Department for Infrastructure
An Roinn Bonneagair
www.infrastructure-ni.gov.uk

ANTRIM AND NEWTOWNABBEY BOROUGH COUNCIL LOCAL TRANSPORT STUDY

1.0 Contents

1.0 Introduction

Note: This Study is part of the Belfast Metropolitan Transport Plan Local Transport Study (BMTS). The BMTS has yet to be completed and therefore this study is provided in draft form. It will remain as a draft until the BMTS is finalised and until then it is subject to change. The Department of Infrastructure (the Department) has agreed that the Antrim and Newtownabbey Borough Council (ANBC) may use the Draft ANBC LTS as a technical supplement to the ANBC LDP Plan Strategy.

1.1. Purpose of Local Transport Study

1.1.1. The Department is working co-operatively with Councils across Northern Ireland to produce a new family of Local Transport Plans (LTP) to integrate with their Local Development Plans (LDP). These plans move through different stages, and increase in detail from an overall strategic direction, through to specific local policies and schemes.

1.1.2. The Belfast Metropolitan Transport Plan (BMTP) will be prepared by the Department in collaboration with the Councils that fall, at least in part within the Belfast Metropolitan Urban Area (BMUA) to inform their LDP – Local Policies Plan (LPP). An initial BMTP Local Transport Study (BMTS) has been developed by the Department in collaboration with the BMTP Councils to inform their LDP – Draft Plan Strategy stage.

1.1.3. As ANBC falls within the BMTP area, the draft Antrim and Newtownabbey Local Transport Study (LTS) has been prepared by the Department as part of the BMTS. The section of the ANBC area that falls within the BMUA is considered in more detail within the main body of the BMTS.

1.1.4. Throughout the development of the study, the Department has shared the evidence and drafts of the study at the earliest possible opportunity so that consideration of the emerging study could inform the Antrim and Newtownabbey Council Local Development Plan (LDP) – Draft Plan Strategy stage.

1.1.5. The purpose of the BMTS is to set out an objective evidence-based assessment in relation to current and future transport issues in the context of the strategic direction set for transport in the draft Programme for Government (PfG), the Councils' growth ambitions and future indicative transport measures required to facilitate Council growth ambitions during the LDP period to 2032 in the BMTP area. It will also ensure that the transport network and transport needs of the area are taken into account when planning for its future development. Whilst the transport elements are quite distinct in terms of the services they offer and benefits they bring, the key linkages with land-use planning will collectively help deliver on shared regional and local ambitions and outcomes.

1.1.6. The purpose of the ANBC LTS is to provide clarity on the transport measures that the Department expect to deliver during the LDP period to 2030 in the ANBC area and to ensure that the transport network and transport needs of the ANBC area are taken into account in planning for its future development.

1.1.7. These transport measures are developed in the LTS in line with the draft Programme for Government, current government policies and with the direction of the ANBC Community Plan, LDP POP.

1.1.8. The LTS presents the range of indicative measures for walking, cycling, public transport and roads for the period up to 2030.

1.1.9. At this stage, in line with the LDP Plan Strategy stage, the location of the transport measures are not described in detail. Rather, the detail and specific schemes will be added at LDP Plan Policies stage, when land use zonings are identified. However, in this LTS measures are described in terms of strategic locations. Antrim and Newtownabbey Borough Council represents an area which is largely urban but contains several interspersed rural areas, with a number of major transport corridors traversing the area. The focus for many of the transport measures is in the main towns of Antrim, Ballyclare, Crumlin and Randalstown where there are numerous transport issues and interactions and there is greatest potential for integration with the land use planning processes in the LDP.

1.1.10. Metropolitan Newtownabbey is the largest settlement within the ANBC area, however, for the purpose of this LTS the focus is on the settlements of Antrim, Ballyclare, Crumlin and Randalstown. Metropolitan Newtownabbey is considered as part of the broader Belfast Metropolitan Transport Study modelled area, which is in development.

1.2. Study Approach and Document Structure

Approach

1.2.1. The methodology approach adopted by the BMTS is summarised in Figure 1.1 as a sequence of tasks.

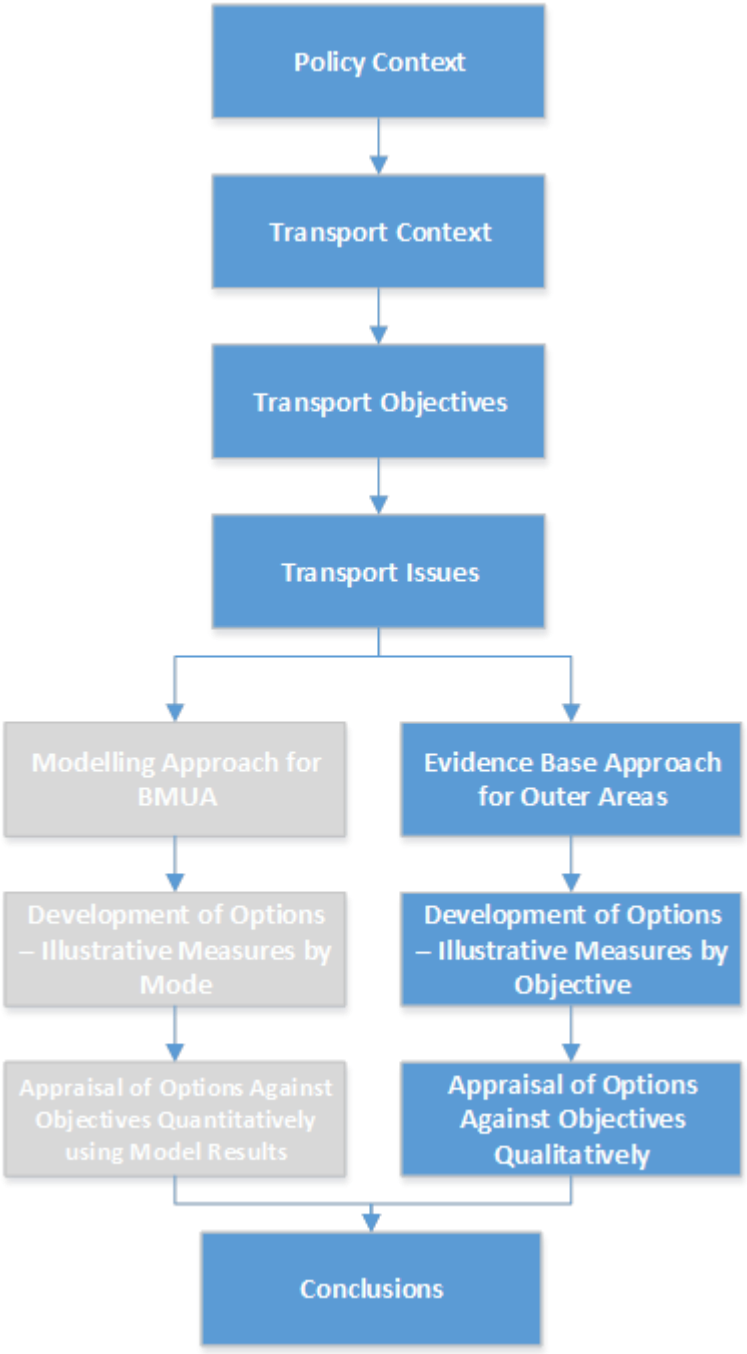


Figure 1.1 – BMTS Study Methodology Showing Approaches for BMUA and Outer Areas

1.2.2. The BMTP study area encompasses five councils that fall, at least in part within the BMUA. The councils that make up the BMTP area are:

- Antrim and Newtownabbey Borough Council;
- Ards and North Down Borough Council;
- Belfast City Council;
- Lisburn and Castlereagh City Council; and
- Mid and East Antrim Borough Council.

1.2.3. Two separate approaches have been used in the BMTS depending on where the transport measures occur. Within the BMUA, a modelling approach has been taken as shown in grey in Figure 1.1. As this LTS relates primarily outside the BMUA, a transport evidence base has been produced and an objective review of the evidence provides a qualitative narrative on the potential transport options.

1.3. The Study Area

1.3.1. The ANBC LTS is aligned to the ANBC area, as shown in Figure 1.2, and includes transport measures for the four towns (Antrim, Ballyclare, Crumlin and Randalstown) as defined in ANBC's Preferred Options Paper (POP). The towns selected for inclusion in the Local Transport Study reference the "hubs and clusters" outlined in the Regional Development Strategy. These include towns with a population over 5,000 usual residents as at the 2011 census and towns with a population of over 5,000 within the Belfast Metropolitan Transport Study.

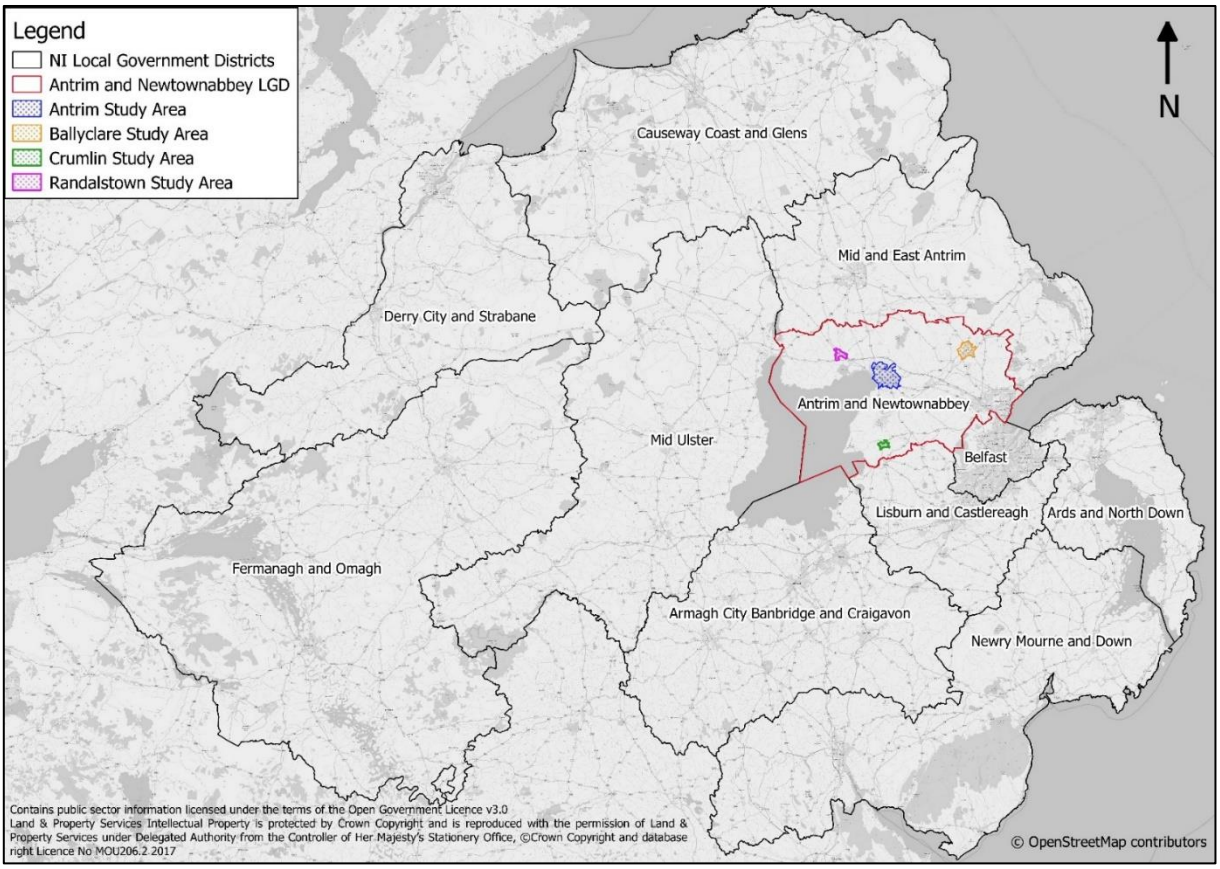


Figure 1.2 Antrim and Newtownabbey Borough Council Area

1.3.2. Excluding Metropolitan Newtownabbey, Antrim, Ballyclare, Crumlin and Randalstown are the largest towns. The next largest settlements of Templepatrick, Doagh and Corgy/Kilbride are much smaller as summarised in Table 1.1.

Table 1.1 Antrim and Newtownabbey Borough Council Settlements and 2011 Population

SETTLEMENT	USUAL RESIDENTS 2011	% of ANBC area	CUMULATIVE %
Antrim and Newtownabbey Borough Council	**138,651**	**100%**	**100%**
Metropolitan Newtownabbey	65,646	47%	47%
Antrim	23375	17%	64%
Ballyclare	9953	7%	71%
Crumlin	5140	4%	75%
Randalstown	5126	4%	79%
Templepatrick	1452	1%	80%
Doagh	1388	1%	81%
Cogry / Kilbride	1259	1%	82%
Ballynure	968	1%	82%
Toome	781	1%	83%
Parkgate	676	0%	84%
Ballyrobert	659	0%	84%

Source: Neighbourhood Statistics (NISRA) Website: www.nisra.gov.uk/ninis

1.3.3. ANBC has a mixture of urban and rural land use and contains a number of main transport routes, such as M2, A6 and A8. Belfast International Airport, a key regional gateway as designated in the RDS, is also situated within the Council area. Figure 1.3 summarises the key demographic and transport-related characteristics of the Antrim and Newtownabbey Borough Council area. These are expressed in terms of their percentage variation from the Northern Ireland (NI) average. The full details are provided in Table 1.2.

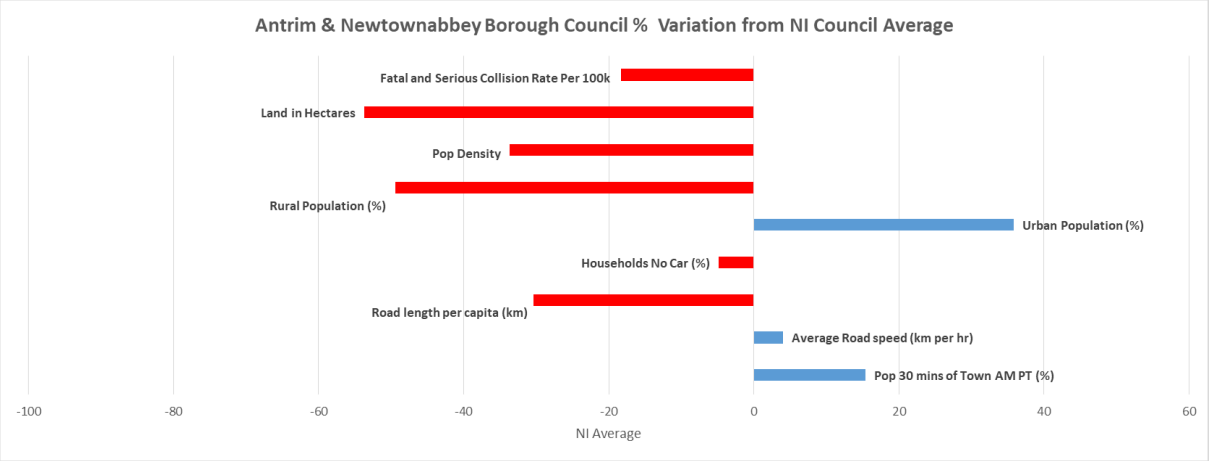


Figure 1.3 Antrim and Newtownabbey Key Characteristics Compared to NI Average

Table 1.2 Antrim and Newtownabbey Borough Council Key Characteristics Compared to NI Average

	Council	NI Average	% Variation from Average
Pop 30 mins of Town AM PT %	79	68	15
Average Road Speed (km per hr)	64.25	61.79	4
Road length per capita (km)	0.01	0.02	-30
Households No Car (%)	19.52	20.51	-5
Urban Population (%)	78.79	58.01	36
Rural Population (%)	21.21	41.99	-49
Pop Density	2.43	3.66	-34
Land in Hectares	57,071	123,294	-54
Fatal and Serious Collision Rate Per 100k	36.6	44.8	-18

1.3.4. In comparison with the rest of Northern Ireland, ANBC is a relatively small council in spatial terms. The Council area makes up 4% of NI and is below the NI Average council area size. Its population density is 2.43 usual residents per hectare compared with the NI average of 3.66. The percentage of the population who live in towns with a population of 5000 or more (79%) is much higher than the NI average of 58%. In addition, there is a relatively low road length per capita, which is also under the NI average. As mentioned previously, the majority of roads are urban, which leads to average road speeds which are marginally higher than the NI average (64.25kph compared to 61.79kph). While the majority of the population live in urban areas, there is a high car dependency with only 19.5% of households not owning cars. However, 79% of the population are able to access a main town within 30 minutes using public transport which is higher than the NI-wide value.

1.4. Report Structure

1.4.1. The structure of the LTS is as follows:

- Chapter 2 provides the Policy Context that outlines the principal policies and strategies that have informed the preparation of the LTS;
- Chapter 3 outlines the Transport Evidence Baseline in the form of regional connectivity, accessibility and transport networks;
- Chapter 4 outlines population growth and development proposals;
- Chapter 5 outlines a summary of the Transport issues and opportunities as developed from an interpretation of the Transport Evidence baseline;
- Chapter 6 presents the Transport Objectives which have been developed in light of the strategic policy context and local Antrim and Newtownabbey Borough Council issues and direction as set by the Community Plan, the Preferred Option Paper and the emerging Draft Plan Strategy;
- Chapter 7 commences with a discussion of transport options and assesses their merits before presenting the recommended Transport Measures.
- Chapter 8 summarises the conclusions of the Transport Study and the recommended measures.

2.0 Policy Context

2.1. Transport Policy Context

2.1.1. The ANBC Council's Community Plans set out the Council's ambitions and the LDP process aims to map out the delivery of these ambitions. The Council has published their POP, an initial plan preparation consultation paper designed to stimulate debate and encourage feedback on key issues of strategic significance which are likely to influence the direction of the LDP.

2.1.2. The LDP Plan Strategies (LDP PS) will set out a vision and strategic objectives of the councils with the expectation of being achieved by 2030, for the benefit of the entire community. The LDP PS will go through Independent Examination by the Planning Appeals Commission (PAC).

2.1.3. Similarly, the PfG sets out the former Northern Ireland Executive's wider ambitions to address the major social, economic and environmental issues affecting all sections of society.

2.1.4. In addition to the PfG, there are a number of strategic planning and transport policies developed by the Department which set the context for this LTS, namely:

- The Regional Development Strategy 2035 – Building a Better Future;
- Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation; and
- Northern Ireland Changing Gear – A Bicycle Strategy for Northern Ireland.

2.1.5. These strategic documents are NI-wide and all Council areas are required to take account of their content and to plan accordingly. Many aspects of the NI-wide documents, especially those related to urban-related issues will be of key importance in Antrim and Newtownabbey due to its predominantly urban nature. In particular, the urban areas in Antrim and Newtownabbey Council area, most notably Antrim, Ballyclare, Crumlin and Randalstown have a key role to play in helping to deliver any urban-related objectives.

2.1.6. This LTS has been developed to support the achievement of both the objectives set out in the above documents, and also the objectives of the Council's Community Plan.

2.2. Planning Policy Context

Reform of local government & development planning

2.2.1. Reform of the Northern Ireland planning system came into operation on 1st April 2015. The unitary system where all planning powers rested with the Department of the Environment was replaced by a new two-tier systems model of delivery, with Local Government District Councils being made responsible for a number of functions including local plan-making, development management, planning enforcement and economic development.

2.2.2. Within this system central government (the Department) has responsibility for regional planning policy, the determination of regionally significant planning applications, called-in

applications, and planning legislation. It also provides oversight, guidance for councils, audit, governance and performance management functions. In addition to this the Department continues to be the competent authority for transport.

Strategic Planning Policy Statement for Northern Ireland – Planning for Sustainable Development (SPPS)

2.2.3. The SPPS was published in September 2015 and is a statement of the government's policy on important planning matters that should be addressed across Northern Ireland. It reflects expectations for delivery of the planning system.

2.2.4. The document consolidates the 20 separate Planning Policy Statements (PPSs) into one document, and sets out strategic subject planning policy for a wide range of planning matters. It sets out the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.

2.2.5. The SPPS identifies a number of regional strategic objectives for transportation and land-use planning as follows:

- promote sustainable patterns of development which reduce the need for motorised transport, encourages active travel, and facilitate travel by public transport in preference to the private car;
- ensure accessibility for all, with the needs of people with disabilities and others whose mobility is impaired given particular consideration;
- promote the provision of adequate facilities for cyclists in new development;
- promote parking policies that will assist in reducing reliance on the private car and help tackle growing congestion;
- protect routes required for new transport schemes including disused transport routes with potential for future reuse;
- restrict the number of new accesses and control the level of use of existing accesses onto Protected Routes; and
- promote road safety, in particular for pedestrians, cyclists and other vulnerable road users.

2.2.6. Transport accessibility is considered to be a key strand throughout the SPPS. The SPSS must be taken into account in the preparation of LDPs and in the determination of planning applications. The SPPS also recommends that councils undertake local transport studies to identify transportation and land use planning issues to be addressed through the delivery of LDPs. This is to have consideration of transport infrastructure (as related to development proposals / land use zoning) such as new transport schemes, walking, cycling and car parking.

2.2.7. This approach is in accordance with the stated aim of the SPPS contained within the Regional Development Strategy 2035 (RDS 2035) with regard to transportation "to secure improved integration with land-use planning". In addition, Section 3 of Part 2 of the Planning Act (Northern Ireland) 2011 (the Act) refers to the "survey of the district" and the requirement from councils to keep under review matters which may be expected to affect the development of its

district or the planning of that development, including "the communications, transport system and traffic of the district" (Section 3 (2) (d)).

Local Development Plans

2.2.8. Part 2 of the Act places a statutory requirement on each council to prepare an LDP for its district. An LDP consists of two separate development plan documents, covering the council district:

- a Plan Strategy (PS) which will set out the council's vision, objectives and growth strategy for the area along with strategic policies; and
- a Local Policies Plan (LPP) which will set out the council's detailed policies in relation to the development and use of land in its district.

2.2.9. The PS is produced first with scrutiny at the independent examination stage. The LPP is prepared subsequently to be consistent with the PS. As an initial task, each council is also required to prepare and publish a Preferred Options Paper (POP) which sets out for consultation purposes:

- a series of options for dealing with the key issues in the plan;
- evidence to appraise the different issues and options; and
- the council's preferred options and its justification for selecting/recommending its preferred approach.

2.2.10. The BMTP councils have all completed this initial task by publishing their POPs. Each of the POPs include direct references to transport in the documents' objectives. The objective can be categorised as economic, social or environmental.

2.2.11. Common transport themes run through the five POPs including the promotion of sustainable transport including public transport and active travel as well as forms of vehicle management within the city/town centres, such as parking restraints. In addition, there is an acceptance within the documents that growth should be focused within the existing cities/towns where levels of sustainable transport provision is infrastructure is generally higher.

2.2.12. In terms of sustainability, the growth aspirations across the BMTP area have the potential to produce a greater number of trips and careful mitigation will be needed to reduce the number undertaken by private car. The complementary investment in green transport and Active Travel would be critical in ensuring sustainable long-term development.

2.3. Draft Programme for Government[1]

2.3.1. The Draft PfG framework of the former NI Executive focuses on improving wellbeing for all through tackling disadvantage and driving economic growth. The draft PfG is outcomes- based and is focused on impact at a whole population level, rather than a list of activities or inputs.

[1] Outgoing Ministers have given cover to proceed with the policy direction set by the last Executive in the draft PfG, consequently, Departments are continuing to deliver public services in line with the policy direction in the draft PfG.

