

# Letterkenny Integrated Land Use & Transportation Study

## Final Report

**August 2009**

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# Glossary of Terms

Abbreviation	Meaning
ILUTS	Integrated Land Use & Transportation Study
NRA	National Roads Authority
NSS	National Spatial Strategy
NDP	National Development Plan
CDDP	County Donegal Development Plan
DRD	Department for Regional Development NI
RDS	NI Regional Development Strategy
RTS	NI Regional Transportation Strategy
SRTP	NI Sub-Regional Transport Plan
RSTN	NI Regional Strategic Transport Network
EPA	Environmental Protection Agency
DoEHLG	Department of the Environment, Heritage and Local Government
DoCMNR	Department of Communications, Marine and Natural Resources
NIAH	National Inventory of Archaeological Heritage
NPWS	National Park and Wildlife Service
ASSI	Areas of Special Scientific Interest
SPA	Special Protection Area
SAC	Special Area of Conservation
NNR	National Nature Reserve
<b>Transport Modelling Software</b>	
SATURN	<p><b><i>Simulation and Assignment of Traffic in Urban Road Networks</i></b> – a transport modelling software used for the analysis of area-wide road-investment projects ranging from traffic management schemes over relatively localised networks to major infrastructure improvements over a much larger scale. SATURN is the modelling choice for major road projects in Ireland and the UK, and provides robust junction modelling through detailed simulation. It also accurately models traffic queuing and is easily linked to economic assessment programmes such as COBA.</p> <p>The Letterkenny SATURN model has a base year of 2008 and three time periods – morning peak (8.30am to 9.30am); evening peak (5pm to 6pm) and an interpeak (4pm to 5pm). Models for three forecast years – 2013, 2018 and 2023 – were developed for use in this study.</p>
LINSIG	<p><b><i>LINKing SIGnals</i></b> – a widely used computer aided design and modelling package for isolated traffic signal controlled junctions – to aid in the assessment and design of such junctions. This software allows engineers to model junctions in a way which closely follows the behaviour of real signal control equipment.</p>

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# Executive Summary

Atkins Limited has been formally commissioned by Donegal County Council to provide professional services in relation to the development and appraisal of the Letterkenny Integrated Land Use and Transportation Study (ILUTS). The overall purpose of the study is to identify detailed transportation and land use proposals for the future sustainable growth of Letterkenny, in all contexts of transportation including public transport, walking and cycling.

This report forms the Final Report for the Letterkenny ILUTS. The report summarises the technical approach adopted for the study and presents the key findings and recommendations for the preferred transportation strategies for the town. As required by the tender brief, we have presented two separate transportation strategies – a “*sustainable modes*” strategy which outlines our recommendations for walking, cycling, public transport and parking in the town as well as a “*roads based*” strategy which outlines our recommendations for highway based schemes.

## Methodology and Approach to the Study

Chapter 2 of this report summarises the methodology and approach adopted by Atkins, in close association with Donegal County Council and Letterkenny Town Council, in the completion of the study. The study followed a number of discrete stages, including:

- *Data collection* – including collation of all recent and historical data as well as the collection of new traffic data for input into the traffic model. The traffic survey programme included 33 classified junction counts; 9 roadside interviews; 18 automatic traffic counter sites; and 2 journey time survey routes;
- *Review of transportation and land use patterns* – including a review of policy and planning background documents; socio-economic data; site visits to observe existing traffic conditions; and a review of the traffic model outputs to ascertain future potential issues. Chapters 3 and 4 of this report summarises the findings from this review;
- *Transportation Model Development* – development of an area-wide SATURN model for the study area, including a base year model (2008) and three forecast year models for 2013, 2018 and 2023;
- *Plan Development & Appraisal* – identification of potential schemes and testing of them using the developed SATURN model and local junction models. This included the development of two separate strategies – a ‘sustainable modes’ strategy as well as a ‘roads-based’ strategy;
- *Environmental Assessment Scoping Note* – development of an environmental constraints map; and
- *Reporting and Presentations* – including the production of a number of non-published technical notes and two presentations to Letterkenny Town Council.

## Sustainable Modes Strategy

Chapter 5 of this report outlines our key recommendations for the Letterkenny ILUTS ‘*Sustainable Modes*’ Strategy. This includes policies and proposals to improve facilities for walking, cycling, public transport, parking, park & ride, and other ‘softer’ measures to help change travel behaviours. The Final Report for the Sustainable Modes Strategy is attached as a Technical Appendix to this report (Appendix B).

### Letterkenny ILUTS “Sustainable Modes Strategy” – Key Recommendations

- **Walking** – implementation of pedestrian improvements as part of local junction and traffic management proposals; implementation of a Quality Walking Network; strengthening of text for Policy T11 within the Plan;
- **Cycling** – implementation of cycle improvements as part of local junction and traffic management proposals; implementation of a Quality Cycle Network; strengthening of text for Policy T11 within the development plan; implementation of cycle parking at key destinations throughout the town; promotion & marketing, including development of cycle map for Letterkenny;
- **Bus Services** – improvement & development of services & route coverage of Letterkenny Town Bus Service; enhancement of longer distance bus and coach services where appropriate; investigation into role of community bus services; implementation of Integrated Transportation Hub and associated infrastructure, including Quality Bus Corridor along Port Road; improvements to bus stop infrastructure

and access / egress to complement quality walking network;

- **Rail Services** – continued protection of disused rail corridor in development plan to support longer term vision to bring rail services to Letterkenny; integration of design for new railway station with masterplan for Integrated Transportation Hub proposal;
- **Park & Ride** – consideration of park & ride as part of Integrated Transportation Hub; investigation into suitable park & ride edge of town sites to support bus travel into town centre; hospital and Letterkenny Institute of Technology (LYIT) – subject to implementation of town centre parking strategy;
- **Parking** – implementation of town centre parking strategy & designation of short-stay and long-stay parking within the town centre; improved enforcement; and implementation of improved parking signing through the introduction of an electronic parking guidance information system;
- **Changing Travel Attitudes** – development of workplace travel plan; school travel plan; and safer routes to school programmes.

## ‘Roads-Based’ Strategy

Chapter 6 of this report outlines our key recommendations for the Letterkenny ILUTS ‘Roads-Based’ Strategy. This includes strategic and local highway proposals to reduce strategic congestion bottlenecks; provide additional highway capacity; improve local traffic management and provide pedestrian / cycle crossing facilities. The Final Reports for the assessment of the highway and traffic management schemes are attached as Technical Appendices to this report (Appendix C and D).

### Letterkenny ILUTS “Roads-Based Strategy” – Key Recommendations

- **Strategic Highway Schemes** – implementation of strategic highway schemes to reduce strategic congestion bottlenecks; provide additional highway capacity; and provide access to new development:
  - Short Term, High Priority - Letterkenny Relief Road;
  - Medium to Longer Term - Southern Relief Road; Swilly Access Road; and
  - Longer Term (and subject to level of development) – Northern Relief Road; Western Relief Road.
- **Local Highway Schemes** – implementation of local highway schemes to provide access to new development lands and/or improve town centre circulation:
  - Developer led – Joe Bonnar Link; Port Blaney Link; and
  - Part of Town Centre Improvement scheme – Justice Walsh Link.
- **Junction Improvements** – implementation of local junction improvements to relieve congestion and provide improved facilities for pedestrians and cyclists:
  - Port Bridge Roundabout – signalisation of roundabout;
  - Station / Oatfield Roundabouts – replace of roundabouts with linked traffic signals;
  - Oldtown Junctions – replace mini-roundabouts & priority junction with linked traffic signals;
  - Hospital Roundabout – alter road markings & provide pedestrian crossing on Circular Road; and
  - Fort Lynne Roundabout – replace roundabout with traffic signals, including pedestrian phases. Medium to long-term option with an interim short term option to include provision of zebra crossing facilities.
- **Town Centre Circulation** – implementation of town centre traffic management schemes to improve traffic flow and reallocate road space to other pedestrians & cyclists:
  - Short Term Scheme – ‘people friendly with shared spaces’ scheme in Upper / Lower Main Street (including improved traffic signals at Courthouse Junction);
  - Long Term Scheme – part pedestrianisation of Upper Main Street (in association with implementation of Justice Walsh Link);
  - Cathedral Road / Sentry Hill Road / College Row – implementation of one-way gyratory scheme to reallocate road space to pedestrians & on-street parking, as part of a safer routes to school scheme.

## Implementation Plan

Chapter 7 of this report contains an indicative implementation plan for the recommendations contained within the Letterkenny ILUTS, should finance be made available. This is outlined in the table below.

**Table 1: Letterkenny ILUTS Indicative Implementation Programme**

Scheme	Short Term (2009-2013)	Medium Term (2013-2018)	Long Term (2018 – 2023)
Implementation of Quality Walking & Cycle Networks	Scheme development & implementation – ongoing throughout life of plan		
Town Centre ‘people-friendly’ scheme with shared spaces – including implementation of cycle lanes	Scheme development & implementation		
Upgrade & improvement of traffic signals at Courthouse Junction to MOVA controlled traffic signals, with pedestrian / cycle facilities.	Scheme development & implementation		
Justice Walsh Link	Scheme development & implementation		
Town Centre Parking Strategy, including electronic parking guidance information system.	Scheme development & implementation	Ongoing development & implementation	
Oldtown Junctions	Scheme development & implementation		
Letterkenny Town Bus Service	Route development & implementation – ongoing throughout life of plan		
Quality Bus Corridor & other bus priority	Scheme development		Scheme implementation
Integrated Transport Hub	Scheme development		Scheme implementation
Park & Ride	Scheme development		Scheme implementation
Workplace Travel Plans	Scheme development & implementation – ongoing throughout life of plan		
Safer Routes to Schools	Scheme development & implementation – ongoing throughout life of plan		
School Travel Plans	Scheme development & implementation – ongoing throughout life of plan		
Letterkenny Relief Road	Scheme development & implementation		
Southern Relief Road	Scheme development	Scheme Implementation	
Northern Relief Road	Scheme development	Scheme Implementation	
Western Relief Road	Scheme development		Scheme implementation
Joe Bonnar Link	Scheme development		Scheme implementation
Port Blaney Link	Scheme development		Scheme implementation
Port Bridge Roundabout	Scheme development & implementation		
Oatfield / Station Roundabout	Scheme development & implementation		
Fort Lynne Roundabout	Scheme development & implementation		
Hospital Roundabout	Scheme development & implementation		
Cathedral Road / College Row / Sentry Hill Road Gyratory	Scheme development & implementation		
Town Centre Part Pedestrianisation	Scheme development		Scheme implementation
Research, Monitoring & Review	Ongoing throughout life of plan		

## Environmental Scoping Note & Constraints Map

Chapter 8 of this report summarises the findings of the Strategic Environmental Assessment stage of the study and presents the environmental constraints map. This high level (desktop based) review was based on published information including the draft Letterkenny & Environs Development Plan as well as listed data from the Environmental Protection Agency; National Monuments Service; Buildings of Ireland National Inventory of Archaeological Heritage; and the National Park and Wildlife Service Designated Areas Register.

Utilising the above sources of information, an environmental constraints map was produced and it was used to inform the initial environmental review associated with the main highway schemes outlined in the proposed “roads based” strategy. Information on any known planning requirements due to the findings, were also included in the review. The Final Report for the environmental assessment is attached as a Technical Appendix to this report (Appendix E).

# 1. Background to Study

## Overview of Study

- 1.1 Atkins Limited has been formally commissioned by Donegal County Council to provide professional services in relation to the development and appraisal of the Letterkenny Integrated Land Use and Transportation Study (ILUTS). The overall purpose of the study is to identify detailed transportation and land use proposals for the future sustainable growth of Letterkenny, in all contexts of transportation including public transport, walking and cycling.

## Background

- 1.2 Letterkenny has grown significantly since the adoption of the current development plan and this is most evident in the town centre, with significant increases in retail in the lands east of Pearse Road. This growth has established Letterkenny as a competitive retail centre for the region but it has come at a price with significant increases in car dependent traffic – mainly due to the design and layout of the new development. This has also led to a clearer distinction between this area and the more traditional town centre which has undermined the town centre experienced in this area.
- 1.3 Residential development within Letterkenny area has continued to grow at a significant rate and has concentrated along the arterial routes into the town in the areas of Glencar Scotch, Glencar Irish, Mountain Top, Lisnenan and Ballymacool. This has led to a number of issues within the town:
- Investment in social and physical infrastructure has not grown by the same rate as the investment in housing development leading to a lack of neighbourhood facilities and increasing levels of traffic congestion; and
  - There are now large areas of undeveloped lands intervening development along the arterial routes where access to and unlocking of these lands has become a significant planning issue.
- 1.4 At present, there is approximately a 45% take-up of zoned 'residential' land, both existing and permitted but not yet constructed within the Letterkenny development plan area. There is therefore an existing surplus of 55% of residential land over and above quantified need.
- 1.5 A total of 11% of the total land developed in the town (excluding the town centre) is currently being used for the purposes of economic activity (commercial, industrial, business) and significant areas of zoned 'general employment' land remain undeveloped. The physical development trends in relation to economic development show that there is a weak structure in terms of business districts set against a strong presence of individual employment generating developments. The co-ordination of economic activities so as to provide business districts that offer the integration of employment and social infrastructure represents a key challenge to Donegal County Council.
- 1.6 Therefore the amount of undeveloped land within the plan area comprises some 613 hectares (63% of the total plan area). The need to review this in order to strengthen neighbourhoods in the town is a key aim of the draft Letterkenny & Environs development plan 2009-2015. Some of the key issues that the new development plan aims to address include the consolidation of the town centre; protection against urban sprawl; and unlocking of development lands. The main aim of the ILUTS will be to identify transportation measures that can encourage modal shift; maintain the economic viability of the town centre and accommodate the sustainable development of the town.

## Role of this Report

- 1.7 This report forms the Final Report for the Letterkenny ILUTS. The report summarises the technical approach adopted for the study and presents the key findings and recommendations for the preferred transportation strategies for the town. As required by the tender brief, we have

presented two separate transportation strategies – a “*sustainable modes*” strategy which outlines our recommendations for walking, cycling, public transport and parking in the town as well as a “*roads based*” strategy which outlines our recommendations for highway based schemes.

1.8 The remainder of the report is structured as follows:

- Chapter 2 outlines our methodology and approach to the study;
- Chapter 3 summarises the transport and land use planning policy background to the study area;
- Chapter 4 includes a detailed review of the current and future transportation issues facing Letterkenny and explores how these relate to the policies and plans outlined in the draft Letterkenny & Environs Development Plan;
- Chapter 5 outlines our key recommendations for the “*Sustainable Modes*” Strategy;
- Chapter 6 outlines our key recommendations for the “*Roads Based*” Strategy;
- Chapter 7 outlines an indicative implementation plan for the preferred transport strategies; and
- Chapter 8 includes the Environmental Assessment Scoping Report for the study.



## 2. Methodology and Approach

### Overview

2.1 This section summarises the methodology and approach adopted by Atkins, in close association with Donegal County Council and Letterkenny Town Council, in the completion of this study. As required by the tender brief, the study has followed a number of discrete stages, including:

- *Data collection* – including collation of all recent and historical data as well as the collection of new traffic data for input into the traffic model;
- *Review of transportation and land use patterns* – including a review of policy and planning background documents; socio-economic data; site visits to observe existing traffic conditions; and a review of the traffic model outputs to ascertain future potential issues;
- *Transportation Model Development* – development of an area-wide SATURN model for the study area, including a base year model (2008) and three forecast year models for 2013, 2018 and 2023;
- *Plan Development & Appraisal* – identification of potential schemes and testing of them using the developed SATURN model and local junction models;
- *Environmental Assessment Scoping Note* – development of an environmental constraints map; and
- *Reporting and Presentations.*

2.2 Each of the above stages is outlined in more detail below.

### Data Collection

2.3 A comprehensive data collection exercise was carried out at the outset of the study to collate all existing and historical data for the Letterkenny area to help establish baseline socio-economic; travel to work; land-use; and transportation characteristics for the area. A specialist survey contractor (Count on Us) was also commissioned by Atkins to undertake a comprehensive programme of traffic surveys to provide new data for the development of an area-wide traffic model for the area.

### Traffic Surveys

2.4 A comprehensive traffic survey programme was carried out in Letterkenny in October 2008, and it included the following surveys:

- *Classified junction counts* at 33 junctions throughout the town during the period Monday 13<sup>th</sup> October to Wednesday 15<sup>th</sup> October 2008;
- A combination of *roadside interview surveys* and *postcard distribution surveys* at 9 sites throughout the town during the period Monday 20<sup>th</sup> October to Friday 24<sup>th</sup> October 2008;
- *Journey time surveys* were recorded through two key routes in the town during the period Monday 13<sup>th</sup> October to Wednesday 15<sup>th</sup> October 2008. Additional journey time surveys were also conducted during the period Monday 2<sup>nd</sup> March to Thursday 5<sup>th</sup> March 2009 (PM peak only) to help inform the validation of the model in the Port Road area; and
- *Automatic Traffic Counters (ATCs)* were placed at 18 locations through the Letterkenny area. All ATCs were in place for the one week period in which the roadside interviews and postcard surveys were carried out, with a further two ATCs in place for a longer period of 4 weeks. An ATC was also placed on Port Road and Glencar Road during January 2009 to cover for loss of data from the previous survey (due to vandalism).

- 2.5 The survey period was 7:30am to 9:30am; 3pm to 4pm and 4.30pm to 6.30pm. For detailed information on the traffic surveys, please refer to the project document entitled “*Traffic Survey Report*” (January 2009). The locations for each of the surveys can be found in the plans attached at *Appendix A*.

### Parking Surveys

- 2.6 A review of parking supply and demand in Letterkenny town was undertaken by Donegal County Council in August 2008. The parking review including all car parking spaces (on-street and off-street) located within easy walking distance of the town centre and hence would be expected to be used by shoppers, visitors or commuters travelling to the town centre. This review is detailed in the Council’s report “*2008 Letterkenny Car Park Study*” which was provided by the Council to Atkins to help inform the development of the town centre parking strategy as part of this study.
- 2.7 A high level summary of the findings from the review are outlined in Chapter 4 of this report but please refer to the above report for detailed information on the parking survey results.

### Review of Transportation & Land Use Patterns

- 2.8 The terms of reference for the study included a review of the current status and validity of the transport and planning policies, objectives and proposals (including road lines) listed in Volumes 1 and 2 of the Letterkenny & Environs Development Plan 2003-2009 and the draft Development Plan for 2009-2015. The aim of this review is to ensure that the current and future development, transportation and land use assumptions articulated in these development plans support a sustainable transportation policy.
- 2.9 This review was undertaken in two phases – a comprehensive review was undertaken at the outset of the study with an update completed once the traffic model for the area was validated. The findings from the initial review were summarised in the project document entitled “*initial review of land use & transportation patterns*” (January 2009). This review included the following elements:
- Commentary on the study area and review of the socio-economic indicators for the area, including travel to work characteristics and car ownership;
  - Summary of the relevant transportation and land use planning policy for the study area;
  - Detailed review of development assumptions outlined in the current and draft Letterkenny & Environs development plans to determine whether or not they support a sustainable transportation strategy for the town; and
  - Initial review of transportation issues in the Letterkenny area (using site visits and traffic survey results).
- 2.10 Following the completion of the traffic model, an update of the initial findings was undertaken, particularly in relation to the identification of future transportation issues in the town. The findings from the initial review were found to remain largely unchanged and these are summarised in Chapter 4 of this report.

### Transportation Model Development

#### Model Development

- 2.11 As part of this study, Atkins developed an area-wide traffic model for the Letterkenny study area using the ‘SATURN’ suite of software. Three models were developed to represent the base year (2008) conditions within Letterkenny for the AM peak hour (8:30am to 9:30am); PM peak hour (5pm to 6pm) and interpeak period (3pm to 4pm).
- 2.12 A detailed model network was developed using SATURN ‘simulation’ coding which explicitly models junction capacities and delay. To assist in the network coding process site visits were undertaken to survey key junctions in the town, which helped in developing an understanding of how each junction operated during peak periods. A total of 9 signalised junctions (including

pedestrian crossings), 246 priority junctions and 15 roundabouts are represented in the Letterkenny model network.

- 2.13 Separate matrices were developed for the AM and PM peak hours and an interpeak period representing cars, light goods vehicles and heavy goods vehicles. These matrices were based on data obtained from the roadside interview surveys and junction counts. Trips not captured by the roadside interviews, for example trips having both origins and destinations within the cordon, were in-filled into the matrices using matrix estimation during the model calibration stage of the study.
- 2.14 The indicators of model performance set out within the project report “*Letterkenny Traffic Model – Model Development Report*” demonstrate that the models accurately represent base year 2008 AM peak, interpeak and PM peak hour traffic levels and patterns in Letterkenny. Matrix estimation was employed to adjust the prior trip matrices to observed traffic counts within the study area. This process was closely monitored to ensure that realistic trip matrices were created. The output matrices were analysed for changes in trip totals and all changes were concluded as being acceptable. Trip length was analysed, which demonstrated that the matrix estimation process had the desired effect of introducing shorter distance trips into the matrices. Route choice within the study area was checked and found to be both robust and logical. Finally, modelled flows at almost all locations across the study area closely matched observed values in both time periods.
- 2.15 Model validation was undertaken using independent data in the form of journey time survey data. This showed that 11 of the 12 modelled routes across the three time periods satisfied the DMRB criteria of being within 15% of the observed journey times, thus demonstrating that highway travel costs are well represented by the respective models. It was therefore concluded that the base year models yielded a very good representation of current traffic patterns in Letterkenny and formed a robust basis upon which future transport improvements for the town could be assessed.
- 2.16 Please refer to the project report “*Letterkenny Traffic Model – Model Development Report*” for detailed information on the model development process.

### Forecast Traffic Demand

- 2.17 The forecasting stage of the study required the development of trip matrices for three forecast years of 2013, 2018 and 2023. These matrices were built from the base year (2008) matrices developed for the AM peak, interpeak and PM peak hour models. The forecasting of future travel demand was split into two distinct elements, including:
- Forecast growth of existing trips in the model; and
  - Generation of traffic associated with new developments.
- 2.18 Given the large area of land zoned for residential and commercial development in Letterkenny, it was assumed that the majority of traffic growth in the model would be that associated with new developments.

### Forecasting of growth associated with new developments

- 2.19 The forecasting of traffic growth associated with new developments involved two stages – trip generation and trip distribution. The first stage involved the calculation of trips generated by the future developments. As part of the base year matrix development process, the zoning system was designed to accommodate future development traffic, with empty zones included in the matrices for undeveloped lands zoned in the draft Letterkenny & Environs Development Plan.
- 2.20 To calculate the number of trips generated in each development zone, it was necessary to estimate the amount of development likely to occur in each zone. For residential development, this was the number of housing units per hectare derived in part from the population targets set out in the Letterkenny Development Plan, while for commercial / general employment / education land-uses it was the gross floor area to be developed. KSA Planning Consultants, in liaison with Donegal County Council Planning Service, supplied estimates of the area of each zone in the model, and the area of land available for development (residential, commercial, general employment, opportunity sites and education) in each model zone, based on the provisions in the

draft Development Plan. Using this information and densities for land-uses, trip rates were applied to calculate trip ends.

- 2.21 For residential zones, it was assumed that 75% of the available land would be developed, with the remaining 25% given over to roads and green space. For commercial / general employment / education, the gross floor area to be developed was originally going to be based on 50% of the land available for development. However, the number of trips produced using this assumption was considered to be unrealistically high. After analysing existing developments with similar land-uses within Letterkenny, it was considered more appropriate to use an assumption of 40% of the gross floor area to be developed for commercial / general employment land-uses and 30% for education.
- 2.22 Section 2.1 of the draft Letterkenny & Environs Development Plan 2009-2015 states that the population projections (in Letterkenny) indicate that the need for new housing units over the life of the plan (to 2015) is 3,700 units and an additional 2,875 further units will be required to 2020 to cater for projected growth. Extrapolation of the growth in residential units between 2015 and 2020 (575 units per year) forwarded to 2023 gives a total of 8,300 units. The trip generation for residential developments was therefore controlled to a total of 8,300 units which resulted in an average density of 17.5 units per hectare for the 474 hectares of land available for residential developments. Whilst an assumption has been made on the average density per hectare for residential developments, it should be noted that the Letterkenny Traffic Model looks at the overall impact (macro situation) of the impacts of new development on the town's major traffic routes and as such it is not sensitive to slight variations in development size or density.
- 2.23 Donegal County Council provided typical trip rates for residential developments. Trip rates for the other development types were derived from the TRICs database for each time period.
- 2.24 A Trip Distribution Model was used to distribute car and light goods vehicle trips associated with future developments. This consisted of a gravity model which was calibrated to reproduce the existing base year trip length distribution in the model for each time period. A key strength of this approach was that it ensured that trip lengths for the new trips are representative of current traffic patterns within the town, thereby providing a robust distribution.
- 2.25 The brief required the development of matrices for the forecast years of 2013, 2018 and 2023. Phasing of the trips followed the forecast growth in population in Letterkenny calculated by KSA Planning Consultants<sup>1</sup> which assumed that population levels will increase at an annual rate of 5.04% per annum between 2008 and 2023. The proportion of development trips assumed for each forecast year was as follows:
- 2013 – 26% of total;
  - 2018 – 58% of total; and
  - 2023 – 100% of total.

#### Forecast growth of existing trips

- 2.26 Given the volume of development forecast to occur within Letterkenny, and the associated traffic growth, it was assumed that all future traffic growth would occur within the development areas identified within the draft Letterkenny & Environs Development Plan, while traffic levels within the existing model zones were assumed to remain constant at 2008 levels.
- 2.27 Through traffic (i.e. trips with both an origin and a destination outside Letterkenny) was assumed to remain unaffected by the developments within the town. Traffic growth was therefore applied to the through movements in the trip matrix using growth factors derived from the NRA's 'Future Traffic Forecasts' (August 2003).

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<sup>1</sup> Based on a review of the CSO Census of Population Statistics 2002 and 2006, and Review of the Letterkenny and Environs Development Plan 2003-2009 Background Population Paper (Draft) (February 2008). Projections based on percentage allocation assumptions for total working age population (aged 15+), labour force 15+ and associated persons in employment of 70%, 60% and 85%, respectively.

- 2.28 Please refer to Chapter 2 of the project report entitled “*Testing of Highway Schemes*” (Appendix C) for detailed information on the future year forecasting process.

