Accessibility

Important local and regional access is provided by Doughiska Road, including to Doughiska and Roscam, and the R338 Coast Road which connects with Oranmore. The latter will be upgraded to a Protected Signalised Junction by the Proposed Development. The signalised Junction with Doughiska Road will be likewise upgraded. It provides access into Roscam and from here to retail and community facilities in Doughiska including Merlin Woods Primary School, Merlin College, and the recently developed Doughiska

Playground. With good access maintained, and only minor disruption due to stop-go lane restrictions at times when direct works are underway, the effect on accessibility to community facilities will be slight, but for journeys by public transport or private vehicle where a community facility has a direct connection with Dublin Road when the impact will be of higher significance as discussed below.

Pedestrians, cyclists, bus users and private vehicles

Continued access will be provided to pedestrians and cyclists during the construction phase. Effects on access and journey duration for pedestrians and cyclists due to construction works will be slight, although journey amenity will be impacted to a slight to moderate negative degree by environmental effects associated with construction works and for cyclists at locations where lane narrowing is considered necessary. Bus movements will be prioritised over private vehicles during the Construction Phase so effects on journey duration for bus users will be slight negative and temporary at peak travel times. For the drivers of private vehicles, effects at peak travel times are likely to be slight to moderate negative and temporary when lane closures or on-road works are underway.

Economic assessment

Commercial amenity

To the east of Skerritt Roundabout, a small area of green space will be impacted at Woodhaven. The location is sensitive in that Woodhaven includes at least seven guest houses with more located on the south side of the Dublin Road on Merlin Gate. Noise effects are assessed as being at least moderate to significant during the week, rising to significant at weekends (see Chapter 9, Noise and Vibration) prior to mitigation and could present a temporary negative effect on the attractiveness of the accommodation for guests. Higher noise effects are likely prior to mitigation on the south side of the road, again affecting guest house accommodation, but also potentially the attractiveness of those businesses which also function as community facilities, for example pubs. Impacts on visual amenity in these same locations are of up to moderate temporary significance and could have the same effect on guest house accommodation.

Commercial Land Use and Land Take

On the south side of Dublin Road, opposite the entrance to the Merlin Park Hospital, are an off license, pub, convenience restaurant, grocery store and small service station. These businesses will not be impacted by frontage land take, but there will be a clearer delineation between car parking, the footpath and cycle tracks.

Commercial Accessibility

A proportion of business of the above commercial premises is derived from passing trade, most obviously for the service station, although there is limited car parking available in front of other premises. The parking space will continue to be available, but access to this and to the service station may be restricted at times due to direct works in front of the premises representing a brief negative effect. There is likely to a slight degree of temporary severance on pedestrian custom during works, but the greater proportion of pedestrian business originates from the residential estates to the south.

The Dublin Road provides access to a grocery store and a convenience restaurant at Lios an Uisce and, from Murrough Drive to McD's Garden Centre and Galway Irish Crystal which has a visitor centre and therefore a tourist function. Revolution Fitness and a small retail centre are located on Doughiska Road at the entrance to Roscam. The maintenance of access during construction via the junctions with Coast Road and Doughiska Road (north and south) will be important to ensure the commercial wellbeing of nearby businesses. A small commercial estate is located off the Doughiska Road to the north of the Dublin Road. This is accessed from the main signalised junction with the Dublin Road. No significant effect is anticipated on any of these businesses, but for employees arriving by private vehicle and for deliveries, effects at peak travel times are likely to be slight to moderate negative when lane closures or on-road works are underway.

10.4.2 Operational Phase

10.4.2.1 General

10.4.2.1.1 Community Amenity

The provision of new and often improved boundaries and associated landscaping will have a positive long-term effect on amenity. The improved infrastructure for walking, cycling and public transport will potentially, and over time, allow for a reduction in the length of queueing traffic and associated effects on the amenity of adjacent residences and community facilities due to visual intrusion or poor air quality. Effects due to noise or impacts on visual amenity are assessed as imperceptible to slight diminishing to imperceptible or positive over time as planting matures (see Chapter 9 (Noise and Vibration), and Chapter 16 (Landscape and Visual).

10.4.2.1.2 Community Accessibility

Improvements to journey characteristics in the study area, in combination with improvements across the city due to BusConnects, will have a very significant positive social effect in making it more practical for people to access the city centre and leisure and employment destinations. The Proposed Development will provide for more equitable choices with respect to travel mode and this will be of particular benefit for sensitive population subsets without access to private vehicle transport, noting also the rather high level of social disadvantage of some locations in the study area (see Tables 10-6 and 10-8).