The ambitions contained in the PfG will only be realised through sustained collaboration, across organisational and sectoral boundaries.

2.3.2. The PfG identifies 12 strategic outcomes of societal wellbeing, supported by 49 indicators. Outcomes Delivery Plans have been developed for each of these, setting out the key actions to support delivery of PfG outcomes.

2.3.3. In respect of transport infrastructure and connectivity the Department's main contribution to the PfG is through:

- Outcome 11: We connect people and opportunities through our infrastructure; and
- Outcome 2: We live and work sustainably – protecting the environment.

2.3.4. The key focus of Outcome 11 is the importance of physical connectivity as a key enabler of economic growth and social cohesion. Outcome 2 has a focus on protecting the environment while supporting wider economic growth and social cohesion objectives. Under this framework the Department is directly responsible for delivery of two transport related PfG indicators: The Department's key priorities and the focus of delivery plans under this outcome is improving journey time on key economic corridors and increasing use of public transport, walking and cycling.

2.3.5. In delivering progress towards this PfG outcome the Department seeks to ensure that investment in transport infrastructure supports economic and social progress while seeking to minimise the harmful effects generated by motorised traffic through congestion and pollution on the environment and on health. Enhancing the flow of traffic on key routes between population centres is a key enabler of economic growth, reduces environmental hotspots as result of traffic congestion and benefits individual road users. In isolation, however, road improvements will also drive an increase in road traffic, generating further congestion and poorer air quality. Incentivising more sustainable and efficient ways of travelling such as walking, cycling and public transport will reduce traffic congestion and encourage healthier, more environmentally sustainable lifestyles which will be of wider benefit.

2.3.6. It is understood that variations in the rural / urban settlement balance across NI will provide variations in the challenges and opportunities for Councils in delivering progress towards PfG outcomes. Nevertheless, the ability of the Department to contribute to the successful delivery of PfG will be reliant on the concerted and collaborative efforts of delivery partners working in partnership with the Department.

2.4. The Regional Development Strategy 2035 – Building a better Future (RDS 2035)

2.4.1. The RDS 2035, published March 2012, is a long-term plan to deliver the spatial aspects of the PfG. The RDS 2035 recognises the need for balanced sub-regional growth and importance of key settlements as centres for growth and investment.

2.4.2. The RDS includes Regional Guidance (RG) to "deliver a balanced approach to transport infrastructure" and Regional Guidance 2 (RG2) which will allow the region to remain competitive in the global market in a sustainable manner. The focus of this guidance is on managing the use of road and rail space and how we can use our network in a better, smarter way.

2.4.3. In particular, the RDS recognises the need to maximise the potential of the Regional Strategic Transport Network (RSTN) to enhance accessibility to towns; to help build an integrated regional economy; facilitate tourist travel including improving connections to key tourism sites; and reduces where possible, unsuitable traffic into towns.

2.4.4. The RDS contains a Spatial Framework and Strategic Planning Guidelines based on focusing development in principal cities, main hubs, hubs and clusters. It also prioritises the improvement of the main transport corridors that form the regional transportation network. The RDS identifies Antrim as a main hub and recognises that it benefits from ease of access to Belfast and the South. Ballyclare, Crumlin and Randalstown are not classed as hubs.

2.5. Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation

2.5.1. The New Approach, published April 2012, sets out proposals for regional transportation beyond 2015. It was developed to complement the RDS 2035.

2.5.2. The New Approach sets out three High Level Aims for transportation, each of which is supported by a number of Strategic Objectives – these are outlined below:

A. Support the Growth of the Economy
1: Improve connectivity within the region
2: Use road space and railways more efficiently
3: Better maintain transport infrastructure
4: Improve access in our towns and cities
5: Improve access in rural areas
6: Improve connections to key tourism sites

B. Enhance the quality of life for all
7: Improve Safety
8: Enhance Social Inclusion
9: Develop transport programmes focused on the user

C. Reduce the Environmental Impact of Transport
10: Reduce Greenhouse gas emissions from transport
11: Protect biodiversity
12: Reduce water, noise and air pollution

2.6. Northern Ireland Changing Gear – A Bicycle Strategy for Northern Ireland

2.6.1. Northern Ireland Changing Gear - A bicycle strategy, published April 2015, outlines the ambition to transform cycling in Northern Ireland over a 25 year period. The strategy's outlines vision for cycling in Northern Ireland as;

"A community where people have the freedom and confidence to travel by bicycle for every day journeys"

2.6.2. The document identifies a number of objectives which have been set to guide the delivery of the bicycle strategy. These are:

- Making urban areas in Northern Ireland more accessible for people using the bicycle – improvements to cycling infrastructure will enable more people to access facilities in our urban centres by bicycle or by multi modal journeys.

- Improve opportunities for social interaction – 22% of households in Northern Ireland do not have access to a car/van. Improved cycling infrastructure enhances the travel opportunities for those who don't have access to a car/van. Perhaps more importantly, cycling is a social form of transport. It allows people to interact and engage with their surroundings, their community and their neighbours. This can help build a sense of community and contribute to personal well-being and social inclusion.

- Improvements in public health – increased levels of bicycle use have both direct (personal fitness) and indirect (improvements to air quality) benefits for public health.

- Increase safety for people using the bicycle – this includes reducing the proportion involved in collisions and increasing the 'feel safe' factor for people riding a bicycle.

2.6.3. The Bicycle Strategy outlines how a comprehensive network of bicycle facilities should be developed, including a focus on urban networks where detailed proposals for infrastructure should be outlined and delivered alongside specific behaviour change initiatives and campaigns. In the urban areas, radial routes (primary routes), quiet routes should be developed to form a comprehensive hierarchical network. The bicycle strategy also highlights the role that greenways can play in a comprehensive network.

2.6.4. The Bicycle Strategy outlines a 3 Pillar Approach, based around Build (infrastructure, design, cycle parking and safety), Support (education and training, safety and security, legibility and mapping), and Promote (respect and understanding, marketing and flagship events and schemes).

2.6.5. The Bicycle Strategy is particularly relevant to the towns of Antrim, Ballyclare, Crumlin and Randalstown.

2.7. Exercise Explore Enjoy: A Strategic Plan for Greenways

2.7.1. In November 2016 the Department published it greenways strategy entitled "*Exercise Explore Enjoy: A Strategic Plan for Greenways*". The documents provides a vison for "A region where people have ready access to a safe traffic free environment for health, active travel and leisure".

2.7.2. The strategy sets out the plans for a network of greenways, connecting towns and cities to the villages and countryside from east to west and north to south across all eleven councils.

2.7.3. The document identifies 3 classifications of greenway routes that should be explored;

- Primary Greenway Network – to provide long distance connectivity;
- Secondary Greenway Network – to provide wider access to greenways; and,
- Community Paths – to provide doorstep opportunities to connect local communities to their local green space and neighbouring communities.

2.8. Draft Belfast Metropolitan Area Plan 2015

2.8.1. The Belfast Metropolitan Area Plan 2015 (BMAP) is unadopted, however given the age of the current statutory development plan, the Newtownabbey Area Plan 2005 (published in 1993), the draft BMAP remains a relevant evidence base and consideration for land use planning. Draft BMAP was prepared in parallel with the (non-statutory) Belfast Metropolitan Transport Plan (BMTP) to ensure that as far as possible the plans are mutually supportive. In this respect the land use locations in BMAP were closely linked with the priorities and proposed transport investment in BMTP, outlined separately below.

2.8.2. In developing BMTP attention was paid to improving accessibility to key strategic sites and regeneration areas identified by the RDS and progressed by the draft Plan. In addition the Plan took into account the land use requirements of transportation infrastructure by identifying protection lines for planned transport schemes and abandoning protection for schemes which were no longer to be implemented

2.8.3. The Draft Plan includes two Transport Policies:

- TRAN 1 – Parking Standards within Areas of Parking Restraint. These standards were expected to be varied only in appropriate circumstances and on the basis of empirical evidence.
- TRAN 2 – Publicly Owned Off-street Surface Car Parks within City and Town Centres. This effectively required parking supply levels to be maintained following the re-use of existing central car parks.

2.9. Belfast Metropolitan Transport Plan 2015

2.9.1. BMTP 2015 is non statutory and was prepared by the then Department for Regional Development as a technical supplement for the Draft BMAP and unadopted BMAP 2015. The BMTP 2015 includes a phased and costed implementation programme of transport schemes to

2015. The implementation of these proposals was subject to detailed economic appraisal, funding availability and statutory processes.

2.9.2. BMTP included schemes arranged along four modal themes:

- Walking and Cycling – such as walking corridors and cycle routes;
- Public Transport – such as bus and rail schemes;
- Highway – such as road schemes; and
- Management measures – such as parking controls or traffic management used to control traffic and influence travel demands and patterns.

2.9.3. Whilst many of the core objectives of the BMTP 2015 remain relevant, the wider strategic framework has changed with the publication of the RDS 2035 and a new RTS and therefore BMTP 2015 is considered outdated. Schemes and transportation initiatives included in the BMTP 2015 will require further consideration as part of the development of the new Belfast Metropolitan Transport Plan which will accompany Local Policies Plans.

2.10. Interim Belfast Metropolitan Transport Plan

2.10.1. The Interim Belfast Metropolitan Transport Plan set out a short term framework for the planning and delivery of transport infrastructure in and providing access to Belfast City Centre covering the period from 2017 to 2020. The framework was prepared by the Department in consultation with Belfast City Council with the aim of ensuring an integrated approach in the development of transport infrastructure and services supporting the regeneration of Belfast City Centre in line with wider strategic objectives as set out in the draft PfG and supported by the Belfast Agenda. In this context, the framework presented a 'refresh' of the policies and schemes set out in the BMTP.

2.10.2. The Framework aimed to ensure a joined-up approach between the Department as the transport authority and Belfast City Council as the planning authority in the development of Belfast City Centre. In particular it seeked to ensure clarity as to both the major transport priorities and the strategic focus of transport policy and investment.

2.10.3. While the Interim BMTP was concerned with developments and transport infrastructure within Belfast City Centre, in order to influence travel choices to the city centre, the framework also commented on the balance of commuter priorities on the major radial corridors which deliver commuters to and from the City Centre.

2.11. Antrim and Newtownabbey Borough Council Context

Preferred Options Paper

2.11.1. ANBC published their POP on 18th January 2017. The vision of this document is "In 2030, Antrim and Newtownabbey Borough will have a reputation as an excellent, attractive and diverse place in which to live and work. It will be a place in which to live and work. It will be a place that all citizens can take pride in and that is appealing to new residents, investors and visitors alike, with improved job opportunities, housing availability and connectivity that meets the needs of our community. Development will be sustainable and of high quality and will address the ongoing challenges of climate change. Our built and natural environment will continue to be high quality and well looked after and will support prosperity and economic development and provide for a wide range of recreational and leisure activities."

2.11.2. The objectives set in the POP are as follows (Note: Objectives in the POP are listed as bullet points. For ease of reference throughout this LTS, numerical values have been assigned to represent each bullet point):

1. To provide an adequate range and quality of land and premises for business and industry;
2. To protect strategically important business and employment opportunities;
3. To promote the development and regeneration of our towns and commercial centres;
4. To promote high quality environmentally sustainable design;
5. To provide a sufficient supply of land for mainstream and affordable housing and ensure a diverse choice of housing;
6. To ensure that necessary new infrastructure accompanies new development;
7. To accommodate necessary community facilities;
8. To encourage better connectivity by transport and digital networks;
9. To protect and enhance the natural and built environment;
10. To protect open spaces of public value and promote green network linkages around our larger settlements;
11. To promote sustainable tourism and economic diversification;
12. To integrate climate change adaptation requirements such as flood prevention and sustainable renewable energy production; and
13. To make adequate provision for waste management.

2.11.3. The above POP Objectives will be used, along with other relevant considerations, to help inform transport related objectives for the ANBC area.

2.11.4. The POP also set out a number of overarching principles as follows:

- Sustainable economic growth;
- Climate Change;
- Quality of Life;
- Quality of Place;
- Environment;

- Energy and Resources; and
- Community Benefits

Community Plan

2.11.5. The ANBC 2030 Community Plan sets out the vision for "a resilient, socially responsible community where citizens enjoy a high quality of life".

2.11.6. To support this vision, themes and priorities have been set. These are presented in Figure 3. Each of the key themes and priorities within them relevant to this LTS are summarised as follows (Note: Priorities in the Community Plan are listed as bullet points. For ease of reference throughout this LTS, numerical values have been assigned to each of the bullet points):

1. Our Citizens enjoy good health and wellbeing;
    a) Exercise and physical activity are acknowledged as important ways to stay well both physically and mentally;
    b) There is provision of accessible recreational and leisure opportunities for all our citizens;
    c) The particular needs of an ageing population are met so that our citizens can live long, healthy and independent lives in their own homes if that is their wish; and
    d) The particular needs of the most vulnerable in our community are met so that they can live active and healthy lives. These needs may include access to leisure or play facilities, access to appropriate advice and support or access to services.
2. Our Citizens live in connected, safe, clean and vibrant places;
    a) Getting around our Borough is easier for those who don't have access to a car and for those who would prefer a more active mode of transport;
    b) Our town and village centres are vibrant places where people live and where they spend their leisure time;
    c) Our natural environment is valued; and
    d) Local people get involved in decisions on the future development of their areas through the Place Shaping Forum
3. Our Citizens benefit from economic prosperity;
    a) Our local economy thrives, with local businesses starting up, growing, expanding and generating employment;
    b) Our area has a skilled population and infrastructure which is attractive to investors and employers; and
    c) Barriers to accessing employment are reduced or removed enabling all of our citizens to have equitable access to the opportunities available in the Borough.
4. Our Citizens achieve their full potential; and
5. Our vulnerable people are supported.
    a) Our aging population is supported to live active lives as part of their community;
    b) Our aging population is supported to live as contentedly and independently as possible for as long as possible; and
    c) Our young people are supported to access opportunities which enable them to fulfil their potential.

2.11.7. The shared principles which underpin this vision are:

- Equality;
- Sustainability;
- Connectivity;
- Opportunity;
- Inclusivity;
- Vitality;
- Capability; and
- Compassion

2.11.8. These themes are fundamental in guiding the emerging vision and strategic objectives of the Local Development Plan – Plan Strategy and the Local Transport Study.

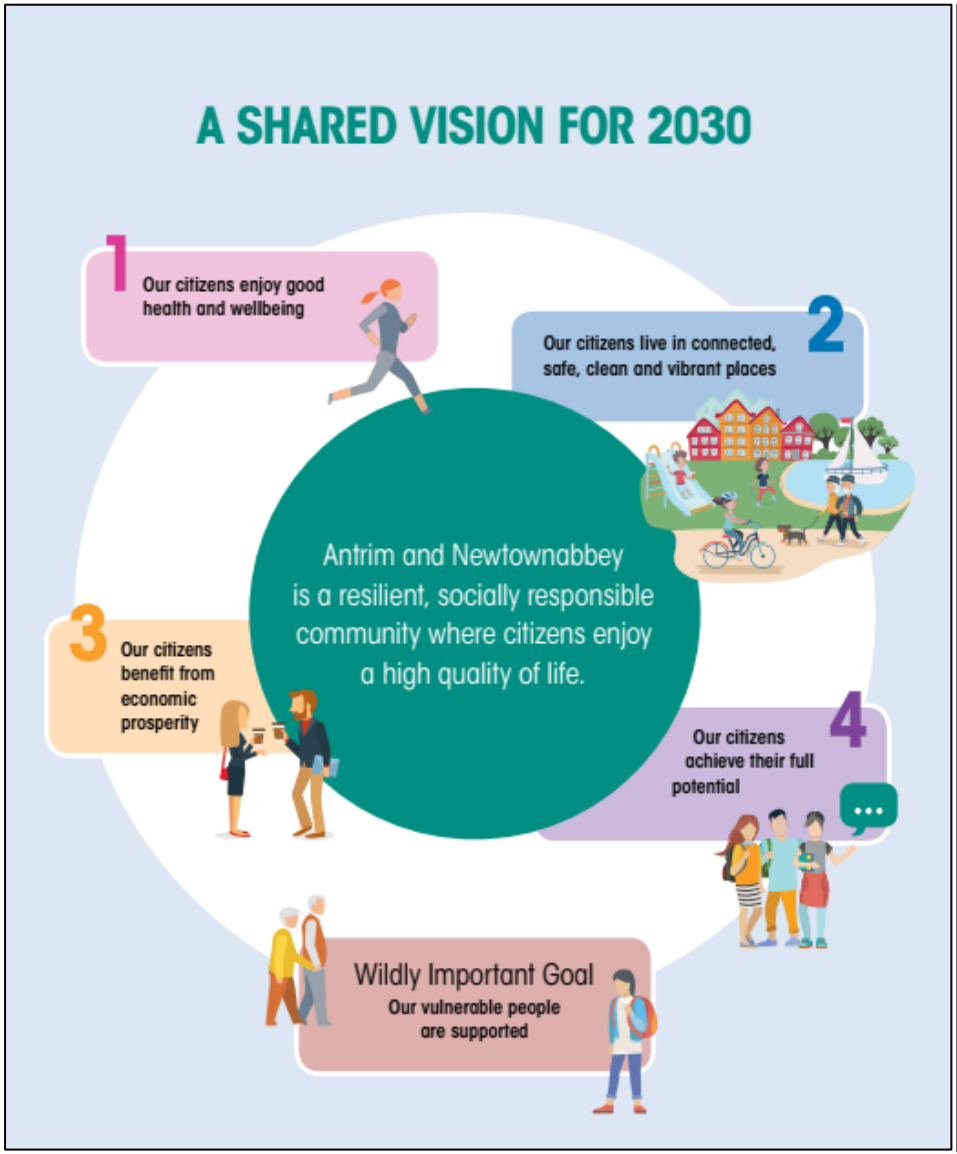
Summary

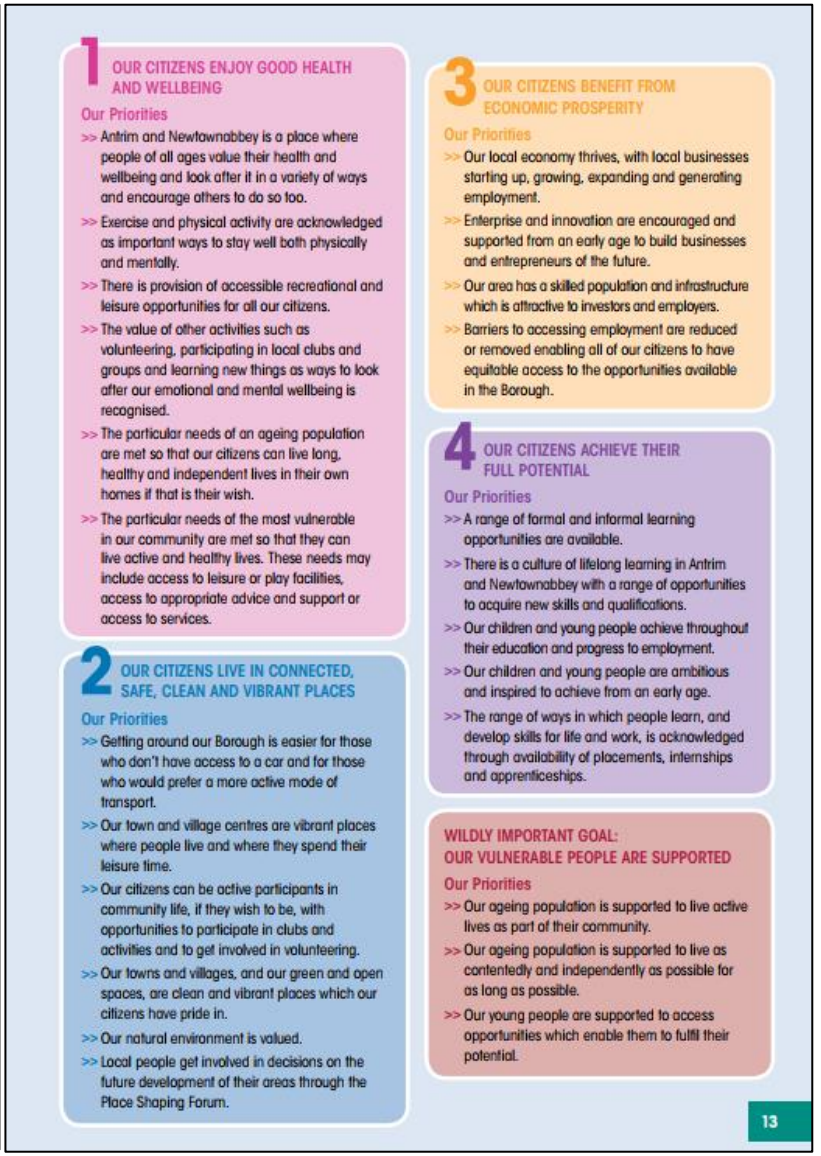
2.11.9. This Local Transport Study report has been prepared with consideration to key strategic policy documentation and has been supplemented with ANBC's own documents, namely the Community Plan and the POP.

2.11.10. This has ensured that the Antrim & Newtownabbey vision, principles and themes have been used to inform "blended" objectives and indicative measures for the ANBC area which reflect the specific transportation needs and characteristics of the local area.

2.11.11. The Local Transport Study supports the overall aim of enhancing accessibility and connectivity between people and places to help deliver a more sustainable, inclusive community within the Borough's main towns.

Figure 2.1 **Community Planning Vision, Themes and Priorities (Source: Antrim and Newtownabbey Borough Council – Community Plan)**





3.0 Transport Evidence Baseline

3.1. Transport Evidence Baseline

3.1.1. Tables 1.1 and 1.2 and Figure 1.3 in Section 1 – Introduction, have provided a demographic and transport context for the ANBC area. This section introduces a more detailed transport evidence baseline for the ANBC area as presented in Annex 1.

3.1.2. The evidence is presented in Annex 1. The evidence has been gathered from a range of published sources including the 2011 Census, Translink public transport timetables, and Police Service of NI statistics, in addition to analytical analyses undertaken by the Department and fieldwork surveys on behalf of the Department. The evidence baseline focuses on the performance of the transport networks and features accessibility and modal choice.

3.1.3. Annex 1 presents the following in turn:

- Regional connectivity from Antrim, Ballyclare, Crumlin and Randalstown by road and public transport – what time is required to travel to the economic centres and travel gateways such as Belfast International Airport?
- Accessibility to health services by public transport from across the Council area – to what degree do current rural bus services allow residents of the rural areas to reach essential health facilities?
- Urban walking and cycling infrastructure in Antrim, Ballyclare, Crumlin and Randalstown – how well developed are the current networks?
- Local urban bus services in Antrim, Ballyclare, Crumlin and Randalstown – to what degree do they provide coverage for urban residents?
- Travel to work journeys – where do residents of ANBC work?
- Modal choice for journeys to work and education across the Council area – how far do people travel to work and school / college and what mode of travel do they use?
- Road network speeds at peak and off-peak time periods – to what degree is the road network congested?
- Road collision history in Antrim, Ballyclare, Crumlin and Randalstown – how many people are injured or killed on roads and streets in the towns and which modes are most vulnerable?
- Parking provision in Antrim, Ballyclare, Crumlin and Randalstown – how many parking spaces are there in the town centres, where are they located and how are they designated for use?

3.1.4. Interpretation of the evidence and identification of transport issues and opportunities are described in the Section 5 – Transport Issues and Opportunities.

3.2. Integrated Land Use and Transport Planning

3.2.1. The integration of land-use and transport planning processes provides a unique opportunity to combine the shared regional and local sustainable development ambitions which are set out in the PfG, RDS, Community Plan and LDP.