## Plan Development & Appraisal

- 2.29 A specific requirement for the study was the development of two separate lists of recommendations – a “*sustainable modes*” strategy and a “*roads based*” strategy.
- 2.30 The aim of the “*sustainable modes*” strategy is to develop policies and proposals to encourage modal shift from the private car to public transport, walking and cycling. For the existing situation, a hierarchy of possible solutions were investigated which included the development of quality walking and cycle networks; improvements to existing bus routes & potential for implementation of bus priority; potential for park & ride; issues relating to the longer term vision for rail travel; town centre parking; and softer measures such as workplace travel plans; safer routes to school; and promotional campaigns. Due to the nature of such measures, it was agreed that many of the above proposals were integral to any integrated transport strategy and they supported the existing objectives outlined in the draft development plans for sustainable neighbourhoods.
- 2.31 A high level summary of the recommendations for the “*sustainable modes*” strategy is outlined in Chapter 5 of this report but please refer to the project report entitled “*Sustainable Modes Strategy – Final Report*” (April 2009) for more detailed information (also attached at Appendix B).
- 2.32 The aim of the “*roads based*” strategy is to identify strategic and local highway schemes which would support the sustainable development of Letterkenny. A number of Priority 1 and Priority 2 highway schemes and town centre junctions were already identified in the terms of reference for the study and these were used as the basis for testing using the Letterkenny Traffic Model.
- 2.33 For the highway and traffic management schemes to be tested, preliminary highway and traffic management plans were drawn up by Atkins’ experienced highway and traffic engineers (following a site visit). Initial cost estimates were also drawn up for each of the highway schemes (excluding land costs) and a high-level environmental appraisal undertaken.
- 2.34 For the strategic and local highway schemes (mainly new or realigned roads), the Letterkenny Traffic Model was used to test the schemes – each scheme was tested individually in the AM, PM and interpeak period and compared against the reference “*Do-Nothing*” case for each of the three forecast years. The model outputs for total travel time and distance travelled were also provided as an early indication of the potential economic validity of each scheme (although it will be necessary to carry out a separate detailed COBA assessment to confirm this). A number of scheme combinations were also tested in the model to determine the aggregate impact of the implementation of the schemes.
- 2.35 For the local traffic management schemes (mainly junction improvements), local junction modelling software was used (mainly LINSIG) to test the validity of the proposals – each scheme was tested using the base year traffic data from the junction surveys for the AM and PM peak periods as well as the forecast outputs from the Letterkenny Traffic Model.
- 2.36 A high level summary of the recommendations for the “*roads based*” strategy is outlined in Chapter 6 of this report but please refer to the project reports entitled “*Testing of Highway Schemes*” (June 2009) (attached at Appendix C) and “*Testing of Traffic Management Schemes*” (June 2009) (attached at Appendix D) for more detailed information.

## Environmental Assessment Scoping Report

- 2.37 The terms of reference for the study included the production of a Strategic Environmental Assessment (SEA) Scoping Note, which included a plan of the environmental constraints and opportunities within the study area. This high level (desktop based) review was based on published information associated with the Letterkenny ILUTS area from the following sources:
- Draft Letterkenny & Environs Development Plan 2009-2015;
  - Environmental Protection Agency;

- National Monuments Service – Protected Monuments Record Search;
- Buildings of Ireland – National Inventory of Archaeological Heritage; and
- National Park and Wildlife Service – Designated Areas.

2.38 Utilising the above sources of information, an environmental constraints map was produced and it was used to inform the initial environmental review associated with the main highway schemes outlined in the proposed “roads based” strategy. Information on any known planning requirements due to the findings, were also included in the review. The detailed findings of the SEA scoping report are included in the project report entitled “*Environmental Scoping Note*” (June 2009) (attached at Appendix E) and summarised in Chapter 8 of this report.

## Reporting & Presentations

2.39 The final outputs and recommendations from the study are presented in a Final Report (this report). This report includes a detailed outline of the full methodology and approach to the study; the detailed review of the transportation issues in Letterkenny and how these relate to the policies and plans outlined in the draft Letterkenny & Environs Development Plan; as well as the key recommendations for the implementation and phasing of the preferred transportation strategies.

2.40 This Final Report is supported by a number of non-published technical reports as follows:

Report	Date
Traffic Survey Report	January 2009
Initial Review of Land Use & Transportation – Final Report	January 2009
Letterkenny Traffic Model – Model Development Report	March 2009
Sustainable Modes Strategy – Final Report	April 2009
Testing of Highway Schemes	June 2009
Testing of Traffic Management Schemes	June 2009
Environmental Scoping Note	June 2009

2.41 A number of presentations to Letterkenny Town Council have also been undertaken as part of this study. This includes the following:

- At study inception stage: 7<sup>th</sup> October 2008; and
- At strategy finalisation stage: 11<sup>th</sup> May 2009.



## 3. Policy Context

### Introduction

- 3.1 This chapter sets out the policy context and hierarchy of plans and programmes (at national, regional and local level) within which the Letterkenny ILUTS has been developed and with which consistency in policies and objectives has been sought.

### National Policy

#### National Spatial Strategy 2002

- 3.2 The National Spatial Strategy (NSS), launched by the Government in November 2002, sets out a strategic vision for the spatial development of Ireland over a 20-year period. The key aim of the NSS is to achieve regional balance in terms of physical, social and economic development by identifying a tiered national settlement structure designed to promote adequate opportunities for each region to develop to its full potential.
- 3.3 Within the NSS, Letterkenny has been identified as a linked Gateway with Derry and it is defined as a high priority development corridor of national, regional, local and cross-border economic importance. To this end, the development of a strategic transport corridor between the two settlements is not only important in strengthening cross-border links but also in enhancing the region's links with the island's other major growth centres such as Dublin and Belfast.
- 3.4 With regard to transport, the NSS identifies the completion of the main road inter-urban links as the priority for the radial corridors. Beyond this, it also identifies as a priority, the improved integration of the Letterkenny / Derry Gateway into an all-island transport framework.

#### National Development Plan 2007-2013

- 3.5 The National Development Plan 2007-2013 (NDP) – “*Transforming Ireland – A Better Quality of Life for All*” reinforces the key themes of the 2002-2006 NDP and is underpinned by the aims of promoting sustainable economic growth, greater social inclusion and balanced regional development.
- 3.6 The key role of the NDP is to manage the investment of funds in plans and programmes in a way that supports the key strategic objectives of the NSS. The NDP proposes the investment of some €184 billion in five investment priorities including economic infrastructure; enterprise, science and innovation; human capital; social infrastructure; and social inclusion. Specifically, the NDP will address investment in the promotion of the nine designated Gateway centres identified in the NSS, including the linked Gateway of Letterkenny-Derry through the establishment of the Gateway Innovation Fund.
- 3.7 As one of the designated Gateways that could benefit from this funding, the NDP recognises the Letterkenny-Derry corridor as the critical Gateway for the Northwest. The plan acknowledges the potential that Letterkenny offers in terms of its rapidly growing population, an expanding retail and local services sector, the Letterkenny Institute of Technology, an extensive and diversified local enterprise base, and a wide hinterland.
- 3.8 In terms of transportation, the NDP indicates some of the key initial investment requirements over the plan period, including:
- Implementation, by the relevant local authorities, of an integrated land use and transportation strategy for the strategic development of Letterkenny as an integral part of the Northwest Gateway;
  - Enhancement of road links to other Gateways along the Atlantic Road Corridor;

- Further improvements on the N2 route, in co-operation with the Department for Regional Development Northern Ireland, to greatly improve the road link to Dublin over the period of the plan; and
- Further investment in Derry Airport.

3.9 The NDP also recognises the need to upgrade public transport services in provincial cities and in the regions, including additional buses, new bus priority measures and new park and ride sites.

### **Northern Ireland Regional Development Strategy**

3.10 The Regional Development Strategy (RDS) was published in December 2001 by the Department for Regional Development for Northern Ireland (DRD). It sets out the dynamic strategic planning framework for the spatial development of Northern Ireland up to 2025. The RDS sets the scene for integrating land use planning and transportation, focusing on enhancing accessibility to goods, services and facilities, minimising negative impacts and reducing the need to travel.

3.11 The RDS recognises the need to develop Derry as the key strategic employment location of the North West and the central focus of the northwest development corridor extending into Donegal towards Letterkenny. In this regard, the RDS also recognises the need to upgrade strategic transport links between Derry and the rest of the region as well as cross-border into Donegal and beyond (improving journey time reliability), and in taking an integrated approach to this development.

3.12 A recent review was undertaken of the RDS by DRD. This review included a two-stage approach – first a re-assessment of the housing growth indicators was undertaken and secondly an assessment was made of the need to make any adjustments to the SPGs contained in the RDS as a result. Under the review, the Strategic Planning Guideline LNW 2.3 (“*strengthen the position of Londonderry as the transport hub of the North West*”) has remained unchanged. Work has now commenced on a fundamental review in 2010 when all aspects of the RDS strategy will be re-assessed.

### **Northern Ireland Regional Transportation Strategy**

3.13 The Regional Transportation Strategy (RTS) developed the transportation policy of RDS at a strategic level. It identified that the future development and prosperity of Northern Ireland depended on a step increase in the level of provision of transport infrastructure and services.

3.14 The RTS did not include commitments on individual schemes: this was to be done through three Transport Plans. The northwest region around Derry would be dealt with as part of the Sub-Regional Transport Plan (SRTP) and the Regional Strategic Transport Network (RSTN) Transport Plan.

### **Northern Ireland Sub-Regional Transport Plan**

3.15 The Sub-Regional Transport Plan (SRTP) is the blueprint for the delivery of the RTS in Northern Ireland, outside of the Belfast Metropolitan Area and the rail and truck road networks which are covered in separate transport plans. The purpose of the SRTP was to study the needs of the designated urban and rural areas and to confirm a package of transport schemes, consistent with the general principles and indicative levels of spend in the RTS.

3.16 Within the SRTP, the City of Derry is recognised as the “Regional City of the North West”, reflecting its designation within the RDS, and as a linked Gateway with Letterkenny, reflecting its designation within the NSS. The SRTP recognised that Derry generates and attracts significant cross-border commuting traffic flow as well as the so-called “fuel tourism” – now exacerbated by the current economic climate. In general, cross-border flows, particularly towards Letterkenny, are focused on the A2 Buncrana Road.

3.17 The SRTP proposes a number of transportation measures for the City of Derry. These include the walking and cycling network improvements; improved bus priority infrastructure including a Quality Bus Corridor along Buncrana Road; bus-based park & ride; a city centre parking strategy; local highway and traffic management improvements as well as new strategic highway upgrades. The



total spend for the city of Derry (excluding RSTN costs) are approximately £16.5million over the period of the plan.

### Northern Ireland Regional Strategic Transport Network Transport Plan

- 3.18 The Northern Ireland Regional Strategic Transport Network (RSTN) Transport Plan is the blueprint for the delivery of the RTS in Northern Ireland on the rail and truck road networks. One of the key objectives of the RSTN Transport Plan is to examine and improve access to regional gateways and cross border links.
- 3.19 With regard to the linked gateway of Derry and Letterkenny, the RSTN Transport Plan identified a number of strategic highway schemes including the completion of the A2 Skeoge Link in Derry, the widening of the A2 Buncrana Road (to the border with County Donegal) and the dualling of the A2 from Maydown to the City of Derry Airport. The A2 Skeoge Link (£5million) is now completed, with the other two schemes are included within Roads Service's forward planning programme.

## Planning Policy in the North West

### Border Regional Planning Guidelines

- 3.20 The Border Regional Authority was established to promote the socio-economic prosperity of the region through the co-ordination of local authority activities in the border counties of Donegal, Leitrim, Sligo, Monaghan, Cavan and Louth.
- 3.21 The Border Regional Planning Guidelines are designed to ensure the future socio-economic prosperity and competitiveness of the region. They also seek to ensure that the future development of the region is carried out in a manner that is sustainable and is compatible with the broader national strategic objectives as outlined in the NSS.
- 3.22 Within the Border Regional Planning Guidelines, and in line with the NSS and NDP, the Letterkenny-Derry corridor has been identified as a top tier Gateway: a strategically placed, national scale urban area and a key element for "*delivering a more spatially balanced Ireland and driving development in the region*". The guidelines emphasis that it is the co-ordination of infrastructural development within Derry and the enhancement of a critical mass between the two settlements that will be vital in ensuring the future prosperity of Letterkenny town and in energising the wider Donegal and North Western area of the region.

### Derry Area Plan 2011

- 3.23 The current adopted development plan for the Derry area is the Derry Area Plan 2011. The purpose of this Plan is to inform the general public, Statutory Authorities, developers and other interested bodies of the policy framework and broad land use proposals which will guide development up to the year 2011. The Plan sets out a number of strategic objectives for the area and outlines strategies for development, settlement, urban improvements, rural development and transportation. Specific transportation objectives include:
- To facilitate movement throughout the entire area and which is accessible insofar as to practicable to those with special needs. Alternative means of transport to the private car such as cycling will be promoted; and
  - To make efficient use of existing infrastructure and utilities including the roads.
- 3.24 The Derry Area Plan includes a separate chapter on Transportation where it states that it's aim will be "*to develop an efficient, safe, accessible and sustainable transportation system which offers better choice and mobility for all its users*". Within the chapter, eight key strategic objectives include:
- To encourage alternative travel modes and reduce dependence on the private car;
  - To encourage a high quality accessible public transport system providing a frequent, reliable and popular service;

- To maximise the efficiency of the road network by reviewing traffic management measures and implementing low cost improvements;
- To facilitate the safe and convenient movement of traffic and pedestrians by the appropriate development of the local road network;
- To ensure that major new locations for industry and housing are adequately serviced;
- To implement a road works programme which will focus on the improvement and upgrading of key strategic routes;
- To improve pedestrian links throughout the area; and
- To improve cycling facilities and promote, encourage and facilitate increased cycle use.

3.25 As outlined previously, the Sub-Regional Transport Plan, produced by the Department for Regional Development in 2006 set out the transportation proposals, at a local level, which would implement the transportation vision of the area plan. This is currently being reviewed and updated as part of the Ilex Regeneration Plan for Derry (see below).

### **Ilex Regeneration Plan for Derry**

3.26 The Ilex Urban Regeneration Company was established to promote the physical, economic and social regeneration of the Derry City Council area. The Regeneration Plan, published by Ilex, has a primary purpose to articulate a focused and visionary, integrated regeneration strategy for the city and to provide a platform for the delivery of critical economic and spatial interventions by all the public executive bodies and Ilex in an operational partnership.

3.27 The Regeneration Plan has recognised the linked gateway status of Derry and Letterkenny and has realised the need for all sectors to agree upon an integrated regeneration plan. One of the primary priorities for the plan is to secure significant improvements to transport infrastructure in order to support the development of the city and the wider areas, including motorway and dual carriageway road connections with the Republic of Ireland.

### **County Donegal Development Plan 2006-2012**

3.28 In line with the NSS and the Border Regional Planning Guidelines, the County Donegal Development Plan (CDDP) 2006-2012 established a tiered countywide spatial settlement structure that seeks to build upon the NSS identification of Letterkenny-Derry as a linked Gateway, whilst actively promoting balanced countrywide development through the adoption of policies that seek to maintain and enhance the prosperity of smaller settlements countywide.

3.29 The CDDP identifies Letterkenny as the top tier linked Gateway centre of retail, commercial and service activities within the County and adopts a strategy of limited nodal development along the Gateway Transportation Corridor at a number of pre-defined locations. The CDDP states that the creation of *“a vibrant and fully functioning linked Gateway will provide the momentum to drive the development of the entire County with spin offs and advantages that will flow throughout the County and filter down through the Urban-Rural hierarchy to positively impact on all areas”*.

3.30 With regard to transportation, the main vision of the CDDP is *“to ensure provision of safe and effective transportation and communication systems into and within the County”*. In this regard, the CDDP has the following transportation objectives:

- To provide safe, convenient transportation and communications systems for all users, including pedestrians;
- To provide good access to the location of major economic activity;
- To facilitate local urban and rural development;
- To support access facilities to inhabited offshore islands;
- To promote and support the safe use of the road network;
- To safeguard carrying capacity of National Roads and other strategic routes;

- To support communications improvements into the County;
- To remove traffic bottlenecks and to reduce journey times and journey variances;
- To improve access to ferry ports and airports;
- To support the Rural Transport Initiative;
- To identify future potential relief roads around the Gateway town of Letterkenny; and
- To improve the extent and form of signage throughout the County.

3.31 The following policies and proposals are directly related to the development of a transportation strategy for Letterkenny:

- **TC1: Strategic Road Network Development** – promotion and development of a major upgrade programme for strategic access routes into the County as well as cross-border.
- **TC2: Local Development Access** – development of integrated traffic management systems, bypass roads, internal relief roads, off street car parking and traffic calming measures in principal roads as required. Implementation of a three year programme for non-national roads incorporating surface restoration, road reconstruction and community involvement schemes.
- **TC3: Air, Sea and Rail Access** – facilitate the re-establishment of a rail link between Sligo and Derry (through Letterkenny); safeguard old railway alignments and consider possible interim use by walking & cycling; support development of Derry Airport through a programme of road improvements.
- **TC4: Alternative modes of transport** – in particular the promotion of public transport and other sustainable modes of travel, such as walking and cycling, to encourage a switch from private cars, by facilitating the introduction of taxi and bus drop off and pick up points, which may advance more sustainable forms of transport. Also need to consider road safety and accessibility issues as well as the enhancement of Rural Transport Initiatives.
- **TC5: Development onto public roads** – a traffic and transport assessment will be required to determine the transportation impacts associated with new development and the transportation measures which will be required to mitigate against such impacts (if required).

### Letterkenny & Environs Development Plan

3.32 The current Development Plan for the Letterkenny area is the Letterkenny & Environs Development Plan 2003-2009 – however, this is in the process of being reviewed and a draft Development Plan for the period 2009 to 2015 has now been published for consultation. The overall aim of the draft Development Plan is to *“provide a planning framework which promotes the growth and development for Letterkenny and its environs and facilitates its role as a growth centre for the northwest, whilst protecting and, where appropriate, enhancing the natural and built environment and ensuring that development is both sustainable and of high quality.”*

3.33 In particular Strategic Objective 6 aims to *“promote the integration of land use and transportation so as to encourage modal shift and the development of sustainable transportation policies”*. The specific objectives in relation to transport and movement in Letterkenny are as follows:

- To analyse land use and transport in a co-ordinated and integrated manner;
- To provide for a co-ordinated and planned linked transport network;
- To support and promote improved regional access;
- To improve traffic congestion throughout the town particularly in the town centre;
- To promote, support and encourage modal shift to walking and cycling.

3.34 In particular, the draft development plan contains a number of specific policies and proposals which are directly related to the development of a transport strategy for the town. These include the following:

- Ensure that all new development complies with the *Traffic Management Guidelines 2003*;
- *Facilitate urban transportation control* – identification of key urban junctions, a co-ordinated traffic signal systems to manage movement into and around the town, and through which pedestrians and cyclists are given equal weighting with traffic;
- *Facilitate town centre parking and traffic management* – land assembly, charging policy and enforcement;
- *Facilitate public transport* – establishment of integrated infrastructure and support measures for the ongoing operation of the Letterkenny Town Bus Service and the development of sustainable public transport, for example, through Quality Bus Corridors or future rail links;
- *Facilitate People Friendly Environments* – measures including urban junctions, to allow for the easy and safe movement of pedestrians and those with limited mobility or other needs in order to allow for comfortable, quality public and residential realms;
- *Facilitate walking and cycling* – a linked network of safe routes throughout the urban area, including safer routes to schools in partnership with other stakeholders;
- *Facilitate new road construction* – for both new urban road and the completion of the strategic relief corridors – and the prioritisation of infrastructural improvements required to enhance Letterkenny as a growth centre;
- *Facilitate increased permeability*, ensuring new development increases the incidences of linkages and flow of both public and private traffic, including pedestrian and cycle, throughout the town development envelope;
- *Facilitate the development of a new Transport Interchange Hub* – developing an integrated transport interchange hub thereby allowing for a more efficient, sustainable and dynamic transport model linking to and around the town;
- *Facilitate new ways to travel* – encouraging and facilitating the use of green travel plans by both public and private interests, providing training and advice on implementation and safety; and
- *To facilitate transportation and land use integration* – a major focus on the efficient linking of land use to transport allowing for easy and sustainable movement of people and vehicles, creating opportunities for the servicing of development by efficient public transport modes and creating opportunities for green travel planning.

## 4. Letterkenny Transportation Trends

### Overview

- 4.1 This chapter includes a detailed review of the current and future transportation issues facing Letterkenny and explores how these relate to the development of a sustainable transport strategy for the town and its impact on the proposed policies and proposals outlined in the draft Letterkenny & Environs Development Plan 2009-2015. This chapter contains a detailed review of the following areas:
- Socio-economic characteristics of the town including population growth and travel to work;
  - Current transportation issues in the town in relation to sustainable modes i.e. walking, cycling, public transport and park-and-ride;
  - Current issues in the town centre in relation to parking;
  - Current & future highway issues including highway performance;
  - Review of the proposed policies and proposals contained with the draft Letterkenny & Environs Development Plan 2009-2015.
- 4.2 Each of these areas is discussed in more detail below.

### Socio-Economic Characteristics

#### Population

- 4.3 An analysis of the population document entitled "*Background Population Paper*", February 2008, prepared by the Central Planning Unit, informs the draft Letterkenny & Environs Development Plan. This analysis demonstrates that the population of the geographical area of the development plan is 19,363 persons in 2006 and that the plan area has experienced a 21.6% population increase during the period 2002- 2006. This rate of growth is remarkable when set against the growth trends in population at the national (8%), regional (9%) and county (7%) level. The growth rate 2002 - 2006 demonstrates a strong urban structure and the increasing regional importance of Letterkenny as a centre to live in, work in and invest in.
- 4.4 In terms of population projections, the Border Regional Planning Guidelines, 2004, indicated a projected population for the Letterkenny Gateway of 35,000 to 2020. Revised population figures prepared by the Border Regional Authority in 2007 project a higher figure of 36,956 by 2020. The "*Background Population Paper*" demonstrated that, on the basis of continuing trends within the development plan boundary, the population is projected to be in the region of 36,000 - 39,000 by 2020. Therefore, the growth strategy within the current draft development plan makes provision for adequate land supply to cater for this projected population in such a manner so as to achieve quality urban environments based on the concepts of identifying and strengthening neighbourhoods.
- 4.5 However, although Letterkenny is identified as a Gateway for the generation of critical mass, the current economic slow down may impact upon the opportunities for the town to reach these population targets. This is in part due to the high level of in-migration required to maintain these levels of growth. In-migration accounted for 87% of the population increase in Letterkenny for the period 2002-2006 ("*Background Population Paper*"). In-migration includes all movements from within the county, region, nation and non-nationals into the area of Letterkenny. Non-nationals accounted for 49% of the increase in the national workforce in the period 2002-2006. However, with increasing unemployment levels and continued instability in both the housing and construction markets the high levels of in-migration may not be sustainable.

## Employment

4.6 Letterkenny has been subject to substantial economic growth over the period of the latest plan 2003-2009; this growth has come in tandem with the dramatic changes in population for the same period. In February 2008, the unemployment rate in Letterkenny was 4.8% which was in line with the national average, however the wider context shows that unemployment was 12.9% in 2006, the second highest in the country. According to CSO data published in 2008, Donegal has the lowest disposable income per capita at 82.1% of the national average. This data is not available for Letterkenny Town level.

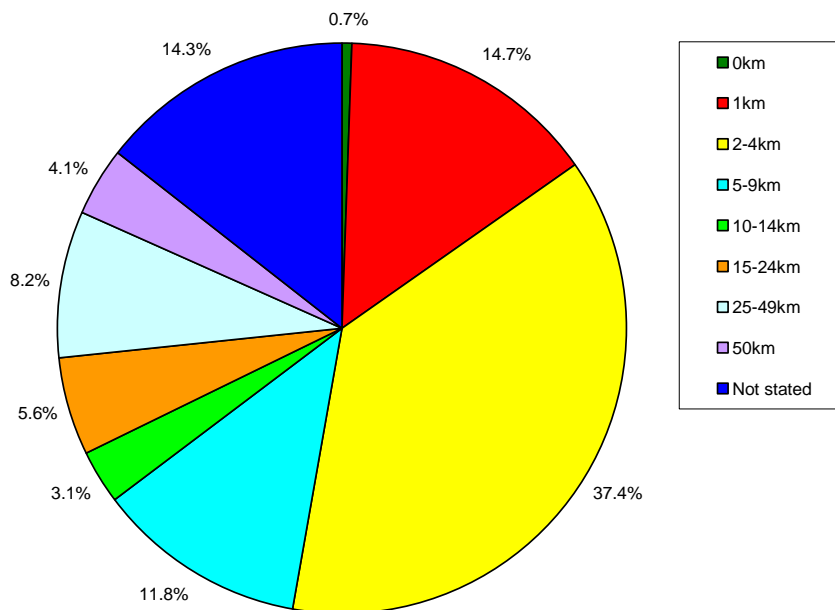
## Car Ownership

4.7 Levels of car ownership and use are key determinants of traffic levels. According to the 2006 census, approximately 78.5% of households within Letterkenny town have access to at least one car – this is below the county average of 81.9% and the national average of 80.3%. However, with a significant level of population growth projected for the town, there is huge potential for car ownership growth.

## Travel to Work

4.8 Figure 4.1 below shows the distance travelled to work by the working population (aged over 15) by residents of Letterkenny town in 2006. According to the census data, approximately 15% of residents travel under 1km to work and a further 37% travel between 2km and 4km to work. In total, this represents just over half of the working population in Letterkenny town.

Figure 4.1: distance travelled to work by Letterkenny town residents



4.9 Figure 4.2 overleaf shows the method of travel to work by the working population (aged over 15) by residents of Letterkenny town over the period 1996 to 2006. It can be seen that the dominant form of travel to work in the town is via the private car – approximately 73% of residents travelled to work either as the driver or as a passenger in 2006: an increase from 70% in 2002 and 58% in 1996. As well as an increase in the modal share, the numbers of motorists in the town has increased in absolute terms due to the growth of the town’s population over the same period.