Signalised junctions including pedestrian and cycle sequences along with tightened junction radii will have the effect of reducing traffic speeds. However, dedicated bus lanes together with bus stop bays will reduce the interaction with other vehicles. Under a conservative scenario, the improved public transport and cycle infrastructure is expected to contribute to an increase in trips by public transport and cycling by 2028 and 2043 than that projected under the Do Something scenario, while those by car are not expected to increase in line with population growth (see Chapter 6, Traffic and Transport).

A key issue raised in the stakeholder consultation and in 22% of submissions to the public consultation was that of access points along the route. Combined with new signalised junctions at Belmont Road and Ballyloughane Road, the Proposed Development will permit easier connections and crossings of Dublin Road to and from side roads and to access community facilities. While the improvement to the public transport, cycling and walking infrastructure is focused on Dublin Road, a positive effect in terms of connectivity will extend to connecting roads and outlying residential estates or places of employment. There will be no significant negative individual impacts on access to residential estates or to common local destinations such as community facilities, grocery stores or the premises of Connacht Hotel, Flannery's Hotel or ATU Galway arising from the need to cross bus and cycle tracks and pedestrian paths. Indeed, accesses and the visibility of departing road users will be enhanced in many cases. Similarly, the presence of cycle tracks is not expected to have a significant effect on vehicles accessing or departing residential or commercial premises when compared with the existing situation.

Concerns were raised during the public consultation that the connectivity of the cycle tracks and pedestrian paths could encourage anti-social behaviour. However, the attraction of this improved connectivity to cyclists and pedestrians is likely to provide for both greater use and a degree of passive surveillance.

Overall, for bus passengers, cyclists and pedestrians, the Proposed Development will have a significant positive effect on journey characteristics. A reduction in operational capacity for general traffic is anticipated due to the proposed changes in the road layout (see Chapter 6, Traffic and Transport), but freer movement of traffic is likely too due to the segregation of buses from other vehicles. The Proposed Development will include improved and continuous cycle tracks and pedestrian paths with additional signalised crossings. It also includes continuous bus lanes with an additional 1.2km outbound and 3.1km inbound length. These will permit separation of bus and other vehicle traffic and result in reduced delays to public transport journey times and so improved journey time reliability. Bus stops will now be located at off-line bays, removing the need for vehicles to overtake stationary buses and permitting other buses and taxis to continue along the continuous dedicated lane. The off-line bus bays will provide passengers with more assurance of where

precisely a bus will stop. Accessibility for people with mobility impairment is an important element of the proposed public transport improvements and, along with raised bus stops, will provide for a significant positive effect in making it easier for people with disabilities to enter buses and travel by public transport. Combined with real-time information, the provision of bus shelters will provide protection from wind and rain and provide for high passenger journey amenity that will further encourage modal transfer and higher levels of bus use.

Cycle journey amenity will improve considerably as this mode will no longer be mixing with vehicle traffic or be subject to congestion. The continuous cycle tracks proposed along the length of the Proposed Development will provide for a very significant positive effect on journey amenity and safety. Cycle tracks will be 2 metres in width to permit overtaking in all but two locations where a slight local narrowing is unavoidable and on the approach to bus stops. Skerritt Roundabout will be converted to a signalised junction, and this will separate cyclists from traffic with positive effects for cyclist amenity and safety, noting particularly the level of demand arising from its location beside ATU Galway and the current absence of cycle facilities. Relief from severance will be provided by new cyclist sequences at all signalised junctions, meaning cyclists will be able to avoid the need to negotiate roundabouts and instead be able to make safer crossings and right-hand turns. The cycle tracks have also been designed to pass behind bus stops so that cyclists will not have to overtake stationary buses. Where possible in the Proposed Development, cycle tracks and pedestrian paths will be moved off-line from the bus and traffic lanes. This will have a cumulative effect in combination with improvements to the public realm and journey amenity, for example on the north side of the Dublin Road at Glenina Heights, east of Belmont and Merlin Park Woods. There will be a further positive cumulative effect in that the Proposed Development will be able to connect with the Ballybane Road and Castlepark Road Cycle Network Scheme which is due to commence construction this year (2024) with construction envisaged to last 18 to 24 months. The two schemes together will provide for greatly improved cycle access across much of the eastern half of Galway City, extending up to the Monivea Road and the N6 in Ballybrit, stimulating more uptake of active travel in the process.