3.2.2. The integration of land use and transport planning has the potential to reduce the need for travel, make better use of existing transport infrastructure and ensure that new transport infrastructure and services are effective, efficient and minimise impacts on the environment.

3.2.3. Integration is especially important in urban areas where there are practical choices to be made in terms of the location and type of development that may have substantial knock-on impacts on local environments and travel behaviour. In general terms, stronger city centres and greater development densities along public transport corridors can increase the use of sustainable and active travel modes. Conversely, dispersed development and low densities, whilst generally not adding to city centre traffic congestion, tend to further increase car dependency.

4.0 Growth and Development proposals

4.1. Growth in Population and Employment

Housing Growth

4.1.1. The Antrim and Newtownabbey Borough Council POP foresees a population increase of 3.51% with 13,000 new houses required over the period 2015 – 2030. Antrim and Newtownabbey Borough Council's Housing Growth Indicator (HGI) for 2008-2025 was 7,200, with 9,996 projected to 2030. At POP stage, housing commitments, including housing zonings and extant approvals were 13,903. The proposed allocation of housing would locate approximately 83% of the new houses in the main towns (including Metropolitan Newtownabbey and excluding Hamlets and Countryside), with the remainder allocated between the smaller towns, villages, small settlements and the countryside, as summarised in Table 3 below.

Table 3 Housing Growth Allocation (Source: Antrim and Newtownabbey Borough Council Preferred Options Paper Figure 16)

Town/Settlement	Number of Allocated Houses	Percentage of Total Allocated Houses	Cumulative %
Antrim and Newtownabbey	**13,000**	**100%**	**100%**
Metropolitan Newtownabbey	4400	34%	34%
Antrim	3500	27%	61%
Ballyclare	1600	12%	73%
Crumlin	650	5%	78%
Randalstown	650	5%	83%
Templepatrick	280	2%	85%
Doagh	200	2%	87%
Ballynure	175	1%	88%
Burnside	150	1%	89%
Toome	120	1%	90%
Ballyrobert	80	1%	91%
Parkgate	60	0%	91%
Dunadry	60	0%	92%
Straid	25	0%	92%
Hamlets and Countryside	1050	8%	100%

4.1.2. Additional population, new houses and households will lead to increases in the demand for travel. This gives rise to the following transport issues:

- Addressing additional congestion which would be created by an increase in private cars. The urban road network is already congested at peak times whilst relatively few people choose to walk, cycle or use public transport.

- Additional demand for travel needs to be minimised through land-use planning and sustainable infrastructure provided to reduce growth in road traffic. In all cases the consideration of safety for all road users will be a primary concern.

- Housing growth in the main towns is the most integrated land-use and transport planning solution. It offers the greatest opportunity to minimise congestion, social exclusion, air quality problems and increase walking and cycling. However, it is recognised that where there are committed housing sites which have planning permission or where development is ongoing, the ability to provide alternative modes of travel as part of any currently approved development will be more difficult to achieve.

- Outside the four main towns, most settlements are located on the public transport network. Those that have frequent and direct bus services to Antrim, Ballyclare, Crumlin and Randalstown offer the best locations for sustainable transport opportunities, offering people an alternative to the private car. These should be the focus of most new housing outside the main towns (and taking into account the Housing Evaluation Framework, RDS)

- Houses in the countryside are unlikely to contribute to a meaningful shift towards alternative transport modes. However, where houses can be located within easy walking distance of existing bus routes, this may help minimise the potential for social exclusion.

4.1.3. The potential for increasing social inclusion is magnified by the predicted differential ageing effect and the growth in people living alone. The proportion of over 65's is expected to increase to 21.88% by 2030 whilst the average household size is expected to fall to 2.41 persons by 2030.

Employment Growth

4.1.4. The POP outlines that the preferred option will be to retain and reclassify current centres[2], based on a new classification system. This will include the potential to classify new centres, where there is already a concentration of shops and services that sever a local population. It is proposed to designate Mossley West as a District Centre that may be suitable for high density development containing a concentration of office based jobs and a range of support services,

[2] Shopping and local commercial areas which play an important socio-economic role within the Council area.

including retail and leisure facilities. The Mossley West designation would incorporate part of the 91ha at Global Point, which was designated as a major employment location in dBAMP).

4.1.5. BMAP and AAP identified 614ha of land zoned for employment/industry purposes, including 248ha of land for future industry/employment use. Of this 248ha, 155ha remains undeveloped. The majority of the undeveloped areas are located in Metropolitan Newtownabbey and Ballyclare. Lands zoned within Antrim are almost at capacity.

4.1.6. The POP is proposing to identify Strategic Employment Locations (SEL). These would be exiting employment sites over 10ha in Metropolitan Newtownabby, Antrim and Ballyclare and also new SELs in Antrim, Ballyclare, Crumlin and Randelstown. The POP states new SELs should be situated in or near to the largest settlements and in a favourable position in relation to key transport infrastructure. It also outlines that given there is large range of possible SELs in Metropolitan Newtownabbey, several of which remain to be developed, that new SELs will likely focus on the settlements of Antrim, Ballyclare, Crumlin and Randalstown. It is also proposed that Nutts Corner should be considered as a Rural SEL and Belfast International Airport as a SEL.

4.1.7. The POP states that the SELs will be complemented by a range of smaller non-strategic industrial and business areas that will continue to provide for a wide range of local employment opportunities in other places across the Council area.

4.1.8. The transport impacts of employment locations differ according to the type of employment and are generally as follows:

- Service industry, such as a business park, would generate a relatively high number of people movements and a primary concern should be its accessibility by public transport, walking and cycling.

- Manufacturing would require a balance concerning accessibility for employees and the traffic impacts of heavy goods vehicles carrying materials and finished goods to and from the site.

4.1.9. However, in both cases it should be noted that the location, and in particular its distance from residential areas will dictate whether accessibility by walking and cycling is practical and whether public transport becomes the primary consideration for employee accessibility. In all cases the consideration of safety for all road users will remain a primary concern.

4.2. Town Centre Developments

4.2.1. Redevelopment of town centre land uses offer the greatest potential to integrate land use and transportation in a sustainable fashion as in general terms these locations offer:

- Town centre locations which may be accessible locally by walking and cycling and more widely by bus services to the town centre;

- Opportunities to plan and deliver attractive new walking and cycling linkages; and
- Opportunities to provide and manage car parking as part of an integrated parking strategy for the town.

4.2.2. These principles will be considered further at the Transport Plan stage.

5.0 Transport Issues and Opportunities

5.1. Introduction

5.1.1. This section provides an interpretation of the Evidence Baseline and proposes issues and opportunities for illustrative transport measures to be considered for inclusion in the LTS. All of the figures referred to in this section are contained in Annex 1.

5.1.2. The following are dealt with in turn:

- Regional connectivity from Antrim, Ballyclare, Crumlin and Randalstown by road and public transport
- Accessibility to essential local services by public transport from across the Council area
- Urban walking and cycling infrastructure and bus services in Antrim, Ballyclare, Crumlin and Randalstown
- Modal choice for journeys to work and education across the Council area
- Road network speeds at peak and off-peak time periods
- Road collision history in Antrim, Ballyclare, Crumlin and Randalstown
- Parking provision in Antrim, Ballyclare, Crumlin and Randalstown
- Legacy Road Alignments

5.2. Regional connectivity

5.2.1. The towns of Antrim, Ballyclare, Crumlin and Randalstown are well connected by road to Belfast, Derry City and transport gateways, including Belfast International and City Airports, Belfast Port and the Port of Larne. Travel times are relatively short due to the proximity of the strategic road network to each of the main towns within the Council Area. On average, travel times within the AM Peak to Belfast are up to 30 minutes and to Derry within 90 minutes, as shown in Figure 2. Travel times from each of the main towns to the key hubs are relatively similar.

5.2.2. The completion of the A6 road dual carriageway upgrades defined as “Randalstown to Castledawson” and “Dungiven to Drumahoe” will provide substantial improvements to road standards, journey times and safety from the ANBC area to the western region and onwards to Derry City. Both schemes are scheduled to be complete and in operation by 2022.

5.2.3. While only part of the scheme falls within the ANBC area, the A6 upgrade, which build upon the completion of the A8 Belfast to Larne Dualling as well as the A2 Shore Road at Greenisland widening, will help to increase connectivity from the Council area to the wider strategic road network. Both schemes, which were completed and opened in December 2015 have improved accessibility from the Council area to Belfast. In terms of further upgrades to the strategic road network, these will be considered as part of the Regional Strategic Transport Network Transport Plan which is currently being developed by the Department. At this stage it is not anticipated

that any further major strategic road improvements will be planned during the LDP period to 2030 for the ANBC area.

5.2.4. With respect to the local road network, the Department will continue to implement Minor Improvement Schemes as required which will typically consist of junction upgrades, collision remedial measures, traffic management schemes and enhancements to pedestrian measures.

5.2.5. Public transport travel times are dependent on the bus network coverage and timetable integration. The Goldline 'limited-stop' bus network is important in providing attractive travel times but in overall terms it plays a limited role as its focus is primarily the A6/ M2 corridor and Belfast, however there is a park and ride facility at Toom Bridge. There are additional services which use the A2, A8 and A26, but these are less frequent. As a consequence, unlike car travel times, the pattern of public transport travel times are very unevenly distributed as they require interchanges and hence long journey times to reach locations to the north and south of the M2/ A6 corridor. From the towns of Antrim, Ballyclare and Crumlin, journeys of between 30mins to 1 hour are available to Belfast by using Bus.

5.2.6. The ANBC has a number of rail lines in their area including the Northern Line (stations in Mossley West and Antrim) and Larne line (with stations at Jordanstown and Whiteabbey). The Antrim – Knockmore line with runs between Antrim and Lisburn was closed to scheduled passenger traffic in 2003 but is maintained as a diversionary route in circumstances of an emergency and for driver training.

5.2.7. With the exception of Antrim to Ballymena and Coleraine, which have a journey times of around 15 mins and 1 hour respectively by either Bus or Rail, the majority of all other inter-urban services can take considerably longer and in most cases are in excess of 2 hours 30mins (and require an interchange).

5.2.8. To support the review of public transport coverage within the Antrim and Newtownabbey Borough Council area, TRACC[3] analysis was undertaken. Figure 3 shows that travel times to Belfast are within approximately 30 minutes, whereas journeys to Derry City are within 90 minutes. Within the ANBC area, journey times between the main towns are under 30 minutes by car, however can be up to 2 hours by public transport due to interchanges. While travel to the west typically results in lengthy travel times, the majority of key travel locations are within reasonable travel intervals.

5.2.9. The A6 dual carriageway improvements which are currently under construction should benefit the Goldline services to Derry.

5.2.10. In Antrim, Ballyclare, Crumlin and Randalstown, and at strategic locations along the routes, park and ride facilities may have a role to play in encouraging use of Goldline services for longer journeys. These facilities may be especially important for residents of smaller towns and villages and outlying rural areas.

[3]TRACC is a software program that provides multi-modal travel time analysis

5.3. Accessibility to Essential Local Services

5.3.1. Figure 4 shows accessibility by public transport to health facilities. The maps show that there is fair accessibility to health services in the morning peak period.

5.3.2. At a glance, Figure 4 shows that all health centres within the ANBC area are accessible for those who are within close proximity of public transport services. However, it is evident that those who are not living on public transport routes do not benefit from the same level of accessibility. Health facilities are accessible from the town centres within a 20 minute travel time for the majority of people. Those who reside in rural areas may experience travel times of up to 60 minutes or in a number of cases, have no accessibility to scheduled public transport services.

5.3.3. In general these services do not operate return trips other than mid-afternoon or the end of the working day and so time windows for transport option may not be convenient or practical. In addition, the catchment areas are effectively limited to the radial bus routes and large outlying tracts of the Council area have limited access by public transport. Bus services and their frequency from towns/villages to the main Hubs of Antrim, Ballyclare, Crumlin and Randalstown are limited. Therefore, residents outside the main towns have limited travel options with visiting health facilities. Without improvements in services car dependency will likely continue.

5.3.4. Any rationalisation of health facilities could result in substantial increases in journey time which may effectively put these services out of reach for residents outside the main towns, without access to private car. Also, any reductions in rural bus services could have a direct detrimental impact on these residents. Any additional residential development in rural areas not currently on a bus route will add directly to the number of people who have no access to essential local services except by private car.

5.3.5. The viability of rural bus networks is an NI-wide policy issue for the Department and other statutory transport providers and is the subject of separate current work. The findings and recommendations will be fed back to the Local Transport Plan and LDP processes.

5.4. Urban Sustainable Transport Infrastructure in Antrim, Ballyclare, Crumlin and Randalstown

5.4.1. The statistics within this section are associated with the town centres of Antrim, Ballyclare, Crumlin and Randalstown. Metropolitan Newtownabbey is not included.

Antrim

5.4.2. Figure 5a and Table 1a shows details of the pedestrian infrastructure in Antrim. The length of radial road within the development limit in Antrim totals 21.6km. A length totalling 1.5km does not have footways. There is consistent provision of footway breaks along the radial routes with the majority of these being dropped kerbs.

5.4.3. Within Antrim town centre there are 60 crossing facilities for pedestrians and cyclists, as shown in Figure 5a and Table 2a. The most common form of provision is Pedestrian Refuge Islands (45).

5.4.4. Figure 6a, Table 3 and Table 4a shows details of the cycling infrastructure in Antrim. There is 8.41 km of cycle network infrastructure in Antrim as follows:

- 2.81 km advisory cycle lane;
- 4.96 km traffic free cycle routes; and
- 0.6 km shared use footway.

5.4.5. There is a good provision of active travel infrastructure in Antrim including cycle networks, footways and crossing points. Cycle provision is available along 30% of the total radial route lengths which is predominantly traffic free cycle routes (59%) and advisory cycle lanes (33%).

5.4.6. Figure 7 and Table 5 show the local bus network in Antrim. Antrim has 5 town centre bus services that operate circular routes at approximately 1 hourly headways through the morning on weekdays and Saturday. The 5 routes serve the Greystone area and the east of the town (Ulsterbus service 321A) between 8:00am and 5:00pm, Aghaboy Gardens and the east sector (Ulsterbus service 321B) between 7:30am and 6:00pm, Springfarm Estate, The Junction and the north sector (Ulsterbus service 321C) between 9:00am and 5:30pm, Cedarmount and the south sector (Ulsterbus service 321D) between 9:00am and 5:00pm and Antrim Area Hospital and the north sector (Ulsterbus service 321E) between 7:45am and 5:00pm. The services operate throughout the day including at peak and school periods. In particular the services provide accessibility to the town centre for residents who may live up to 4km from the centre and find walking or cycling impractical. It is likely that the services will be most attractive to people without a car and for those who have free concessionary fares. In addition, children may find the Saturday services attractive.

5.4.7. Antrim Rail Station operates services to both Belfast and Derry and connections to a number of other key locations within NI. These services call at Antrim Rail Station on an hourly basis, with half hourly services at peak hours. A regular hourly service also operates at weekends.

5.4.8. The Rail Station is located alongside the Bus Station, so providing the ability to interchange modes and potentially minimise the need for car travel. A Park and Ride facility is also in place at the Rail Station to encourage the use of the rail services. The car park at the rail station has 248 parking spaces. There are 16 services daily (excluding Sundays) to Belfast International Airport. 10 of the daily services continue on to link Antrim to Crumlin, Glenavy and Lisburn.

5.4.9. The public transport services for Antrim could be improved by:

- extending the hours of operation for the town centre bus service, especially to support the town centre evening economy;
- increasing peak hour rail service frequency and/ capacities;
- reviewing the demand for Park and Ride at the rail station with a view to increasing capacity;
- improving peak hour rail service frequency and/or capacities; and
- improving walk access routes to the rail station from residential areas and the town centre.

Ballyclare

5.4.10. Figure 5b and Table 1b show details of the pedestrian infrastructure in Ballyclare. The length of radial road within the development limit in Ballyclare totals 11.8km. A length totalling 0.7km does not have footways. There is consistent provision of footway breaks along the radial routes. The majority of these are dropped kerbs.

5.4.11. Within Ballyclare town centre there are 20 crossing facilities for pedestrians and cyclists, as shown in Table 2b. The most common form of provision is Pedestrian Refuge Islands (15).

5.4.12. Figure 6b shows that there is no designated cycle network within Ballyclare. However as shown in Figure 6b and Table 4b, there are 4 locations where cycle parking is available.

5.4.13. There is a poor provision of active travel infrastructure in Ballyclare with a lack of designated cycle networks and the majority of footways being less than 2.5m wide.

5.4.14. There are no town centre bus services in operation in Ballyclare and it is not situated on the railway network.

5.4.15. Crumlin

5.4.16. Figure 5c and Table 1c show details of the pedestrian infrastructure in Crumlin. The length of radial road within the development limit in Crumlin totals 4.2km. A length totalling 0.9km does not have footways. There is consistent provision of footway breaks along the radial routes. The majority of these are dropped kerbs.

5.4.17. Within Crumlin town centre there are 5 crossing facilities for pedestrians and cyclists as shown in Table 2c. The most common form of provision is Pedestrian Refuge Islands (3).

5.4.18. Figure 6d and Table 4d show details of the cycle infrastructure in Crumlin which is limited solely to two cycle parking facilities with no cycle network.

5.4.19. There is a poor provision of active travel infrastructure in Crumlin with no cycle network infrastructure and the majority of footways less than 2.5m in width.

5.4.20. There are no town centre bus services in operation in Crumlin and it is not situated on the railway network.

5.4.21. Randalstown

5.4.22. Figure 5d and Table 1d show details of the pedestrian infrastructure in Randalstown. The length of radial road within the development limit in Randalstown totals 4.1km. A length totalling 1.6km do not have footways. There is consistent provision of footway breaks along the radial routes. The majority of these are dropped kerbs.

5.4.23. Within Randalstown town centre there are 3 crossing facilities for pedestrians and cyclists, as shown in Table 2d. The most common form of provision is Pedestrian Refuge Islands (2).

5.4.24. Figure 6c and Table 4c show the cycle network within Randalstown. The cycle network comprises 1.72km (71%) of on-road cycle network, 0.6km (25%) of traffic free cycle routes and 0.11km (4%) of shared use footway.

5.4.25. There is a poor provision of active travel infrastructure in Randalstown with limited traffic free cycling infrastructure and the majority of footways less than 2.5m in width.

5.4.26. There are no town centre bus services in operation in Randalstown and it is not situated on the railway network.

5.5. Modal choice for journeys to work and education

Introduction

5.5.1. The statistics within this section are associated with the town centres of Antrim, Ballyclare, Crumlin, Randalstown and Metropolitan Newtownabbey.

5.5.2. The 2011 census results for journey to work present a summary of movements between Council areas. As reported at 2011, it is possible to inspect the results for the old Antrim Borough Council and Newtownabbey Borough Council areas separately, as shown in Figures 8a and 8b respectively. These show that a high proportion of employed residents in both Antrim (48.5%) and Newtownabbey (34.6%) work within their own Council area.

5.5.3. Similarly, a high percentage of residents travel to Belfast for work; Antrim (23.2%) and Newtownabbey (44.5%). There are relatively few residents travelling to neighbouring Councils (other than Belfast). 7.6% of Antrim residents travel to Ballymena and 7.4% to Newtownabbey. Similarly, in Newtownabbey, 5% of residents travel to Antrim and 3% travel to Carrickfergus.

5.5.4. The 2011 census results also allow contrasts to be drawn between Antrim and Newtownabbey Borough Council and Northern Ireland (NI) in terms of travel behaviour, differentiating between working adults and school children and students.

Results

5.5.5. Figure 9 shows that the use of sustainable modes in Antrim and Newtownabbey Borough Council is above the NI average for journeys to work with 15% walking, cycling or using public transport compared to 8% across NI. It is notable that for short journeys (less than 2km) a similar number, 35% use active modes (walking and cycling) compared to the NI average of 37%, as shown in Figure 10.

5.5.6. The use of sustainable modes for journeys to education is higher than the NI average of 13%, with 18% of student journeys in Antrim and Newtownabbey Borough Council made by active modes, as shown in Figure 11. However, as for journeys to work it is notable that there are similarities between Antrim and Newtownabbey and NI for short journeys (less than 2km) 46% use active modes compared to the NI average of 45%. This differential is repeated for the next shortest journeys (2km to less than 5km) where 8% use active modes compared to 8% in NI, as shown in Figure 14.

5.5.7. Comparing journeys to education and work presents a marked contrast in terms of use of public transport. Public transport accounts for 27% of journeys to education, but only 8% to work. It is notable that 6% of the shortest (less than 2km) education journeys are made by public transport whilst by far the greatest share is car passenger (45%).

Conclusions

5.5.8. A review of the 2011 census data concludes that ANBC has good levels of active travel modes compared to NI averages for journeys over 2km and comparable rates for short journeys. In Antrim and Newtownabbey Borough Council, 44% of journeys to work under 2km are made by car/van. It is considered appropriate that a number of these journeys could be made by alternative modes. The ANBC performs well when compared to the NI average and this is against the backdrop of poor provision of active travel infrastructure. Therefore, there appears to be considerable potential to increase the number of journeys made by walking and cycling. This may require new improved infrastructure, picking up on the conclusions of the previous section and a continued emphasis on road safety for vulnerable road users. Land-use planning should therefore seek to encourage residential development within the existing urban area to reduce travel distances. Ideally residential development should be located in proximity to existing centres of employment and schools and convenient to existing radial routes and existing walking and cycling infrastructure.

5.5.9. The 2011 census data for ANBC shows that public transport is reasonably well used for children and student journeys to education, presumably where it is provided on a statutory and subsidised basis to a small number of largely centralised locations. However, public transport is only accounts for 8% for adult journeys to work which tend to be more widely distributed and where fares are generally not subsidised. Therefore, there appears to be considerable potential for additional use of public transport for journeys to work to town centres and other locations with significant employment provided fares can be made attractive and there are frequent services (to provide flexibility to the user) and offer journey time reliability. Land-use planning should therefore seek to encourage employment development in town centres where practical.

5.6. Road network speeds

Introduction

5.6.1. The statistics within this section are associated with the town centres of Antrim, Ballyclare, Crumlin and Randalstown. Metropolitan Newtownabbey is not included.

5.6.2. An investigation of road network efficiency has been undertaken by inspection of estimates of actual vehicular speeds calculated from global positioning system data sourced by commercial telematics sources (INRIX). The data was collected between October 2013 and 2015 and is available for peak (7 – 9am and 4-7pm) and off-peak (9am – 4pm) periods.

Results

5.6.3. The off-peak speeds have been inspected for the road network which extends over the ANBC area as this is considered most appropriate for most inter-urban journeys including commercial traffic. Figure 13 shows that in general terms the A road network, consisting of the A6 (Castle Road/Belfast Road), A8 and A57 (Airport Road/Templepatrick Road) between the principal towns operates at speeds exceeding 50mph except where it passes through villages. The Motorway (M2) which runs through Antrim and Newtownabbey Borough Council area operates at speeds in excess of 50 mph. Within the town centres, speeds are predominantly under 30mph.

5.6.4. Peak period speeds have been considered in the urban areas of Antrim, Ballyclare, Crumlin and Randalstown as this will highlight congestion on journeys to and from work. Speeds in all urban areas in Figure 14, show a general pattern of decreasing speed toward the centre of the town. Speeds on the outer lengths of the main radials generally exceed 31 mph. In general terms, speeds drop to 16 – 30mph on the inner lengths relating approximately to the 30mph speed restricted area and drop further to 15mph and less at the principal junctions in the town centres.