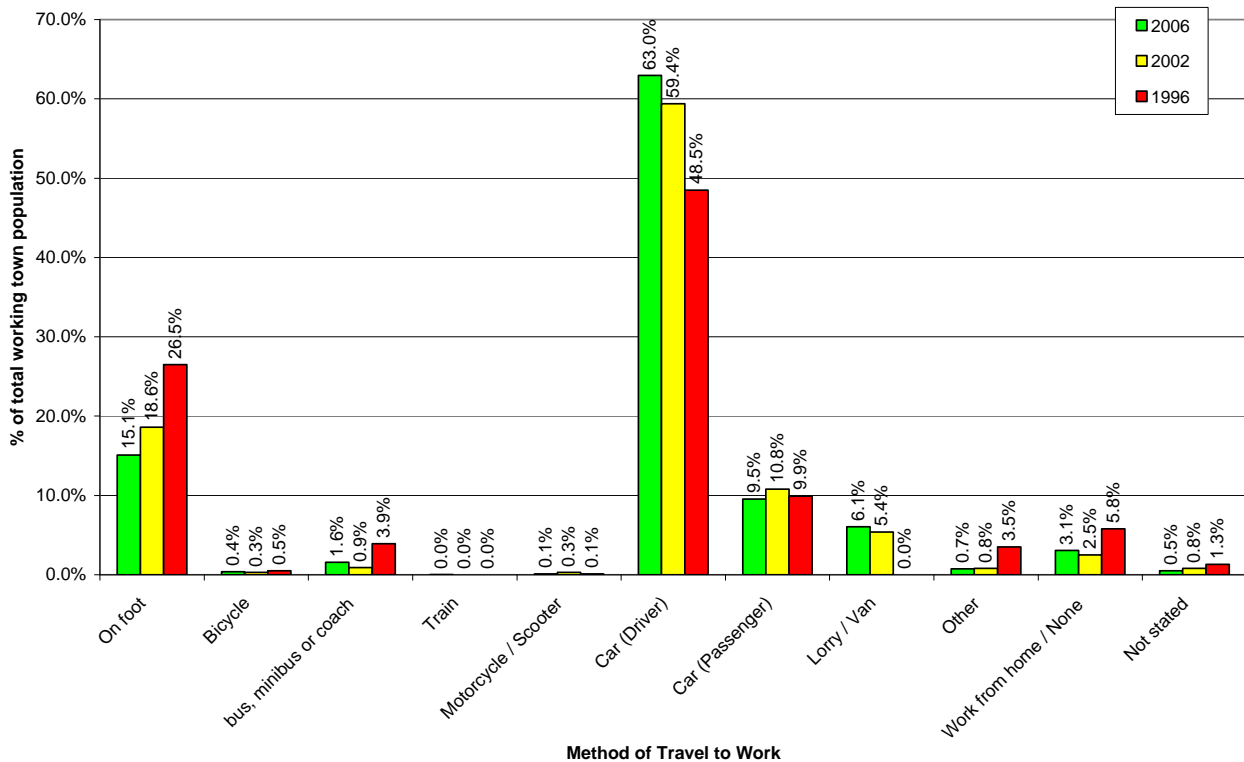
4.10 However, it is encouraging to see that the modal share for residents within the town who walk to work is relatively high compared to national figures – in 2006 over 15% of residents currently walk to work – compared to a national average of 10.9% and a regional county average of 8.4%. What



is disappointing is that, although absolute numbers of walkers has remained relatively constant (1,202 walkers in 1996 reducing to 1,071 walkers in 2006), the overall modal share has decreased as the population of the town has increased.

4.11 Not surprisingly the modal share for public transport and cycling are low – 1.6% for travel by bus and 0.4% for travel by bike in 2006. This is likely due to the fact that there is a limited bus service in Letterkenny and limited, if any, cycle infrastructure within the town. With such a large percentage of the resident population of the town (53%) travelling under 4km to work (see Figure 4.1 previously), there is obvious significant potential for these short trips to be made by more sustainable modes of travel.

Figure 4.2: Method of Travel to Work by working population in Letterkenny in 2006



## Sustainable Modes

### Walking

4.12 Walking constitutes an element of all journeys undertaken, whether it is as the predominant travel mode or serving as a link at the start, end or between other modes. Therefore, the provision of a safe and integrated walking network serving both existing journey specific and recreational-related pedestrian movements, and encouraging higher levels of walking, must represent an integral element of any effective and sustainable transport strategy.

4.13 A key objective of the Letterkenny Development Plan is to achieve viable pedestrian linkages between the town's existing and emerging neighbourhoods. As outlined previously, the census data shows that a relatively large percentage of the working population in Letterkenny town walk to work (over 15% in 2006) which is supported by the recognition that a similar amount of people also travel less than 1km to their place of work. However, it is disappointing that the overall modal share for walking to work has actually declined from 1996 and 2002. As well as the increasing levels of car ownership in the town, one probable cause for this decline is an increase in traffic congestion coupled with a lack of formal pedestrian crossing facilities outside of the inner town centre area. In particular, the proliferation of roundabout and mini-roundabout junctions around the town raises difficulties for safe and continuous pedestrian provision at crossings. In addition,

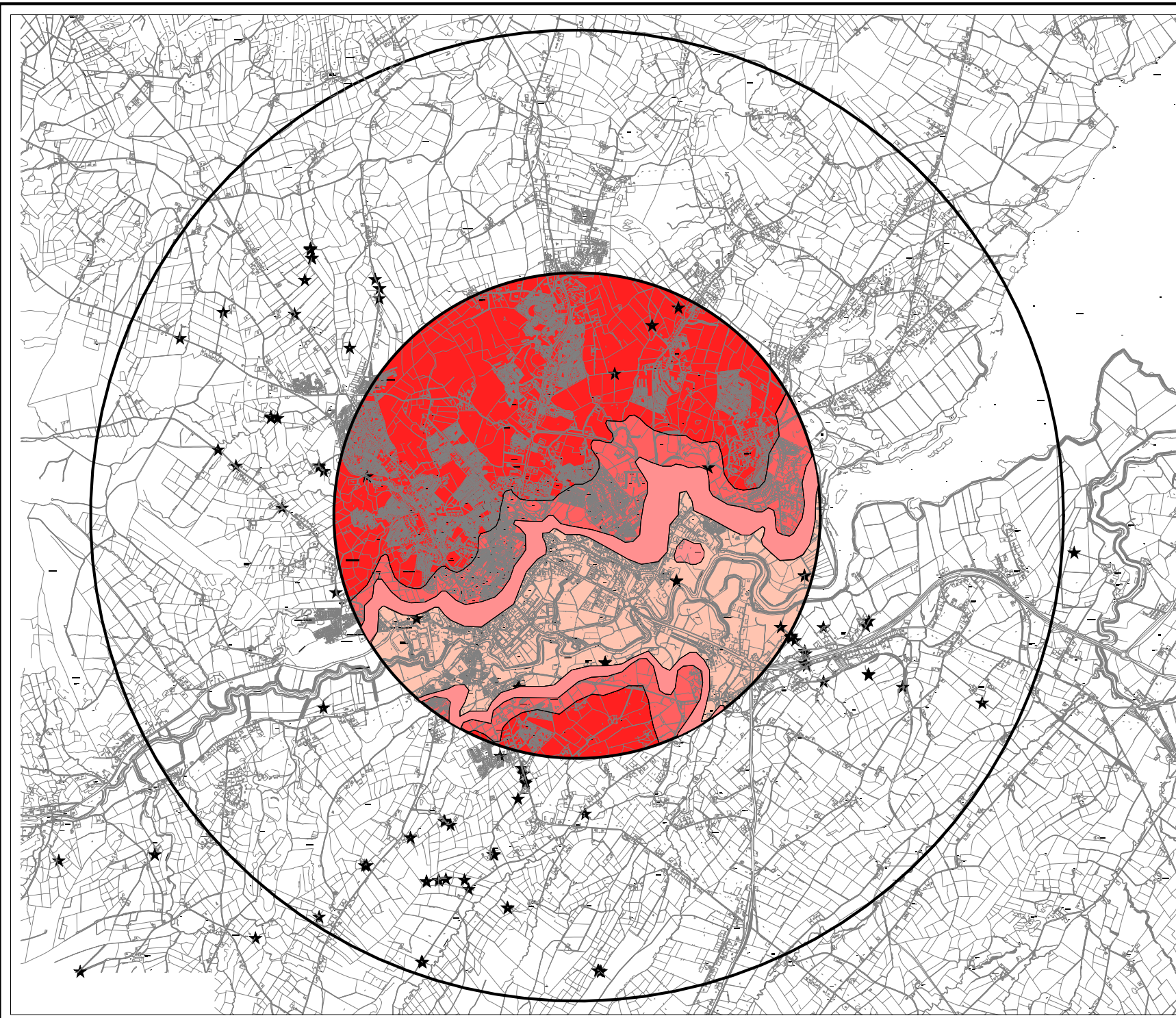
there is also recognition that newer residential areas expanding further away from the town centre (over 3km) has reduced the attractiveness of certain transport modes such as walking and cycling.

- 4.14 The priority for the Letterkenny ILUTS must therefore be to develop a hierarchy of pedestrian routes throughout the study area. This is supported by Policy T1(f) in the draft Letterkenny & Environs development plan which states that “*a linked network of safe routes throughout the urban area, including safe routes to schools*” to facilitate walking should be introduced in the town. This action has been taken on board and our key recommendation in this regard is outlined in Chapter five of this report.

## Cycling

- 4.15 Letterkenny relies heavily on the private car as a means of travel. The census 2006 data showed that only 0.4% of the working population in Letterkenny town cycled to work, which is similar to the County average (0.35%) but lower than the national average of 1.9%. Starting from this very low level of cycling usage, there is potential to increase cycle use.
- 4.16 Levels of cycling tend to vary considerably from place to place and the main determinant is considered to be topography. As part of this review, we have produced a cycling demand map (see Figure 4.3 overleaf). The purpose of a cycling demand map is to show, graphically, where the greatest potential lies to generate an increase in cycling. The map includes two areas – one has a radius of 2.5km and the other has a radius of 5km. The inner ring (2.5km radius) represents a distance which could normally be cycled in approximately 10 minutes. The outer ring (5km radius) represents a distance which could normally be cycled in approximately 20 minutes. 5km is considered to be an important maximum distance for a cycle trip for work / school.
- 4.17 On the map the lightest pink shading shows the amount of land which is within a 10m height difference of the centre of Letterkenny (taken as the Letterkenny Shopping Centre at a height of 10m). This map therefore demonstrates that the area which lies along the east-west spine in the town is the lowest lying and therefore likely to have the greatest potential to generate trips by bike. The further north and south you go from the town centre, the higher the land becomes and the potential demand for cycle trips towards the town centre is likely to drop off considerably in this area. The northern area of the town is the hilliest and many residents living in these areas may consider the height difference to be too great to make the journey to the town centre by bike.
- 4.18 As with the walking network, the priority for the Letterkenny ILUTS must therefore be to develop a preferred network to deliver cycling improvements and routes throughout the town. This is supported by Policy T1(f) in the draft Letterkenny & Environs development plan which states that “*a linked network of safe routes throughout the urban area, including safe routes to schools*” to facilitate cycling should be introduced in the town. This action has been taken on board and our key recommendation in this regard is outlined in Chapter five of this report.





Project Title:  
**Letterkenny Integrated Land Use Transport Strategy**

Figure Title:  
**Cycle Demand Map for Letterkenny**

Figure Number:  
**Figure 4.3**



Atkins Transport Planning - Belfast  
Created By: Julie Nesbitt  
Date: 26/11/2008

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## Public Transport

- 4.19 This section considers the level of provision of public transport in Letterkenny, taking account of bus, rail, park & ride and taxi provision.

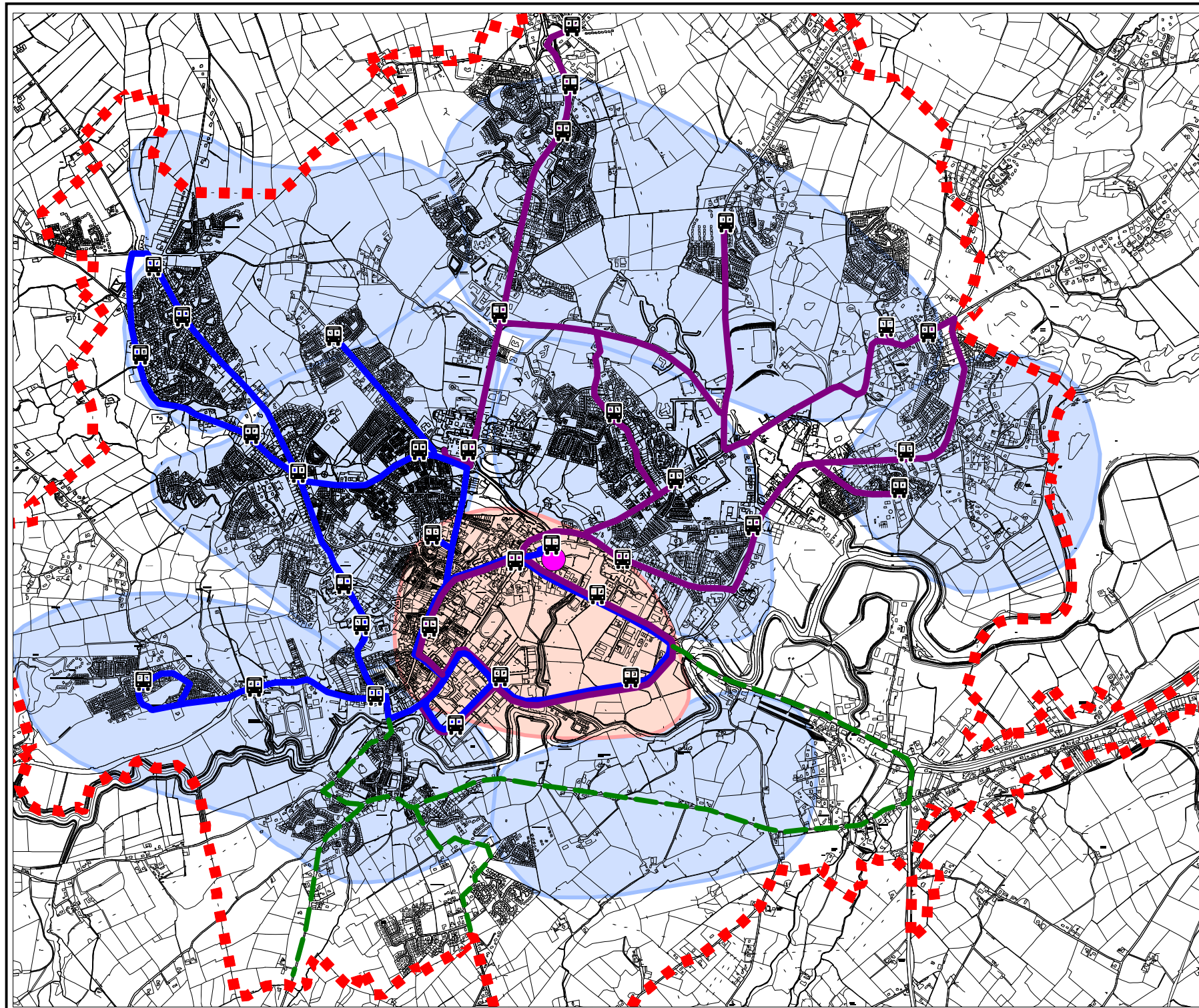
### Bus Services

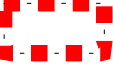

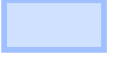





- 4.20 Bus service provision in Letterkenny has been limited in the past but has improved with the re-introduction of the town bus service in July 2007. This service covers two routes, shown in Figure 4.4 overleaf. The routes run from approximately 8am to 6.30pm, and cover most of the town. However service frequencies are limited. Route 1 operates 6 services a day (starting at 8am) and serves the north and east of Letterkenny. Route 2 operates 5 services a day (starting at 8.28am) and serves the west of Letterkenny. A further route is also being considered which would serve the south of the town (and funding for a second bus is under review by the Department at the time of writing this report).
- 4.21 The town bus service is currently privately operated and all services start and terminate at the Bus Éireann bus station. Current fare for an adult single trip is €3; a 'daily hopper' is €6 (unlimited access all day); student single trip is €2; and a child single trip is €1. Pensioners currently travel free of charge. Most of the bus stops and timetables along the routes are in place at the time of writing this report. The final timetables have been in place since May 2009 but the uptake of the service for passengers has been slower than expected. It is felt by both the bus operator and the Town Council that more publicity should be explored to improve public awareness of the service.
- 4.22 With the introduction of these dedicated town bus services, the Council has already undertaken significant steps towards the implementation of a sustainable transportation strategy for the town – it is likely that the continued operation and improvement of the existing two routes and the addition of the third route will provide for the public transport needs of the town in the short term. However, as the town expands and develops in line with the development aspirations of the draft development plan, there may be a need to review these bus routes to ensure that they continue to provide an effective public transport service for the town neighbourhood areas in the medium to longer term.
- 4.23 A key consideration for the Letterkenny ILUTS must therefore be to review the current bus network and determine if new or amended routes and/or supporting infrastructure should be pursued to support the sustainable development of the town. This is supported by Policy T1(d) in the draft Letterkenny & Environs development plan which states that it will be the policy of the Councils to “*facilitate public transport – establishment of integrated infrastructure and support measures for the ongoing operation of the Letterkenny Town Bus service and the development of sustainable public transport, for example through Quality Bus Corridors or future rail links*”. This action has been taken on board and our key recommendation in this regard is outlined in Chapter five of this report.

### Bus Station / Bus Priority

- 4.24 All existing Bus Éireann bus services in Letterkenny start/terminate at the bus station, located behind the Letterkenny Shopping Centre. Although the existing bus station is centrally located within the town – which is ideal for onward travel by foot – there are no bus priority measures on any of the approaches to the station, or indeed in any part of the town, so buses are subject to delays associated with traffic congestion, along with general traffic, particularly at peak times. This is likely to remain a significant issue if buses are to compete with the private car. It is also worth noting that all other bus operators currently start/terminate at a lay-by along the Ramelton Road, which also creates additional safety and traffic congestion problems.





-  Plan Area Boundary
-  Town Centre
-  Neighbourhood Areas
-  Letterkenny Town Bus Route 1
-  Letterkenny Town Bus Route 2
-  Existing bus station
-  Proposed Bus Route
-  Bus Stop

Project Title:  
 Letterkenny Integrated Land Use Transportation Strategy

Figure Title:  
 Existing Bus Network in Letterkenny

Figure Number:  
 Figure 4.4



Created By: Julie Nesbitt Date: 09/07/2009

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### Integrated Transportation Hub

- 4.25 The Council, along with a number of partners, have submitted an application for funding to the Gateway Innovation Fund for the implementation of a new Integrated Transport Hub. This application (for approximately €19.8million) is part of a wider application for €68.3million to include three other projects aimed at developing Letterkenny as a joint Gateway with Derry. The Integrated Transport Hub would comprise of the following:
- The implementation of a new regional transport interchange with a bus/coach terminus to relocate all public transport providers from congested locations around the town;
  - Car parking linked to the interchange for a park & ride facility;
  - The construction of 6.5km of walking/cycleways linked to the interchange with associated services to cater for pedestrians / cyclists using the new urban loop routes and cross-border pedestrian/cycling trials; and
  - Regeneration work along the Pearse Road linked to developer-led investments in walking/cycling access to land for development.
- 4.26 The draft Letterkenny and Environs development plan includes this proposal (Policy T1(j)) and proposes to locate this new interchange hub to a new site adjacent to the Port Bridge Roundabout. The new interchange hub will facilitate both regional and local bus services as well as the existing town bus service. The interchange hub will also include facilities for taxis, park & ride and it will provide onward connections to the town centre and surrounding environs for pedestrians and cyclists.
- 4.27 The draft Letterkenny and Environs development plan also includes a proposal for a Quality Bus Corridor (Policy T3) to run from Dry Arch Roundabout to Port Bridge Roundabout and which will serve the new Integrated Interchange hub outlined above.
- 4.28 The priority for the Letterkenny ILUTS will be to consider the ongoing validity of the above policies and to recommend any additional policies and proposals as required. This action has been taken on board and our key recommendations in this regard are outlined in Chapter five of this report.

### Rail

- 4.29 There is currently no railway service in Letterkenny although there are longer term aspirations to provide a new rail halt in the town which would provide onward connections to Derry, Sligo and Dublin along the disused railway line. Longer term aspirations are that this station would form part of the Gateway project for a fully integrated transport hub in the town (as described above). However, the infrastructure costs for providing this proposal are likely to be prohibitive and neither Iarnród Éireann nor NI Railways have identified any such proposals of funding in their current forward planning programmes in the foreseeable future.
- 4.30 Nevertheless, a protection corridor for the section of disused railway which runs parallel to Port Road has been identified in the draft Letterkenny & Environs development plan 2009-2015 (Policy T4). The priority for the Letterkenny ILUTS will be to consider the ongoing validity of the above policies and to recommend any additional policies and proposals as required. This action has been taken on board and our key recommendations in this regard are outlined in Chapter five of this report.

### Park & Ride

- 4.31 There is currently no formal park & ride facilities in Letterkenny although there are longer term aspirations to provide a park & ride facility in association with the Gateway project for a fully integrated transport hub in the town (as described above). This park & ride provision is likely to be related to the provision of parking for onward (longer distance) travel by coach/bus to destinations outside of Letterkenny – this is a fairly common transportation initiative for public transport operators and it is recommended that this continues to be included within the longer term strategy for the integrated hub.



- 4.32 For the remainder of this section on park-and-ride, we refer to the use of park-and-ride as a sustainable transportation measure to reduce car travel into Letterkenny town centre.
- 4.33 Dedicated park & ride can only be successful when implemented as part of an overall demand management strategy. For park & ride to be attractive and thus successful it must be comparable, and preferably better, to a trip made entirely by private car in terms of cost, convenience and journey time. Hence:
- Parking availability in the town centre should be restricted;
  - The park & ride site must be well located, easily accessed and readily visible or well signed from the main approaches to the site;
  - Park & ride should cost substantially less than parking in long-stay town centre car parks, although pricing should not be priced as to extract trips from the existing bus services;
  - The bus service, which serves the park & ride site, should be fast, frequent, reliable and comfortable. Ideally taking less time than the car – bus priority can contribute significantly towards this objective; and
  - The site should offer good facilities, such as shelter and telephones, and good security, lighting and visibility.
- 4.34 A high level review of providing park & ride facilities in Letterkenny has been undertaken as part of this study. It should be noted that this is an initial review only and a more detailed site-selection and assessment study will be required to determine the optimum location for park & ride in Letterkenny, should this initiative be taken forward.
- 4.35 A park & ride site in Letterkenny – particularly a pilot site – should look to fulfil the following objectives:
- It should raise awareness and improve the public perception of park & ride in Letterkenny;
  - It should improve accessibility by providing an alternative to using the car for journeys into Letterkenny town centre;
  - It should have the least impact on the natural and built environment; and
  - It should be sufficiently flexible to cope with variations in forecasts and simplifying the implementation process.
- 4.36 Since most of these objectives are difficult to quantify in absolute terms, a simple non-quantitative framework and system of scoring should be developed. An example framework is shown in Table 4.1. This assessment framework has been used by Roads Service in Northern Ireland for the assessment of park & ride options in Belfast and Derry.

Table 4.1: Non-monetary objectives for park &amp; ride sites

Objective	Element	Importance
Raise awareness and public perception of park & ride	Volume of passing traffic (catchment area)	High
	Potential for bus priority	High
	Ease of access / egress	High
	Visibility from main road	Low
	Diversion from usual route	Low
Improve Accessibility	Journey time improvements	High
	Site location	High
Minimise Environmental impact	Impact on natural and built environment	High
	Acceptability in planning terms	Medium
Flexibility and Simplicity	Opportunity for expansion	High
	Site availability	Low

- 4.37 The main radial routes into Letterkenny include Glencar Road, Mountain Top Road, Port Road, Ramelton Road and Slate Row. As part of this initial assessment, a high level review was undertaken of the volumes of traffic on each of these radial routes, taken from the validated base year 2008 Letterkenny Traffic Model. An analysis was then undertaken to determine the approximate percentage of this traffic which had its destination in the town centre.
- 4.38 This assessment shown that Port Road had the highest potential catchment area of passing motorists (travelling into the inner town centre area in the morning peak period) with approximately 330 vehicles. A further 260 vehicles were travelling to the wider town centre area. This suggests that the proposed park & ride site identified as part of the Integrated Transport hub could potentially also serve motorists who wish to access the town centre, subject to the Quality Bus Corridor and onward bus connections being extended from the Integrated Transport Hub to the town centre area.
- 4.39 The analysis also demonstrated that there may be a potential catchment for a park & ride at a suitable location on Mountain Top Road. The analysis demonstrated that there were approximately 255 passing motorists (travelling in the inbound direction in the morning peak period) which have a destination to the Hospital, the town centre area and the Letterkenny Institute of Technology (LYIT) – a route which could easily be served by a park & ride bus service.
- 4.40 The LYIT has recognised that parking availability at its campus does not meet with the current high level of demand, which causes congestion of college car parks and adjoining roadways, obstruction of access by emergency vehicles and legitimately parked cars. Although steps have been undertaken to alleviate the issue, through the provision of overflow spaces in nearby car parks, a park-and-ride strategy could be pursued by the college to help resolve the problem, subject to the identification of a suitable site.
- 4.41 Park-and-ride is currently not included within any policy or land use designation within the draft Letterkenny & Environs development plan 2009-2015 so one of the key considerations of the Letterkenny ILUTS will be to consider if this should be rectified. This action has been taken on board and our key recommendations in this regard are outlined in Chapter five of this report.

### Taxis

- 4.42 Taxis are an important mode in Letterkenny, providing an important public transport service, often offering the only means of public transport in certain areas and at certain times of the day. Taxis are well used in Letterkenny and are currently accessed from the main taxi rank at Station roundabout, opposite the bus station. There are additional taxi ranks on Main Street at Market Square.
- 4.43 The '*roads based*' strategy will consider the implementation of local traffic management measures for the improvement of a number of important junctions in the town as well as proposals for traffic circulation in the town centre. These proposals may affect the existing taxi ranks at Station Roundabout, Market Square and Oldtown Road and as such, they will need to be considered as part of the design of any such scheme.

### Town Centre Parking

- 4.44 A survey of parking supply and demand in Letterkenny town centre was undertaken by Donegal County Council in August 2008. The results from the parking surveys are detailed in the report "*2008 Letterkenny Car Park Study*" which was provided by Donegal County Council to inform the development of this study. A detailed review of the parking survey results were undertaken by Atkins and outlined in the project report "*initial review of land use and transportation patterns – final report*" (January 2009). It is not intended to repeat the detailed results within this report – we have provided a high level summary only.

### Parking Supply

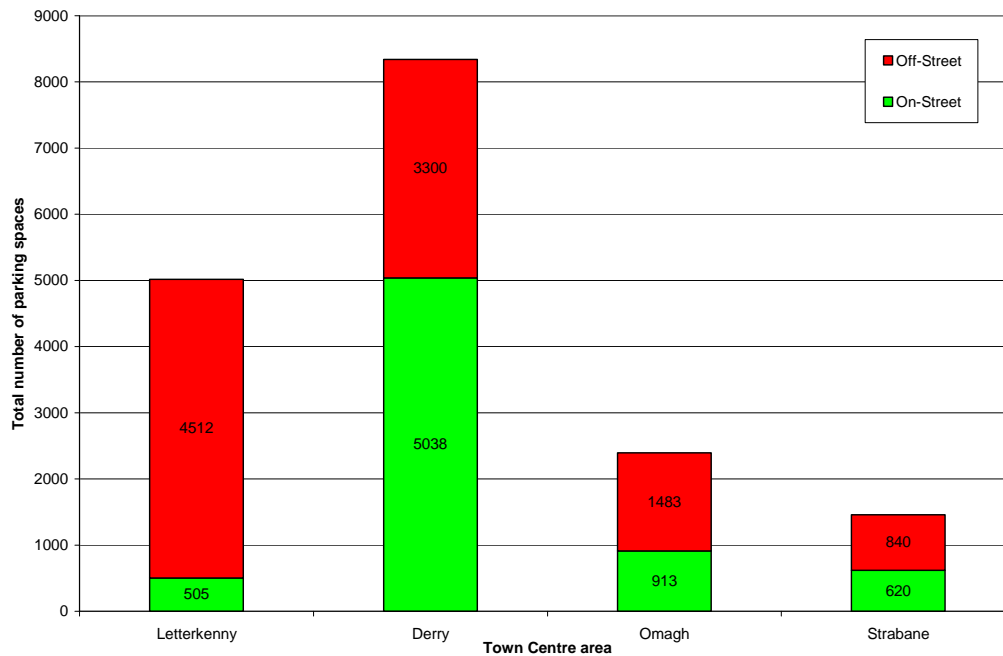
- 4.45 The parking surveys indicated that there are approximately 505 on-street parking spaces within Letterkenny town centre. Approximately 40% of this on-street parking is provided along Upper Port Road, Main Street (Lower and Upper), Market Square and High Street where a 60c (per

hour) parking charge currently applies. The parking surveys also indicated that there are approximately 4,500 off-street parking spaces available in over 24 car parks throughout the town centre.