Continuous pedestrian footpaths and new signalling at junctions will provide for a significant positive effect. At present, there are only seven signalised crossings for pedestrians of Dublin Road. There are also three pedestrian crossing islands. Under the Proposed Development, these numbers will increase to eleven signalised crossings, including two stand-alone crossings in the vicinity of bus stops. In terms of relief from severance alone this will provide for a long-term positive significant effect, benefitting particularly sensitive population subsets such as children, people with pushchairs, older people and people with disabilities. All signalised pedestrian crossings will be accompanied by an audible cue for people who are visually impaired.

The Proposed Development will provide for greater on-road separation of pedestrian, cycle and vehicular traffic with a significant positive effect on both pedestrian and cycle journey amenity. This segregation will help to mitigate concerns raised during the public consultation over the potential for conflicts with private vehicle traffic and junction safety. Local access will require drivers to cross bus and cycle tracks and therefore to check for buses, pedestrians and cyclists (including a growing number of electric bikes and scooters) before entering connecting roads or premises. However, the continuity of cycle tracks and inclusion of raised platforms within the Proposed Development are likely to encourage greater levels of cycling and this will increase driver awareness of the presence of cyclists with the added factor that cyclists will be more visible in the cycle tracks. Where crossing side roads, the cycle tracks will be placed in front of give-way signage and, in places, on raised platforms, to provide for continuous movement and reduce safety hazard.

Appendix 6.2 summarises these positive long-term effects with respect to the infrastructure for walking, assessing them to be moderate long-term positive at most individual locations compared with the Do-Nothing scenario, but significant at the western end of the road, Skerritt Roundabout and Doughiska Road Junction. The extension of footpaths along The Meadows, together with the introduction of signalised crossings and other sympathetic infrastructure, is expected to have a very significant positive effect along a section of the road which is assessed to currently have a very poor level of service (LoS). For cycling infrastructure, effects are assessed to be very significant positive along most of Dublin Road due to segregation from vehicle traffic, the introduction of cycle tracks and junction signalisation. This significance

level rises to profound positive from the western tie-in to the Connacht Hotel where the current LoS is poor, and the location identified as being of high sensitivity given the presence of community facilities and retail outlets.

10.4.2.2 Economic Amenity

10.4.2.2.1 Commercial amenity

As well as providing for a net improvement in accessibility, the Proposed Development will provide for an improvement in the public realm and therefore the appeal of retail businesses located beside Dublin Road, for example between Merlin Gate and Lurgan Park. There will be a narrow loss of green space in front the Connaght Hotel and Flanery's Hotel, but this will not be significant in terms of the operations of the hotels.

10.4.2.2.2 Commercial accessibility

Businesses along the Proposed Development will benefit from the positive effect arising from improved journey times, journey amenity and accessibility, including to the city centre, Dublin and the N6. New signalised junctions will provide for improved access, especially for HGVs, to businesses such as Galway Irish Crystal. New pedestrian crossings will reduce severance for customers wishing to access grocery stores or restaurant and food take-away businesses, for example at Renmore and between Merlin Gate and Lurgan Park. There will be no significant change in access to hotels.

The improved public transport, cycle and pedestrian facilities will provide for improved journey characteristics and journey amenity for employees. Combined with the improved connectivity across the city made possible by other BusConnects routes, this will widen the catchment for recruitment to the benefit of employers and employees alike.

Section 1

Community Amenity

Only small losses of green space and changes to boundaries are proposed and the effect on community amenity will net positive overall. There will be some new sharing of green space with cycle tracks, for example at Glenina Heights, but it will be possible for users to adapt to this new cycle traffic. The improved infrastructure for walking, cycling and public transport will potentially, over time, allow for a reduction in the length of queueing traffic from the junction with Michael Collins Road and therefore a positive effect on residential amenity of properties on the southside of Dublin Road between Renmore Park and Renmore Road with associated improvements in amenity from visual impacts and inferior air quality.

Community Accessibility

Traffic calming, minimum 2m footpath widths, and new or additional signalised crossings at Michael Collins Road and Ballyloughane will have a significant long-term positive effect on pedestrian journey amenity and safety. There are particular gains in terms of relief from community severance at Belmont Road. Similarly, at least very significant long-term positive effects will arise for cyclists due to the provision of cycle tracks, typically providing for overtaking and cycle priority at signals and uncontrolled junctions. Bus stops are proposed in front of key boarding points including residential areas such as Glenina Heights and Lurgan Park, and community facilities including Bon Secours Hospital and the Galway Hospice. Noting the presence in Section 1 of the Bon Secours Hospitals and Galway Hospice, the freer flow of traffic can be expected to facilitate accessibility for emergency vehicles which may also use bus lanes when using their blue light and siren if traffic lanes are blocked. Private vehicles will have the option of moving into the bus lane if safe to do so in the event that emergency vehicles need to pass.