5.6.5. Conclusions

5.6.6. In general terms traffic speeds are consistent with the road class and level of development. On the principal inter-urban network roads are predominantly single-carriageways. However, a number of major roads pass through the area. The M2, M5, A8 and A26 all provide key access routes to Belfast and the wider network of hubs in the area. Recorded average speeds generally exceed 50mph except where they pass through villages. There is no practical method of increasing speeds other than an alternative new section providing a bypass of the village. Such bypasses may be provided as part of extensive upgrade schemes which would provide dual carriageway standards which would likely increase average speeds to 60mph and above.

5.6.7. In the urban areas, speeds reduce in line with the urban restrictions of 30mph. Traffic progression is controlled by the throughput of the principal junctions in the town centre which reduces peak speeds to less than 15mph. The M2 running throughout the ANBC area provides traffic relief to the town centres from strategic traffic movements.

5.7. Urban road collision history

Introduction

5.7.1. The statistics within this section are associated with the town centres of Antrim, Ballyclare, Crumlin and Randalstown. Metropolitan Newtownabbey is not included.

5.7.2. An investigation of road collision history has been undertaken for the urban areas of Antrim, Ballyclare, Crumlin and Randalstown using PSNI records dated between 2007 and 2016, with particular attention given to latest period 2012 - 2016. Consideration has been given to the type of road user, the severity of the casualties and the location of the collision in seeking to draw general conclusions. The results are presented in Table 6a, 6b, 6c and 6d.

Results

5.7.3. The collision records show that pedestrians and cyclists are over-represented in the seriously injured casualties and fatalities in the urban areas. In Antrim between 2012 and 2016, there were a total of 9 people seriously injured of which 5 were pedestrians and 2 were cyclists. There were no fatalities in Antrim. In Ballyclare, between 2012 and 2016, a total of 5 people were seriously injured of which 2 were pedestrians and 1 was a motorcyclist. There was only one fatality in Ballyclare, which was a car user. In Crumlin, between 2012 and 2016, there were no fatalities and 1 serious collision involving a pedestrian. In Randalstown, between 2012 and 2016, there were no fatalities and 3 serious collisions. The remaining 27 were slight injuries. Of the 3 serious collisions, one involved a pedestrian.

5.7.4. The locations of the collisions are distributed around the urban road networks in Antrim, Ballyclare, Crumlin and Randalstown. There is also a focus at the road junctions where conflicts between traffic flows and with crossing pedestrians and cyclists typically occur.

Conclusions

5.7.5. Whilst there are relatively small numbers of journeys made by walking and cycling in the urban areas of Antrim, Ballyclare, Crumlin and Randalstown, pedestrians and cyclists are often seriously injured in road collisions. By contrast, collisions in the urban areas involving vehicles tend to result in larger numbers of slight casualties to driver or passengers. The application of engineering, enforcement and education methods all have a role in minimising urban road casualties. In particular the message that there needs to be mutual respect between all road users is particularly important for the safety of pedestrians and cyclists.

5.8. Parking provision in Antrim, Ballyclare, Crumlin and Randalstown

Introduction

5.8.1. The statistics within this section are associated with the town centres of Antrim, Ballyclare, Crumlin and Randalstown. Metropolitan Newtownabbey is not included.

5.8.2. An investigation of existing public car parking provision has been undertaken by surveying and recording the location of all on and off-street spaces in the town centres of Antrim, Ballyclare, Crumlin and Randalstown in 2017. At a later date surveys will be undertaken of occupancy.

Results

5.8.3. The results for Antrim are presented in Figures 15a and Table 7a and 8a. The surveys show that the town centre of Antrim provides a total of 1198 public parking spaces of which 983 are off-street and 215 are on-street. Of the off-street spaces, 798 are free and 185 require payment. All but one of off-street car parks are Council operated. All of the on-street spaces are free, however 153 have day time restrictions (generally 0.5 hour no return in 2 hour) and 62 are unrestricted. The on-street spaces are generally the most conveniently located for shopping and personal business purposes in the principal business streets, whilst the free off-street parking spaces are generally located to the edge of the centre.

5.8.4. The results for Ballyclare are presented in Figures 15b and Table 7b and 8b. The town centre of Ballyclare has a total of 1041 public parking spaces of which 845 are off-street and 196 are on-street. Of the off-street spaces, 659 are free and 186 require payment. Three out of the five off-street car parks are private and therefore their future operation would need to be considered. All on-street spaces are free, however 48 have day time restrictions (generally 0.5 hour no return in 1 hour) and 148 are unrestricted. As for Ballyclare, the on-street spaces are generally the most conveniently located to town centre services, whilst the free off-street parking spaces are generally located to the edge of the centre.

5.8.5. The results for Crumlin are presented in Figures 15c and Table 7c and 8c. The surveys show that the town centre of Crumlin provides a total of 634 public parking spaces of which 504 are off-street and 130 are on-street. All 504 of the off-street spaces are free and are privately operated by supermarkets or retail facilities, options for any change in future operation should be carefully considered. All of the on-street spaces are free, however 61 have day time restrictions (generally 1 hour no return in 1 hour) and 65 are unrestricted. The on-street spaces are generally the most conveniently located for shopping and personal business purposes in the principal business streets, whilst the free off-street parking spaces are generally located to the edge of the centre.

5.8.6. The results for Randalstown are presented in Figures 15d and Table 7d and 8d. The surveys show that the town centre of Randalstown provides a total of 556 public parking spaces of which 284 are off-street and 272 are on-street. Of the off-street spaces, all 284 are free. Whilst the majority of off-street car parks are privately operated, the largest car park (John Street car park) is council owned and accounts for nearly have of the off street parking supply. All of the on-street spaces are free, however 67 have day time restrictions (generally 1 hour no return in 2 hour) and 200 are unrestricted. The on-street spaces are generally the most conveniently located for shopping and personal business purposes in the principal business streets, whilst the free off-street parking spaces are generally located to the edge of the centre.

Conclusions

5.8.7. Antrim, Ballyclare, Crumlin and Randalstown town centre's cover an area which is equal to or less than 1 km in length and 1km wide. Therefore, it is not unreasonable to expect drivers to walk from edge of town to their places of work or other long-stay purposes. Public parking arranged at the edge of town and convenient to the key radial routes could reduce traffic congestion at the key junctions and encourage onward travel by walking. Enhancing connectivity and way-finding between car parks and key town centre aspects will be of most importance within the study.

5.9. Legacy Road Alignments and Other Protected Land

5.9.1. Legacy Road Alignments and other transport related schemes with associated protected lands exist in the extant Local Development Plans within the study area. They are regarded as undeveloped alignments/areas identified in previous Local Development Plans that have been protected from development. While not all alignments/schemes will be retained in the future, they should remain protected until more detailed consideration is given to each alignment at the LDP Local Policy Plan/Local Transport Plan stage when zoning and scheme level detail will be provided.

5.9.2. In some cases these alignments may first appear out of line with current policy and some schemes will not progress in the form previously planned or not at all. However, these alignments will be retained until the Local Policies Plan when they will be reviewed in conjunction with individual zoning considerations and consequently dropped or retained as they could have potential alternative uses such as for active travel routes. Location Scheme

5.9.3. The remaining Legacy Road Alignments included in the previous area plans are as follows;

- Kirby Lane Link
- Lignite Road
- Ballyclare Relief Road
- Hightown Link Road
- M2 Motorway Interchange
- Park and Ride Access Road

6.0 Transport Objectives

6.1. Introduction

6.1.1. This chapter sets out the transport objectives, which have been developed following careful consideration of the existing strategic policy context and the draft local policies contained in the LDP POP for ANBC.

6.1.2. It is important that Antrim, Ballyclare, Crumlin and Randalstown are developed in a way which enables people to have options, other than driving, to access key services such as work, education, health or leisure. This will require a rebalancing of transport provision in conjunction with the new LDP to ensure that all modes of transport play their part.

6.1.3. This rebalancing must recognise the need for long-term stability and maintenance of the network and hence must play to the natural strengths of each mode of transport. For example, in general, public transport must focus on travel to and from urban centres where there is a 'critical mass' of key services and travel demand. Similarly walk and cycle must provide safe and attractive local connectivity to challenge the presumption of car travel for short journeys. Road standards should be in balance with the economic role of the traffic carried whilst care should be taken to ensure vehicles do not dominate town centres and reduce vital place-making opportunities.

6.2. Objectives

6.2.1. The development of the Transport Objectives has considered strategic policy documents (PfG, RDS, RTS and NI Changing Gear) whilst also reflecting ANBC's themes emerging from the POP and Community Plan such as "high quality", "connectivity", "meets the needs" and "sustainable" have all been incorporated into the LTS objectives.

6.2.2. Draft Transport Study Objectives

Objective 1
Enhance accessibility and connectivity by road and public transport from the centre of Antrim, Ballyclare, Crumlin and Randalstown to strategically important areas including Belfast, Londonderry, gateways and hubs to support sustainable economic growth of our town and commercial centres.
Community Plan Priorities Objective 2a - Getting around our Borough is easier for those who don't have access to a car and for those who would prefer a more active mode of transport Objective 3b - Our area has a skilled population and infrastructure which is attractive to investors and employers

Objective 3c - Barriers to accessing employment are reduced or removed enabling all of our citizens to have equitable access to the opportunities available in the Borough
Preferred Options Paper Objectives Objective 2 - To protect strategically important business and employment opportunities Objective 8 - To encourage better connectivity by transport and digital networks Objective 9 - To protect and enhance the natural and built environment Objective 11 - To promote sustainable tourism and economic diversification

6.2.2.1. Some of the PfG high level outcomes and indicators for transport are to provide high quality transport and to improve travel times on key inter-urban economic corridors. The outworking of this will be to provide capacity improvements on rail and highways and by providing attractive limited-stop bus services focused on inter-urban journeys made on the key economic corridors linking the gateways and hubs identified in the RDS.

6.2.2.2. The enhancement and protection of strategically important opportunities will be assisted by improved transport networks. This will encourage travel both within the Council area and to the wider Northern Ireland area. Enhancing accessibility from each town centre through sustainable modes of transport and road improvements in strategically important areas will support sustainable tourism and economic diversification.

Objective 2
Ensure viable public transport accessibility for all citizens (especially vulnerable people) living, working, studying and visiting in the Antrim and Newtownabbey Borough Council area
Community Plan Priorities Objective 1b - There is provision of accessible recreational and leisure opportunities for all our citizens Objective 1c - The particular needs of an ageing population are met so that our citizens can live long, healthy and independent lives in their own homes if that is their wish Objective 1d - The particular needs of the most vulnerable in our community are met so that they can live active and healthy lives. These needs may include access to leisure or play facilities, access to appropriate advice and support or access to services Objective 2a - Getting around our Borough is easier for those who don't have access to a car and for those who would prefer a more active mode of transport Objective 2b - Our town and village centres are vibrant places where people live and where they spend their leisure time Objective 3a - Our local economy thrives, with local businesses starting up, growing, expanding and generating employment Objective 3b - Our aging population is supported to live as contentedly and independently as possible for as long as possible Objective 3c - Barriers to accessing employment are reduced or removed enabling all of our citizens to have equitable access to the opportunities available in the Borough

Preferred Options Paper Objectives
Objective 3 - To promote the development and regeneration of our town and commercial centres
Objective 4 - To promote high quality environmentally sustainable design
Objective 6 - To encourage better connectivity by transport and digital networks
Objective 7 - To ensure new infrastructure accompanies new development
Objective 8 - To accommodate necessary community facilities
Objective 9 - To protect and enhance the natural and built environment

6.2.2.3. It is important that citizens can access essential services such as work, education, health or leisure. Whilst private car may be the dominant mode of travel within the borough, it should be possible to access these services without a private car. However, standard bus services are not financially viable where there is not a 'critical mass' of passengers. The Transport Study and Plan will therefore seek to explore the potential for a viable public transport network for the area that will be supported by the Department and other statutory bodies, such as Translink and ANBC. This will take account of the location of current and future essential services.

6.2.2.4. By improving the provision and access to public transport services, better connectivity will be achieved. This will ensure that access is available to necessary community facilities and will promote the development and regeneration of the main town and commercial centres. Linking areas outside of the main town centres will promote a sense of community within these areas. By integrating services, the dependency on the private car can also be reduced, which will also help to protect and enhance the natural and built environment.

Objective 3
Promote community health and wellbeing through the delivery of high quality, safe active travel networks (walking and cycling) linking all necessary community facilities in the urban areas of Antrim, Ballyclare, Crumlin and Randalstown to existing and new developments
Community Plan Priorities
Objective 1a - Exercise and physical activity are acknowledged as important ways to stay well both physically and mentally
Objective 1b - There is provision of accessible recreational and leisure opportunities for all our citizens
Objective 1c - The particular needs of an ageing population are met so that our citizens can live long, healthy and independent lives in their own homes if that is their wish
Objective 1d - The particular needs of the most vulnerable in our community are met so that they can live active and healthy lives. These needs may include access to leisure or play facilities, access to appropriate advice and support or access to services
Objective 2a - Getting around our Borough is easier for those who don't have access to a car and for those who would prefer a more active mode of transport
Objective 3c - Barriers to accessing employment are reduced or removed enabling all of our citizens to have equitable access to the opportunities available in the Borough
Objective 5a - Our aging population is supported to live active lives as part of their community

Objective 5c - Our young people are supported to access opportunities which enable them to fulfil their potential
Preferred Options Paper Objectives Objective 3 - To promote the development and regeneration of our town and commercial centres Objective 6 - To encourage better connectivity by transport and digital networks Objective 7 - To ensure new infrastructure accompanies new development Objective 8 - To accommodate necessary community facilities Objective 9 - To protect and enhance the natural and built environment

6.2.2.5. Creating higher density, mixed use places will require transport investment to be fully aligned with the growth strategy set out by ANBC.

6.2.2.6. Although still in the development stages, by working closely with the Council it is intended that growth will focus on the large urban centres of Antrim, Ballyclare, Crumlin and Randalstown. This will effectively maximise the capacity of the existing urban bus services in Antrim and active travel networks Antrim, Ballyclare, Crumlin and Randalstown and will facilitate the improvement of these networks.

6.2.2.7. It is considered that development should be located in areas which have good accessibility. This will enable residents to access facilities which are within walking and cycling distances and have the option to use bus services for longer journeys. In general, the scale of Antrim, Ballyclare, Crumlin and Randalstown are such that the full development area is within a convenient cycling distances (approximately 3 miles or 20 minutes). Similarly, almost all residential areas within the development limits are within walking range of the centre of the town (approximately 1 mile or 20 minutes).

6.2.2.8. In finalising planning permission for all new development, it will remain a requirement to ensure the provision of safe transport infrastructure for all users.

6.2.2.9. By improving the active travel networks, within the town centres and on key radials, opportunities will be created to allow individuals to consider walking and cycling as viable modes of travel. This will assist in protecting and enhancing the natural and built environment within the ANBC area. Additional health and wellbeing benefits will also be achieved through improving active travel. Connecting people with necessary community facilities via a greater range of modes can also assist with reducing the need to travel by private car, and thus assist with the regeneration of our town and commercial centres.

Objective 4
Ensure quality of place through the delivery of an enhanced public realm environment in the centres of Antrim, Ballyclare, Crumlin and Randalstown.
Community Plan Priorities Objective 1a - Exercise and physical activity are acknowledged as important ways to stay well both physically and mentally Objective 1b - There is provision of accessible recreational and leisure opportunities for all our citizens Objective 1d - The particular needs of the most vulnerable in our community are met so that they can live active and healthy lives. These needs may include access to leisure or play facilities, access to appropriate advice and support or access to services Objective 2a - Getting around our Borough is easier for those who don't have access to a car and for those who would prefer a more active mode of transport Objective 2b - Our town and village centres are vibrant places where people live and where they spend their leisure time
Preferred Options Paper Objectives Objective 2 - To protect strategically important business and employment opportunities Objective 3 - To promote the development and regeneration of our town and commercial centres Objective 4 - To promote high quality environmentally sustainable design Objective 6 - To encourage better connectivity by transport and digital networks Objective 7 - To protect and enhance the natural and built environment Objective 8 - To protect open spaces of public value and promote green network linkages around our larger settlements Objective 9 - To ensure new infrastructure accompanies new development Objective 10 - To accommodate necessary community facilities

6.2.2.10. Indicator 25 of the PfG focuses on increasing the proportion of journeys made by walking, cycling and public transport. This will a require a change in modal demands in urban areas by reducing private car travel whilst providing safer infrastructure which will encourage and support an increase in walking, cycling and public transport use. Journeys to and within the town centre, where there is critical mass of demand, offer the greatest potential for walking and cycling and public transport and can be influenced by a parking strategy. The transport infrastructure in town centres also merit special priority in terms of place-making.

6.2.2.11. Improvements made to the public realm of ANBC's towns will strengthen town centres and promote green network linkages in the settlements. The development and regeneration of the town centre public realms will assist in reinforcing the role of Antrim, Ballyclare, Crumlin and Randalstown, in conjunction with Metropolitan Newtownabbey, as the main centres of population, employment and services in the ANBC area.

Objective 5
Enhance accessibility by sustainable modes of transport to the centres of Antrim, Ballyclare, Crumlin and Randalstown to promote the development of town centres, protect businesses and employment opportunities thus supporting sustainable economic growth.
Community Plan Priorities Objective 1a - Exercise and physical activity are acknowledged as important ways to stay well both physically and mentally Objective 1b - There is provision of accessible recreational and leisure opportunities for all our citizens Objective 1c - The particular needs of an ageing population are met so that our citizens can live long, healthy and independent lives in their own homes if that is their wish Objective 1d - The particular needs of the most vulnerable in our community are met so that they can live active and healthy lives. These needs may include access to leisure or play facilities, access to appropriate advice and support or access to services Objective 2a - Getting around our Borough is easier for those who don't have access to a car and for those who would prefer a more active mode of transport Objective 2b - Our town and village centres are vibrant places where people live and where they spend their leisure time Objective 3a - Our local economy thrives, with local businesses starting up, growing, expanding and generating employment Objective 3b - Our area has a skilled population and infrastructure which is attractive to investors and employers Objective 3c - Barriers to accessing employment are reduced or removed enabling all of our citizens to have equitable access to the opportunities available in the Borough
Preferred Options Paper Objectives Objective 2 - To protect strategically important business and employment opportunities Objective 3 - To promote the development and regeneration of our town and commercial centres Objective 4 - To promote high quality environmentally sustainable design Objective 6 - To encourage better connectivity by transport and digital networks Objective 7 - To protect and enhance the natural and built environment Objective 8 - To protect open spaces of public value and promote green network linkages around our larger settlements Objective 9 - To ensure new infrastructure accompanies new development Objective 10 - To accommodate necessary community facilities

6.2.2.12. Antrim, Ballyclare Crumlin and Randalstown town centres offer a broad range of services which meet the needs of residents of Antrim, Ballyclare, Crumlin and Randalstown, the wider ANBC area and some of the rural communities of the surround council districts. By improving sustainable transport infrastructure and hence accessibility between and within our towns it is considered that the role of these town centres will be strengthened, supporting their development and vitality. Development in close proximity to town centres should be focussed on walking and cycling networks and public transport, reducing the need for car use and car parking. The focus on sustainable modes has the potential to contribute to the place making responsibilities placed on the council.

6.2.2.13. Encouraging better connectivity by all modes to the main towns in the ANBC area, will enhance accessibility to necessary community facilities and as such protect strategically important business and employment opportunities. It will also be necessary to ensure that new infrastructure accompanies new development and that high quality environmentally sustainable design is encouraged.

Objective 6
Enhance safety for all modes of transport and reduce the number and severity of casualties.
Community Plan Priorities Objective 1c - The particular needs of an ageing population are met so that our citizens can live long, healthy and independent lives in their own homes if that is their wish Objective 1d - The particular needs of the most vulnerable in our community are met so that they can live active and healthy lives. These needs may include access to leisure or play facilities, access to appropriate advice and support or access to services
Preferred Options Paper Objectives Objective 6 - To ensure that necessary new infrastructure accompanies new development Objective 7 - To protect and enhance the natural and built environment

6.2.2.14. In order to ensure that all residents of and visitors to ANBC area are afforded the highest level of safety on the transport networks, improvements in transport infrastructure will be sought. Development of new and existing transport infrastructure will take into consideration the safety of all transport users, with particular attention to vulnerable road users such as pedestrians and cyclists. In making safety a priority, the Department will work alongside relevant bodies, including ANBC to endeavour to reduce the number and severity of casualties throughout the Borough.

Objective 7
Protect and enhance the built and natural environment by ensuring our transport systems operate sustainably and can integrate climate change adaption requirements.
Community Plan Priorities Objective 2c - Our natural environment is valued
Preferred Options Paper Objectives Objective 4 - To promote high quality environmentally sustainable design Objective 7 - To protect and enhance the natural and built environment

Objective 9 - To protect open spaces of public value and promote green network linkages around our larger settlements
Objective 10 - To accommodate necessary community facilities
Objective 12 - To integrate climate change adaption requirements such as flood prevention and sustainable renewable energy production

6.2.2.15. To ensure that the transport system in ANBC remains resilient to climate change and contributes to the achievement of CO2 emission reduction targets, the design and subsequent construction of infrastructure should be undertaken in accordance with best practice and should follow the principles of the Construction (and Design Management) Regulations.

6.2.2.16. The provision of sustainable transport infrastructure will assist the Council to maintain and protect the built and natural environment. In particular, new developments will need to ensure that they provide realistic sustainable travel choices. By investing in sustainable transport systems, the local population will benefit from healthier lifestyles as well as improvements in air quality. This objective is supported by Objectives 1, 2, 4 and 5.

6.2.2.17. The implementation of transportation systems which are resilient and well maintained will be necessary to protect town centres and the wider transportation network. The importance of high quality design standards in all development should be promoted with particular consideration for sufficient green network linkages, especially around the larger settlements. Additionally, the provision of adequate public transport and active travel networks will reduce the dominance and reliance on the private car within the ANBC area.