4.46 It is worth noting that based on the previous 2000 parking survey report – which stated that current parking supply in Letterkenny was approximately 1,290 spaces – it would appear that parking supply in Letterkenny has now increased by almost four times this amount.

4.47 The total amount of parking (on-street and off-street) equals to just over 5,000 spaces. This is a significant amount of parking in a relatively small area – as a comparison, the amount of available parking in the towns of Omagh, Strabane and Derry are shown in Figure 4.5 below. These figures have been taken from the local transportation studies undertaken for these towns in 2004. It can be seen that Letterkenny has twice the amount of parking available in Omagh town centre and over three times the amount of parking available in Strabane town centre. With regard to Derry, Letterkenny has approximately 60% the level of parking in Derry but over a much smaller area. The parking area considered for Derry was significant and it included the walled city, as well as the Waterside, Bogside, University area and the waterfront area.

Figure 4.5: Town Centre Parking Supply



## Parking Demand

4.48 This section summarises the existing patterns of parking activity within Letterkenny town centre. A more detailed analysis can be found in the project report entitled “*initial review of land use and transportation patterns – final report*” (January 2009).

### Parking Occupancy

4.49 The parking beat surveys indicated that throughout the town centre, maximum demand for on-street parking occurs at 11am, when approximately 70% of the legitimate on-street parking spaces were occupied. However, these figures mask the true nature of parking demand within the town centre, as some streets within the core town centre area, particularly Upper and Lower Main Street, experience much higher levels of demand and in some cases equal to 100%. For the remainder of the wider town centre area, the demand for on-street parking varies throughout the day. The busiest streets would appear to include High Road, New Line Road, Larkin Lane, Fortwell and Ard O’Donnell.

4.50 With regard to off-street parking demand, it can be seen that maximum demand for off-street car parking occurs at 1pm, when approximately 40% of the legitimate off-street parking spaces were occupied. The car parks which recorded the greatest maximum occupancy included the Port Car

Park, Celtic Apartments Car Park, Justice Walsh Coach Car Park, Justice Walsh Car Park, and Cathedral Car Park. It is worth noting that these include some of the smaller car parks which are located on the periphery of the main commercial areas – some of the larger car parks located alongside the main retail parks demonstrate a much lower maximum occupancy rate. For example, the large multi storey car park (McGinley Car Park) recently constructed along Justice Walsh Road, offering over 750 parking spaces, was recorded as being only 14% full at its maximum.

- 4.51 If illegal parking is also taken into consideration, the overall occupancy rates for on-street parking would increase from 70% to 86%, which is within the operating threshold of 90%. This suggests that illegal parking is not a result of a lack of available parking but possibly due to a lack of knowledge of where this parking is or simply a general disregard for parking restrictions.
- 4.52 With regard to off-street parking, if illegal parking is taken into consideration, the overall occupancy rate would only increase slightly from 40% to 41%. Taking this into account – and the occupancy rates outlined above for on-street – there would appear to be a current oversupply of parking in the town of approximately 2,000 parking spaces. It is unlikely therefore that additional parking in the town centre would be desirable or required, and this should be borne in mind when considering whether or not to provide additional parking as part of new development.

### Duration of Stay

- 4.53 The parking surveys indicated that the majority of parking acts on on-street bays are short-stay – approximately 60% are for less than 30 minutes with a further 16% parking acts between 30 minutes and 1 hour. In total approximately 86% of the parking acts on-street in Letterkenny town centre are for less than 2 hours in duration, suggesting that these are mainly shopping, business or leisure related.
- 4.54 Approximately 7% of parking acts occupy parking spaces on-street in Letterkenny town centre in excess of four hours – over half of these occupy these parking spaces for more than 7 hours. The top three roads in which this long stay parking occurs includes Ard O'Donnell, High Road and Fortwell.
- 4.55 With regard to off-street parking, it can be seen that the majority of these parking acts are also short-stay – approximately 47% of parking acts are for less than 30 minutes with a further 15% parking acts between 30 minutes and 1 hour. In total approximately 74% of the parking acts off-street in Letterkenny town centre are for less than 2 hours in duration, suggesting that these are well used by shoppers. Those vehicles parking in excess of four hours accounted for approximately 17% of the total parking activity within the car parks.

### Parking Turnover

- 4.56 As part of the review of the parking survey results, parking turnover was calculated – this indicator provides an overview of which of the streets and car parks within Letterkenny are the busiest, rather than those which attract the greatest number of parking acts. Within the inner town centre streets, the average turnover rate was 7.52 parking acts per legitimate parking space per day. Only Upper Main Street demonstrated a turnover rate higher than this average at 11.02 parking acts per legitimate parking space per day.
- 4.57 The average number of parking acts per bay in the wider town centre area is slightly lower at 4.63 parking acts per legitimate parking space per day. Within the wider town centre, the busiest streets with regard to parking include Oldtown Road (alongside Dunnes Stores), Cathedral Road and Rosemount Lane. Although the turnover indicates the relative parking pressure experienced within the streets in Letterkenny, it is also an indication of the likelihood of illegal parking activity.
- 4.58 The turnover rates in the car parks are generally lower than those recorded on-street. This is due to the fact that longer stay parking acts usually occur more often in car parks and occupancy rates are generally lower. The busiest car parks in Letterkenny – in terms of parking turnover – are the Station Car Park and Justice Walsh Car Park.



## Highway Performance

### Overview

- 4.59 Traffic congestion at peak times in Letterkenny is prevalent and it continues to remain a significant issue within the town and with local residents. The current road network is ill equipped to cope with current traffic demand and ‘gridlock’ occurs on a frequent basis. There is a general recognition that the current road network is in danger of being over-whelmed if the full development aspirations for Letterkenny are realised. Therefore there is a need to ensure that the ‘roads-based’ strategy addresses the need to:
- Provide *major capacity enhancements* at key locations in the road network i.e. new and/or improved relief roads to ensure the continued effective operation of the strategic road network; to provide a consistent and safe standard of road; and to address severe congestion hotspots; and
  - *Traffic management strategies* to make best use of the available road network; to provide safe and continuous pedestrian and cycle crossing facilities; to improve road safety; and to facilitate the movement of local traffic.
- 4.60 Although traffic congestion is widespread throughout the town during peak periods, the most significant ‘hot-spot’ areas occur around the following junctions, where capacity issues continue to remain a real threat to the effective operation of the strategic and local road network:
- Port Bridge Roundabout;
  - Station Roundabout and Oatfield Roundabout;
  - Oldtown Junctions;
  - Hospital Roundabout; and
  - Fort Lynne Roundabout.
- 4.61 A summary of the main issues associated with each of the above locations is outlined in the sections below.
- 4.62 There is also concern about the lack of formal pedestrian (and cycle) crossing points in the town. In particular, the proliferation of roundabout and mini-roundabout junctions around the town raises difficulties for safe and continuous pedestrian and cycle provision at crossings and this issue will need to be addressed by the Letterkenny ILUTS. This action has been taken on board and our recommendations in this regard are outlined in Chapter six of this report.
- 4.63 Letterkenny town centre is characterised by a longitudinal main street – running northeast to southwest from Ramelton Road in the northeast leading onto Upper Main Street and Lower Main Street. Traffic circulation in the town centre is catered for by a partially signalised one-way system along Ramelton Road, Upper & Lower Main Street and the lower end of Pearse Road. The Main Street is an extremely busy shopping area and there are ongoing conflicts between on-street parking activity, through movement of vehicles, loading and pedestrian movement. One of the key objectives of the Letterkenny ILUTS will therefore be to look at opportunities to re-distribute through traffic away from the Main Street and to reallocate road space to pedestrians and cyclists, creating a more pedestrian friendly environment. This action has been taken on board and our recommendations in this regard are outlined in Chapter six of this report.
- Port Bridge Roundabout**
- 4.64 Port Bridge Roundabout is located at the intersection between Port Road, Neil T Blaney Road and Ballyraine Road. Port Road forms part of the N14 strategic road network and is the main access into Letterkenny from Derry and Lifford. With an average annual daily flow of over 35,000 vehicles, Port Road is the busiest road in the town and the Port Bridge Roundabout is one of the busiest junctions.
- 4.65 A site visit was undertaken by Atkins’ traffic engineer on 26<sup>th</sup> and 27<sup>th</sup> November 2008. In general, site observations at that time indicated that morning peak traffic was relatively free flowing until

around 8:45am when significant queuing was observed on the N14 Port Road (south) approach to the roundabout – the queue length at this time was estimated to be approximately 400m in length. However, traffic on the remaining approaches was not considered as excessive – although observations on alternative site visits have observed this as being variable. Queuing was therefore attributable to a combination of very high demand in the inbound direction coupled with some conflicting movements of traffic travelling around the roundabout forcing motorists to give way i.e. to ahead traffic from Ballyraine Road and right turners from the N14 Port Road (north) approach.

- 4.66 In the evening peak period, significant queues were observed on the Ballyraine Road approach to the roundabout between 4:45pm and 5:15pm. Traffic queues were backed up to the R245 Ramelton Road/ Ballyraine Road roundabout to the north and beyond. In essence traffic wishing to proceed ahead from the R245 Ramelton Road (north) had to merge with traffic turning right from the R245 Ramelton Road (west) on the very confined circulatory carriageway before proceeding towards the Port Bridge Roundabout. The queue length was estimated to be around 600m in length. In addition, significant queues are known to occur on the Port Road (from Station Roundabout) approach to the roundabout, with traffic queuing back to the entrance to the Letterkenny Institute of Technology (LYIT) (approximately 400m). Although not observed on the day of the site visit, council sources have confirmed that significant queues commonly occur in the AM peak on the Ballyraine Road (R245), particularly between 8:30am and 9:30am.
- 4.67 Again, as observed in the morning peak period, flows on the remaining three approaches didn't appear to be too significant and therefore the queue observed on the Ballyraine Road approach was most likely attributable to a combination of very high demand in the southbound direction coupled with some conflicting movements proceeding round the circulatory carriageway which were enough to force traffic to give way i.e. ahead traffic from the N14 Port Road (north) and right turners from the Neil T Blaney Road approaches.

#### **Oatfield Roundabout / Station Roundabout**

- 4.68 Oatfield Roundabout is located at the intersection between Ramelton Road (R245) and the De Valera Road. On both days of the site visit (26<sup>th</sup> and 27<sup>th</sup> November 2008), the morning and evening peak traffic appeared to be flowing through the junction relatively well and there did not appear to be any capacity problems inherent in the geometric makeup of the junction layout. However council sources have confirmed that on a more typical day significant queues are likely to form on the De Valera Road approach during both peak hours.
- 4.69 Station Roundabout is adjacent to the Oatfield Roundabout at the intersection of Port Road, Pearse Road and Ramelton Road. The access to the existing bus station and Letterkenny Shopping Centre is also located off this roundabout. At Station Roundabout, congestion is most evident during weekends and during holiday periods due to traffic accessing the shopping complex.

#### **Oldtown Junctions**

- 4.70 The Oldtown Junctions are located just south of the town centre along Oldtown Road. The area consists of three mini-roundabouts and a priority junction located within close vicinity to each other. At the mini-roundabout junction of Rockhill Road with New Mill Road, queues were observed in the morning peak on the Rockhill Road and New Mill Road approaches. Queue lengths were approximately 50m in length on both arms.
- 4.71 At the mini-roundabout junction of Rockhill Road with Pearse Road, queues were observed on three of the four approaches during the morning peak only, the only exception being the access/ egress from the Dunnes Store to the west of Oldtown Road. Queuing was most notable on the Oldtown Road approach, backing up almost as far as the junction of Oldtown Road with Slate Row to the north (approximately 100m in length).
- 4.72 At the mini-roundabout junction of Oldtown Road with Slate Row (R250), no significant queuing was observed in either peak periods which were attributable to the junction in question, however some queues were observed on the Oldtown Road approach due to problems associated with the right turn at the junction of Slate Row (R250) with Convent Road as discussed below.

4.73 At the Slate Row/Convent Road priority giveaway right turn ghost island, queues associated with the right turn into Convent Road were observed backing far enough back to hinder traffic wishing to proceed ahead along the R250 Slate Row. This had a knock on effect on the mini-roundabout to the east.

4.74 Delays and queues were also experienced on the Convent Road during the PM peak, caused by the lack of right turning opportunities towards Ballymacool from Convent Road; due to vehicles queuing in the ghost island on the R250.

### Hospital Roundabout

4.75 Hospital Roundabout is located at the intersection between De Valera Road, Mountain Top Road, High Road and Circular Road. The main issue associated with this roundabout is the significant queuing which exists in the peak periods on the approach to the roundabout from Circular Road. This is due to the blocking back of the straight-ahead movement as a consequence of the significant left-turn movements onto Mountain Top Road. Additionally, the lack of formal pedestrian crossing facilities outside the Hospital raises safety concerns for pedestrians in this area.

### Letterkenny Traffic Model

4.76 The morning peak hour period in Letterkenny has been identified as 8:30am to 9:30am. The Letterkenny Traffic Model has estimated that new development and growth in existing traffic over the three forecast years could increase the number of trips in the model by approximately 72% by 2013; 159% by 2018; and 271% by 2023 from the base year conditions in 2008 – under a “Do-Nothing” scenario. This growth in vehicular traffic, if left un-checked, will have a significant impact on existing traffic conditions in the morning peak period as follows:

- *Port Road (between Dry Arch Roundabout and Port Bridge Roundabout)* is likely to experience an increase in traffic levels of approximately 15% by 2013; 30% by 2018 and 2023 – there is no significant increase in traffic levels between 2018 and 2023 as the road has reached its capacity and no further traffic can access the road – traffic conditions are likely to be severely congested;
- *Port Road (between Port Bridge Roundabout and Station Roundabout)* is likely to experience an increase in traffic levels of approximately 31% by 2013 and 43% by 2018 and 2023 – the same applies as above;
- *Ramelton Road (east of Gortlee Road)* is likely to experience an increase in traffic levels of approximately 35% by 2013; 95% by 2018 and 122% by 2023;
- *Mountain Top Road* is likely to experience an increase in traffic levels of approximately 25% by 2013; 81% by 2018 and 98% by 2023;
- *De Valera Road* is likely to experience an increase in traffic levels of approximately 18% by 2013; 29% by 2018 and 44% by 2023;
- The town centre is also likely to experience a significant increase in traffic levels which is not desirable where there are high levels of pedestrian activity – *Upper Main Street* is likely to experience an increase in traffic levels of approximately 15% by 2013; 21% by 2018 and 25% by 2023; with *Lower Main Street* experiencing an increase of approximately 25% and 39% by 2013 and 2018 respectively.
- With the strategic road network under significant strain, there is also an increase of traffic levels on more minor roads which are unsuitable for carrying high levels of traffic – this includes *Leck Road; Cullion Road; The Farm Road; Lismonaghan Road; New Mills Road; and Rockhill Road.*

4.77 The evening peak hour period in Letterkenny has been identified as 5pm to 6pm. The Letterkenny Traffic Model has estimated that new development and growth in existing traffic over the three forecast years could increase the number of trips in the model by approximately 68% by 2013; 150% by 2018; and 256% by 2023 from the base year conditions in 2008 – under a “Do-Nothing”

scenario. This growth in vehicular traffic, if left un-checked, will have a significant impact on existing traffic conditions in the evening peak period as follows:

- *Port Road (between Dry Arch Roundabout and Port Bridge Roundabout)* is likely to experience an increase in traffic levels of approximately 13% 2018 and 25% by 2023;
- *Port Road (between Port Bridge Roundabout and Station Roundabout)* is likely to experience an increase in traffic levels of approximately 22% by 2013; 24% by 2018 and 46% by 2023;
- *Ramelton Road (east of Gortlee Road)* is likely to experience an increase in traffic levels of approximately 81% by 2013; 132% by 2018 and 141% by 2023;
- *Mountain Top Road* is likely to experience an increase in traffic levels of approximately 24% by 2013; 49% by 2018 and 76% by 2023;
- *De Valera Road* is likely to experience an increase in traffic levels of approximately 10% by 2013; 22% by 2018 and 37% by 2023;
- The town centre is also likely to experience a significant increase in traffic levels which is not desirable where there are high levels of pedestrian activity – *Upper Main Street* is likely to experience an increase in traffic levels of approximately 10% by 2013 and 2018 and 12% by 2023;
- With the strategic road network under significant strain, there is also an increase of traffic levels on more minor roads which are unsuitable for carrying high levels of traffic – this includes *Leck Road; Cullion Road; New Mills Road; Rockhill Road and Ballymacool*.

4.78 With the above forecast growth in traffic across the Letterkenny, there is therefore a need to ensure that the Letterkenny ILUTS contains both local and strategic improvements to the road network that enables the forecast growth to be achievable in a sustainable manner and maintains the effective operation of the network.

## Letterkenny & Environs Development Plan

4.79 Following the review of current and future transportation issues facing Letterkenny, this section looks at the proposed policies and proposals outlined in the draft Letterkenny & Environs Development Plan 2009-2015 (known as the Plan). A critical review has been undertaken to establish whether these policies and proposals are still valid in terms of a sustainable vision for development and transportation in the town. A summary of the policies and proposals contained within the Plan was outlined previously in Chapter 3 of this report.

### Land Use Strategy

4.80 At a strategic level, it is recognised that the Plan has significantly improved on the existing (2003) plan in that it provides for a growth model for the town which aims to facilitate sustainable development for the town. In essence the growth of the town will be guided through the development of sustainable neighbourhoods as an integral component of the plan's strategy wherein to deliver, on the objectives of consolidation, integration, vitality and quality, the lands within the plan area cannot be developed randomly. This strategy identifies the urban form that supports the land use zoning framework that will be critical in informing how the town should be developed. The combination of developing the neighbourhood strategy through implementation of design briefs for the various districts to ensure connectivity through the town and the strategy introducing a movement framework underpins the councils approach to managing the future growth of the town in a sustainable manner. Ensuring connectivity for radial trips around the town, between neighbourhoods and with the town centre is a fundamental objective arising from the integration of land use and transportation plans.

4.81 The growth strategy is translated into seven strategic objectives. Again it is evident when comparing these with the strategic objectives of the existing (2003) plan, that the Plan places greater emphasis on the neighbourhood concept, connectivity and the integration of land use and transport planning as well as encouraging a modal shift toward sustainable modes of transport.

- 4.82 The detailed policies contained in Section B of the Plan follow the strategic objectives by placing a new emphasis on the neighbourhood concept ('neighbourhood strategy'). It contains detailed policies with regard to the seven individual neighbourhoods, in terms of growing neighbourhoods to achieve critical mass and to provide local community infrastructure, as well as objectives regarding the physical layouts of new housing development which is more permeable and geared towards pedestrians.
- 4.83 In addition, key policies of Part B of the Plan relate also to the improvement and further development of the town centre and in particular the introduction of an Urban Design Framework, as well as new road objectives providing for a "strategic relief road corridor".
- 4.84 However, while the general focus of the Plan is positive at a strategic level, there are some potential issues which may need further investigation. These are outlined in more detail below.

#### **Population Growth and Phasing of Development**

- 4.85 Growth targets set out in the Plan are ambitious reflecting the Gateway status of Letterkenny afforded by the National Spatial Strategy. While they are unlikely to be fully achieved during the lifetime of the Development Plan, the town's regional role requires the establishment of ambitious longer term growth targets. The development of the Design Briefs for the neighbourhoods as part of the plan's implementation will provide the framework to ensure that whatever growth does occur happens in the right places.
- 4.86 In this regard, the Plan acknowledges the sporadic nature of greenfield housing development to date which is often far removed from the town centre (urban sprawl). However, the policies provided in the Plan in terms of phasing of development or introduction of a sequential approach to new housing development centred around the town centre (and around the identified neighbourhood centres) are limited and mostly relate to the identification of strategic residential reserves.

#### **Consolidation of Neighbourhoods**

- 4.87 Letterkenny suffers from a dispersed settlement form for a town of a relatively modest size. One of the key challenges will, therefore, be how this can be reversed and future growth directed in a more focused manner. In this regard, the consolidation of neighbourhoods is essential as these are currently dispersed, and in part quite far removed from the town centre. Integration with the town centre will further become a key issue, in particular in relation to the provision of new bus routes.
- 4.88 Policies in relation to better urban design and the layout of new housing developments are positive, in particular where they encourage more 'walkable' environments as opposed to traditional cul-de-sac or POD developments which reinforce reliance on the private car.
- 4.89 Generally speaking the emphasis on neighbourhoods as a first port of call for local trips (shops, schools, etc.) is positive and should achieve a modal shift away from the private car toward walking and cycling.
- 4.90 It is noted that the Plan does not address the issue of how to deal with dispersed clusters of one-off housing just outside the town environs boundary. While it is acknowledged that this lies outside the legal remit of the draft plan, a rethink is needed on the large amount of ribbon development on all routes leading to the town.

#### **Movement Framework**

- 4.91 The movement framework (strategic relief road corridor) recognises the inherent pattern of development to date, facilitates peripheral trips around the town, and faces the reality of the disparate and unconnected neighbourhoods. When taken in conjunction with the district neighbourhood development strategies, of which the town centre is also a neighbourhood, the movement framework complements the objectives of connectivity and integration in the town plan. To be effective, however, the implementation of the design brief approach along with the delivery of the strategic road network needs to be delivered in an integrated fashion thereby directly linking land use and transportation targets.



### The Town Centre

- 4.92 The need to address the quality of the urban fabric and to provide quality urban places is a key objective of the development plan, supported by the urban design framework [Letterkenny & Environs Development Plan, Map 6]. A positive statement supporting the intent of the development plan in guiding public and private investments and aiding traffic movement (pedestrian and vehicular) through the entire town centre area is needed. The designation of the 'town centre' does not differentiate in policy terms between the Main Street and the newer development areas. While specific urban blocks in the town centre will need varying design responses, the ILUTS should reinforce the qualitative approach of the policies and that the 'active intervention' is part and parcel of the objectives of both the development plan and the ILUTS.

### Transport Strategy

- 4.93 Similarly to above, at a strategic level, it is recognised that the Plan has significantly improved on the existing (2003) plan in that it provides for additional and more detailed policies and proposals which directly relate to the development of a sustainable transportation strategy for the town. In particular, the following points are noted:

#### Strategic Road Links to the Town

- 4.94 Policy T2 refers to protected access onto the N13 and N14 within the Letterkenny area. This is mainly a planning issue and as such it is recommended that this policy remains unchanged.

#### Multi-Modal Strategic Link

- 4.95 Policy T3 refers to the proposal to introduce a 'multi-modal' strategic link (or Quality Bus Corridor) along Port Road between Dry Arch Roundabout. The Letterkenny ILUTS recommends that this project remains a longer term priority for the Council and as such it is recommended that this policy remains unchanged. It could be that this 'multi-modal' strategic link is extended along Port Road towards Station Roundabout as also recommended by the Letterkenny ILUTS.

#### Rail Corridor

- 4.96 Policy T4 refers to the proposed protection of the disused railway corridor to support the Council's longer term vision to bring rail travel to Letterkenny. The Letterkenny ILUTS recommends that this project remains a longer term priority for the Council and as such it is recommended that this policy remains unchanged.

#### Transport Interchange Hub

- 4.97 Policy T5 refers to the proposed Transport Interchange Hub for the town, which forms part of the Council's funding bid for the Gateway project. The Letterkenny ILUTS recommends that this project remains a priority for the Council and as such it is recommended that this policy remains unchanged. However, it should be noted that this is subject to review and further consideration should be given to the location of the interchange hub - providing this as close to the town centre as possible subject to the availability of affordable lands.

#### Strategic Roads, Traffic & Transport Assessment

- 4.98 Policy T6 refers to traffic & transport assessment procedures and the requirements for road safety audits for all strategic road proposals. No change to this policy is recommended.

#### New Strategic Relief Road Development & Urban Road Improvement around the town

- 4.99 Policy T7 refers to the protection corridors identified in the Plan for any road proposals which have land take implications. It will be necessary to ensure that the road proposals within the Plan are consistent with the recommendations of the 'roads-based' strategy of the Letterkenny ILUTS. Donegal County Council may wish to strengthen this policy by including additional text in the last bullet point (page 119) to reflect the need to consider inclusion of pedestrian and cycle facilities within the road proposals as required.

### **Traffic & Transport Assessments**

- 4.100 Policy T8 refers to traffic & transport assessments and indicates that development proposals which are likely to generate significant traffic problems will be required to submit such an assessment as well as consult with the relevant authorities. It is possible that this policy could be strengthened by including text to ensure that traffic & transport assessments take on board all modes of transport, including walking, cycling and public transport access & provision. In addition, it should also suggest that developers should look at innovative ways in which their development is developed in a sustainable manner to reduce car dependency (i.e. through travel plans) and as such reduce their impact on the road network. It could also refer to developer contributions towards more sustainable initiatives such as improvements to the local bus service.

### **Traffic Management**

- 4.101 Policy T9 refers to an urban control traffic management programme. This links to the recommendations within the Letterkenny ILUTS for traffic signalled controlled junctions to replace a number of the roundabouts in the town centre area. In all cases it is recommended that formal pedestrian and cycle crossing facilities are considered as part of the detailed design of the junction improvements to improve safety and integration with the proposed cycle and walking Quality Networks.

### **Parking Standards**

- 4.102 Policy T10 covers the provision of parking standards within new developments. It is considered that this policy could be strengthened by linking it to the proposed town centre parking strategy for Letterkenny, including a consideration of whether the minimum parking standards should apply in the town centre area i.e. whether restricted parking or 'maximum' parking should apply here to avoid an oversupply of parking in the town centre area.

### **Cycling and Walking**

- 4.103 Policy T11 in the Plan covers the development of cycling and walking as part of development proposals. The policy includes the provision of secure cycle parking; and the development of pedestrian and cycle routes within new developments and connecting with the wider locality. Specific reference is made to the development of a 'cycle route network' as part of the Letterkenny ILUTS. It is considered that this policy could be strengthened by including a map of the proposed cycle and walking Quality Networks as proposed by the Letterkenny ILUTS, as well as additional text indicating that all new developments should connect into these networks and to the same quality standard. Supplementary guidance for developers for the provision of an 'adequate standard' for these facilities for new developments would be a beneficial addition to the Plan.