The realignment of Belmont Road will permit a single connection to a new signalised junction with the Dublin Road and Ballyloughane Road. Improved signalised junctions will be provided with Renmore Road, and with Michael Collins Road and the entrance to the Galway Hospice. These will include pedestrian and cyclists crossing sequences and provide a significant positive impact for local accessibility.

Skerritt Junction

Community Amenity

A new significant positive effect will arise at the Skerritt Roundabout due to an extension of the surrounding greenspace enhanced by new tree plantings and new retaining wall along the site of the former Corrib Great Southern Hotel. A slight loss of green space will occur at Woodhaven where there are also several properties providing visitors with guest house accommodation, but the widening of the corridor to include bus lanes, cycle tracks and footpaths will provide for an improved separation of these properties from road traffic.

Community accessibility

The replacement of Skerritt Roundabout by a signalised junction with toucan crossings on all arms and good separation from vehicle traffic will have a very significant positive long-term effect on pedestrians, cyclist amenity, noting also the sensitivity of the location given the high numbers of students accessing ATU.

Section 2

Community Amenity

Neutral or positive effects on community amenity apply in this section as a result of new boundary treatment. There will be some slight loss of green space along the boundary of The Meadows, but a net positive effect will follow from the provision of new walking and cycling facilities on the northside of Dublin Road.

Community accessibility

There are particular gains in terms of relief from community severance for pedestrians at the entrance to Merlin Woods, including for Merlin Park Hospital which may be accessed by more vulnerable population subsets. The proposed new footpath beside The Meadows will add significantly to pedestrian journey amenity.

For cyclists, junctions with local roads will be improved through the addition of signalisation at Merlin Park Lane, Rosshill Road and Coast Road as well as new vehicle turning lanes, for example at the entrance to Merlin Park Hospital. Wide cycle tracks will function in both directions on either side of the road providing for high degree of separation form road traffic as far as Coast Road whereupon cyclists will be encouraged to use the junction cycle sequence to cross to a set of counter-directional parallel tracks on the north side of the road as far as Doughiska Road. For much of this section pedestrian path and cycle tracks will be set back from vehicle traffic behind a corridor of green space and the existing mature trees. The new pedestrian and cycle infrastructure will have a further positive effect in improving the connection between the suburbs of Roscam and Doughiska, including through the provision of a continuous cycle facility from where cycle lanes currently terminate on Doughiska Road just before the left turning lane at the junction. This new infrastructure will improve access to community facilities that may be used by sensitive population subsets such as Castelgar GAA.

10.5 Mitigation and Monitoring Measures

This assessment takes account of the embedded mitigation measures that were identified during the design development iterative process resulting in the Proposed Development, outlined in Chapter 4 (Proposed Scheme Description) of this EIAR.

It is recommended to minimise the number of construction vehicle movements, especially at peak traffic times, as set out in the CEMP and CSMMP where rationalisation is possible.

Further to mitigation measures provided in Chapter 6 (Traffic & Transport), Chapter 7 (Air Quality), Chapter 9 (Noise & Vibration) and Chapter 17 (Landscape (Townscape) & Visual), the Proposed Development will

enhance safety by providing signage at hotel entrances and visitor centre to warn motorists who may be less familiar with the area of the presence of cycle tracks.

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).

10.6 Residual Impacts

Overall, the provision of more convenient and comfortable facilities to wait for, board and alight onto buses, along with the improved journey duration and journey time reliability made possible by the separation of bus and private vehicular traffic, will encourage higher bus use. The provision of dedicated and continuous cycle tracks and associated facilities, together with greater separation from vehicle traffic, will allow cycling to be more pleasant and safer and so encourage cycling uptake. Improved pedestrian paths and the greater number of signalised crossings will provide for relief from severance from shops, services and community facilities and allow for greater neighbourhood interaction across the two sides of Dublin Road. Cumulatively, enhancements to public transport, cycle and pedestrian infrastructure across the city as a result of the BusConnects will provide for much enhanced journey amenity and connectivity. Altogether, this will encourage greater use of more sustainable transport modes and potentially a transfer from private car with both private and public good benefits for traffic movement, social interaction, health, environmental effects and economic development.

General environmental quality for residents and visitors will be much improved by the reduction in vehicle traffic congestion and associated noise and air pollution along with reduced visual intrusion. The enhanced public transport, cycle and pedestrian facilities will mean that the study area is more accessible allowing people to access community facilities and the city centre more easily and safely and expand the area of potential employment opportunities. The liveability of the study area will be enhanced and its attractiveness for visitors, including hotel guests and businesses, improved.

10.7 References

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