6.2.3. Alignment with wider strategy aims/ objectives and LDP POP objectives

LTS Objective	PfG	RDS	New Approach	NI Changing Gear	LDP POP Objectives
Objective 1: Enhance accessibility and connectivity by road and public transport from the centre of Antrim, Ballyclare, Crumlin and Randalstown to strategically important areas including Belfast, Londonderry, gateways and hubs to support sustainable economic growth of our town and commercial centres.	Outcome 1 Outcome 2 Outcome 13	Aim 1 Aim 2 Aim 5 Aim 8	Objective 1 Objective 2 Objective 4 Objective 8	n/a	Objective 2 Objective Objective 9 Objective 11
Objective 2: Ensure viable public transport accessibility for all citizens (especially vulnerable people) living, working, studying and visiting in the Antrim and Newtownabbey Borough Council area	Outcome 2 Outcome 13	Aim 3 Aim 4 Aim 5 Aim 8 Aim 10	Objective 2 Objective 4 Objective 5 Objective 8 Objective 10	n/a	Objective 3 Objective 6 Objective 7 Objective 8 Objective 9
Objective 3: Promote community health and wellbeing through the delivery of high quality, safe active travel networks (walking and cycling) linking all necessary community facilities in the urban areas of Antrim, Ballyclare, Crumlin and Randalstown to existing and new developments.	Outcome 2 Outcome 4 Outcome 13	Aim 3 Aim 4 Aim 5 Aim 6 Aim 7	Objective 2 Objective 4 Objective 7 Objective 8 Objective 9	Objective 1 Objective 2 Objective 3 Objective 4	Objective 3 Objective 6 Objective 7 Objective 8 Objective 9

LTS Objective	PfG	RDS	New Approach	NI Changing Gear	LDP POP Objectives
Objective 4: Ensure quality of place through the delivery of an enhanced public realm environment in the centres of Antrim, Ballyclare, Crumlin and Randalstown.	Outcome 2 Outcome 13	Aim 3 Aim 4 Aim 6 Aim 7	Objective 4 Objective 7 Objective 8 Objective 9 Objective 10 Objective 12	Objective 1 Objective 2 Objective 3 Objective 4	Objective 2 Objective 3 Objective 4 Objective 6 Objective 7 Objective 8 Objective 9 Objective 10
Objective 5: Enhance accessibility by sustainable modes of transport to the centres of Antrim, Ballyclare, Crumlin and Randalstown to promote the development of town centres, protect businesses and employment opportunities thus supporting sustainable economic growth.	Outcome 2 Outcome 13	Aim 1 Aim 3 Aim 4 Aim 5	Objective 4 Objective 9	Objective 1 Objective 2 Objective 3 Objective 4	Objective 2 Objective 3 Objective 4 Objective 6 Objective 7 Objective 8 Objective 9 Objective 10
Objective 6: Enhance safety for all modes of travel, and reduce the number and severity of casualties	Outcome 4	Aim 4	Objective 7	Objective 4	Objective 6 Objective 7

LTS Objective	PfG	RDS	New Approach	NI Changing Gear	LDP POP Objectives
Objective 7: Protect and enhance the built and natural environment by ensuring our transport systems operate sustainably and can integrate climate change adaption requirements.	Outcome 2	Aim 6 Aim 7	Objective 3 Objective 12	Objective 1 Objective 2 Objective 3 Objective 4	Objective 4 Objective 7 Objective 9 Objective 10 Objective 12

7.0 Assembly of Indicative Transport Measures

7.1. Introduction

7.1.1. This section presents the assessment of transport options and the conclusions of the Transport Study for ANBC. The conclusions have been reached by comparing a number of different Transport Measures using a standard objectives-based approach. Alternative transport options are assessed against the objectives identified earlier in order to identify a recommended set of Transport Measures. The following sequence of processes are described in turn:

- General approach to assessment
- Development of options
- Assessment of options and identification of indicative Transport Measures
- Confirmation of indicative Transport Measures Assessment against the objectives

7.2. General approach to assessment

7.2.1. The previous sections have presented the context and provided a set of objectives for local transport development in ANBC consistent with the Community Planning and LDP processes. These objectives are used to assess alternative options and recommend a set of indicative Transport Measures.

7.2.2. This objectives-based approach is considered consistent with the "New Approach to Regional Transportation" and suited to the outcome-based approach being applied across policy making in NI, particularly as the objectives have been formulated to take account of the draft PfG Outcomes The approach is also preferred to a "problems-based" approach that might tend to simply replicate past strategies and measures and make the achievement of new objectives and outcomes particularly difficult.

7.3. Development of Options

7.3.1. The development of options is initiated by the consideration of the objectives:

- **Objective 1***:* Enhance accessibility and connectivity by road and public transport from the centre of Antrim, Ballyclare, Crumlin and Randalstown to strategically important areas including Belfast, Londonderry, gateways and hubs to support sustainable economic growth of our town and commercial centres.
- **Objective 2:** Ensure viable public transport accessibility for all citizens (especially vulnerable people) living, working, studying and visiting in the ANBC area
- **Objective 3:** Promote community health and wellbeing through the delivery of high quality, safe active travel networks (walking and cycling) linking all necessary community facilities in the urban areas of Antrim, Ballyclare, Crumlin and Randalstown to existing and new developments.

- **Objective 4:** Ensure quality of place through the delivery of an enhanced public realm environment in the centres of Antrim, Ballyclare, Crumlin and Randalstown.
- **Objective 5:** Enhance accessibility by sustainable modes of transport to the centres of Antrim, Ballyclare, Crumlin and Randalstown to promote the development of town centres, protect businesses and employment opportunities thus supporting sustainable economic growth.
- **Objective 6**: Enhance safety for all modes of transport and reduce the number and severity of casualties.
- **Objective 7:** Ensure our transport systems are resilient to climate change and are well maintained.

7.3.2. **Objective 1 summarised as External Accessibility,** is specific in requiring improvements in both road and public transport and in identifying the precise locations which focus improvements on Key Transport Corridors (KTC), the Link Corridors and Trunk Roads. The potential options appear to be:

- Improved inter-urban roads on KTC, Link Corridors and Trunk Roads
- Improved 'limited-stop' bus services to key hubs
- Park and Ride and Park and Share also have complementary roles in improving local access or increasing vehicle occupancy respectively
- Improving and maintaining rail provision, particularly to key hubs and gateways

7.3.3. **Objective 2 summarised as Public Transport Accessibility,** essentially focuses on rural bus services and connections to essential services such as, for example, health, food shops and banks. The potential options appear to be:

- Maintained or improved town services
- Maintained or improved Ulsterbus rural services
- Alternative Ulsterbus rural operations including integration with 'limited-stop' services
- Integrated public transport service delivery including Ulsterbus, Education, Health and Community Transport services
- Land-use policy changes which focus residential development in towns
- New or improved public transport serving new developments funded by the developer
- Alternative models of delivery of essential services including, mobile services and use of the internet
- Application of modern technology to provide passengers with increased service standards; real time information, integrated ticketing systems, integrated timetable information
- Improving peak hour rail service frequency and/or capacities
- Improving walk access routes to the rail station from residential areas and the town centre

7.3.4. **Objective 3 summarised as Active Travel Accessibility,** essentially focuses on the provision of connections to essential services such as, for example, health, food shops and banks. The potential options appear to be:

- Provision of improved walking facilities in towns
- Provision of a network of attractive cycling routes in towns
    - Focus on radial routes
    - Local improvements which together provide longer routes

7.3.5. There are other options which relate to how this infrastructure is provided and at additional locations such as:

- For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer
- The provision of greenways between towns

7.3.6. **Objective 4 summarised as High Quality Public Realm in town centres,** generates a number of largely complementary transport options:

- Provision of the Ballyclare Western Relief Road (Bypass) to reduce vehicle flows through the town centre and maintain the quality of public realm
- Town Centre Parking Strategies that reduce circulating traffic searching for parking spaces
- Traffic management schemes that remove traffic routes through the town centre which may include reallocation of existing road space to facilitate active modes of travel
- Priority to be given to pedestrians in moving to and around town centre streets
- Pedestrianisation of town centres

7.3.7. **Objective 5 summarised as Accessibility to Town Centres,** generates a number of quite different transport options:

- Completion of the Hightown Road Link in the Mallusk area (Throughpass) to provide a more direct route to the centre of Mallusk
- Provision of the Ballyclare Western Relief Road (Bypass) to reduce vehicle flows through the town centre and maintain the quality of public realm
- New urban roads and traffic management to reduce travel times to town centres by all road-based modes
- Public Transport improvements options as identified against Objective 2
- Improved walking and cycling options identified against Objective 3
- Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion
- Traffic management measures to reduce travel times to town centres by all sustainable modes.

7.3.8. **Objective 6 summarised as Safety, is quite specific.** The only potential options appear to be:

- Continue to implement Collision Remedial Schemes

- Ensure new transport infrastructure is designed and provided to current 'best practice' standards
- In urban areas, review the potential to introduce traffic calming measures

7.3.9. **Objective 7 summarised as Resilience, is quite specific.** The only potential options appear to be:

- Ensure transport infrastructure is designed and provided to current 'best practice' standards regarding extreme weather events
- Ensure transport infrastructure is maintained to 'best practice' standards to maximise performance at all times and that whole life costs are minimised.

7.4. Assessment of options and selection of recommended Transport Measures

7.4.1. Objective 1: External Accessibility

7.4.1.1. The following options **are progressed** as feasible within the LTS time frame of 2030 and consistent with the objectives.

- Improved 'limited-stop' bus services to key hubs
- Park and Ride and Park and Share also have complementary roles in improving local access or increasing vehicle occupancy respectively
- Improving and maintaining rail provision, particularly to key hubs and gateways

7.4.1.2. The reasons for **not progressing** the other options are outlined below:

- Improved inter-urban roads on KTC, Link Corridors and Trunk Roads - Improved inter-urban roads on the A2, A6 and A8 - it is considered that further improvements to beyond those recently constructed or currently under construction will not facilitate limited-stop public transport services. Any improvements to KTC will be considered as part of the RSTN TP. Further improvements within these areas will not produce additional benefits to public transport and access to key hubs.

7.4.2. Objective 2: Public Transport Accessibility

7.4.2.1. These transport options are considered in the context of the NI-wide policy issues for the Department and the other statutory transport providers and are subject of separate work. The findings and recommendations from this work will be fed back to the Local Transport Plan and LDP processes as and when the next steps for the wider public transport network are identified and agreed. In outline, the proposal is to develop innovative integrated public transport services, using for example transport models such as 'ride-share'.

7.4.2.2. It is recommended that land-use policy should focus residential development in towns. In addition consideration should be given to alternative delivery models of essential services including mobile and remote services and use of the internet in the ANBC Plan Strategy and during the subsequent LPP stage.

7.4.3. Objective 3: Urban Active Travel Networks.

7.4.3.1. It is proposed that in general all of the options **are progressed** as feasible within the LTS time frame of 2030 as follows:

- Provision of improved walking facilities in towns
- Provision of a network of attractive cycling routes in towns
  - Focus on radial routes
  - Local improvements which together provide longer routes
- For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer
- The provision of greenways between towns

7.4.3.2. It is recommended that there is a focus on radial routes in towns in order that it is clear that the expectation is for direct high quality cycle routes which can provide a realistic option for journeys to and through the town centre. The designation of routes also facilitates the proposal to seek developer contributions for infrastructure over and beyond the development site.

7.4.4. Objective 4 High Quality Public Realm in town centres

7.4.4.1. It is proposed that, with two exceptions, all of the options **are progressed** as feasible within the LTS time frame of 2030 as follows:

- Town Centre Parking Strategies that reduce circulating traffic searching for parking spaces
- Traffic management schemes that remove traffic routes through the town centre which may include reallocation of existing road space to facilitate active modes of travel
- Priority to be given to pedestrians in moving to and around town centre streets

7.4.4.2. The exceptions which are **not progressed** are outlined below with reasons:

- The Ballyclare Western Relief Road (Bypass) is no longer considered to be of strategic importance. Instead focus will be put on schemes which reduce town centre traffic volumes and release capacity for active and sustainable travel options. However, the scheme should be retained as a potential developer led scheme.
- Pedestrianisation of town centres – this measure is considered out-moded and likely to fail by removing key servicing access and after hours operation. The other options seek to deliver the positive points of pedestrianisation relating to reducing vehicle dominance.

7.4.5. Objective 5 Accessibility to Town Centres

7.4.5.1. It is proposed that, with two exceptions, all of the options **are progressed** as feasible within the LTS time frame of 2030 as follows:

- Public Transport improvements options and identified against Objective 2
- Improved walking and cycling options identified against Objective 3
- Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion
- Traffic management measures to reduce travel times to town centres by all sustainable modes.

7.4.5.2. The exceptions which are **not progressed** are outlined below with reasons:

- The completion of the Hightown Road Link (Throughpass) and Ballyclare Western Relief Road (Bypass) are no longer considered to be of strategic importance. Instead focus will be put on schemes which reduce town centre traffic volumes and release capacity for active and sustainable travel options. However, these schemes will be retained as potential developer led schemes.
- New urban roads and traffic management to reduce travel times to town centres by all road-based modes – this would act directly against the Objective 4 High Quality Public Realm in town centres by promoting car use in town centres and against the schemes to give priority to pedestrian and cycling movements to the town centre.

7.4.5.3. However, it is noted that there are likely to be instances when key development will require essential new urban road infrastructure simply to access and service the development and to facilitate active travel modes. In such instances the urban road infrastructure will be provided by the developer. Therefore, the following option is progressed:

- New urban road links (and supporting sustainable transport infrastructure) to facilitate key development funded and by developer.

7.4.6. Objective 6 Safety

7.4.6.1. It is proposed that in general all of the options **are progressed** as feasible within the LTS time frame of 2030 as follows:

- Continue to implement Collision Remedial Schemes
- Ensure new transport infrastructure is designed and provided to current 'best practice' standards
- In urban areas, review the potential to introduce traffic calming measures

7.4.7. Objective 7 Resilience.

7.4.7.1. Both options **are progressed** as feasible within the LTS time frame of 2030 and consistent with the objectives. It is proposed that the options can be combined as follows:

- Ensure transport infrastructure is designed and provided to current 'best practice' standards regarding extreme weather events
- Ensure transport infrastructure is maintained to 'best practice' standards to maximise performance at all times and that whole life costs are minimised.

7.5. Confirmation of indicative Transport Measures Assessment against the Objectives

7.5.1.1. The Transport Study for ANBC is primarily focused on the principal urban centres of Antrim, Ballyclare, Crumlin and Randalstown where there are opportunities to deliver the most significant impact on the greatest number of residents and employees in conjunction with the LDP. The Transport Study is purposely composed of indicative measures rather than schemes as this provides flexibility in the definition and design of schemes in order to integrate with land-use opportunities that arise in the plan policies stage of the Local Development Plan. Schemes will be identified in the BMTP.

7.5.1.2. The Transport Study is proposed as comprising the following 9 indicative measures:

1. Improved Park and Ride and Park and Share on KTCs
2. Consider new throughpasses/bypasses around key town centres in conjunction with public realm enhancements or improvements to active travel modes
3. Improved 'limited-stop' bus services to key hubs
4. Improved integration between public transport modes to simplify travel for passengers
5. Provision of a network of attractive walking and cycling routes in towns and greenways between towns
6. For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer
7. Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion and circulating for parking spaces
8. Traffic management schemes which enhance safety and give priority to pedestrian, cycling and public transport movements to the town centre
9. Ensure new transport infrastructure is designed and provided to current 'best practice' standards

7.5.1.3. Each of the indicative measures are confirmed against the transport objectives below. The table summarises how each of the 9 indicative measures support the 6 Transport Objectives. A double tick (√√) designates strong or direct support for the objective whilst a single tick (√) designates lesser or indirect support. Each measure is subsequently described separately below.

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6. Safety	7: Resilience
1. Improved Park and Ride and Park and Share on KTCs	√	√√	√		√√	√	
2. Consider new throughpasses/bypasses around key town centres in conjunction with public realm enhancements or improvements to active travel modes	√√	√	√√	√	√√	√	
3. Improved 'limited-stop' bus services to key hubs	√√	√√			√		
4. Improved integration between public transport modes to simplify travel for passengers		√√	√		√√		
5. Provision of a network of attractive walking and cycling routes in towns and greenways between towns		√	√√	√	√√		
6. For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer			√√	√	√√		
7. Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion				√	√√		
8. Traffic management schemes which enhance safety and give priority to pedestrian, cycling and public transport movements to the town centre		√√	√√	√	√√	√√	√
9. Ensure new transport infrastructure is designed and provided to current 'best practice' standards		√				√√	√√

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
1. Improved Park and Ride and Park and Share on KTCs	√	√√			√√		

7.5.2. 1. Improved Park and Ride and Park and Share on KTCs

7.5.2.1. Improved and additional Park and Ride and Park and Shares sites will be considered, with those in close proximity to KTCs offering the greatest ability to influence a mode shift to this form of travel.

7.5.2.2. The provision of improved Park & Ride and Park & Share sites has the potential to provide environmental benefits by further reducing the proportion of single occupancy journeys utilising private car.

Measure	Objectives						
	1: External Accessibility	2: Public Transport	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
2. Consider new throughpasses/bypasses around key town centres in conjunction with public realm enhancements or improvements to active travel modes	√√	√		√	√√		

7.5.3. **2.** Consider new throughpasses/bypasses around key town centres in conjunction with public realm enhancements or improvements to active travel modes

7.5.3.1. There is currently no specific need to introduce a throughpass or bypass within any of the main towns within the ANBC area.

7.5.3.2. Should a need arise through the development of the BMTP, the precise route and its design will be confirmed as part of the Transport Plan and the Plan Policies stage of the LDP.

7.5.3.3. A number of schemes have been proposed within the ANBC area, including:

- Hightown Road Link (Throughpass); and
- Ballyclare Relief Road (Bypass).

7.5.3.4. These schemes may provide benefits to each of the town centres, including facilitating access to development lands and removal of traffic from town centres, so providing high quality public realm.

7.5.3.5. However, these routes are considered to be most applicable as developer led schemes to support potential land zonings.

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6. Safety	7: Resilience
3. Improved 'limited-stop' bus services to key hubs	√√	√√			√		

7.5.4. 3. Improved 'limited-stop' bus services to key hubs

7.5.4.1. New 'limited-stop' bus services are expected to be identified and prioritised on the Key Transport Corridors to improve external accessibility from the ANBC area. These services will build upon the existing Goldline route network to be listed in the Regional Strategic Transport Plan to be prepared in 2018. The bus services will capitalise on continued road improvements.

7.5.4.2. These 'limited-stop' bus services will improve external accessibility by reducing journey times by public transport and increasing service frequency between the key hubs.

7.5.4.3. These services will indirectly improve public transport accessibility from the wider rural area as this objective is primarily met by local Ulsterbus services.

7.5.4.4. These services will also directly improve accessibility to the town centres by reducing journey times from the catchment areas, potentially in combination with park and ride sites.

Measure		Objectives					
	1: External Accessibility	2: Public Transport	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
4. Improved integration between public transport modes to simplify travel for passengers		√√	√		√√		

7.5.5. 4. Improved integration between public transport modes to simplify travel for passengers

7.5.5.1. Integration between transport modes is an efficient way to connect people with places through a network of transport systems as well as providing a realistic travel choice alternative to the private car.

7.5.5.2. Providing well connected, accessible interchange points increases the attractiveness and provides the ability to easily interchange between modes.

7.5.5.3. Improving the ability to interchange both in terms of location and payment methods (potentially through linked ticketing) will encourage the use of more sustainable travel options for all or part of a journey.

7.5.5.4. For example, this may include utilising a local town service to Antrim bus station where it would be possible to connect onto the train to access a wider range of key locations. In some locations, it may be possible to introduce public transport access or improve existing services which pass through each town.

Measure	Objectives						
	1: External Accessibility	2: Public Transport	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
5. Provision of a network of attractive walking and cycling routes in towns and greenways between towns		√	√√	√	√√		

7.5.6. 5. Provision of a network of attractive walking and cycling routes in towns and greenways between towns

7.5.6.1. The provision of improved walking facilities in Antrim, Ballyclare, Crumlin and Randalstown is a central measure of this Transport Study. Evidence has shown that the pedestrian networks are incomplete. Whilst improvements to the walking facilities may require retro-fitting work and may impact on traffic capacity it is clear that the measure has a role in delivering greater walking activity and hence a number of objectives. In addition, attractive local and town-centre routes must be an integral part of any PS or subsequent LPP.

7.5.6.2. Improved walking facilities will have a direct impact on urban active travel networks. In particular in designing off-road walking routes consideration will be given to their potential as shared cycle facilities.

7.5.6.3. Improved walking facilities will have a direct impact on accessibility to the town centres. By making it easier to cross roads and making walking routes to the town centre more attractive, it will be more convenient for people without cars to travel to the town centre. Walking routes can provide convenient access to the town centre from residential areas within a range of up to 1 mile (assuming a travel time of 20 minutes); this represents all residential areas within the development area of both towns with few exceptions. In addition, should parking strategies displace long stay parking to the edge of town, the accessibility of the town centre for car users would be largely unaffected as the consequent longer walk access would be improved in quality.

7.5.6.4. Improved walking facilities will have an indirect impact on public transport accessibility as local town centre walk access is often the final component of a public transport journey.

7.5.6.5. Improved walking facilities will have an indirect impact on high quality public realm as they are often designed together in an integrated fashion.

7.5.6.6. The Evidence Base has shown that the cycle networks are far from complete and serve only a small proportion of the residential areas. The measure has a role in delivering sustainable accessibility across the urban areas and the designation and identification of a network of routes

must be an integral part of any PS and subsequent LPP so that the network can be delivered in co-ordination with development proposals.

7.5.6.7. Attractive cycle routes will have a direct impact on urban (and inter-urban) active travel networks. In designing off-road cycle routes consideration will be given to their potential as shared walking facilities. Cycle routes can provide convenient access to places of employment and education within a range of up to 3 miles (assuming a travel time of 20 minutes) which would encompass the entire development area of the towns.

7.5.6.8. Improved cycle routes will have a direct impact on accessibility to the town centres. By making these attractive, it will be more convenient for people without cars (including children), to travel (independently) to the town centre.

7.5.6.9. Improved cycle routes will have an indirect impact on high quality public realm as they are often designed together in an integrated fashion as part of local routes or longer greenways. Care will be needed to ensure that the cycle routes function and use do not discourage use by pedestrians, elderly people or other people with particular impairments.

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6. Safety	7: Resilience
6. For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer			√√	√	√√		

7.5.7. 6. For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer

7.5.7.1. The provision of active travel options for all new developments proposals shall be considered with an onus on the provision of such facilities. Developers will be required to ensure that both the internal layout and connections to the external active transport network are provided to promote and encourage active travel.

7.5.7.2. New developments should be sustainably focused and identified in locations that are well served by public transport, accessible by walking and cycling, have adequate infrastructure and where development can be properly integrated, in terms of land use and design, with the wider Council area.

Measure	Objectives						
	1: External Accessibility	2: Public Transport	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
7. Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion and circulating for parking spaces				√	√√		

7.5.8. 7. Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion and circulating for parking spaces

7.5.8.1. Town Centre Parking Strategies will be required in Town Centres, such as Antrim, Ballyclare, Crumlin and Randalstown, as stipulated in the SPPS. Parking strategies have a key role to play in improving how the urban transport networks operate as public parking locations represent the ultimate destination for many car journeys. The location of public parking and its designation as long or short-stay using payment controls will be identified in the parking strategy at the LPP stage.

7.5.8.2. In Antrim, Ballyclare, Crumlin and Randalstown Parking strategies will have a direct impact on the potential to provide high quality public realm. By removing extraneous traffic which often dominates the town centres it will be possible to design and deliver high quality public realm.

7.5.8.3. The parking strategies will have a direct impact on accessibility to the town centres. It will be important that the strategies improve turnover of parking spaces. This will reduce traffic searching for spaces and will improve travel times and safety by public transport and walking and cycling.

7.5.8.4. The parking strategies will have an indirect impact on public transport accessibility as it is envisaged that the charges needed to increase the turnover of spaces may lead to public transport becoming a more attractive and financially viable option.

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
8. Traffic management schemes which enhance safety and give priority to pedestrian, cycling and public transport movements to the town centre		√√	√√	√	√√		

7.5.9. 8. Traffic management schemes which enhance safety and give priority to pedestrian, cycling and public transport movements to the town centre

7.5.9.1. The imposition of sustainable transport measures, as proposed in this Transport Study, will involve an impact on traffic capacity and on traffic flows. Consequently, there will be a requirement for the Department and stakeholders to consider how road-space is designated and used by a range of modes (pedestrian, cyclist, bus, goods service vehicles and general traffic) and exactly what priority is given to each. Traffic management schemes can complement physical infrastructure schemes by amending regulations, signing and lining to achieve that priority and provide safer and more coherent networks.

7.5.9.2. Traffic management schemes will impact directly on the objective to improve and create continuous high quality urban active travel networks where traffic capacity has to be re-assigned using amended road markings, junction layouts or phasing of signal settings.

7.5.9.3. Traffic management schemes will be required to ensure that accessibility to the town centre is improved. Consideration will be given to re-balancing priority to pedestrians and public transport in town centre shopping streets whilst private car routes to designated parking locations as identified in the parking strategy should not be unduly inconvenienced.