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## 5. “Sustainable Modes” Strategy– Key Recommendations

### Introduction

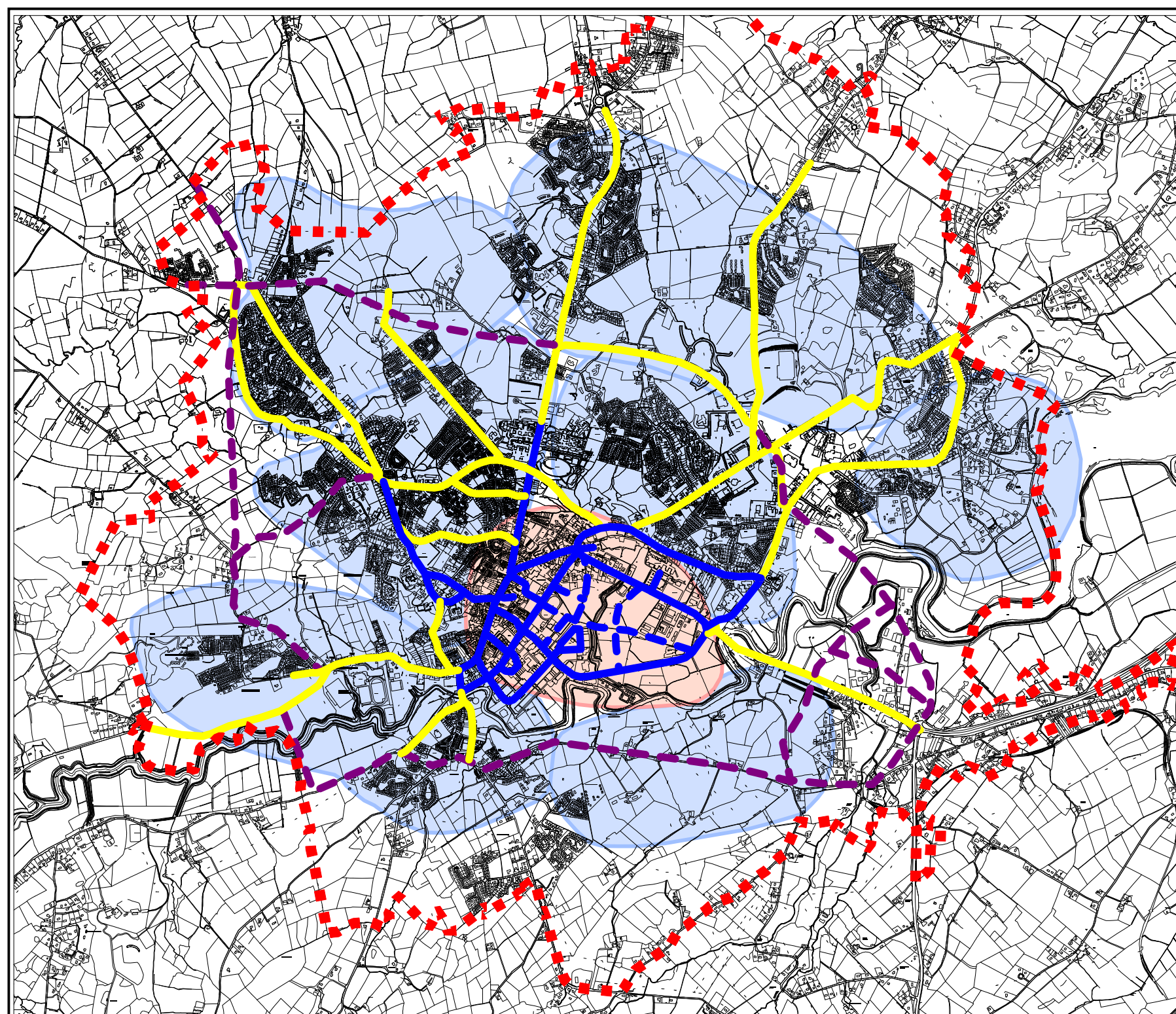
- 5.1 This chapter outlines our key recommendations for policies and proposals to be included within the Letterkenny ILUTS “*Sustainable Modes*” strategy. The proposals are set out as follows:
- Walking & cycling;
  - Public transport, including bus, rail, park & ride and taxi;
  - Town centre parking strategy; and
  - ‘Softer measures’ to promote behavioural change.
- 5.2 For further detail on the “sustainable modes” strategy please refer to the project document entitled “*Sustainable Modes Strategy – Final Report*” (April 2009), also attached at Appendix B.

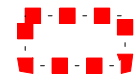
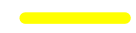





### Walking

- 5.3 Walking constitutes an element of all journeys undertaken, whether it is as the predominant travel mode or serving as a link at the start, end or between other modes. Therefore, the provision of a safe and integrated walking network serving both existing journey specific and recreational-related pedestrian movements, and encouraging higher levels of walking, must represent an integral element of any effective and sustainable transport strategy.

#### Quality Walking Network

- 5.4 The priority for the Letterkenny ILUTS is to develop a hierarchy of pedestrian routes based upon Letterkenny’s overall network of existing footpaths, pavements and road crossings in the main urban area. The Letterkenny ILUTS proposes the implementation of the following measures:
- **Improved facilities for walking** within Letterkenny’s urban area as a result of *traffic management on local roads giving greater priority for pedestrians* (described further in Chapter 6);
  - **Quality Walking Network** focused on the main urban area in Letterkenny (see Figure 5.1 overleaf). These are routes of a consistently high standard of provision (see panel overleaf) linking key locations in and around Letterkenny town centre and its neighbourhood areas. The proposed Quality Walking Network will initially focus on the town centre and will link key civic, retail, commercial, leisure and transport locations. The network has been split into two parts:
    - *A town centre walking network* – a town centre network which connects the existing inner town centre with the Paddy Harte Loop Retail Park and some of the main pedestrian attractors, such as the Letterkenny Institute of Technology and the Hospital. This town centre network also contains future pedestrian routes which will be developed as the town centre expands to include the undeveloped lands to the south-east of the town centre.
    - *A neighbourhood walking network* – the wider Letterkenny walking network which connects the town centre with the wider neighbourhood areas, integrating with the town’s schools, and new areas of residential development and employment areas. This walking network also takes into consideration the potential implementation of strategic highway schemes (including new roads) – the inclusion of pedestrian priority measures should be included as part of the development of new roads in the town, subject to their implementation.



-  Plan Area Boundary
-  Wider neighbourhood walking network
-  Town Centre walking network
-  Proposed Town Centre walking routes
-  Future wider neighbourhood walking routes
-  Town Centre
-  Neighbourhood Areas

Project Title:  
 Letterkenny Integrated Land Use Transportation Strategy

Figure Title:  
 Proposed Walking Network in Letterkenny

Figure Number:  
 Figure 5.1



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### Quality Walking Routes: Key Design Features

The Quality Walking Network would be typified by:

- Enhanced pedestrian priority, in terms of increased footway width and increased crossing provision with reduced wait times;
- Increased accessibility through the network, with construction and surfacing such as dropped kerbs, tactile paving, good quality surfaces, clear widths, streetscape improvements and removal of obstacles that accommodates all age groups and levels of mobility, with focus on the particular needs of older people and people with disabilities;
- Pedestrian facilities that are designed to improve road safety (e.g. pedestrian refuges, more and improved crossings, longer pedestrian phases at traffic signals), increase personal security (e.g. improved lighting) and reduce severance;
- Greater promotion of pedestrian routes with clear on-street information, including street plans and signing;
- Improved walking routes to key generators of pedestrian movement across Letterkenny, including access to bus stops and the main bus station; and
- Consistency in the approach to pedestrian provision.

- 5.5 The Letterkenny ILUTS also recognises the potential for improved walk links outside the existing urban area – as the town expands in line with the draft development plan (2009-2015). The walking network also takes into consideration the town's Historic Walks routes. The network will also be required to link in with the Council's Trails Development Programme which includes the establishment of a network of high quality recreational trails (walking and cycling) throughout the County and across the border linking Derry with Letterkenny.

### New Developments

- 5.6 Policy T11 (cycling and walking) within the draft Letterkenny & Environs Development Plan (2009-2015) supports the promotion of walking as a viable transport option within the town. This policy contains a requirement that all new development proposals "*shall be accompanied by appropriate levels of provision for cycle and pedestrian movement including:*

- *Pedestrian ....friendly routes throughout new residential areas;*
- *Footpaths ....in order to adequately and conveniently access public transport, services/amenities and connect with the wider locality"*

- 5.7 It is recommended that the above policy is strengthened to include a reference to the proposed Quality Walking Network and to ensure that all pedestrian routes / facilities provided as part of new developments are connected into the proposed Quality Walking Network for the town and are provided to a similar standard.

## Cycling

- 5.8 Levels of cycling tend to vary considerably from place to place and the main determinant is considered to be topography. As part of the review of land use and transportation patterns, a cycling demand map was produced (see chapter 4). This map demonstrated that area which lies along the east-west spine in the town is the lowest lying and therefore likely to have the greatest potential to generate trips by bike in Letterkenny. The further north and south you go from the town centre, the higher the land becomes and the potential demand for cycle trips towards the town centre is likely to drop off considerably in this area. The northern area of the town is the hilliest and many residents living in these areas may consider the height difference to be too great to make the journey to the town centre by bike.

### Quality Cycle Network

- 5.9 As a result of varying levels of congestion, topography and land-use, a blanket town-wide approach to providing a cycle network is unlikely to be appropriate in Letterkenny. The Letterkenny ILUTS will instead include targeted improvements to infrastructure for cyclists.

- 5.10 The Letterkenny ILUTS proposes the development of a Quality Cycle Network as shown in Figure 5.2 overleaf (in line with the requirements of the draft Letterkenny & Environs Development Plan 2009-2015 – policy T11). The routes shown identify a preferred network to deliver continuous cycle routes between key locations in the urban area in Letterkenny, taking into consideration the development of the town centre and the wider neighbourhood areas. The exact routing and level of priority afforded to cyclists on each section of the network would be considered as part of the detailed design and implementation process. The type of priority provided would be dependent upon specific local circumstances. On heavily trafficked and strategic roads, consideration should be given to fully segregated facilities. On less heavily trafficked roads, consideration should be given to cycle lanes on the main carriageway (depending on road width), possibly in conjunction with bus lanes. In addition, the route proposals should consider the provision of dedicated cycle route crossings – either separate to or in combination with pedestrian crossing facilities. An outline of the key design features for a Quality Cycling Network is outlined in the panel below.
- 5.11 Although located in one of the hilliest section of the town, we have also included Glencar Road and College Road in the network as they serve a large proportion of the local schools in the area and there is a need therefore to integrate with any ‘safer routes to schools’ programmes.

#### Cycle Network – Key Design Features

The proposals for a Quality Cycle Network in Letterkenny will need to take account of the five main criteria for network design:

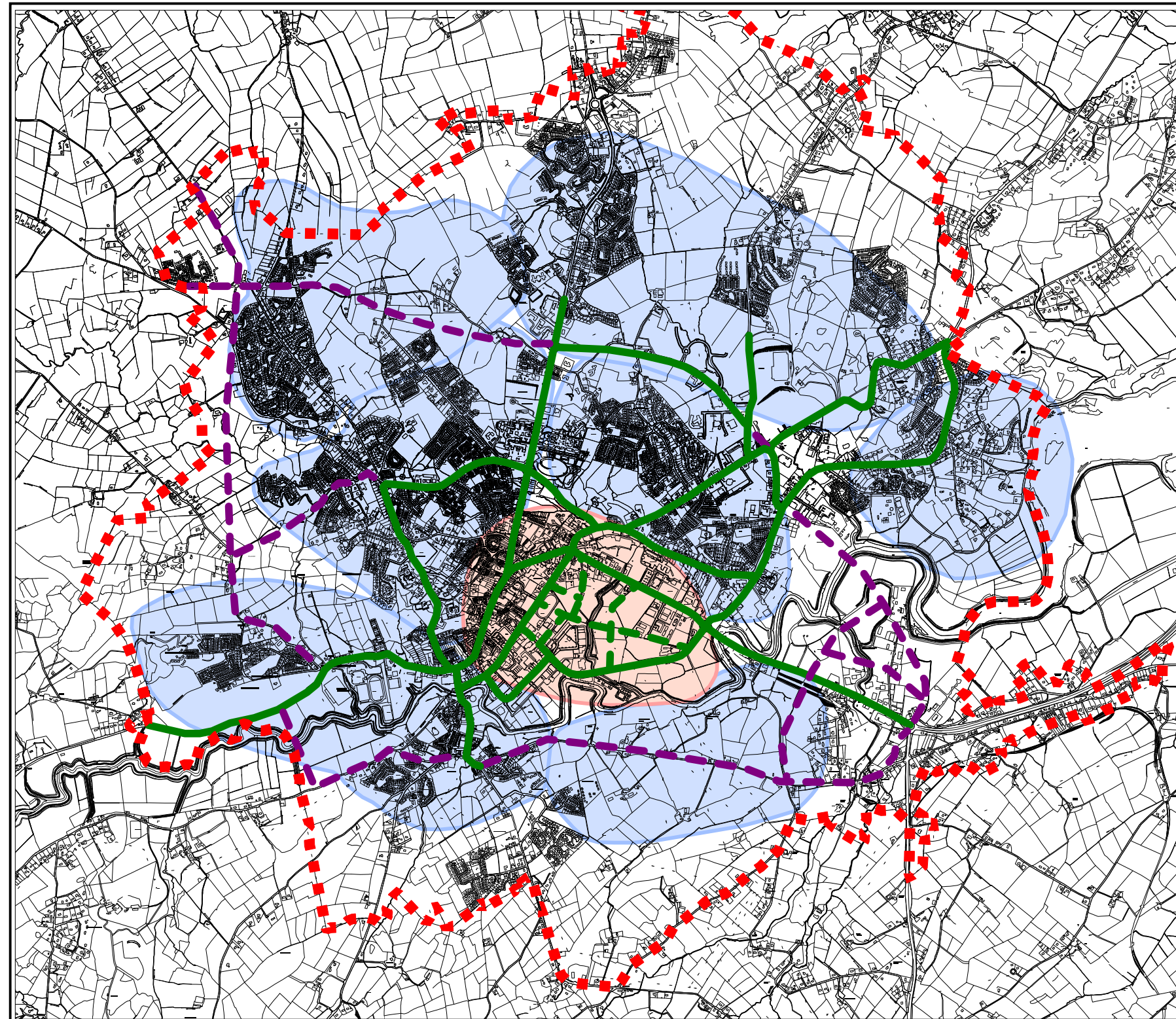
- **Coherence:** the cycling infrastructure should form a coherent entity, linking all trip origins and destinations; with a continuous level of provision;
- **Directness:** routes should be as direct as possible, based on desire lines, since detours and delays will deter use;
- **Attractiveness:** routes must be attractive to cyclists on subjective as well as objective criteria/ Lighting, personal safety, aesthetics, noise and integration with the surrounding area are important;
- **Safety:** designs should minimise the danger for cyclists and other road users; and
- **Comfort:** cyclists need smooth, well-maintained surfaces, regular sweeping, and gentle gradients. Routes must be convenient to use and avoid complicated manoeuvres and interruptions.





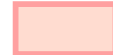

Best Practice Guidelines can be found on the Dublin Transportation Office Website (DTO) at <http://www.dto.ie/web2006/publicdown.htm>

#### Supporting Measures

- 5.12 To further encourage greater levels of cycling the Letterkenny ILUTS includes cycle parking and promotional initiatives.
- 5.13 Cycle parking is a fundamental element of any cycle network. There is currently very little, if any, in the way of formal and weather protected cycle parking in Letterkenny. There will be a need to provide cycle parking at some of the main locations in and around the town, including the bus station, and within the neighbourhood areas – cycle parking provision should have a level of weather and theft protection that enables long-stay visits (e.g. for commuters).
- 5.14 A comprehensive marketing strategy will also be required to promote cycling in Letterkenny. This could incorporate elements such as the production of a widely available cycle route map for the town as well as effective advertising using media to promote the time, cost and health benefits of cycling for work journeys.





-  Plan Area Boundary
-  Cycle network
-  Future town centre cycle network link
-  Future wider neighbourhood area cycle network
-  Town Centre
-  Neighbourhood areas

Project Title:  
 Letterkenny Integrated Land Use Transportation Strategy

Figure Title:  
 Proposed Cycle Network in Letterkenny

Figure Number:  
 Figure 5.2



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## New Developments

- 5.15 Policy T11 (cycling and walking) within the draft Letterkenny & Environs Development Plan (2009-2015) supports the promotion of cycling as a viable transport option within the town. This policy contains a requirement that all new development proposals “*shall be accompanied by appropriate levels of provision for cycle and pedestrian movement including:*
- *Covered secure cycle parking which is convenient and located to allow for informal surveillance;*
  - *.... Cycle friendly routes throughout new residential areas;*
  - *... Cycle provision in order to adequately and conveniently access public transport, services/amenities and connect with the wider locality”*
- 5.16 It is recommended that the above policy is strengthened to include a reference to the proposed Quality Cycle Network and to ensure that all cycle routes / facilities provided as part of new developments are connected into the proposed Quality Cycle Network for the town and are provided to a similar standard.
- 5.17 In addition to the above, Policy T10 (Parking Standards) also contains a reference to the provision of cycle parking as part of new development. These parking standards include minimum standards for the provision of cycle parking (depending on development type), ensuring that sufficient space is provided to access and park a standard bike, along with the necessary security measures.

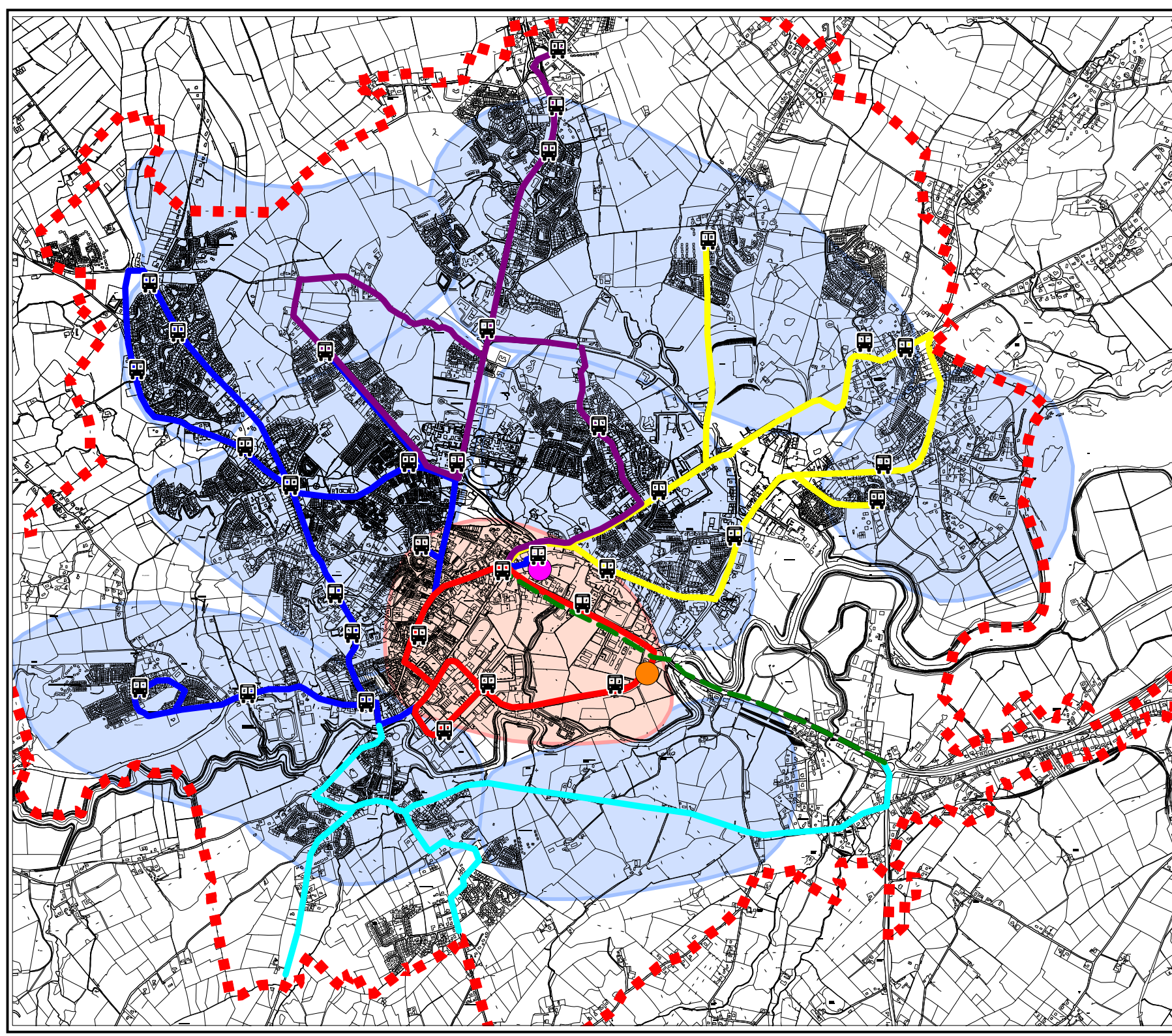
## Public Transport


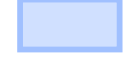




### Buses

#### Letterkenny Town Bus Service

- 5.18 Bus service provision in Letterkenny has been limited but has improved with the re-introduction of the town bus service in July 2007. With the introduction of these dedicated town bus services, the Council has already undertaken significant steps towards the implementation of a sustainable transportation strategy for the town – the introduction of the new town bus services will provide for the public transport needs of the town in the short to medium term. However, as the town expands and develops in line with the development aspirations of the draft development plan (2009-2015), there will be a need to review these bus services to ensure that they continue to provide an effective public transport service for the town in the longer term.
- 5.19 A high level review has been undertaken as part of this study and a number of recommendations for the development of the bus network are included below (and included on Figure 5.3 overleaf) – it should be noted that these are subject to consultation and approval from the relevant bus operators and availability of funding:
- *Rationalised central area service* – it is suggested that in the longer term, a dedicated town centre bus service is provided which circulates around the town centre – connecting the inner town centre with the wider town centre area including the Paddy Harte Loop Retail Park; the Institute of Technology; Letterkenny Shopping Centre; and the new Transport Interchange Hub. This service could operate with a higher frequency than other services (particularly in peak times) and as such could be operated by smaller vehicles;
  - *Split Route 1 into separate North and East Service* – to make the service more direct for users travelling between the town centre and the neighbourhood areas;
  - *Route 2* would operate at present – but possibly extended to cover new areas of development; and
  - *Route 3* (new – proposed for south Letterkenny) – introduced to serve new areas of development.





-  Plan Area Boundary
-  Town Centre
-  Neighbourhood Areas
-  Proposed southern bus route
-  Proposed eastern bus route
-  Proposed western bus route
-  Proposed northern bus route
-  Town Centre Route
-  Proposed quality bus corridor
-  Existing bus station
-  Proposed Interchange
-  Bus Stop

Project Title:  
 Letterkenny Integrated Land Use Transportation Strategy

Figure Title:  
 Proposed Bus Network in Letterkenny

Figure Number:  
 Figure 5.3



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### Other Bus Services

- 5.20 It is recommended that the frequencies of longer distance bus and coach services are enhanced on the strategic routes and supported by regular interval timetables such that they can better integrate with local town and rural bus services in Letterkenny. These service enhancements will be subject to approval by the relevant public transport operator and may require a detailed business case and operational review.
- 5.21 Community bus services are an important service for those members of the community who are not able to access a conventional bus service – either because they have mobility impairments or because they are not located on a bus route. Although they are more common in larger towns, it is recommended that the provision of community bus services for Letterkenny’s rural hinterland is considered as part of longer term aspirations for the development of the town. This would be subject to a detailed needs assessment and availability of funding.

### Bus Station

- 5.22 The Council, along with a number of partners, have submitted an application for funding to the Gateway Innovation Fund for the implementation of a new Integrated Transport Hub. The draft Letterkenny and Environs development plan proposes to locate this new interchange hub to a new site adjacent to the Port Bridge Roundabout. The new interchange hub will facilitate both regional and local bus services as well as the existing town bus service. The interchange hub will also include facilities for taxis, park & ride and it will provide onward connections to the town centre and surrounding environs for pedestrians and cyclists.
- 5.23 It is therefore recommended that the Integrated Transport Hub remains an integral part of the sustainable transportation strategy for the town and that this should be progressed in the short to medium term.
- 5.24 It is also recommended that, should Bus Éireann be relocated to the new transport Interchange, the existing Bus Station at Letterkenny Shopping Centre could be retained and improved to provide a town centre location for users accessing the local town bus services (subject to the agreement of Bus Éireann). Access to the station should be improved to provide cycle parking facilities and onward pedestrian crossing facilities to the town centre.

### Bus Stops

- 5.25 Other bus infrastructure improvements should include the provision of high quality bus shelters with service information at all bus stops on the town bus network and the improvement of walk access/egress to/from bus stops as part of the roll-out of the walking network proposals.

### Bus Priority

- 5.26 Due to the nature and scale of Letterkenny, it is considered that an “all over blanket” approach to bus priority measures in Letterkenny is not appropriate. Instead, the Letterkenny ILUTS is proposing that the Quality Bus Corridor, which is already identified in the draft Letterkenny & Environs Development Plan (2009-2015) (Policy T3) is implemented during the plan period. The Quality Bus Corridor (QBC) will run from Dry Arch Roundabout to Port Bridge Roundabout and will serve the new Integrated Transport Hub.
- 5.27 In the short to medium term, and subject to the agreement of Bus Eireann relocating to the proposed transportation interchange hub, it is proposed that this Quality Bus Corridor be integrated into the overall transportation strategy for the town and that infrastructure improvements for the route are investigated and implemented where appropriate. Such infrastructural improvements could include the provision of bus priority measures such that bus journey times can be made quicker and more reliable though provided in a way that minimises the impact on general traffic; as well as the use of bus lane enforcement measures to prevent the benefits of bus lanes being eroded by use by unauthorised vehicles and by parking.
- 5.28 In the longer-term, and subject to the implementation of the Letterkenny Relief Road and other strategic road improvements, it is proposed that this Quality Bus Corridor is extended along Port Road as far as Station Roundabout so that the town centre bus services which connect the inner town centre and the new Integrated Transport Hub can make use of the bus priority measures.



- 5.29 The 'roads based strategy' will consider the implementation of strategic and local highway improvements to help relieve highway congestion in the town. If these schemes are successfully implemented, then this could offer the opportunity for implementation of bus priority measures at other locations throughout the town, such as conventional bus lanes, to improve journey times and reliability for bus services. However, it should be noted that there are other bus priority measures – such as priority at signalised junctions – which do not require any additional highway capacity and as such can be implemented as a matter of priority.

## Rail

- 5.30 There is currently no railway service in Letterkenny although there are longer term aspirations to provide a new rail halt in the town which would provide onward connections to Derry, Sligo and Dublin along the disused railway line. Longer term aspirations are that this station would form part of the Gateway project for a fully integrated transport hub in the town. However, the infrastructure costs for providing this proposal are likely to be prohibitive in the short to medium term and neither Iarnród Éireann nor NI Railways have identified any such proposals of funding in their current forward planning programmes in the foreseeable future.
- 5.31 Nevertheless, a protection corridor for the section of disused railway which runs parallel to Port Road has been identified in the draft Letterkenny & Environs development plan 2009-2015 (Policy T4) and it is recommended that this continues to be the case. This policy will ensure that the old railway line, running parallel to the N14 Dry Arch Roundabout to Port Bridge Roundabout along with all other intact railway lines within the plan area, shall remain free from development for possible future re-instatement within the national rail network.
- 5.32 It is recommended that the detailed proposals for the Integrated Transport Hub take into consideration the potential longer-term development of a new railway station (and associated infrastructure) at this location. Detailed plans for the Integrated Transport Hub should not prejudice potential rail options in the longer term.

## Park & Ride

- 5.33 As outlined previously, there is currently no formal park & ride facilities in Letterkenny although there are longer term aspirations to provide a park & ride facility in association with the Gateway project for a fully integrated transport hub in the town. This park & ride provision is likely to be related to the provision of parking for onward (longer distance) travel by coach/bus to destinations outside of Letterkenny – it is recommended that this continues to be included within the longer term strategy for the integrated hub.
- 5.34 A high level review of providing park & ride facilities in Letterkenny was undertaken as part of this study (see Chapter 4). This assessment shown that Port Road had the highest potential catchment area of passing motorists, suggesting that the proposed park & ride site identified as part of the Integrated Transport hub could potentially also serve motorists who wish to access the town centre, subject to the Quality Bus Corridor and onward bus connections being extended from the Integrated Transport Hub to the town centre area.
- 5.35 The analysis also demonstrated that there may be a potential catchment for a park & ride at a suitable location on Mountain Top Road, with onward destinations at the Hospital, the town centre and the Letterkenny Institute of Technology (LYIT). The LYIT has recognised that parking availability at LYIT does not meet with the current high level of demand, which causes congestion of college car parks and adjoining roadways, obstruction of access by emergency vehicles and legitimately parked cars. Although steps have been undertaken to alleviate the issue, through the provision of overflow spaces in nearby car parks, a park-and-ride strategy could be pursued by the college to help resolve the problem.
- 5.36 However, until such times as a comprehensive and effective parking strategy is introduced in Letterkenny town centre, the demand for park & ride is unlikely to be sufficient to justify the provision of such a facility. Due to the nature and size of Letterkenny town centre, it is unlikely that short-stay shoppers / visitors to the town centre will make use of park & ride due to the time and cost penalty of switching modes. If dedicated bus services are provided, these are less likely

to be financially viable when the car park is used mainly by commuters, since the buses will have few passengers in between the peak commuting times. If existing bus services are used, it may be necessary to increase the frequencies and service levels of existing services.

## Parking Strategy

- 5.37 Within Letterkenny town centre, there is a large amount of public and private parking available – approximately 505 on-street spaces combined with just over 4,500 off-street spaces within a relatively small town centre area. Although the town suffers from excess demand for parking spaces in particular parts of the town centre, the overall peak occupancy was recorded at approximately 70% suggesting that existing parking spaces are not necessarily being utilised in the most efficient way. It would therefore not be appropriate to increase the number of parking spaces in the town at this time, particularly since this could result in adverse environmental and traffic impacts.
- 5.38 A more appropriate strategy is to make better use of the parking spaces that are already available, both on and off-street. Improved management of town centre parking spaces can be achieved through charging and/or with limited waiting restrictions – a strategy which is already being adopted in the town centre to a certain degree. To optimise the success of such a strategy it is important to target specific users in order to achieve the local development plan objectives which are based on economy, accessibility, environment, safety and integration.

### On-Street Parking

- 5.39 Changing the location or the relative proportion of different types of parking in Letterkenny town centre will be an important consideration of the parking strategy as it will impact upon the vitality and economic viability of the town centre. The location of long and short-stay parking within Letterkenny town centre is particularly important. Allowing long stay parking to occur in the inner town centre area of Letterkenny is likely to generate additional traffic during peak periods (resulting in congestion) and reduces the amount of space available for shoppers and visitors to the town centre during the day.
- 5.40 The parking strategy will aim to retain the existing ‘controlled parking zone’ with the inner town centre area for the short to medium term. The longer term vision would be to extend this to cover the wider retail area (taking in the retail parks on the Paddy Harte Road) as the town centre grows over the development plan area. There may also be a need to extend the controlled parking zone to the north of the town centre, depending on consultation with local residents.
- 5.41 All of the town centre streets currently contained within the inner town centre area are already controlled by limited waiting restrictions (maximum one hour stay) or have waiting restrictions in force which do not permit legitimate parking throughout the working day. In order to ensure that the above restrictions are effective, it will be necessary to ensure sufficient enforcement is undertaken over the plan period. It may also be necessary to amend the type of restriction provided in order to maximise the effectiveness of enforcement i.e. change the restriction from “one hour maximum stay” to “one hour maximum stay with no return in two hours”.
- 5.42 All of the streets contained within the inner town centre area are also subject to a premium parking charge of 60c per hour. It is recommended that this parking charge is retained although there will need to be a review of the level of parking tariff over the plan period to ensure that it remains competitive and effective in managing parking demand. The introduction of parking tariffs for an half hourly time period would also be deemed appropriate for the inner town centre streets. There will also be a need to extend the limited waiting restrictions and parking tariffs to cover the car parks within the town centre area to encourage use by short-stay shoppers and visitors only. It should be noted that 80% of the total town centre off-street parking in Letterkenny is privately owned. Liaison with private car park owners to encourage the introduction of limited waiting restrictions to accommodate customer parking only would therefore need to be pursued.
- 5.43 The existing level of on-street parking provision in the inner town centre area should not be increased as part of this parking strategy as there is no evidence to support this. However,

consideration should be given to targeted reductions in on-street parking in Upper Main Street to accommodate environmental improvements to the area.

#### **On-street Parking:**

- Consider reduction in on-street parking provision in Upper Main Street to allow introduction of environmental and pedestrian improvements, where appropriate;
- Maintain existing controlled parking zone within inner town centre streets but consider extending in the longer term to cover the wider retail areas (taking in the retail parks on the Paddy Harte Road) as the town centre expands over the plan period;
- Maintain one hour maximum time limit for on-street parking spaces in Upper / Lower Main Street, but consider amending the form of restriction to “maximum stay one hour with no return in two hours” to aid in effective enforcement;
- Maintain the on-street parking tariff in inner town centre streets. Ensure that on-street charges are higher than off-street tariffs to reflect their relative convenience and the additional demand for on-street parking;
- Review the signs and road markings that are used to indicate designated parking areas to ensure clarity and enforceability; and
- Ensure restrictions are adequately enforced.

#### **Waiting and Loading Restrictions**

- 5.44 Civil enforcement of parking contraventions is liable to appeals from motorists. In order to ensure that all parking penalty charge notices are robust, it is recommended that a review is undertaken of all parking bye laws, as well as traffic signs indicating parking controls and road markings. This is particularly important in Letterkenny town centre where parking surveys recorded high levels of illegal parking.
- 5.45 Qualitative observations indicate that loading activity causes traffic congestion in the main streets of Letterkenny town centre. It would be possible to provide designated loading bays, however, there are liable to misuse and often reduce the supply of valuable parking areas in the principal shopping streets. It is likely that enhanced enforcement of waiting and loading restrictions would release kerb length in which delivery vehicles could stop for a short time to load or unload.
- 5.46 Disabled motorists may park on lengths of kerb where there are parking restrictions but no restrictions on loading activity. It is therefore necessary not only to consider the needs of delivery vehicles when reviewing waiting and loading restrictions but also to consider how changes to loading restrictions will affect disabled motorists. The introduction of loading restrictions could generate additional demand in designated disabled or limited waiting parking bays.

#### **Waiting and Loading Restrictions:**

- Review parking bye laws, signing and road markings related to waiting and loading restrictions. Consider the needs of disabled motorists if amending loading restrictions. Include some element of public involvement. Consultation with retailers to determine their loading requirements.
- Continue to allow loading / unloading at some on-street locations. Consider the impact upon disabled motorists where loading restrictions are implemented.

#### **Disabled Parking**

- 5.47 There will need to be a detailed review of disabled town centre parking provision to ensure that the current provision is adequate. It is not known how many designated disabled bays are currently available within Letterkenny’s town centre car parks, so it is not known at this stage if sufficient spaces have been made available. Nevertheless, very little disabled parking activity was recorded within the off-street parking areas during the parking surveys. This may be due to the relatively long distance from many of the off-street car parks to the inner town centre shopping streets as there was a higher demand from disabled motorists for on-street parking. Considering

this lack of demand it may be misguided to provide additional disabled spaces which could lead to their misuse by non-disabled motorists. Instead it would be of more benefit to review the provision of on-street disabled spaces. The reviews should include their location and the quantity provided.

#### Disabled Parking:

- Review the number of designated disabled parking bays provided on-street and off-street in the inner town centre shopping streets;
- Where necessary relocate existing disabled parking spaces closer to main attractors (assessment should involve consultation with disabled motorists);
- Consider including guidance on disabled parking provision with parking standards and/or ensure that all new parking areas provide disabled parking spaces in accordance with local and regional guidance.

#### Taxi Parking

- 5.48 Taxi parking should be considered as part of the overall parking strategy. In establishing sites for taxi ranks, the local taxi drivers association should be consulted, as they will be aware of the locations and times when demand arises. In some areas, it may be appropriate to provide part-time taxi ranks, for example, close to places of entertainment late at night in locations that might be required for loading during the day.
- 5.49 A review should be undertaken to determine the most appropriate locations for taxi ranks in Letterkenny town centre. The existing taxi ranks at Station Roundabout and Oldtown Road may need to be relocated to accommodate traffic management improvements to these junctions.

#### Taxi Parking:

- Review the number and location of taxi parking spaces provided within Letterkenny town centre. Review of taxi parking areas should involve consultation with taxi operators and other sectors of the community.

### Off-Street Parking

#### Short-Stay Parking

- 5.50 Within the town centre area, there are currently approximately 4,500 off-street parking spaces available in over 24 car parks – however, only a fifth are in public ownership. This represents a challenge in devising an effective parking strategy as the parking controls / tariffs implemented (or not) within the private car parks could undermine the overall parking strategy if they are not in line or complementary to the overall town centre strategy.
- 5.51 It is important that off-street parking areas that are convenient to shoppers or visitors to Letterkenny town centre are managed so that spaces are available as often as possible. This will help to support the economic viability and vitality of the town. The introduction of limited waiting restrictions in off-street car parks will maintain turnover (if adequately enforced) and provide a greater opportunity for motorists to park close to their destination.
- 5.52 It is proposed that some of the car parks which are located adjacent to or closest to the main shopping streets along Lower and Upper Main Street should be designated as ‘short-stay’ car parks. These include a number of car parks which are associated with a particular facility – careful consultation will be required in these instances to ensure that the limited waiting restrictions do not negatively impact upon these facilities. These car parks are shown in Figure 5.4. It is recommended that three-hour limited waiting restrictions and short-stay parking tariffs should be introduced as required.
- 5.53 A number of the above car parks already have parking tariffs and long-stay limited waiting restrictions associated with them – there will need a review to amend these to include 3 hour limited waiting restrictions (instead of 9 hours or 12 hours) as well as a short-stay parking tariff.

The short-stay parking tariff within these car parks should be set at a level lower than on-street parking – for example, 30c per hour compared with 60c on-street.

#### Off-Street Car Parks – short stay parking:

- Designate some of the car parks in Letterkenny Town Centre for short-stay parking. Introduce three-hour limited waiting restrictions and short-stay parking tariffs. Ensure that the car parks associated with a facility are not negatively impacted upon as a result of these restrictions.

#### Long-Stay Parking

- 5.54 Unless associated with a particular attractor or civic amenity, the use of car parks in the outer area of Letterkenny town centre should be targeted towards long stay (commuter) parking. The strategy has already indicated that off-street parking area in the inner town centre area should be optimised for use by shoppers and visitors thereby reducing the supply of spaces that can be used by commuters close to the heart of the town centre. The use of forms of transport other than the car is not a viable option for the majority of those travelling to work in Letterkenny from its rural hinterland. It is therefore necessary to make provision for these workers in order to avoid Letterkenny becoming an unattractive place to work. It is recommended that a number of car parks within the town centre area are designated as long-stay car parks (see Figure 5.4).
- 5.55 Although commuter parking should be accommodated within the above designation it may be necessary to apply charges in the long-stay car parks. These charges need not necessarily be high and revenue generated can be used to improve Letterkenny's local streetscape and town centre environment. It would be necessary to make all day parking in the long stay commuter car parks less expensive than the equivalent parking duration in the inner town centre area. McGinley car park, which is the long-stay car park which is closest to the inner town centre area, is likely to be the first to experience parking pressure and therefore should be the first at which long stay car park charges are considered.
- 5.56 Some of the car parks in the outer area are intended to serve non-commuter motorists. The car parks provided as part of the retail developments are intended to be provided for customer parking. Donegal County Council / Letterkenny Town Council should work with the owners / developers to introduce limited waiting restrictions (but not charges) in these car parks. These will benefit the local retail units by preventing commuters from occupying spaces for long periods that could be used by customers parking and by encouraging turnover in parked vehicles.

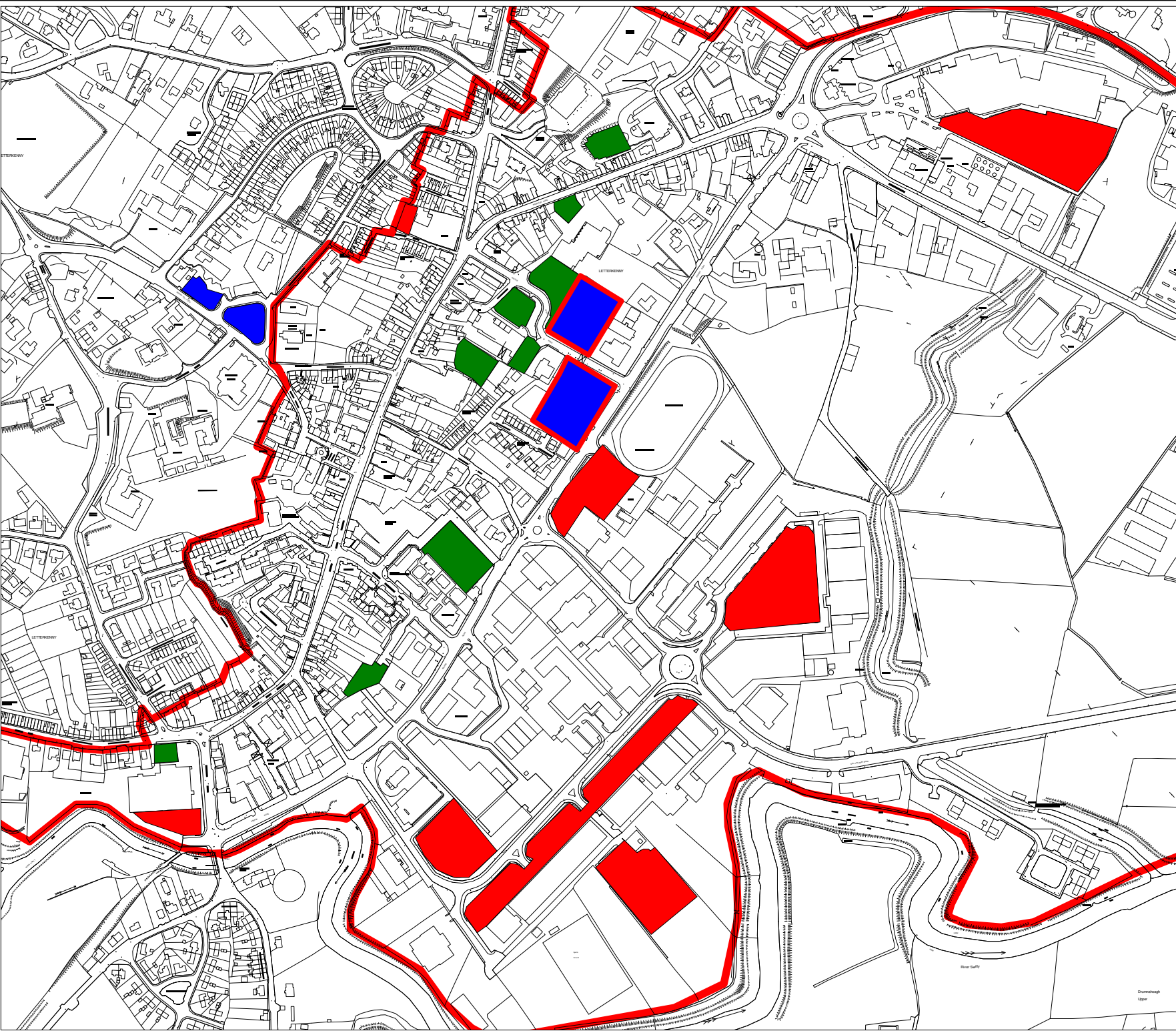
#### Off-Street Car Parks – long stay parking:

- Designate a number of the car parks in Letterkenny for long-stay parking. Following the completion of significant new office or employment developments in Letterkenny town centre, consider introducing parking charges in these car parks to manage parking pressure.
- Encourage the private car parks in the south of the town centre to introduce limited waiting restrictions to accommodate customer parking only.

#### Town Centre Area: Residents

- 5.57 The parking surveys revealed some evidence of localised parking pressure on residential streets close to the town centre, parking in relation to all-day commuter parking. Although a residents parking permit scheme is already in place in some locations, it is not considered that the problems are sufficiently widespread to justify the extension of this scheme to other streets at this time. However, it is possible that on-street commuter parking will become more of a problem following the introduction of limited waiting restrictions in some of the off-street car parks. This need not be the case since there is adequate provision in off-street car parks in the town centre area. However, commuters may be reluctant to park further from their destination.
- 5.58 Parking occupancy and turnover in residential streets should therefore be monitored as Letterkenny town centre develops and grows to ensure residents' parking amenity is protected. Correspondence from local residents will be a good indicator of increasing parking pressure in residential streets.





-  Proposed Town Centre boundary (Draft Plan)
-  Private Car Parks - Limited waiting for customer parking only
-  Long Stay Public Car Parks
-  Short Stay Public Car Parks
-  Long Stay Private Car Parks

Project Title:  
 Letterkenny Integrated Land Use Transportation Strategy

Figure Title:  
 Letterkenny Town Centre Car Parking

Figure Number:  
 Figure 5.4



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 Atkins Transport Planning - Belfast

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**Residents Parking:**

- Monitor correspondence from residents of streets in the town centre that relate to parking problems;
- Undertake beat surveys in residential areas before and after completion of significant new developments in Letterkenny town centre and re-assess the need for residents parking controls. Office and employment developments may particularly impact upon residents parking. The surveys could be funded by developer contributions secured through planning agreements.

**Parking Enforcement**

- 5.59 The success of the parking strategy will rely heavily on the enforcement of the controls that are introduced. Effective enforcement is necessary in order to ensure parking controls, including waiting restrictions, are adhered to and that the benefits of higher parking turnover is realised.
- 5.60 Parking enforcement can be optimised and co-ordinated with transportation objectives by monitoring where offences regularly occur and adopting an intelligence-led approach to parking enforcement. Some district councils use a geographical information system linked to the penalty charge issuing database in order to monitor such data. It is also important that the Town Council pursue any unpaid tickets through the courts if necessary.

**Enforcement:**

- Optimise parking enforcement by monitoring where offences occur and adopting an intelligence-led approach;
- Review traffic regulation orders, road markings and signs associated with parking, waiting and loading restrictions to ensure that they are valid; and
- The Town Council should pursue any unpaid tickets through the courts if necessary.

**Improvements to the Local Signing Strategy**

- 5.61 A review of signs and road marking associated with parking controls should also look at car park directional signing. Directing motorists by the fastest route to a car park appropriate for their needs will avoid unnecessary traffic on the town centre roads and will reduce cruising for car parking spaces. A key element of the signing strategy should be to differentiate between long and short stay car parks. In some instance, it may also be appropriate to provide pedestrian signing from car parks to the key destinations in Letterkenny town centre.

**Car Park Signing:**

- Review vehicular and pedestrian signing as part of the on-street parking review and implement recommendations where necessary. Investigate options for investigating the implementation of an area wide electronic parking guidance information scheme.

**Marketing and Information**

- 5.62 In addition to enforcement action, marketing and the provision of information to motorists and non-motorists is a further way of encouraging compliance to parking restrictions. A greater understanding of the aims of the parking controls and the vision of the parking strategy will go some way to improve compliance and the general environment in Letterkenny town centre, particularly if the road safety and traffic flow implications of illegal parking are emphasised. Involving the community when developing options for parking management will also help to ensure that the solutions developed correspond to the needs of as many people as possible. This could take the form of a public consultation after various options for on-street parking controls have been devised. The consultation should involve local traders / businesses; disabled motorists and taxi operators / drivers.

**Public Consultation:**

- Develop various options for the provision of on-street parking in Letterkenny town centre; and
- Consult with the community to determine which option best meets the needs of each user group.

## Changing Travel Attitudes

- 5.63 Infrastructure measures and service improvements are, on their own, unable to deliver fundamental changes in travel behaviour and reductions in car dependency. Therefore measures to raise travel awareness must be an essential component of the Letterkenny ILUTS sustainable modes strategy.

### Promotional Campaigns

- 5.64 It is recommended that travel awareness campaigns are undertaken by Donegal County Council and Letterkenny Town Council on an ongoing basis to promote the environmental and health benefits of more sustainable travel. These could be aligned with implementation timetables for local traffic management schemes to improve pedestrian facilities, for example.

### Workplace Travel Plans

- 5.65 As part of the Letterkenny ILUTS, it is recommended that Donegal County Council sets up a 'Travel Plan Site Specific Advice' programme that provides initial advice to the major employers or attractors of travel within Letterkenny (e.g. Letterkenny Hospital or the Institute of Technology). This programme would provide initial advice on the benefits of travel plans to employers, and through a site specific audit, provide initial guidance on the appropriate measures that could be investigated further by each employer. The aim of the programme is to 'kick-start' each major employer within the town on the road to developing their own workplace travel plan. For existing sites, this could be promoted through identifying corporate or environmental responsibility issues or helping to alleviate existing traffic congestion or parking problems. For new developments, this could be made a requirement of the development control process.

- 5.66 A Travel Plan will typically involve the following components:
- Assessment of current transport links and infrastructure;
  - Comprehensive staff travel survey and postcode mapping;
  - Management support and staff time devoted to the plan;
  - Measures to promote walking – making sure the site is pedestrian friendly;
  - Supporting cycling by provision of adequate cycle parking, lockers and showers/changing facilities. Consider loans for cycle purchase and payment of a mileage allowance to cyclists for business;
  - Encouraging use of Public Transport – ensuring timetable information is widely available, giving loans or discounts for season ticket purchase;
  - Promoting car sharing through use of a database – with priority parking provided to car sharers;
  - Introducing a system of pool cars and /or pool cycles;
  - Effective car parking management policies to ensure any parking is allocated according to need;
  - Promoting flexible working practices – flexi time, compressed working week, and home working;
  - Encouraging business mileage by Public Transport or cycling; and
  - Ensuring visitors have directions that include all forms of transport.

- 5.67 The above is not an exhaustive list of measures but gives an idea of some policies that are applicable. Many employers may initially be reluctant to adopt a full plan so implementation of any of the above is welcome and can help. Many of the measures can be introduced easily and can still have an impact. Travel Plans require only a relatively minor shift away from singly occupied cars to be effective.

### **Safer Routes to Schools**

- 5.68 Safer Routes to Schools is an initiative aimed at encouraging pupils and their parents who use the car as their primary method of travelling to school to transfer to other more environmentally-friendly means, such as walking, cycling and public transport, through a package of practical and educational measures.
- 5.69 As part of the Letterkenny ILUTS, a 'Safer Routes to Schools' programme should be developed which will encompass all of the schools within the Letterkenny area over the plan period. This programme should include traffic management improvements as appropriate outside schools, curriculum based education and awareness resources, travel surveys, information leaflets, road safety training and initiatives to encourage a modal shift away from the car for the school run. The programme will need to be delivered with the assistance of the Council, schools, educational departments, road safety organisations, cycling organisation and public transport operators.

### **School Travel Plans**

- 5.70 As part of the Letterkenny ILUTS, it is recommended that Donegal County Council sets up a 'School Travel Plan Advice' programme that provides initial advice to the schools within Letterkenny. This programme would provide initial advice on the benefits of school travel plans to schools, and through a site specific audit, provide initial guidance on the appropriate measures that could be investigated further by each school. Similar to the workplace travel plan advice programme outlined above, the aim of the school travel plan programme is to 'kick-start' each school within the town on the road to developing their own travel plan.
- 5.71 School Travel Plans complement initiatives such as Safer Routes to School and road safety campaigns. To ensure a more successful and wide reaching approach to school travel plans, linkages should be established with the cycling and walking strategies, traffic management, car parking strategy, as well as any air quality management action plans, health improvement programmes or physical activity action plans.

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## 6. “Roads-based” Strategy – Key Recommendations

### Introduction

6.1 This chapter outlines our key recommendations for the highway schemes to be included within the Letterkenny ILUTS “Roads-based” strategy. The proposals are set out as follows:

- Strategic Highway Schemes;
- Local Highway Schemes;
- Junction Improvements; and
- Town Centre Circulation.

6.2 For further detail on the “roads based” strategy please refer to the project documents entitled “Testing of Highway Schemes” (June 2009) (attached at Appendix C) and “Testing of Traffic Management Schemes” (June 2009) (attached at Appendix D).

### Strategic Highway Schemes

6.3 A number of strategic highway schemes were considered as part of the study to help improve traffic congestion throughout the town and to provide access to new development lands. These included the following road proposals:

- Letterkenny Relief Road;
- Southern Relief Road;
- Northern Relief Road;
- Western Relief Road; and
- Swilly Access Road.

6.4 Each of these schemes, and the key recommendations in relation to each scheme, is outlined in more detail below.

#### Letterkenny Relief Road

6.5 The Letterkenny Relief Road is a new road between Dry Arch Roundabout, Ramelton Road and Gortlee Road (see drawings no. 5075471/070/TP/0012 to 0014 – Appendix C). The scheme aims to improve access to the strategic road network in this area as well as relieve significant traffic congestion along Port Road and Ramelton Road.

6.6 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023, as two slightly different route options. The tests indicated that this scheme provided the greatest strategic benefits for the town as a whole, providing much needed congestion relief to Port Road, Ballyraine Road, Ramelton Road and Leck Road. Due to improved access and release of highway capacity, the model also indicated that traffic flows could increase along Middle Road, Business Park Road, Neil T Blaney Road, Ramelton Road and Gortlee Road. The tests indicated that this scheme would carry approximately 1,770pcus in the morning peak period and approximately 1,540pcus in the evening peak period in 2013. There is little difference between the two route options.

#### Letterkenny Relief Road:

- It is recommended that the alignment for the strategic road scheme – Letterkenny Relief Road – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a



high priority, short term scheme, subject to funding availability and completion of the necessary statutory processes.