7.5.9.4. Traffic management will also indirectly impact on public transport accessibility from the wider catchment as town centre bus priority could make a significant difference in the viability of routes at off-peak periods.

7.5.9.5. Traffic management will also indirectly impact on public realm as traffic engineers will likely need to engage in the co-design of schemes that require changes in local traffic designations or regulations to ensure their success.

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6. Safety	7: Resilience
9. Ensure new transport infrastructure is designed and provided to current 'best practice' standards		√				√√	√√

7.5.10. 9. Ensure new transport infrastructure is designed and provided to current 'best practice' standards

7.5.10.1. The provision of transport infrastructure designed, provided and maintained to 'best practice' standards to maximise performance at all times relates directly to the objective to be resilient to climate change and be well maintained.

7.5.10.2. This measure is effectively cross-cutting and has no direct bearing impact on any of the other objectives.

7.5.10.3. Best practice design does not remove all risk in extreme conditions such as road collisions, traffic signals failures or flooding and road infrastructure, especially urban, can reach capacity leading to grid-lock. Similar grid-lock would never occur on active travel networks. Resilience to system failures, such as traffic signal failures, can be increased by providing 'back-up' systems whilst overall urban travel resilience can be increased by ensuring that realistic active travel options are provided.

8.0 Conclusion

8.1. This Transport Study for ANBC recommends the following 9 indicative measures:

- **1: Improved Park and Ride and Park and Share on KTCs**
  New locations for park and ride and park and share facilities identified and prioritised on the Key Transport Corridors. These facilities should be strategically placed, considering the travel patterns of usual residents and the areas which would benefit from improvements in public transport use. These facilities would also benefit more rural residents and increase accessibility and connectivity from the Borough to the wider Northern Ireland area.

- **2: Consider new throughpasses/bypasses within town centres which facilitate public realm enhancements or improvements to active travel modes**
  While there are no current requirements to implement a bypass within the town centres of Antrim, Ballyclare, Crumlin and Randalstown, this option should be retained for potential consideration in the future. Should a need arise for this type of infrastructure, this measure will be reviewed. A number of potential developer-led schemes will be considered and their benefits to the town centres reviewed.

- **3: Improved "limited-stop" bus services to key hubs**
  New "limited-stop" bus services are expected to be identified and prioritised on the Key Transport Corridors to and from Antrim, Ballyclare, Crumlin and Randalstown. These services will build upon the existing network of bus services. The bus services will capitalise on continued road improvements and seek to identify where the greatest benefits can be derived.

- **4: Improved integration between public transport modes to simplify travel for passengers**
  To promote and encourage the use of public transport, it will be important to consider the linkages between modes and the ease with which this can occur.

- **5: Provision of a network of attractive walking and cycling routes in towns and greenways between towns**
  The provision of improved walking facilities in Antrim, Ballyclare, Crumlin and Randalstown is a central measure of this Transport Study. The current pedestrian networks are below standard in some areas. Levels of walking and cycling are comparable with the NI average, but could be improved, particularly as a method of travel to work. Improvements to the walking facilities and the addition of cycling infrastructure may help to encourage the use of active travel modes.

- **6: For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer**
  When planning for new developments, it is essential that walking and cycling infrastructure is considered as part of the development proposals. Walking and cycling

linkages from the development should be linked to existing infrastructure, ensuring a continuous provision is made. It is also necessary to consider how active travel infrastructure is incorporated into the development itself.

- **7: Town Centre Parking Strategies that provide for demand for long and short-stay spaces at locations which reduce town centre congestion and circulating for parking spaces**

  Town Centre Parking Strategies will be required in Antrim, Ballyclare, Crumlin and Randalstown. The location of public parking and it's designation as long or short stay will be considered within the Parking Strategies. The strategies should remove extraneous traffic which dominates the town centres and improves the turnover of parking spaces.

- **8: Traffic management schemes which enhance safety and give priority to pedestrian, cycling and public transport movements to the town centre**

  It is necessary that road space is used by a range of modes. Consideration should be given to re-balancing priority to pedestrians, cyclists and public transport within the town centres. This is particularly important in shopping streets, however locations where parking is designated should not be unduly inconvenienced.

- **9: Ensure new transport infrastructure is designed and provided to current 'best practice' standards**

  When designing transport infrastructure, this should be completed to 'best practice'. This will strive towards maximising performance and ensuring resilience. Resilience to system failures, such as traffic signal failures or flooding, can be increased by providing 'back-up' systems. Overall urban travel resilience can be increased by ensuring that realistic active travel options are provided.

Annex 1 – Transport Evidence Base for Antrim and Newtownabbey Borough Council

Including Antrim, Ballyclare, Crumlin and Randalstown

Contents:

Regional connectivity by Road and Public Transport

Urban Walking and Cycling Infrastructure and Bus Services

- Figure 7 – Map of Bus Service Routes in Antrim
- Table 5 – Town Centre Bus Services in Antrim

Note: No Town Centre Bus Services are available in Ballyclare, Crumlin and Randalstown.

Travel to Work Destinations

- Figure 8a – Map of Percentage of Travel to Work Journeys from Antrim to other LGDs (in 2011)
- Figure 8b – Map of Percentage of Travel to Work Journeys from Newtownabbey to other LGDs (in 2011)

Modal Choice for Journeys to Work and Education across the Council Area

- Figure 9 – Chart of Modal Choice for Journey to Work in Antrim and Newtownabbey
- Figure 10 – Graph of Modal Choice for Journey to Work by Distance in Antrim and Newtownabbey
- Figure 11 – Chart of Modal Choice for Journey to Education in Antrim and Newtownabbey
- Figure 12 – Graph of Modal Choice for Journey to Education by Distance in Antrim and Newtownabbey

Road Network Speeds at Peak and Off-Peak Time Periods

- Figure 13 – Map of Average Off Peak Speeds (mph) for Roads in Antrim and Newtownabbey
- Figure 14a – Map of Average Peak Speeds (mph) for Roads in Antrim
- Figure 14b – Map of Average Peak Speeds (mph) for Roads in Ballyclare
- Figure 14c – Map of Average Peak Speeds (mph) for Roads in Crumlin
- Figure 14d – Map of Average Peak Speeds (mph) for Roads in Randalstown

Road Collision History

- Table 6a – Number of Road Traffic Casualties by Severity and Road User Type in Antrim, 2006-2015
- Table 6b – Number of Road Traffic Casualties by Severity and Road User Type in Ballyclare, 2006-2015
- Table 6c – Number of Road Traffic Casualties by Severity and Road User Type in Crumlin, 2006-2015
- Table 6d – Number of Road Traffic Casualties by Severity and Road User Type in Randalstown, 2006-2015

Parking Provision

- Figure 15a – Map of Parking Provision Locations in Antrim
- Table 7a – Off-Street Parking Provision by Spaces and Type in Antrim
- Table 8a – On-Street Parking Provision in Antrim
- Figure 15b – Map of Parking Provision Locations in Ballyclare
- Table 7b – Off-Street Parking Provision by Spaces and Type in Ballyclare
- Table 8b – On-Street Parking Provision in Ballyclare
- Figure 15c – Map of Parking Provision Locations in Crumlin
- Table 7c – Off-Street Parking Provision by Spaces and Type in Crumlin
- Table 8c – On-Street Parking Provision in Crumlin
- Figure 15d – Map of Parking Provision Locations in Randalstown

- Table 7d – Off-Street Parking Provision by Spaces and Type in Randalstown
- Table 8d – On-Street Parking Provision in Randalstown