### Southern Relief Road

- 6.7 The Southern Relief Road is a combination of online widening (Leck Road and Rockhill Road); new road construction and new river crossings. It is a significant highway proposal and it is a comprehensive upgrade of the main road network in the south of the town (see drawings no. 5075471/070/TP/0015 to 0022 – Appendix C). The scheme aims to improve access to zoned residential land in this area as well as help alleviate significant traffic congestion in the town centre and along Port Road.
- 6.8 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023, both as a full scheme and as a partial scheme (without the section between Dry Arch Roundabout and Leck Road). The tests indicated that the scheme would carry approximately 680pcus in the morning peak period and approximately 1,100pcus in the evening peak period in 2013 – along the upgraded section of Leck Road. Should the new section of road proposed between Dry Arch Roundabout and Leck Road not be progressed, then forecast traffic flows along the upgraded Leck Road drop by approximately 3% in the morning peak and 12% in the evening peak.
- 6.9 The impact of the scheme is anticipated to strategic in nature with traffic relief anticipated on New Mills Road, Rockhill Road, Oldtown Road and Pearse Road. However, the scheme may result in increased traffic along Cullion Road and there will be a need to mitigate against this as part of the design of the scheme.
- 6.10 It is recommended that at the detailed design stage, further investigations are undertaken to determine the need for two river crossings at the western end of the scheme. In addition, there will be a need to integrate with any traffic management proposals for the Oldtown junctions in the town centre (see later section).

#### Southern Relief Road:

- It is recommended that the alignment for the strategic road scheme – Southern Relief Road – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a medium to longer term scheme, subject to funding availability and completion of the necessary statutory processes.

### Northern Relief Road

- 6.11 The Northern Relief Road is a new road scheme between Kilmacrenan Road and Glencar Road (see drawings no. 5075471/070/TP/0023 to 0026 – Appendix C). The scheme aims to improve access the strategic road network as well as a number of new developments in the area. The scheme will also help to relieve traffic congestion in and around the existing Hospital Roundabout.
- 6.12 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme would carry approximately 520pcus in the morning peak period and approximately 490pcus in the evening peak period in 2013 – with traffic flows increasing over the forecast years to 2023 (as the lands become more developed). The level of traffic along this relief road also increases when it was tested alongside the Letterkenny Relief Road.
- 6.13 The impact of the scheme is anticipated to strategic in nature with traffic relief anticipated on Circular Road, Windy Hall Road, Old Glencar Road and Glencar Road. However, the scheme may result in increased traffic along Business Park Road due to the increased attractiveness of the route and there may be a need to mitigate against this as part of the design of the scheme.

**Northern Relief Road:**

- It is recommended that the alignment for the strategic road scheme – Northern Relief Road – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a longer term scheme, subject to funding availability and completion of the necessary statutory processes. The programme for the implementation of the scheme should also be kept under review depending on the rate of development of the adjacent lands.

**Western Relief Road**

- 6.14 The Western Relief Road is a new road scheme between Ballymacool Road and Glencar Road / Killyclug, with a new access road onto Willow Brook (see drawings no. 5075471/070/TP/0027 to 31 – Appendix C). The scheme aims to improve access to zoned residential land in this area as well as help alleviate traffic congestion along Glencar Road and Slate Row.
- 6.15 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme would carry approximately 740pcus in the morning peak period and approximately 650pcus in the evening peak period in 2013 – with traffic flows increasing over the forecast years to 2023 (as the lands become more developed). The impact of the scheme is anticipated to be strategic in nature with traffic relief anticipated on Glencar Road, Convent Road, Ballymacool and Slate Row. However, the scheme may result in increased traffic along Windy Hall Road, Killylastin and Oldtown Road and there may be a need to mitigate against this as part of the design of the scheme.

**Western Relief Road:**

- It is recommended that the alignment for the strategic road scheme – Western Relief Road – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a longer term scheme, subject to funding availability and completion of the necessary statutory processes. The programme for the implementation of the scheme should also be kept under review depending on the rate of development of the adjacent lands.

**Swilly Access Road**

- 6.16 The Swilly Access Road is a new road scheme between Neil T Blaney Road, Leck Road and Lismonaghan Road (see drawings no. 5075471/070/TP/0032 to 34 – Appendix C). The scheme aims to improve access to zoned residential land in this area as well as help alleviate traffic congestion at Port Bridge Roundabout.
- 6.17 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme would carry approximately 630pcus in the morning peak period and approximately 730pcus in the evening peak period in 2013 – the section north of Leck Road is forecast to carry the larger volume of traffic. The impact of the scheme is anticipated to be strategic in nature with traffic relief anticipated on Rockhill Road, Neil T Blaney Road, Lismonaghan Road and Paddy Harte Loop Road. However, the scheme may result in increased traffic along Leck Road, Ballyraine Road, Middle Road and parts of Ramelton Road (mainly due to release of traffic congestion) and there may be a need to mitigate against this as part of the design of the scheme.
- 6.18 It is possible that the implementation of the scheme could be phased, with the section between Leck Road and Neil T Blaney Road, prioritised for implementation in conjunction with the Southern Relief Road.

**Swilly Access Road:**

- It is recommended that the alignment for the strategic road scheme – Swilly Access Road – continues to be protected within the Letterkenny & Environs Development Plan;

- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a medium to longer term scheme, subject to funding availability and completion of the necessary statutory processes.

## Local Highway Schemes

6.19 In addition to the strategic highway schemes outlined above, a number of local highway schemes were also considered as part of the study to help improve localised traffic congestion and to provide access to new development lands in the town centre. These included the following road proposals:

- Joe Bonnar Link;
- Port Blaney Link; and
- Justice Walsh Link.

6.20 Each of these schemes, and the key recommendations in relation to each scheme, is outlined in more detail below.

### Joe Bonnar Link

6.21 The Joe Bonnar Link is a new town centre link road between Port Road and Neil T Blaney Road (see drawing no. 5075471/070/TP/0035 – Appendix C). The scheme aims to improve access to the town centre development lands at this location.

6.22 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme would carry limited levels of traffic in the morning peak period (approximately 140pcus) with slightly higher levels in the evening peak (approximately 360pcus). The impact of the scheme is anticipated to be localised in nature and it does not provide any significant strategic benefits to the urban area as a whole. If implemented, it is likely that the main purpose of the scheme is to provide access to the new town centre development lands at this location.

#### Joe Bonnar Link:

- It is recommended that the alignment for the local highway scheme – Joe Bonnar Link – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a longer term scheme to provide access to the development lands at this location. It is also recommended that this should be identified as a developer led scheme – to be funded accordingly.

### Port Blaney Link

6.23 The Port Blaney Link is a new town centre link road between Port Road and Neil T Blaney Road (see drawing no. 5075471/070/TP/0036 – Appendix C). The scheme aims to improve access to the town centre development lands at this location and it is recognised as an important scheme that integrates the development plan Urban Design Framework with the transportation and land use aspirations of the Letterkenny ILUTS.

6.24 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme would carry limited levels of traffic in the morning peak period (< 100pcus) with slightly higher levels in the evening peak (approximately 360pcus). The impact of the scheme is anticipated to be localised in nature and it does not provide any significant strategic benefits to the urban area as a whole. If implemented, it is likely that the main purpose of the scheme is to provide access to the new town centre development lands at this location.

**Port Blaney Link:**

- It is recommended that the alignment for the local highway scheme – Port Blaney Link – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a longer term scheme to provide access to the development lands at this location. The Letterkenny ILUTS and the Letterkenny & Environs Development Plan guides the provision of this link through private sector investment.

**Justice Walsh Link**

- 6.25 The Justice Walsh Link is a new town centre link road between Upper Main Street and Justice Walsh Road (see drawing no. 5075471/070/TP/0037 – Appendix C). The scheme aims to improve access to the town centre area, potentially as part of the part pedestrianisation of Upper Main Street, as well improve access to the town centre car parks (as part of the town centre parking strategy); and provide improved pedestrian and cycle links to the wider town centre area. It is also recognised as an important scheme that integrates the development plan Urban Design Framework with the transportation and land use aspirations of the Letterkenny ILUTS.
- 6.26 The scheme was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme would carry approximately 450pcus in the morning peak period in 2013 and approximately 265pcus in the evening peak period. The impact of the scheme is anticipated to be localised in nature and it does not provide any significant strategic benefits to the urban area as a whole. If implemented, particularly in conjunction with the part pedestrianisation of Upper Main Street, the scheme could provide localised benefits to Upper Port Road. However, careful design is required to ensure that the improved access to the town centre as a result does not result in additional ‘rat-running’ traffic through the town centre.

**Justice Walsh Link:**

- It is recommended that the alignment for the local highway scheme – Justice Walsh Link – continues to be protected within the Letterkenny & Environs Development Plan;
- It is recommended that this scheme should also be included within the Letterkenny ILUTS as a short term scheme to enable the part pedestrianisation of Upper Main Street (see next section).

**Junction Improvements**

- 6.27 In addition to the highway schemes outlined above, a number of local junction improvement schemes were also considered as part of the study to help improve localised traffic congestion and to allow the implementation of improved pedestrian crossing facilities at key junctions. These included proposals at the following locations:
- Port Bridge Roundabout;
  - Station Roundabout and Oatfield Roundabout;
  - Oldtown Junctions;
  - Fort Lynne Roundabout; and
  - Hospital Roundabout.

- 6.28 Each of these schemes, and the key recommendations in relation to each scheme, is outlined in more detail below.

**Port Bridge Roundabout**

- 6.29 Port Bridge Roundabout is located at the junction of Port Road, Neil T Blaney Road and Ballyraine Road. The roundabout is located on the main strategic road (N14) into Letterkenny and suffers from significant congestion and queuing at both peak periods, particularly along Port Road (both

approaches) and Ballyraine Road. A number of traffic management options for this roundabout, aimed at alleviating congestion as well as providing safe pedestrian crossing facilities, were considered as part of this study. This included the following schemes:

- Scheme A: signalisation of the existing roundabout;
- Scheme B: signalisation of the existing roundabout with a dedicated left turn lane on Ballyraine Road; and
- Scheme C: replacement of existing roundabout with traffic signal controlled junction.

6.30 The scheme proposals were tested using localised junction modelling software (LINSIG) and outputs from the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023.

6.31 For scheme A (see drawing no. 5075471/070/TP/0009 – Appendix D), the analysis indicated that the scheme operate within capacity during both peak periods in current conditions and in forecast conditions to 2018. Modifications would be required for the junction to ensure that it continues to operate within capacity through to 2023. This would include the revision of lane markings on the approach to the roundabout from Port Road (south) to allow for both approach lanes to turn right and widening of Ballyraine Road (exit) to allow these two lanes to merge back into one lane.

6.32 Similarly to scheme A, scheme B (see drawing no. 5075471/070/TP/0010 – Appendix D) is also shown to perform well in the three forecast years. However, the addition of the dedicated left slip lane on Ballyraine Road would require additional land-take and is therefore likely to be the more expensive option of the two.

#### **Port Bridge Roundabout – signalised roundabout:**

- It is recommended that the scheme to signalise (either full-time or part-time) Port Bridge Roundabout, including formal pedestrian crossing facilities on Neil T Blaney Road and Port Road is included within the Letterkenny ILUTS to be implemented in the short term, subject to funding availability and the necessary statutory procedures.

6.33 For scheme C (see drawing no. 5075471/070/TP/0018 – Appendix D), the analysis indicated that the scheme would not operate within acceptable operating thresholds under current peak hour conditions. Over time, the operational performance of the proposed option reduces with a number of the arms of the junction (especially Ballyraine Road) operating close to or over capacity in all three forecast years. Therefore it is unlikely that this option would work satisfactorily in the longer term, unless traffic is reassigned away from the junction. As a result, it is not recommended that this option is taken forward through the Letterkenny ILUTS.

#### **Station Roundabout / Oatfield Roundabout**

6.34 Oatfield Roundabout is located at the junction of Ramelton Road and the De Valera Road and Station Roundabout is adjacent to the Oatfield Roundabout at the junction of Port Road, Pearse Road and Ramelton Road. Both roundabouts suffer from significant congestion and queuing at both peak periods. A traffic management option, aimed at alleviating congestion as well as providing safe pedestrian crossing facilities, was considered as part of this study (see drawings no. 5075471/TP/070/0012\_1 and 13\_1 – Appendix D). The proposal includes the removal of the two roundabouts and replacing them with linked traffic signalled controlled junctions.

6.35 The scheme proposals were tested using localised junction modelling software (LINSIG) and outputs from the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The results from the junction modelling indicated that a linked traffic signal proposal could only be achieved with the widening of the junctions and acquisition of third party land (outside the existing highway boundary). A proposal can be developed which will require third party land but which will allow the junctions to operate within acceptable capacity thresholds under current traffic conditions. However, in the longer term there is a need to reassign traffic away from this area through the implementation of strategic road improvements e.g. Letterkenny Relief Road, if the scheme is to operate satisfactorily in future years. The additional benefit for these proposals is



that they also provide formal pedestrian crossing facilities close to the town centre and on the proposed Quality Walking Network.

#### **Oatfield Roundabout / Station Roundabout – linked traffic signal junction:**

- It is recommended that the scheme to replace the existing roundabouts at Oatfield Roundabout and Station Roundabout with a linked traffic signal junction arrangement (including formal pedestrian crossing facilities) is included within the Letterkenny ILUTS to be implemented in the short to medium term, subject to funding availability, the necessary statutory procedures, and the availability of the required third party land.
- It is also recommended that this scheme is progressed in conjunction with the Letterkenny Relief Road, to ensure continued satisfactory operation of the scheme in the longer term.

### **Oldtown Junctions**

- 6.36 The Oldtown Junctions are located just south of the town centre along Oldtown Road. The area consists of three mini-roundabouts and a priority junction located within close vicinity to each other. The junctions are located on one of the main roads (R250) through Letterkenny and suffer from significant congestion and queuing at both peak periods. A traffic management option, aimed at alleviating congestion as well as providing safe pedestrian crossing facilities, was considered as part of this study (see drawings no. 5075471/TP/070/0014\_1, 15\_1 and 16\_1 – Appendix D). The proposal includes the removal of the mini-roundabouts and priority junction and replacing them with linked traffic signalled controlled junctions.
- 6.37 The scheme proposals were tested using localised junction modelling software (LINSIG) and outputs from the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The results from the junction modelling indicated that a linked traffic signal proposal could only be achieved with the widening of the Oldtown Road and acquisition of third party land (outside the existing highway boundary). A proposal can be developed which will require third party land but which will allow the junctions to operate within acceptable capacity thresholds under traffic current conditions. However, in the longer term there is a need to reassign traffic away from this area through the implementation of strategic road improvements e.g. Southern Relief Road and Western Relief Road, if the scheme is to operate satisfactorily in future years. The additional benefit for these proposals is that they also provide formal pedestrian crossing facilities close to the town centre and on the proposed Quality Walking Network.
- 6.38 It should be noted that a detailed environmental review should be undertaken as part of this scheme and consultation with the relevant agencies regarding the potential widening of Oldtown Bridge as this is currently a listed structure. There may be a need to bring forward elements of the Southern Relief Road (i.e. new river crossing) if it is not possible to agree on a suitable design.

#### **Oldtown Junctions – linked traffic signal junction:**

- It is recommended that the scheme to replace the existing mini-roundabouts and priority junction at Oldtown Junctions with a linked traffic signal junction arrangement (including formal pedestrian crossing facilities) is included within the Letterkenny ILUTS to be implemented in the short to medium term, subject to funding availability, the necessary statutory procedures, and the availability of the required third party land.
- It is also recommended that this scheme is progressed in conjunction with the Southern Relief Road and Western Relief Road (either full schemes or parts of scheme), to ensure continued satisfactory operation of the scheme in the longer term.

### **Fort Lynne Roundabout**

- 6.39 Fort Lynne Roundabout is located at the junction of Neil T Blaney Road, Paddy Harte Loop Road and the access to the Forte Lynne Shopping Centre. The main traffic management issue associated with the roundabout is the ongoing conflict between vehicular traffic and pedestrian movements which the ‘temporary’ roundabout presents. As part of this study, a traffic management proposal has been developed to replace the roundabout with a traffic signal

controlled junction, which includes pedestrian crossing facilities on all arms of the junction. The proposal is shown in drawing no. 5075471/070/TP/0023 at Appendix D.

- 6.40 The proposal was tested using local junction modelling software (LINSIG) and outputs from the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme performed well within acceptable operating thresholds in both peak periods under current conditions and all three forecast scenarios. It is therefore recommended that this scheme is included in the Letterkenny ILUTS subject to funding availability and the completion of the necessary statutory procedures.
- 6.41 In order to improve pedestrian safety, it is also recommended that in the interim period, that formal pedestrian crossing facilities (zebra crossings) are introduced on all arms at the junction – see drawing no. 5075471/070/TP/022 at Appendix D. The priority for implementation of the zebra crossings should be Neil T Blaney Road; Paddy Harte Loop Road; Canal Road; and Forte Shopping Centre access road.

#### **Forte Lynne Roundabout – traffic signals & pedestrian crossings:**

- It is recommended that the existing roundabout at Forte Lynne is replaced with a traffic signal controlled junction, with pedestrian crossing facilities – to be implemented in the medium to long term subject to funding availability and the necessary statutory procedures.
- In the interim period, it is recommended that formal zebra crossings are introduced on each arm of the roundabout to improve pedestrian safety.

### **Hospital Roundabout**

- 6.42 Hospital Roundabout is located at the junction of De Valera Road, Mountain Top Road, High Road and Circular Road. The main traffic management issue associated with the roundabout is the significant queuing which exists in the peak periods on the approach to the roundabout from Circular Road. This is mainly due to the blocking back of the straight ahead movement as a consequence of the significant left turn movement onto Mountain Top Road. Additionally, the lack of pedestrian facilities outside the Hospital raises road safety concerns for vulnerable road users in this location.
- 6.43 As part of this study, a traffic management proposal has been developed to alter the road markings at this junction to improve junction performance on the Circular Road arm. The proposal – shown in drawing no. 5075471/070/TP/0020 at Appendix D – will alter the off-side lane from a right-turn only lane to a straight ahead and right turn lane. This is anticipated to significantly improve the flow of traffic in the straight ahead direction and as such it is recommended that it is included within the Letterkenny ILUTS as a short-term scheme.
- 6.44 The proposal also makes recommendations for the introduction of a pedestrian crossing outside the Hospital, on Circular Road on the approach to the roundabout: to link in with the proposed Quality Walking and Cycle Networks. The introduction of the pedestrian crossing is subject to funding availability and the completion of the necessary statutory procedures.

#### **Hospital Roundabout – road markings & pedestrian crossing:**

- It is recommended that the existing road markings on the Circular Road approach to Hospital Roundabout are altered to improve performance at the roundabout – to be implemented in the short to medium term;
- It is also recommended that a pedestrian crossing facility is introduced on the Circular Road approach to Hospital Roundabout to link the hospital into the Quality Walking and Cycle Networks and improve road safety for pedestrians and cyclists – to be implemented in the medium to long term subject to funding availability and the necessary statutory procedures.

## Town Centre Circulation

- 6.45 In addition to the junction improvement schemes outlined above, a number of traffic management schemes were also considered as part of the study to help improve traffic circulation around the town centre area and to allow future environmental improvement schemes to be implemented if required. These included:
- A gyratory system around Cathedral Road, Sentry Hill Road and College Row; and
  - Options for traffic circulation and pedestrianisation of Upper and Lower Main Street.
- 6.46 Each of these schemes, and the key recommendations in relation to each scheme, is outlined in more detail below.

### Cathedral Road / Sentry Hill Road / College Row

- 6.47 Following discussions with the Client Steering Group, a traffic management proposal was prepared to change Cathedral Road, Sentry Hill Road and College Row into a one-way gyratory system. The proposal – shown in drawing no. 5075471/070/TP/0024 at Appendix D – makes College Row one-way in the northbound direction; Sentry Hill Road one-way in the southbound direction; and Cathedral Road one-way in the westbound direction. The aim of this scheme is to help alleviate traffic congestion in the area and provide additional highway capacity to formalise on-street parking for the various schools in the area (one of the main causes of congestion in the area).
- 6.48 The proposal was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. The tests indicated that the scheme performed well in 2013 but that it resulted in an increase of traffic in the area – most likely attracted to the area (from other, more congested areas) due to improved junction performance. This results in a number of junctions, namely College Row / Sentry Hill Road and Cathedral Road / Sentry Hill Road, operating close to or above operational capacity, in the forecast years of 2018 and 2023.
- 6.49 Although the scheme does achieve its main objective of releasing road space for pedestrian improvements and additional on-street parking, there is a need to ensure that the detailed design of the scheme reduces the potential to attract additional traffic into the area – this can be achieved through the introduction of local traffic calming measures. Additional pedestrian improvements, including safe pedestrian / cycle crossing facilities, should also be included where appropriate. It is also recommended that this scheme is considered as part of a wider ‘safer routes to school’ initiative and consultation is undertaken with the schools as necessary.

#### Cathedral Road / Sentry Hill Road / College Row Gyratory:

- It is recommended that this scheme is included within the Letterkenny ILUTS to be implemented in the short to medium term, subject to funding availability and the necessary statutory procedures.
- Detailed design of the scheme should include pedestrian improvements and local traffic calming measures in line with the ‘safer routes to school’ initiative.

### Upper / Lower Main Street

- 6.50 A number of traffic management options for Upper and Lower Main Street, aimed at alleviating congestion as well as reallocating roadspace for pedestrians / cyclists, were considered as part of this study. This included the following schemes:
- Scheme A: pedestrianisation of Upper Main Street between Speers Lane and the new Justice Walsh Link;
  - Scheme B: pedestrianisation of Upper / Lower Main Street and Market Square between Rosemount Lane and Oliver Plunkett Road;
  - Scheme C: ‘people friendly street’ with shared spaces; and

- Scheme D: reversal of one-way direction along Upper / Lower Main Street.

6.51 Each of the above proposals was tested in the Letterkenny Traffic Model for the three forecast years of 2013, 2018 and 2023. Please note that for both pedestrianisation options (schemes A and B), it was assumed that the new Justice Walsh Link would be in place as this is considered to be an integral and vital element of the schemes. The implementation of the Justice Walsh Link would also provide significant benefits to scheme C if this were to be implemented.

#### **Scheme A: Pedestrianisation of Upper Main Street between Speers Lane and the new Justice Walsh Link**

6.52 For scheme A (see drawing no. 5075471/070/TP/0025 – Appendix D), the analysis indicated that the scheme would result in some reductions in traffic flow along the sections of Upper Main Street that remained open to general traffic. However, the scheme did result in increased traffic flows along the Justice Walsh Link, onto Lower Main Street and across the town centre, due to ‘rat-running’ of traffic from other congested areas within the town centre. However, in the longer term, it is likely that the implementation of the strategic highway schemes would bring significant relief to the town centre in this regard. In terms of traffic management, the implementation of the scheme would be achievable, with minimal disruption to existing traffic management arrangements in other town centre streets. However, there would be a need to integrate local traffic calming measures to help reduce ‘rat-running’ traffic and protect vulnerable road users within the town centre.

#### **Scheme B: Pedestrianisation of Upper / Lower Main Street and Market Square between Rosemount Lane and Oliver Plunkett Road**

6.53 For scheme B (see drawing no. 5075471/070/TP/0026 – Appendix D), the analysis indicated that the scheme would result in reductions in traffic flows through the main town centre area. However, in terms of traffic management, the implementation of the scheme would be challenging – issues include restricted access to the area behind Market Square; inappropriate levels of traffic using Rosemount Lane; relocation of taxi ranks on Market Square; and reduced accessibility to Celtic Apartments, Fortwell Close, Burnside Park and other accesses off Oliver Plunkett Road.

#### **Scheme C: People Friendly Street with Shared Spaces**

6.54 A “*people friendly*” option (scheme C) was also investigated (see drawing no. 5075471/070/TP/041 – Appendix D) – this option would maintain general access to Upper / Lower Main Street but would reduce the running width of the traffic lane to approximately 3.7m – allowing environmental improvements to be implemented such as increased footway widths and pedestrian improvements. This option will maintain vehicular activity in the town centre through the evening and night enhancing the vibrancy and attractiveness to all sections of the community, deterring any potential anti social behaviour, which can be perceived as a problem in pedestrianised areas in other large urban centres.

6.55 It should be noted that the implementation of Scheme C (should it be progressed) would require the upgrade and improvement of the existing traffic signals at the Courthouse junction on Main Street. These traffic signals have been in place for some time and require updating to a MOVA controlled system in order to incorporate pedestrian and cycle crossing facilities as well as improve traffic operations at this busy town centre junction.

#### **Town Centre Pedestrianisation:**

- It is recommended that the ‘people-friendly’ town centre scheme (scheme C), including environmental improvements to widening existing footpaths and provide shared space with the relocation of on-street parking and the recommendation to provide an upgraded MOVA controlled junction at the Courthouse junction on Main Street, is included within the Letterkenny ILUTS to be implemented in the short term, subject to funding availability.
- It is also recommended that the scheme to pedestrianise Upper Main Street, between Speers Lane and Justice Walsh Link (scheme A) is included within the Letterkenny ILUTS to be implemented in the short to medium term, subject to funding availability and the necessary statutory procedures. It will be necessary to implement the scheme in conjunction with the proposed Justice Walsh Link.

- Detailed design of the scheme should include pedestrian / cycle improvements and local traffic calming measures.

#### **Scheme D: Reversal of one-way direction along Upper / Lower Main Street**

- 6.56 For scheme D (see drawing no. 5075471/070/TP/040 – Appendix D), the analysis indicated that there are no clear advantages to the town centre for the implementation of the scheme and as such it is not recommended that this is brought forward under the Letterkenny ILUTS. The scheme would result in a significant change to the traffic management arrangements for the town centre without any discernable benefits and with a number of junctions experiencing increased levels of traffic congestion under the new arrangements.



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## 7. Implementation Strategy

- 7.1 This section identifies the indicative programme for implementing the Letterkenny ILUTS as described in the previous two chapters **should finance be made available**. In developing an implementation programme consideration has been given to the various stages of planning, appraisal, consultation, design and statutory procedures through which many of the major highway schemes identified in the Letterkenny ILUTS will need to pass through before construction can begin. The programme development has also taken into account the many linkages between schemes, recognising that in delivering an integrated and complementary transport system the success of many schemes is contingent upon others being implemented. Equally there is recognition of the urgency of starting to deliver transport improvements as soon as it practicable.
- 7.2 The indicative delivery programme is presented in Table 7.1 according to the potential timeframes as follows:
- Short term strategy: 2009 to 2013;
  - Medium term strategy: 2015 to 2018; and
  - Longer term strategy: 2018 to 2023.