Section 1 – Regional Connectivity by Road and Public Transport

Figure 1 – OSNI Map of NI Road and Rail Transport Network

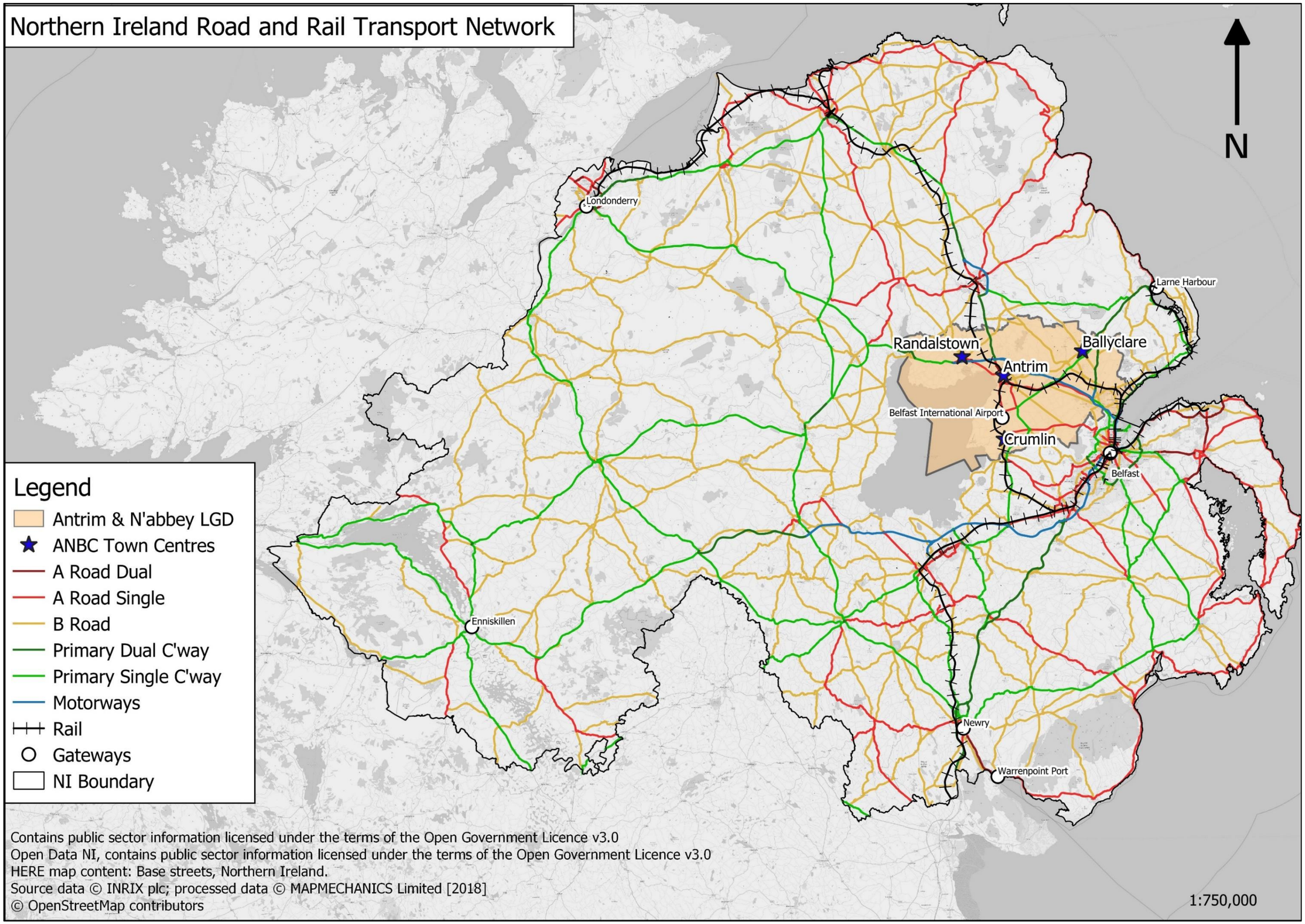


Figure 2a – Map of Travel Time by Car from Antrim at AM Peak Speed

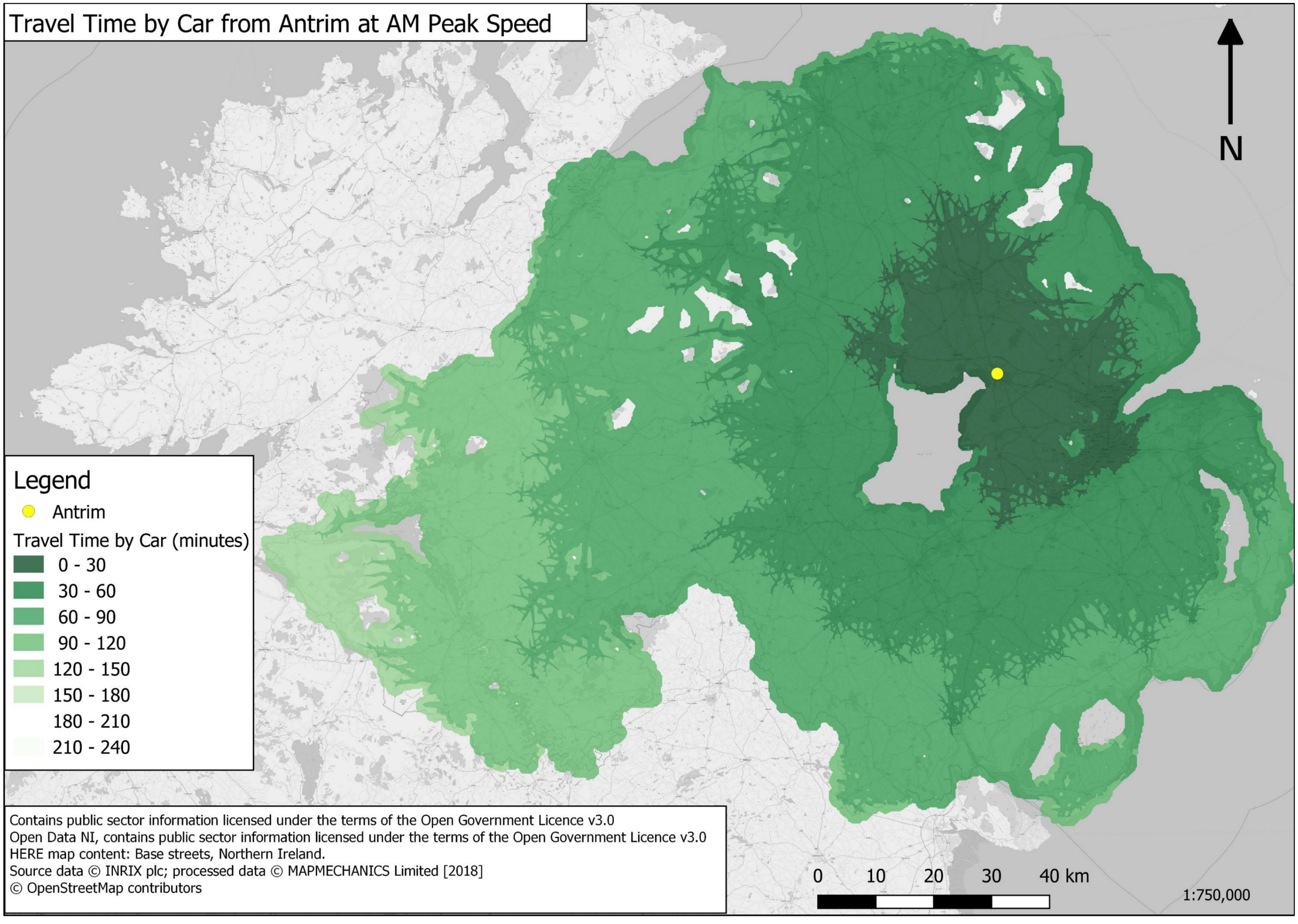


Figure 2b – Map of Travel Time by Car from Ballyclare at AM Peak Speed

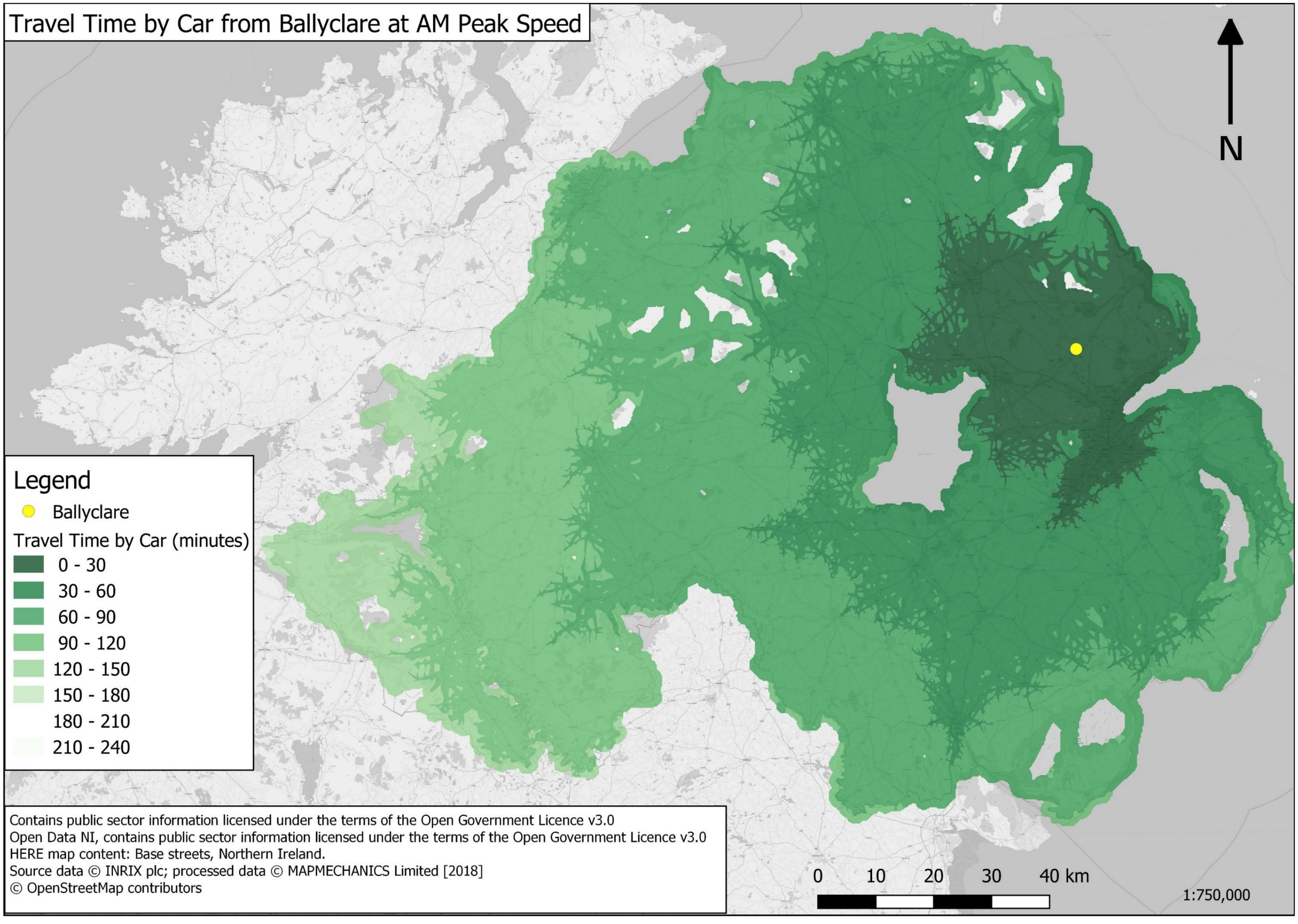


Figure 2c – Map of Travel Time by Car from Crumlin at AM Peak Speed

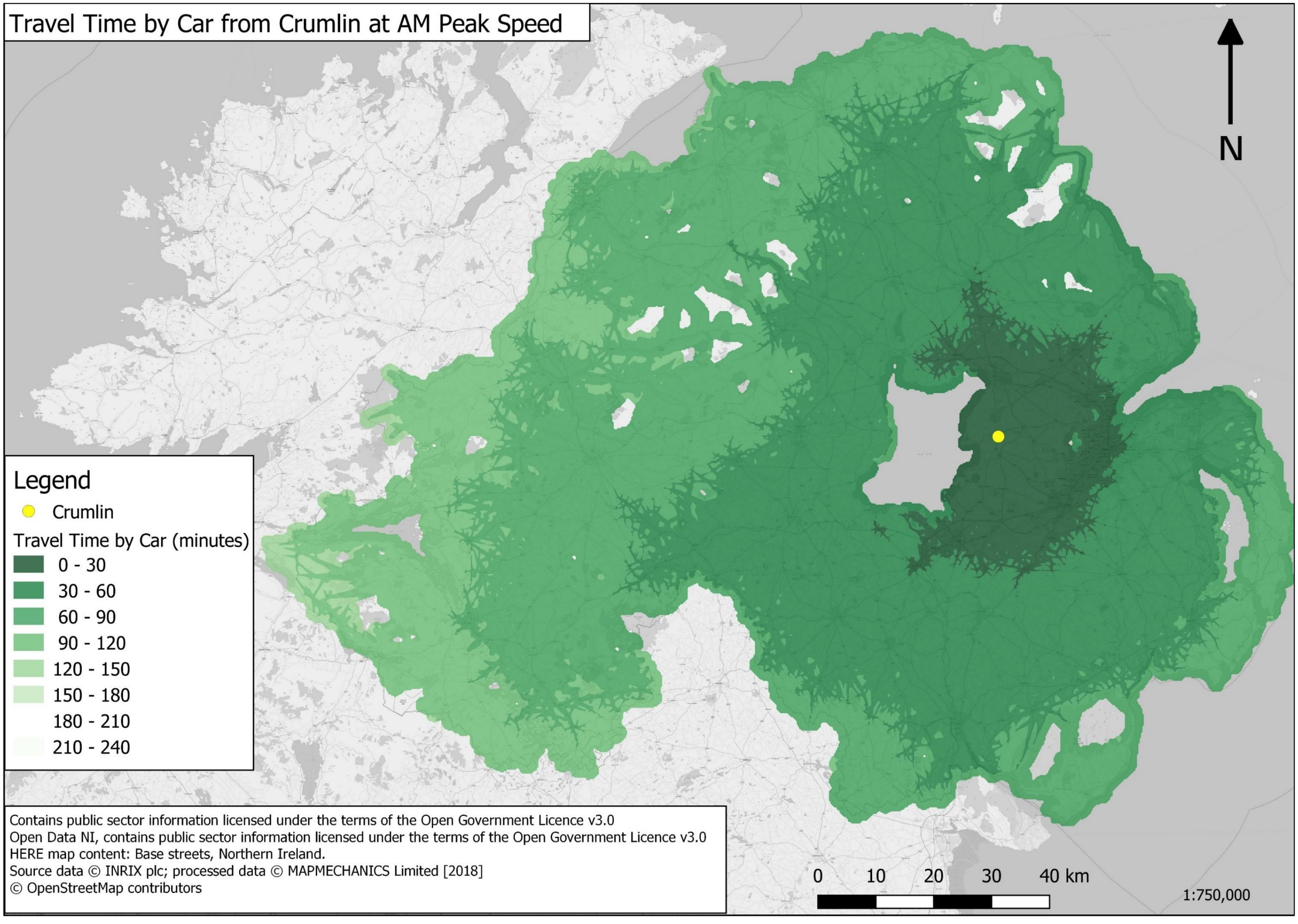


Figure 2d – Map of Travel Time by Car from Randalstown at AM Peak Speed

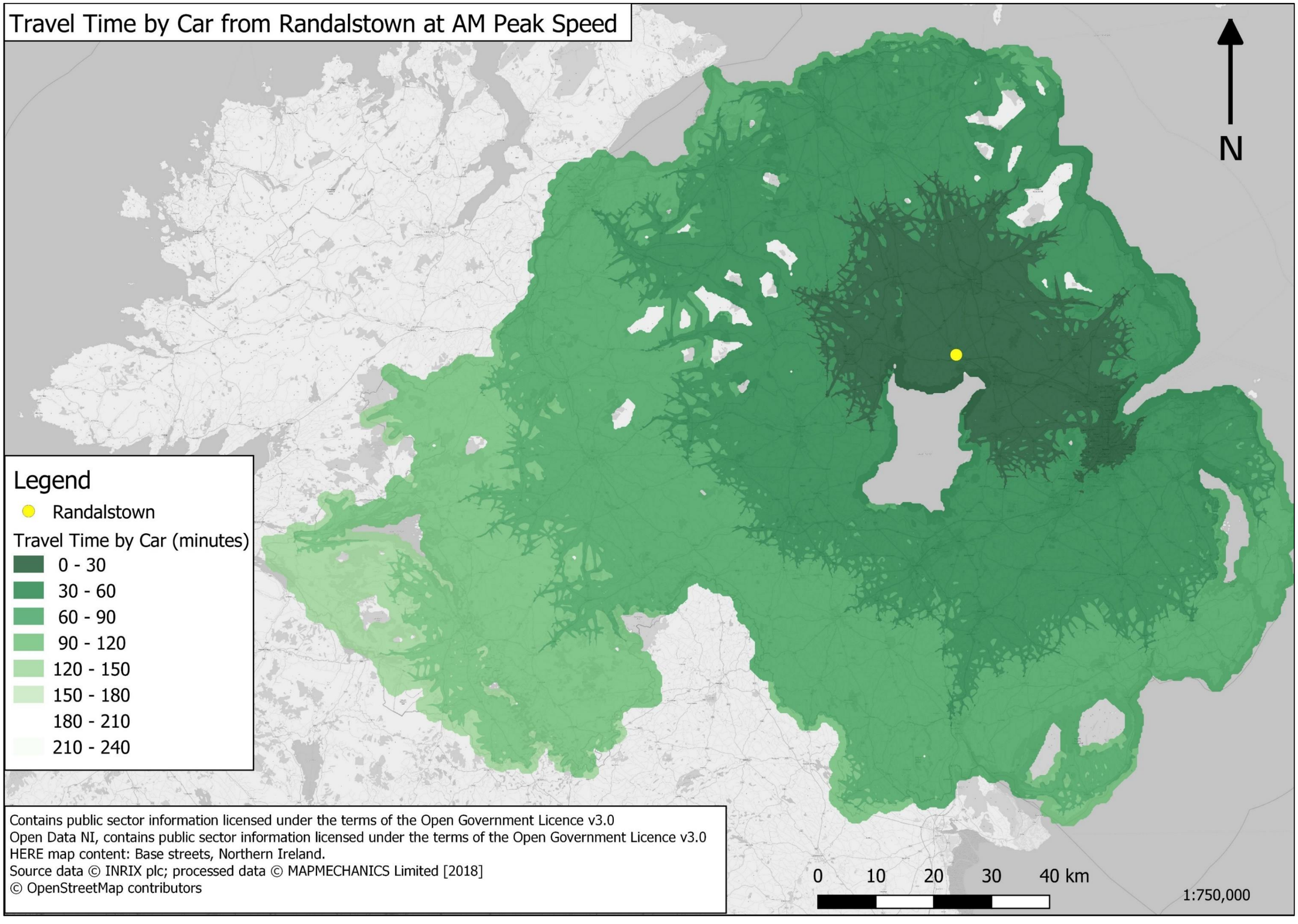


Figure 3a – Map of Travel Time by Public Transport from Antrim from 7:00am

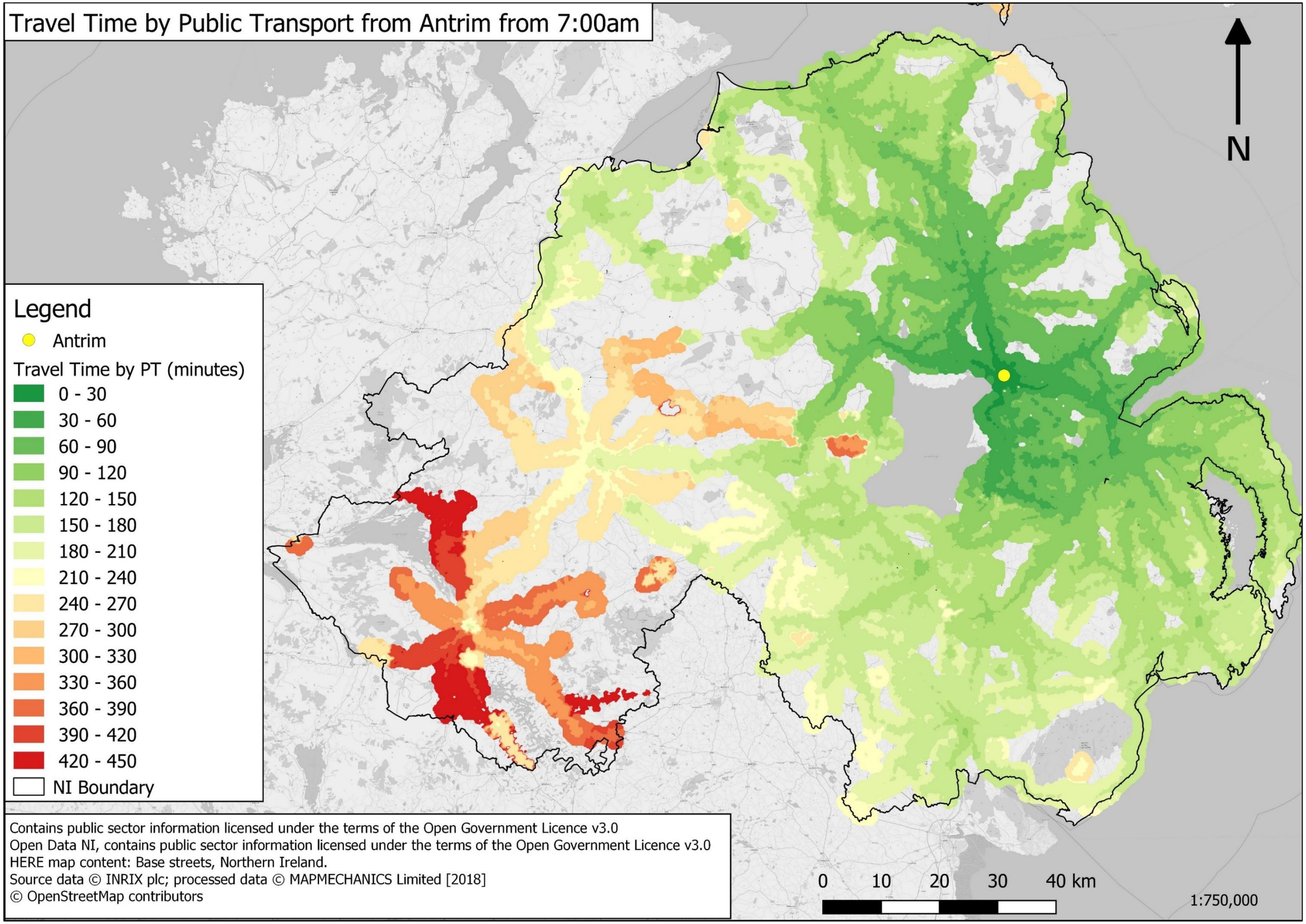


Figure 3b – Map of Travel Time by Public Transport from Ballyclare from 7:00am

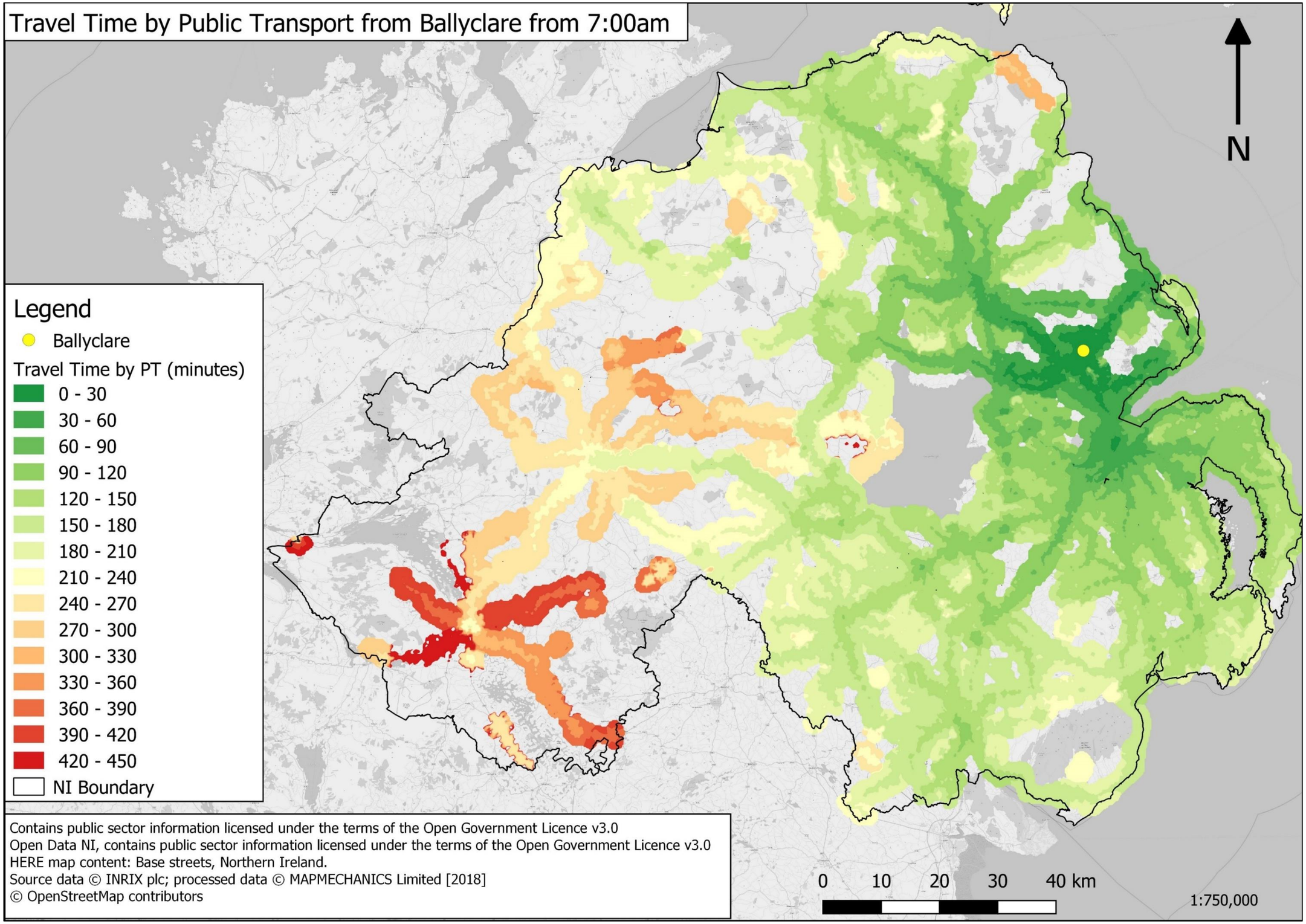


Figure 3c – Map of Travel Time by Public Transport from Crumlin from 7:00am

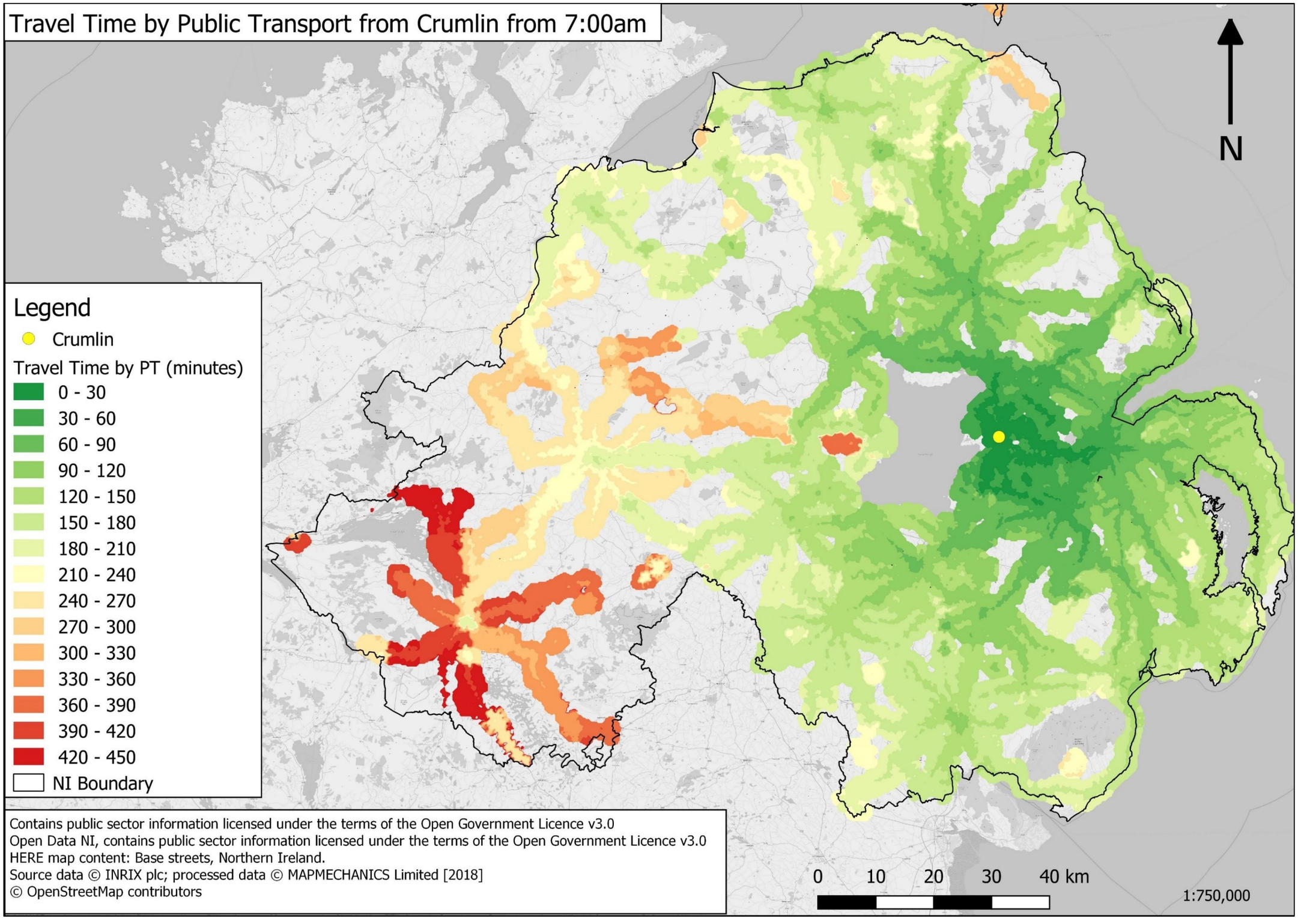


Figure 3d – Map of Travel Time by Public Transport from Randalstown from 7:00am

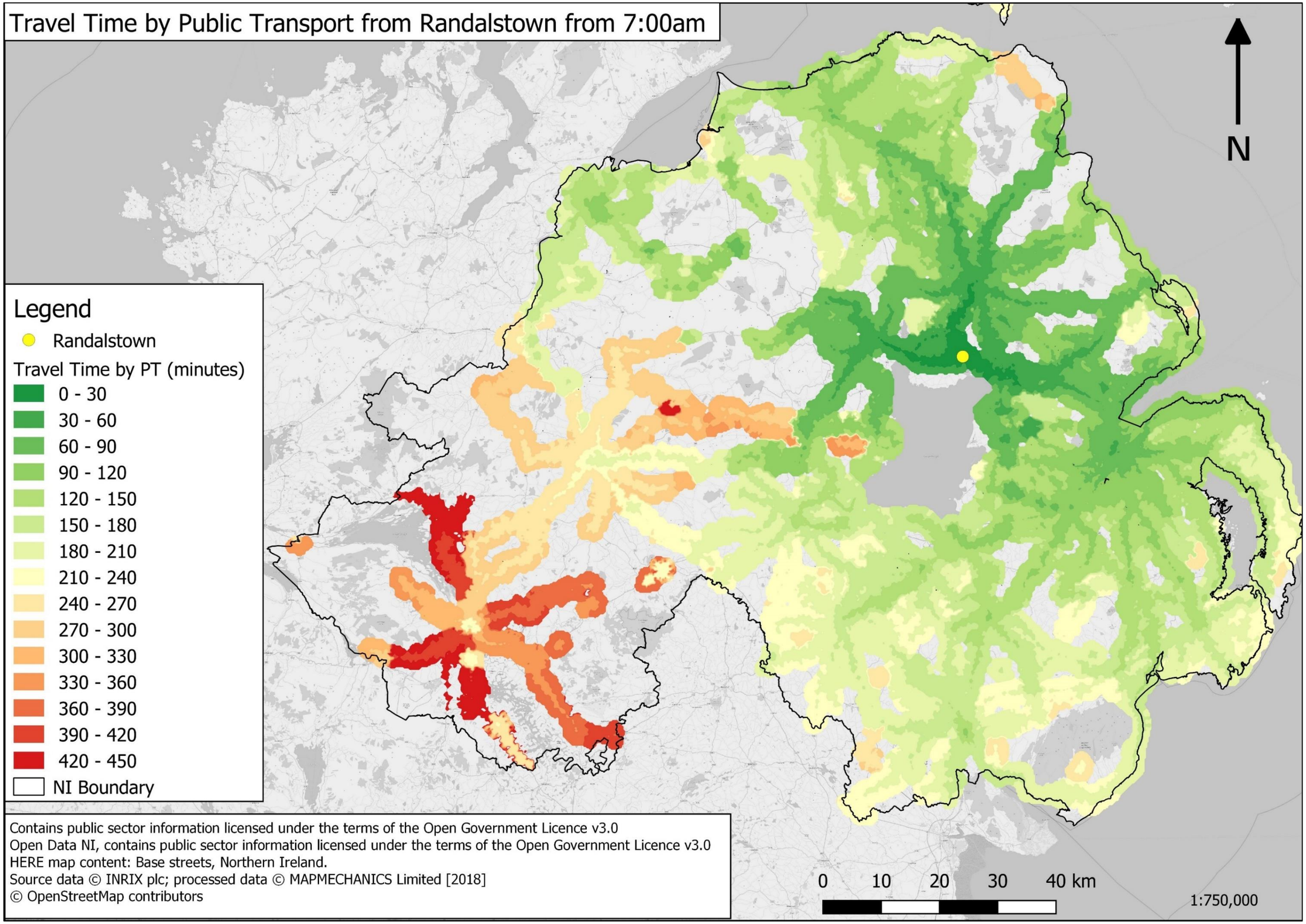
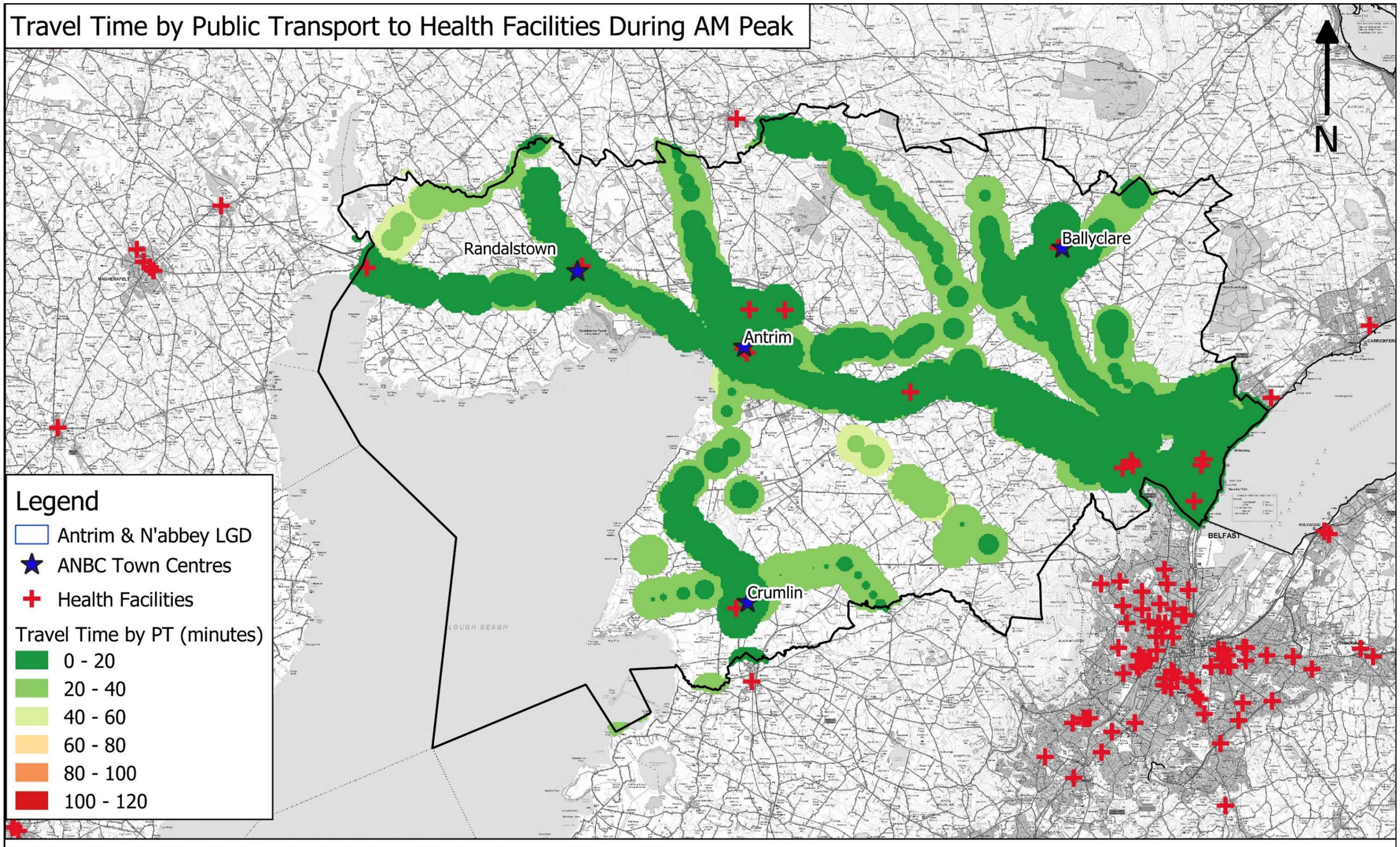


Figure 4 - Map of Travel Time by Public Transport from Antrim & Newtownabbey to Health Facilities during AM Peak



Section 2 – Urban Walking and Cycling Infrastructure and Bus Services

Figure 5a – Map of Pedestrian Infrastructure in Antrim – Key Radial Footway by Width and Crossing Type