**Table 7.1: Letterkenny ILUTS Indicative Implementation Programme**

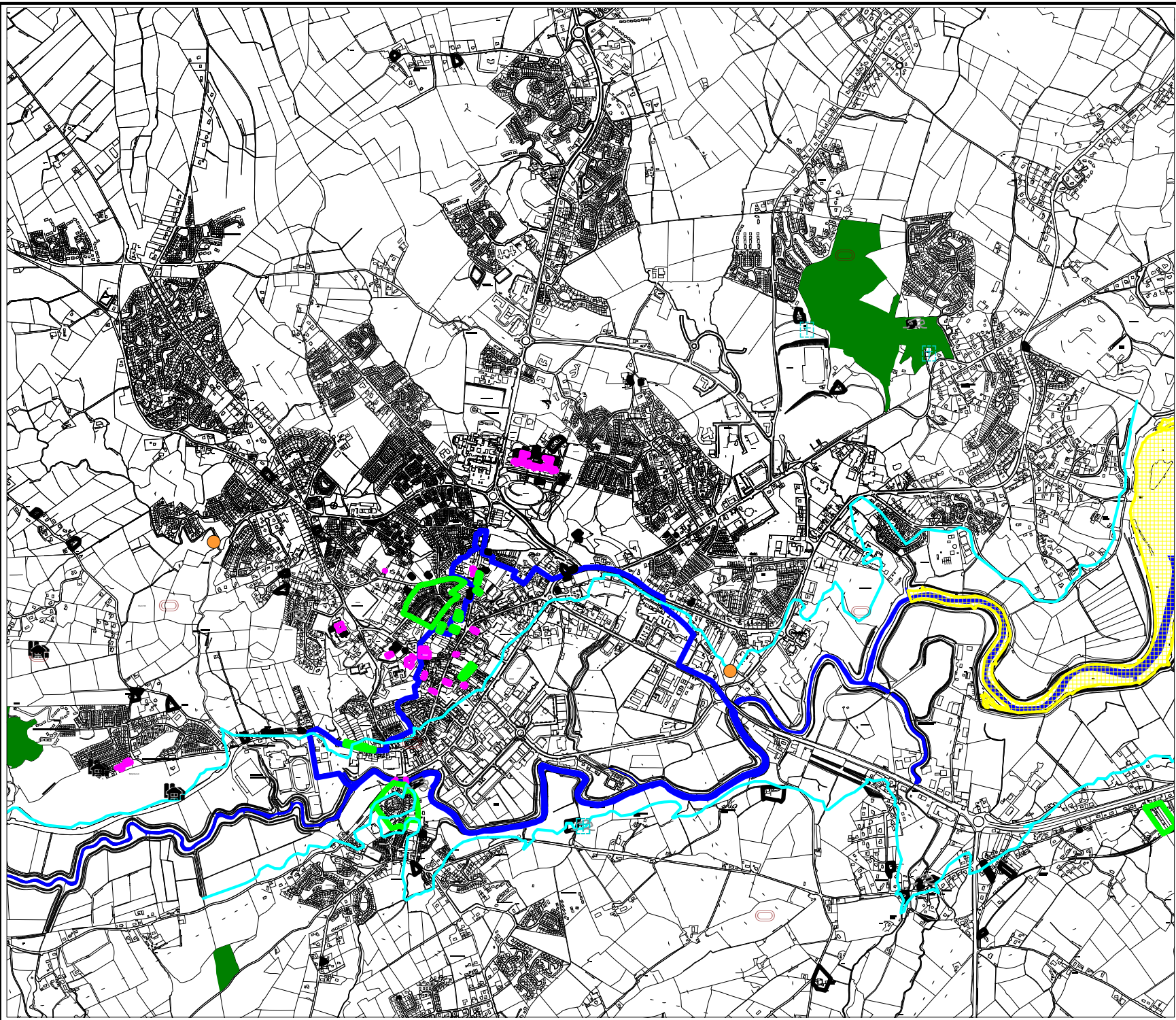
Scheme	Short Term (2009-2013)	Medium Term (2013-2018)	Long Term (2018 – 2023)
Implementation of Quality Walking & Cycle Networks	Scheme development & implementation – ongoing throughout life of plan		
Town Centre ‘people-friendly’ scheme with shared spaces – including implementation of cycle lanes	Scheme development & implementation		
Upgrade & improvement of traffic signals at Courthouse Junction to MOVA controlled traffic signals, with pedestrian / cycle facilities.	Scheme development & implementation		
Justice Walsh Link	Scheme development & implementation		
Town Centre Parking Strategy, including electronic parking guidance information system.	Scheme development & implementation	Ongoing development & implementation	
Oldtown Junctions	Scheme development & implementation		
Letterkenny Town Bus Service	Route development & implementation – ongoing throughout life of plan		
Quality Bus Corridor & other bus priority	Scheme development		Scheme implementation
Integrated Transport Hub	Scheme development		Scheme implementation
Park & Ride	Scheme development		Scheme implementation
Workplace Travel Plans	Scheme development & implementation – ongoing throughout life of plan		
Safer Routes to Schools	Scheme development & implementation – ongoing throughout life of plan		
School Travel Plans	Scheme development & implementation – ongoing throughout life of plan		
Letterkenny Relief Road	Scheme development & implementation		
Southern Relief Road	Scheme development	Scheme Implementation	
Northern Relief Road	Scheme development	Scheme Implementation	
Western Relief Road	Scheme development		Scheme implementation

Scheme	Short Term (2009-2013)	Medium Term (2013-2018)	Long Term (2018 – 2023)
Joe Bonnar Link	Scheme development		Scheme implementation
Port Blaney Link	Scheme development		Scheme implementation
Port Bridge Roundabout	Scheme development & implementation		
Oatfield / Station Roundabout	Scheme development & implementation		
Fort Lynne Roundabout	Scheme development & implementation		
Hospital Roundabout	Scheme development & implementation		
Cathedral Road / College Row / Sentry Hill Road Gyratory	Scheme development & implementation		
Town Centre Part Pedestrianisation	Scheme development		Scheme implementation
Research, Monitoring & Review	Ongoing throughout life of plan		

## 8. Environmental Assessment

### Overview

- 8.1 This chapter summarises the key findings of the Strategic Environmental Scoping Report for the Letterkenny ILUTS preferred strategy – in particular in relation to the proposed highway schemes detailed in Chapter 6 of this report. For more detailed information, please refer to the project report entitled “*Environmental Scoping Note*” (June 2009) (attached at Appendix E).
- 8.2 The findings of this high level environmental assessment are based on a desktop review of published environmental information associated with the Letterkenny ILUTS study area. In particular, the following sources of data are noted:
- Draft Letterkenny & Environs Development Plan 2009-2015;
  - Environmental Protection Agency (EPA);
  - National Monuments Service – Protected Monuments Record Search;
  - Buildings of Ireland – National Inventory of Archaeological Heritage (NIAH); and
  - National Park and Wildlife Service (NPWS) – Designated Areas.
- 8.3 Utilising the above sources of information, an environmental constraints map has been produced (see Figure 8.1 overleaf) to help inform the initial environmental review associated with the main strategic and local highway schemes identified previously in Chapter 6. Information on any known planning requirements due to the findings has also been included in this review.



- Mass Rock Rogers Burn
- Flood Plain
- Listed Buildings
- Lough Swilly Special Protected Area
- River Swilly
- Environmentally Designated Areas
- Historic Buildings
- Historic Residential
- Built Heritage and Monuments**
- Religious and Burial
- Buildings and Structures
- Stones and Megalithic Structures
- Sites and Enclosures
- Miscellaneous
- Earthenworks and Caves
- Archaeological Complex

Project Title:  
**Letterkenny Integrated Land Use Transportation Strategy**

Figure Title:  
**Environmental Constraints**

Figure Number:  
**Figure 8.1**



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 Atkins Transport Planning - Belfast

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## Method of Assessment

8.4 This section outlines the assessment tools used to identify the environmental constraints outlined in Figure 8.1 previously. In particular, the following categories have been reviewed:

- Heritage of Historic Resources;
- Biodiversity;
- Landscape / Townscape; and
- Water Environment.

8.5 Each of these categories is described in more detail in the following sections.

### Heritage of Historic Resources

8.6 There are 18 'recorded monuments' within the draft Letterkenny & Environs development plan 2009-2015 (protected under Section 12 of the National Monuments Act 1994) and 19 buildings on the record of 'protected structures'. The development plan sets out a clear framework to protect these features in a balanced manner so as to have significant likely positive effects on material assets and cultural heritage.

8.7 The Department of the Environment, Heritage and Local Government has the responsibility for identifying, recording and protecting the archaeological and built heritage through scheduling historic monuments, listing buildings of special architectural or historic interest and designating other sites and areas of heritage significance such as those of industrial heritage. In line with the requirements of the Planning and Development Act 2000, the Architectural Heritage Protection Guidelines for Planning Authorities (2004) aim to assist local authorities in the adoption of suitable policies for protecting architectural heritage in their development plans and will seek to ensure that features of the archaeological and built heritage are appropriately protected from unnecessary damage and destruction.

8.8 The National Monuments Service (NMS) and the National Inventory of Architectural Heritage (NIAH), both areas of the Department of the Environment, Heritage and Local Government hold databases of protected structures, historic buildings and built heritage and monuments. A search of both the NMS and NIAH were conducted as part of this review and sites of heritage importance have been identified that are in relative close proximity to the various highway schemes. The built heritage and Monument search included the following types of feature as identified in the draft Letterkenny & Environs development plan 2008-2014:

- Religious and Burial;
- Buildings and Structures;
- Stones and Megalithic Structures;
- Sites and Enclosures;
- Miscellaneous;
- Earthworks and Caves; and
- Archaeological Complex.

### Biodiversity

8.9 There is a high level of biodiversity throughout the Letterkenny development plan area and in particular there are three special areas for consideration:

- Ballymacool Woods, Whinney Hill, Rodgers Burn, Drum Hill;
- Kilty Woods; and
- River Swilly.

- 8.10 In addition there are four European protected sites within the plan area:
- Lough Swilly Special Protection Area (SPA);
  - Lough Swilly Special Area Conservation (SAC);
  - Lough Swilly Natural Heritage Area (NHA); and
  - River Swilly Valley Woods Natural Heritage Area (NHA).
- 8.11 The planning framework aims to give the highest level of protection to the European protected sites and to the special biodiversity areas. It is noted that the special area at Rodgers Burn is identified both as 'recreation and open space' and for 'residential development' in the development plans and will require careful assessment to prevent any significant negative impacts in terms of landscape.
- 8.12 The following sources were examined to identify features of biodiversity in close proximity to the eight schemes:
- Designations including Areas of Special Scientific Interest (ASSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs), National Nature Reserves (NNR) and Ramsar Sites; and
  - Biodiversity features identified in the draft Letterkenny & Environs Development Plan 2009-2015.

### **Landscape/Townscape Issues**

- 8.13 The landscape of Letterkenny is rich and varied. It comprises a valley settlement with surrounding local hillocks making up the Swilly Valley's sloping sides. The plan area consists of a substantial amount of undeveloped lands intervening the developments along the key arterial roads. The land is largely agricultural in nature. The landscape has retained a significant level of tree cover through both the retention of existing trees and hedgerows and as a result of existing dense woodlands at Kilttoy and Ballymacool. The plan aim is to promote a balance between landscape and the development of a Gateway City by guiding development in a manner so as to respond to context, topography and setting and to deliver quality, therein mitigating against negative impacts.
- 8.14 The draft Letterkenny & Environs development plan 2009-2015 was examined to identify features of landscape / townscape in close proximity to the identified highway schemes. The following areas within the plan are considered to be more sensitive to development than others:
- River Swilly banks and corridor;
  - River Swilly flood risk area;
  - Kilttoy Woods and Ballymacool Woods;
  - Elevated underdeveloped hillside of the town: Drumnahaogh, Creeve, Lisnenan, Kilttoy, Mountain Top, Carnamuggagh, Killylastin, Killyclug;
  - Rodgers Burn including Whinney Hill and Drum Hill; and
  - Main Street and Ecclesiastical Quarter Architectural Conservation Area.

### **Water Environment**

- 8.15 The draft Letterkenny and Environs Development Plan area lies within the River Swilly catchment, draining to Lough Swilly. The River Swilly commences adjacent to the Glendowan Mountains at an elevation of approximately 280mOD (Malin). It flows in an easterly direction through Letterkenny and into Lough Swilly. The catchment is predominantly rural with the only significant urban area at Letterkenny in the downstream end of the catchment. The annual average rainfall for the whole catchment is approximately 1600mm (1200mm in Letterkenny). The River Swilly is tidal throughout Letterkenny and to approximately 2.5km upstream on high spring tides.
- 8.16 Ordnance Survey maps indicate that the land adjacent to the river between Port Bridge and Old Town is marshy and prone to flooding. The Office of Public Works (OPW) flood maps identify 14

locations of flood events recorded in the town. Increasing urbanisation of the catchment is leading to greater flows in the ditches and streams that drain Letterkenny into the River Swilly. At periods of high water levels in the River Swilly this water is unable to enter the river and must be stored in the area directly behind the embankments. Building works and rising ground levels have reduced the storage capacity of this area. Increasing volumes of surface water runoff and reduced capacity of the storage area will lead to flooding problems. The Flood Study 2002 recommended that all infrastructures below the 5.3m contour should be considered at risk of flooding. The environmental constraints map identifies the flood risk area.

## Findings of Assessment

- 8.17 Table 8.1 overleaf summarises the results of the high level assessment of the potential environmental impact of the highway schemes (identified in Chapter 6) against the four categories outlined above. Please refer to the project report entitled "*Environmental Assessment Note*" (June 2009) for more detailed information (attached at Appendix E).

Table 8.1: Summary results of Environmental Assessment on Highway Schemes identified in Letterkenny ILUTS

Scheme Name	Heritage of Historic Resources	Biodiversity	Landscape / Townscape Issues	Water Environment
	Letterkenny Relief Road (Blue Route)	<ul style="list-style-type: none"> <li>Located in close proximity (115m south) to 1 Ancient Monument [Ringfort Enclosure, SMR No. DG053-026] whose setting may be impinged upon by proposed scheme;</li> <li>Recommended that a licensed archaeologist is appointed to maintain a watching brief during topsoil stripping;</li> <li>There are no recorded protected structures in close proximity to scheme;</li> <li>Recommended that consultation is undertaken with Department of the Environment, Heritage &amp; Local Government.</li> </ul>	<ul style="list-style-type: none"> <li>Lough Swilly Special Protection Area (SPA), Candidate Special Area of Conservation (cSAC) and Natural Heritage Area (NHA) lie, at their closest point, 47m east of the site;</li> <li>River Swilly Valley Woods NHA lies, at its closest point, 522m north east of the site;</li> <li>Consultation with the Department of the Environment, Heritage &amp; Local Government (DoEHLG); the Department of Communications, Marine &amp; Natural Resources (DoCMNR); and the Environmental Protection Agency (EPA) will be required and it is likely that an Article 6 assessment will be needed prior to the construction of this proposal.</li> </ul>	<ul style="list-style-type: none"> <li>Scheme will run through River Swilly Flood Risk Area and will cross the River Swilly banks and corridor;</li> <li>These two areas are identified as sensitive in nature due to their character in terms of the range of environmental resources which they provide including landscape and visual aspects;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>
Letterkenny Relief Road (Red Route)	<ul style="list-style-type: none"> <li>Located in close proximity (221m south) to 1 Ancient Monument [Ringfort Enclosure, SMR No. DG053-026] whose setting may be impinged upon by proposed scheme;</li> <li>Recommended that a licensed archaeologist is appointed to maintain a watching brief during topsoil stripping;</li> <li>There are no recorded protected structures in close proximity to scheme;</li> <li>Recommended that consultation is undertaken with Department of the Environment, Heritage &amp; Local Government.</li> </ul>	<ul style="list-style-type: none"> <li>Lough Swilly SPA, cSAC and NHA lie, at their closest point, 13m east of the site;</li> <li>River Swilly Valley Woods NHA lies, at its closest point, 453m north east of the site;</li> <li>Consultation with the DoEHLG; DoCMNR and the EPA will be required and it is likely that an Article 6 assessment will be needed prior to the construction of this proposal.</li> </ul>	<ul style="list-style-type: none"> <li>Scheme will run through River Swilly Flood Risk Area and will cross the River Swilly banks and corridor;</li> <li>These two areas are identified as sensitive in nature due to their character in terms of the range of environmental resources which they provide including landscape and visual aspects;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Part of the scheme lies within the floodplain and crosses directly over the River Swilly;</li> <li>The scheme also crosses 6 undesignated watercourses and lies directly adjacent to a 7<sup>th</sup>;</li> <li>Precautions need to be taken when working in or adjacent to water bodies; therefore, an environmental plan may be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland on flooding and pollution issues.</li> </ul>
Southern Relief Road	<ul style="list-style-type: none"> <li>Located in close proximity to 7 Ancient Monuments.</li> <li>It is unlikely that DG053-035 (Bullaun Stone, 25m north of site); DG05-034 (Enclosure, 178m south of site); or DG053-031 (Souterrain, 51m north west of site) will be affected by the proposed road scheme due to development around the site and the distance from the scheme;</li> <li>However the 4 sites which are 92m north of the scheme are likely to be impinged upon by the proposed road as it lies within the same field boundary – this includes DG053-03302 (Holy Well); DG053-033 (Ecclesiastical Remains); DG053-03301 (Church &amp; Graveyard); and DG053-03303 (Bullaun Stone);</li> <li>There are also 2 protected structures recorded in close proximity to the scheme that are likely to be impacted upon – Oldtown Bridge (Ref 40503214) and a disused railway bridge that lies adjacent to the site (Ref 40503215);</li> <li>Recommended that a licensed archaeologist is appointed to maintain a watching brief during topsoil stripping;</li> </ul>	<ul style="list-style-type: none"> <li>River Swilly Valley Woods NHA lies, at its closest point, 199m south of the site;</li> <li>Lough Swilly SPA, cSAC and NHA lie, at their closest point, 589m north east of the site;</li> <li>Consultation with the DoEHLG; DoCMNR and the EPA will be required and it is likely that an Article 6 assessment will be needed prior to the construction of this proposal.</li> </ul>	<ul style="list-style-type: none"> <li>Part of the scheme will run through the River Swilly Flood Risk Area and cross the River Swilly banks and corridor;</li> <li>Both areas are identified as sensitive in nature due to their character in terms of the range of environmental resources which they provide including landscape and visual aspects;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Part of this scheme lies within the floodplain and crosses over the River Swilly at 3 points;</li> <li>Because the River Swilly flows into the Lough Swilly SPA and SAC 4.6km downstream, the EPA may need to be consulted due to the hydraulic link;</li> <li>The scheme also crosses 9 undesignated watercourses and lies directly adjacent to 2 others;</li> <li>Precautions need to be taken when working in or adjacent to waterbodies; an environmental plan may therefore be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland in relation to flooding and pollution issues.</li> </ul>

Scheme Name	Heritage of Historic Resources	Biodiversity	Landscape / Townscape Issues	Water Environment
		<ul style="list-style-type: none"> <li>Recommended that consultation takes place with the Department of the Environment, Heritage and Local Government as well as NIAH.</li> </ul>		
Northern Relief Road	<ul style="list-style-type: none"> <li>The Northern Relief Road scheme is not located in close proximity to any ancient monuments which are likely to be directly impinged upon by the proposed scheme;</li> <li>The closest is 400m north west of the scheme [Standing Stone, SMR No. DG053-014];</li> <li>There were no protected structures recorded in close proximity to the scheme that would be likely to be impacted upon;</li> <li>Recommended that consultation takes place with the Department of the Environment, Heritage and Local Government.</li> </ul>	<ul style="list-style-type: none"> <li>There are no designated sites in close proximity to this scheme that would be likely to be impacted upon;</li> <li>The closest is the River Swilly Valley Woods designation which is located 1.42km west of the proposed scheme.</li> </ul>	<ul style="list-style-type: none"> <li>Much of the proposed scheme runs through previously undeveloped land (greenfield) however, parts of the scheme also run adjacent to a dense residential area;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>This scheme does not fall within the floodplain and is located more than 2km from the designated River Swilly;</li> <li>The scheme however, directly crosses 3 small, undesignated, water courses/field drains;</li> <li>Precautions need to be taken when working in or adjacent to waterbodies; therefore, an environmental plan may be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland regarding pollution and any potential flooding concerns.</li> </ul>
Western Relief Road	<ul style="list-style-type: none"> <li>The scheme is located in close proximity to 3 Ancient Monuments – [DG053-024, Enclosure]; [DG053-046 – Mass Rock, Rodgers Burn]; [DG053-025 – Standing Stone];</li> <li>The Mass Rock at Rodgers Burn is likely to be directly impinged upon by the proposed scheme as it lies within the same field boundary;</li> <li>Recommended that a licensed archaeologist is appointed to maintain a watching brief during topsoil stripping;</li> <li>There were no protected structures recorded in close proximity to this scheme that would be likely to be impacted upon;</li> <li>Recommended that consultation takes place with the Department of the Environment, Heritage and Local Government.</li> </ul>	<ul style="list-style-type: none"> <li>There are no designated sites in close proximity to Scheme 4 that are likely to be impacted upon;</li> <li>The closest is the River Swilly Valley Woods NHA designation which is located 465m west of the proposed scheme.</li> </ul>	<ul style="list-style-type: none"> <li>This scheme is partly located within the River Swilly Flood Risk Area;</li> <li>This area is identified as sensitive in nature due to the character in terms of the range of environmental resources which it provides including landscape and visual aspects including the natural forces of the town in relation to the River Swilly catchment and flood risk area;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>The southern corner of the proposed scheme lies directly within the floodplain, but at its closest point is 270m north of the River Swilly;</li> <li>The scheme directly crosses 7 undesignated watercourses/field drains;</li> <li>Precautions need to be taken when working in or adjacent to waterbodies; therefore, an environmental plan may be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland regarding pollution and flooding issues.</li> </ul>
Swilly Access Road	<ul style="list-style-type: none"> <li>The Swilly Access Road scheme is located in close proximity to four ancient monuments; however none are likely to be directly impacted upon by the proposed scheme as there is a field and small road/lane separating the scheme and the historical sites – [DG053-03302 Holy Well]; [DG053-033 Ecclesiastical Remains]; [DG053-03301 Church &amp; Graveyard]; and [DG053-03303 Bullaun Stone];</li> <li>There were no protected structures recorded in close proximity to this scheme that would be likely to be impacted upon;</li> <li>Recommended that consultation takes place with the Department of the Environment, Heritage and Local Government.</li> </ul>	<ul style="list-style-type: none"> <li>Lough Swilly SPA, cSAC and NHA lie, at their closest point, 1.08km north east of the site;</li> <li>River Swilly Valley Woods NHA lies, at its closest point, 1.21km west of the site;</li> <li>However as the scheme crosses the Lough Swilly River which flows into these designated areas an Article 6 Assessment may be required;</li> <li>Recommended that consultation should take place with the DoEHLG, DoCMNR, and the EPA.</li> </ul>	<ul style="list-style-type: none"> <li>This scheme runs through the River Swilly Flood Risk Area and crosses the River Swilly banks and corridor;</li> <li>Both areas are identified as sensitive in nature due to their character in terms of the range of environmental resources which they provide including landscape and visual aspects;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Part of this scheme lies within the floodplain and crosses directly over the River Swilly;</li> <li>One undesignated watercourse crosses the proposed scheme on two separate occasions;</li> <li>Precautions need to be taken when working in or adjacent to waterbodies, an environmental plan may be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland on flooding and pollution issues.</li> </ul>
Joe Bonnar Link	<ul style="list-style-type: none"> <li>There were no protected structures recorded in close proximity to this scheme;</li> </ul>	<ul style="list-style-type: none"> <li>There are no designated areas that are likely to be impacted upon by the Joe Bonnar Link</li> </ul>	<ul style="list-style-type: none"> <li>The scheme lies directly within the River Swilly Flood Risk Area;</li> </ul>	<ul style="list-style-type: none"> <li>The scheme lies directly within the floodplain – at its closest point the scheme lies 340m</li> </ul>



Scheme Name				
	Heritage of Historic Resources	Biodiversity	Landscape / Townscape Issues	Water Environment
	<ul style="list-style-type: none"> <li>Recommended that consultation takes place with the Department of the Environment, Heritage and Local Government.</li> </ul>	<p>scheme;</p> <ul style="list-style-type: none"> <li>The closest is the Lough Swilly SPA, cSAC, NHA which lie 1.25km east of the site.</li> </ul>	<ul style="list-style-type: none"> <li>This area is identified as sensitive in nature due to the character in terms of the range of environmental resources which it provides including landscape and visual. This scheme also runs through an industrial area;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<p>west of the River Swilly;</p> <ul style="list-style-type: none"> <li>The scheme also crosses over 2 undesignated watercourses;</li> <li>Precautions need to be taken when working in or adjacent to waterbodies; therefore, an environmental plan may be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should therefore be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland regarding pollution and flooding issues.</li> </ul>
Port Blaney Link	<ul style="list-style-type: none"> <li>There were no protected structures recorded in close proximity to this scheme;</li> <li>Recommended that consultation takes place with the Department of the Environment, Heritage and Local Government.</li> </ul>	<ul style="list-style-type: none"> <li>There are no designated areas that are likely to be impacted upon by the Joe Bonnar Link scheme;</li> <li>The closest is the Lough Swilly SPA, cSAC and NHA which lie 1.38km east of the site.</li> </ul>	<ul style="list-style-type: none"> <li>This scheme lies directly within the River Swilly Flood Risk Area;</li> <li>This area is identified as sensitive in nature due to the character in terms of the range of environmental resources which it provides including landscape and visual aspects;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>This scheme lies directly within the floodplain – at its closest point the scheme lies 628m west of the River Swilly;</li> <li>The scheme also crosses over 2 undesignated watercourses;</li> <li>Precautions need to be taken when working in or adjacent to waterbodies; therefore, an environmental plan may be required in order to mitigate any potential pollution incidents affecting the area;</li> <li>Advice should be sought from the EPA, Office of Public Works (OPW) and Waterways Ireland regarding pollution and flooding issues.</li> </ul>
Justice Walsh Link	<ul style="list-style-type: none"> <li>The scheme is not located in close proximity to any Ancient Monuments;</li> <li>There are however 4 protected structures recorded in close proximity to this scheme – [40502086, Bank Upper Main Street]; [40502279, Courthouse]; [40504052, Bank of Ireland]; and [40504072, Rosemount House];</li> <li>The Bank on Upper Main Street and Rosemount House are both likely to be directly impacted upon as they lie adjacent to the road alignment.</li> </ul>	<ul style="list-style-type: none"> <li>There are no designated sites in close proximity that are likely to be impacted upon;</li> <li>The closest is the River Swilly Valley Woods NHA designation which is located 1.82km south of the proposed scheme.</li> </ul>	<ul style="list-style-type: none"> <li>This scheme lies directly within the River Swilly Flood Risk Area;</li> <li>This area is identified as sensitive in nature due to the character in terms of the range of environmental resources which it provides including landscape and visual aspects;</li> <li>The scheme also lies in the Main Street and Ecclesiastical Quarter Architectural Conservation Area which is sensitive for its heritage;</li> <li>Refer to the Urban Design Framework in the Letterkenny &amp; Environs Development Plan.</li> </ul>	<ul style="list-style-type: none"> <li>The scheme lies outside the floodplain – at its closest point the scheme lies 710m north of the River Swilly, and 511m south from an undesignated watercourse.</li> </ul>

# Appendix A : Traffic Survey Locations

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# Appendix B : Sustainable Modes Strategy: Final Report

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# Appendix C : Testing of Highway Schemes: Final Report

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# Appendix D : Testing of Traffic Management Schemes: Final Report

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# Appendix E : Environmental Scoping Note



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