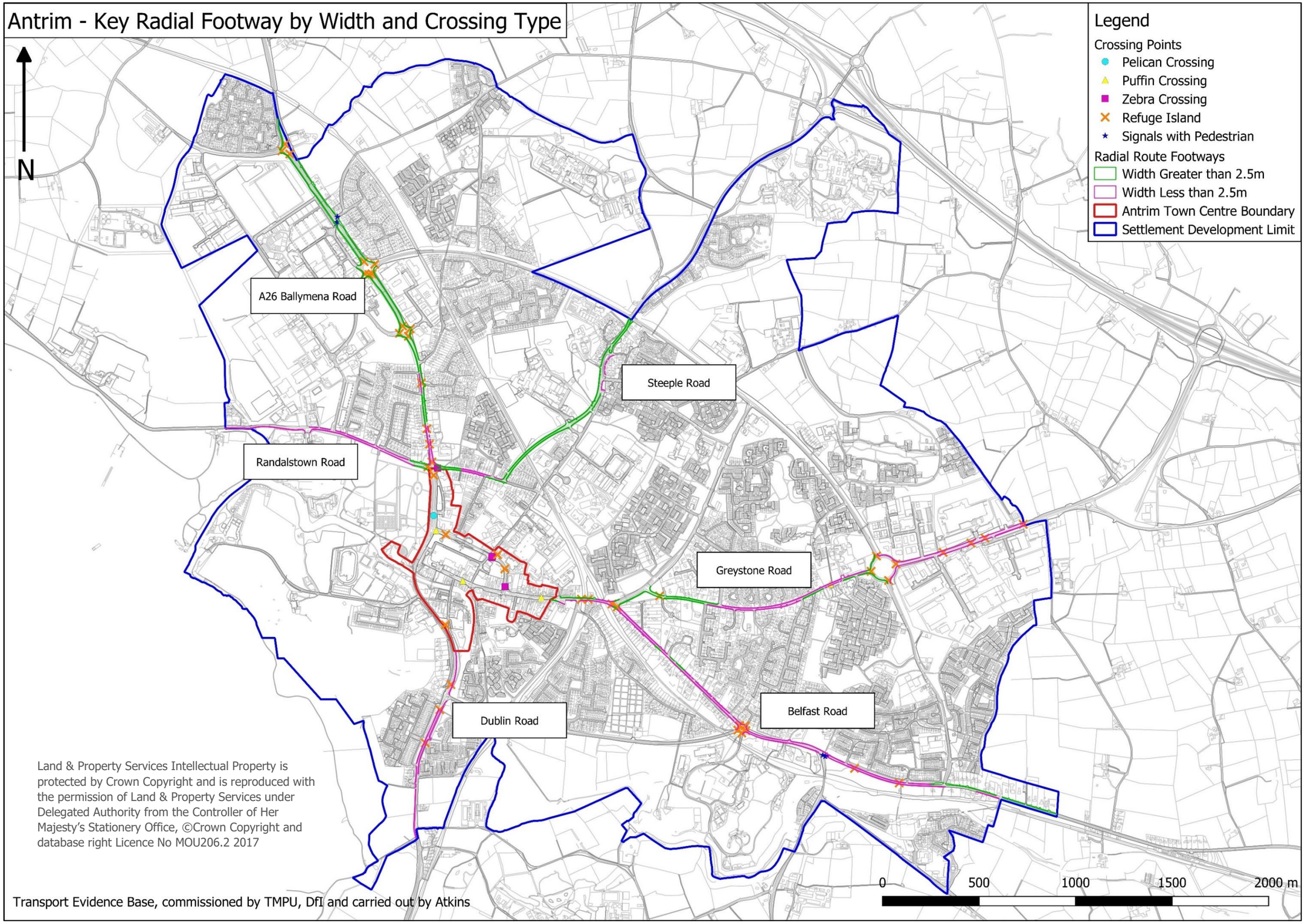


Table 1a – Footway Widths of Radial Routes in Antrim

Route	Total Route Length	Length of Footway >2.5m	Length of Footway <2.5m	Length of No Footway
Greystone Road EB	2.2km	0.6km	1.4km	0.2km
Greystone Road WB	2.2km	0.8km	1.4km	-
Dublin Road NB	1.1km	-	0.8km	0.3km
Dublin Road SB	1.1km	-	0.6km	0.5km
Belfast Road EB	2.9km	0.9km	2.0km	-
Belfast Road WB	2.9km	0.1km	2.8km	-
A26 Ballymena Road NB	2.0km	1.7km	0.3km	-
A26 Ballymena Road SB	2.0km	1.8km	0.2km	-
Steeple Road NB	1.5km	1.5km	-	-
Steeple Road SB	1.5km	1.3km	0.2km	-
Randalstown Road EB	1.1km	0.1km	0.5km	0.5km
Randalstown Road WB	1.1km	0.1km	1.0km	-
Total	21.6km	8.9km	11.2km	1.5km

Table 2a – Pedestrian and Cyclist Crossing Provisions in Antrim

Crossing Type	Number	Percentage of Total
Pelican Crossing	1	1.6%
Puffin Crossing	4	6.7%
Toucan Crossing	0	0%
Zebra Crossing	4	6.7%
Pedestrian Refuge Island	45	75.0%
Signals with Pedestrian	6	10.0%
Total	**60**	**100%**

Figure 5b – Map of Pedestrian Infrastructure in Ballyclare – Key Radial Footway by Width and Crossing Type

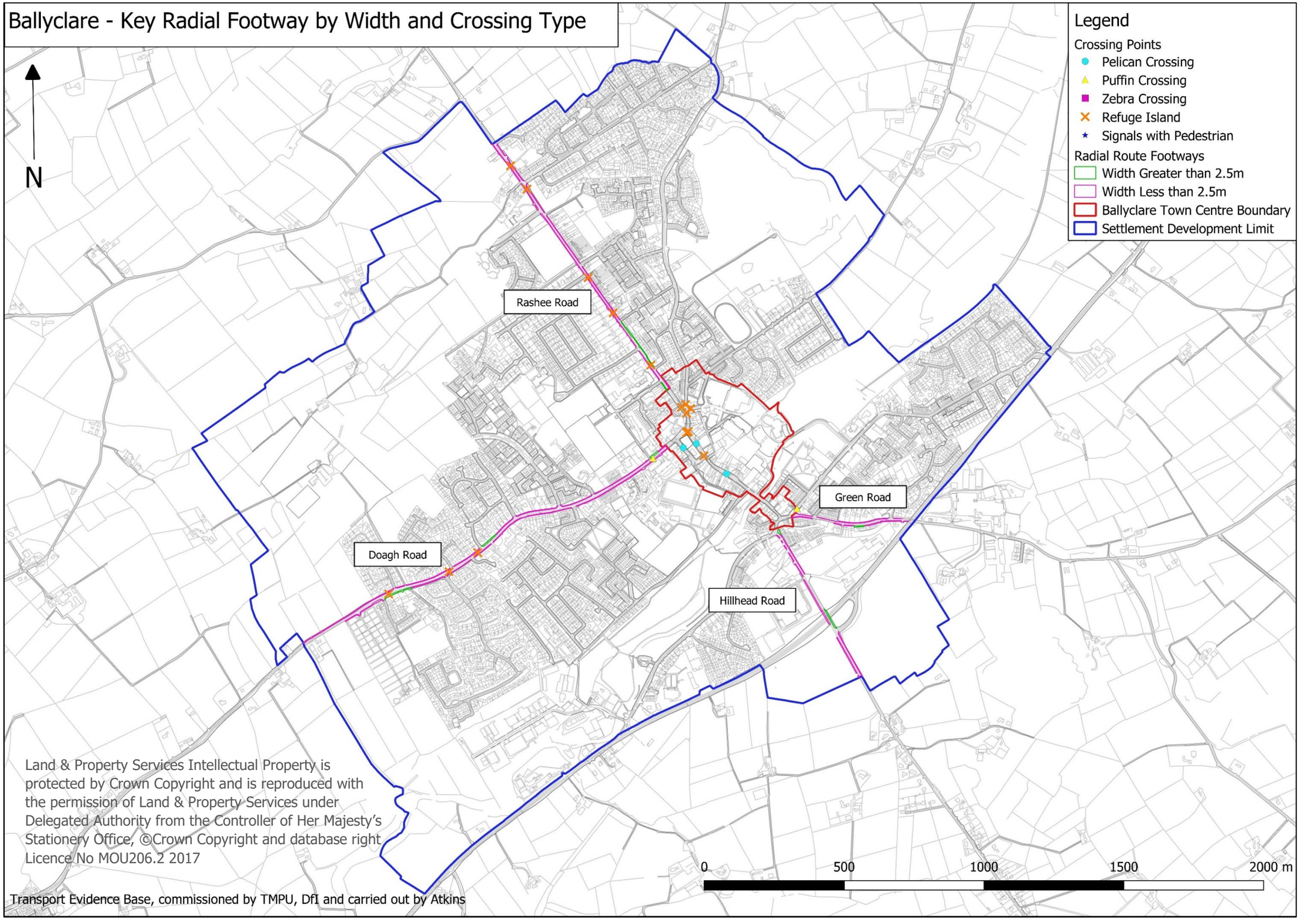


Table 1b – Footway Widths of Radial Routes in Ballyclare

Route	Total Route Length	Length of Footway >2.5m	Length of Footway <2.5m	Length of No Footway
Doagh Road EB	2.5km	0.2km	2.0km	0.3km
Doagh Road WB	2.5km	0.1km	2.4km	-
Rashee Road NB	1.7km	0.1km	1.6km	-
Rashee Road SB	1.7km	0.3km	1.4km	-
Green Road EB	0.7km	-	0.7km	-
Green Road WB	0.7km	0.1km	0.5km	0.1km
Hillhead Road NB	1.0km	-	0.9km	0.1km
Hillhead Road SB	1.0km	0.2km	0.6km	0.2km
Total	11.8km	1km	10.1km	0.7km

Table 2b – Pedestrian and Cyclist Crossing Provisions in Ballyclare

Crossing Type	Number	Percentage of Total
Pelican Crossing	3	15%
Puffin Crossing	2	10%
Toucan Crossing	0	0%
Zebra Crossing	0	0%
Pedestrian Refuge Island	15	75%
Signals with Pedestrian	0	0%
Total	**20**	**100%**

Figure 5c – Map of Pedestrian Infrastructure in Crumlin – Key Radial Footway by Width and Crossing Type

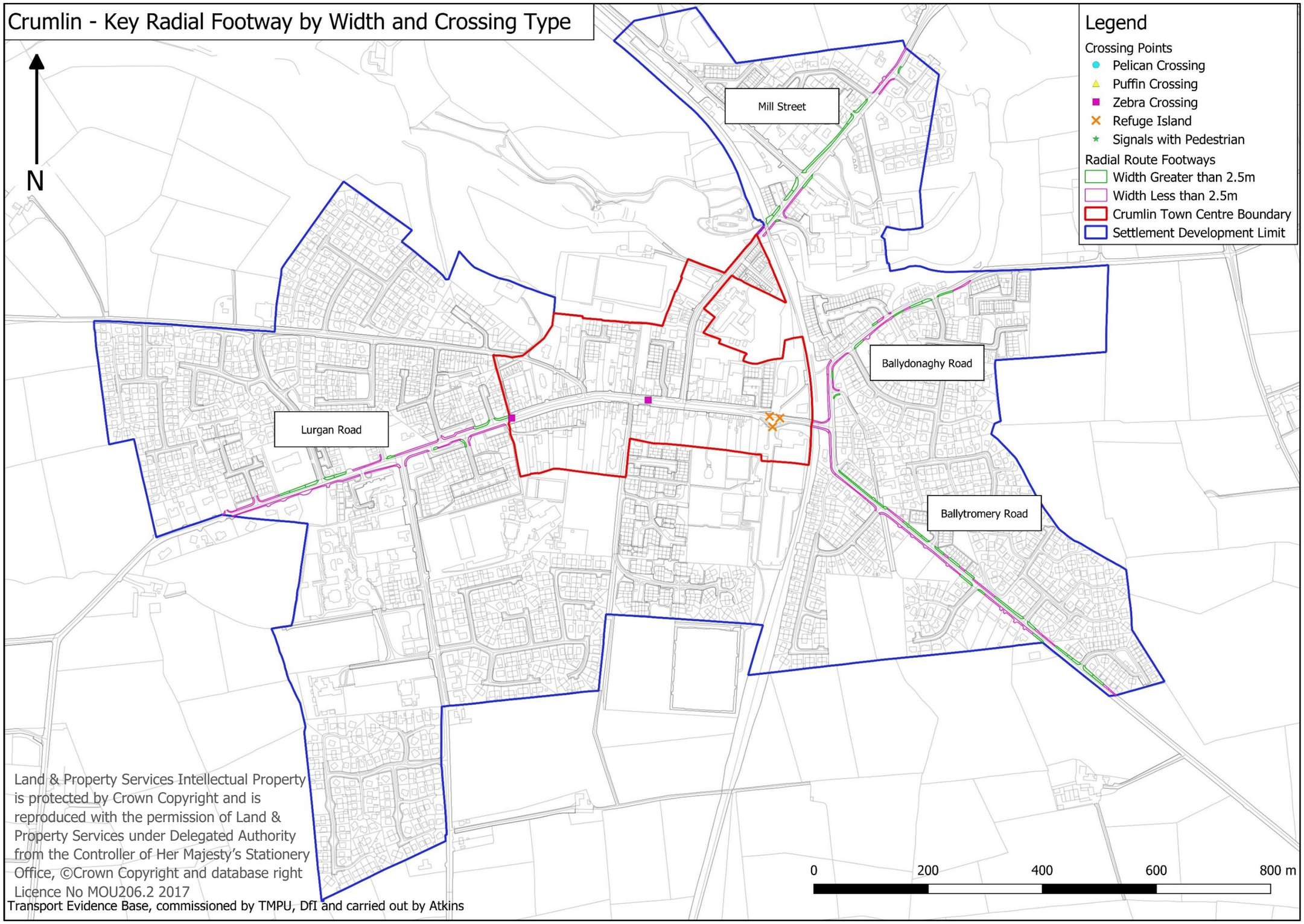


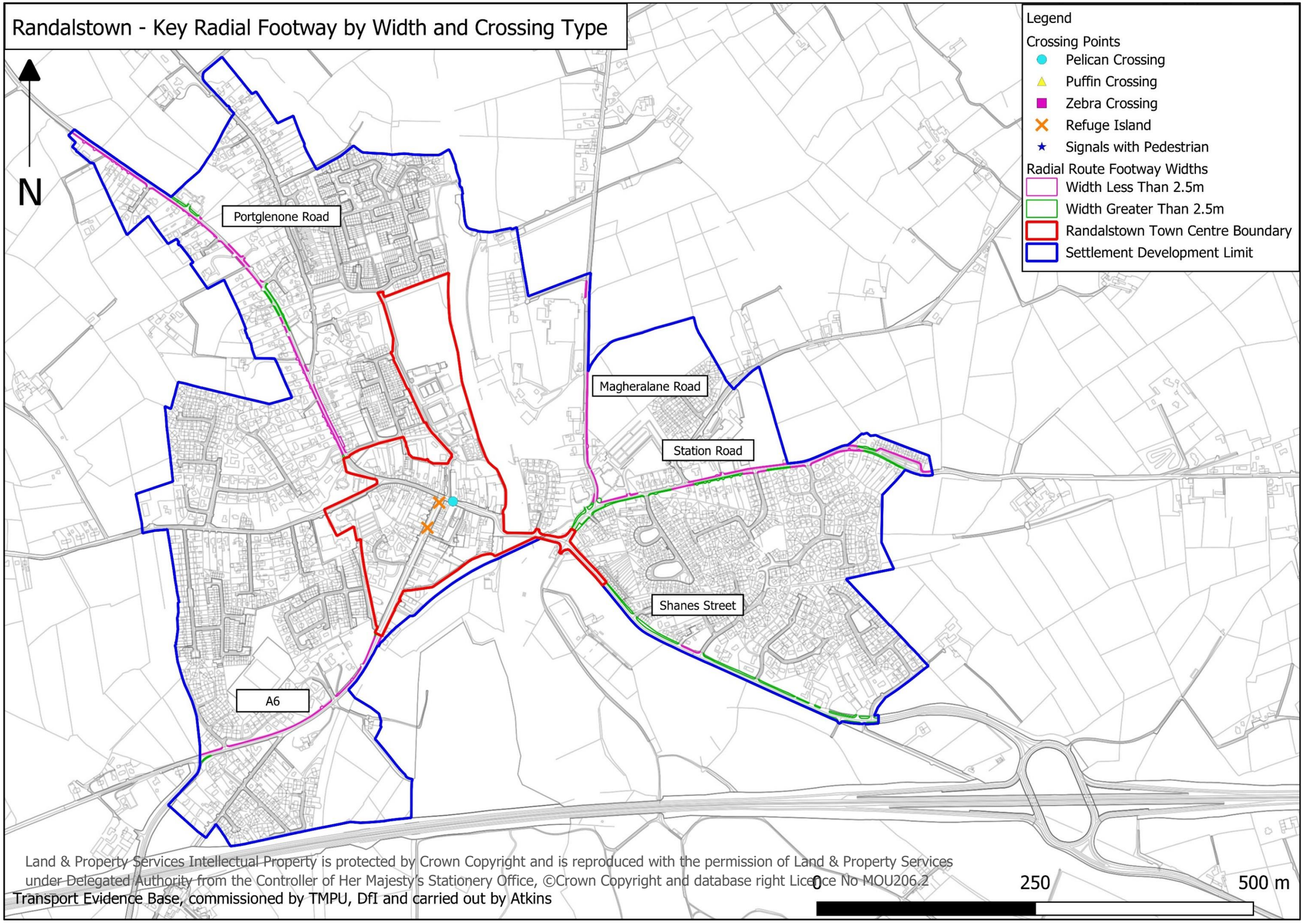
Table 1c – Footway Widths of Radial Routes in Crumlin

Route	Total Route Length	Length of Footway >2.5m	Length of Footway <2.5m	Length of No Footway
Lurgan Road EB	0.5km	0.05km	0.45km	-
Lurgan Road WB	0.5km	0.20km	0.30km	-
Ballydonaghy Road EB	0.5km	0.27km	0.18km	0.05km
Ballydonaghy Road WB	0.5km	0.19km	0.01km	0.30km
Ballytromery Road EB	0.7km	0.44km	0.18km	0.08km
Ballytromery Road WB	0.7km	0.05km	0.5km	0.15km
Mill Street NB	0.4km	0.25km	0.15km	-
Mill Street SB	0.4km	0.05km	0.07km	0.28km
Total	4.2km	1.5km	1.84km	0.86km

Table 2c – Pedestrian and Cyclist Crossing Provisions in Crumlin

Crossing Type	Number	Percentage of Total
Pelican Crossing	0	0%
Puffin Crossing	0	0%
Toucan Crossing	0	0%
Zebra Crossing	2	40%
Pedestrian Refuge Island	3	60%
Signals with Pedestrian	0	0%
Total	**5**	**100%**

Figure 5d – Map of Pedestrian Infrastructure in Randalstown – Key Radial Footway by Width and Crossing Type



Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Table 1d – Footway Widths of Radial Routes in Randalstown

Route	Total Route Length	Length of Footway >2.5m	Length of Footway <2.5m	Length of No Footway
Castle Road NB	0.8km	0.8km	-	-
Castle Road SB	0.8km	0.75km	0.05km	-
Station Road EB	1.0km	0.1km	0.8km	0.1km
Station Road WB	1.0km	0.5km	0.4km	0.1km
Magheralane Road NB	0.6km	-	0.1km	0.5km
Magheralane Road SB	0.6km	-	0.6km	-
A6 NB	0.6km	0.05km	0.55km	-
A6 SB	0.6km	0.02km	0.07km	0.51km
Portglenone Road NB	1.1km	0.08km	1.02km	-
Portglenone Road SB	1.1km	0.2km	0.5km	0.4km
Total	8.2km	2.5km	4.09km	1.61km

Table 2d – Pedestrian and Cyclist Crossing Provisions in Randalstown

Crossing Type	Number	Percentage of Total
Pelican	1	33.33%
Refuge Island	2	66.67%
Total	**3**	**100%**

Figure 6a – Map of Cycling Infrastructure in <u>Antrim</u>

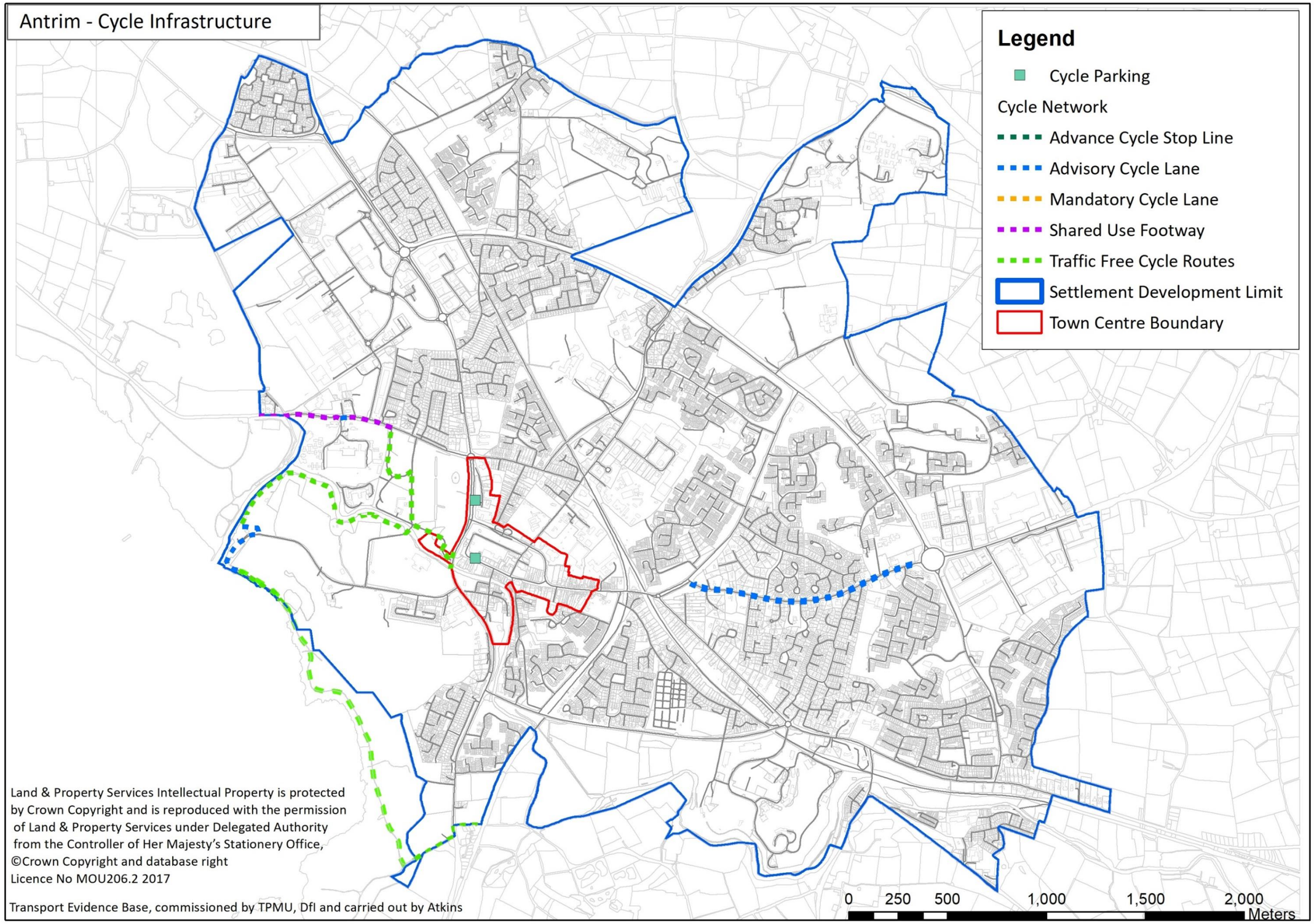


Table 3 – Cycle Network Infrastructure in Antrim

Provision Type	Number of Sections	Total Length
Advisory Cycle Lane	4	2.81km
Traffic Free Cycle Routes	6	4.96km
Shared Use Footway	2	0.6km
Total	**12**	**8.41km**

Table 4a – Cycle Parking Infrastructure in Antrim

Provision Type	Number of Facilities	Total Number of Bicycle Parking Spaces	% of Bicycle Parking Spaces by Type
Sheffield Stand	2	18	100%
Total	**2**	**18**	**100%**

Figure 6b – Map of Cycling Infrastructure in <u>Ballyclare</u>

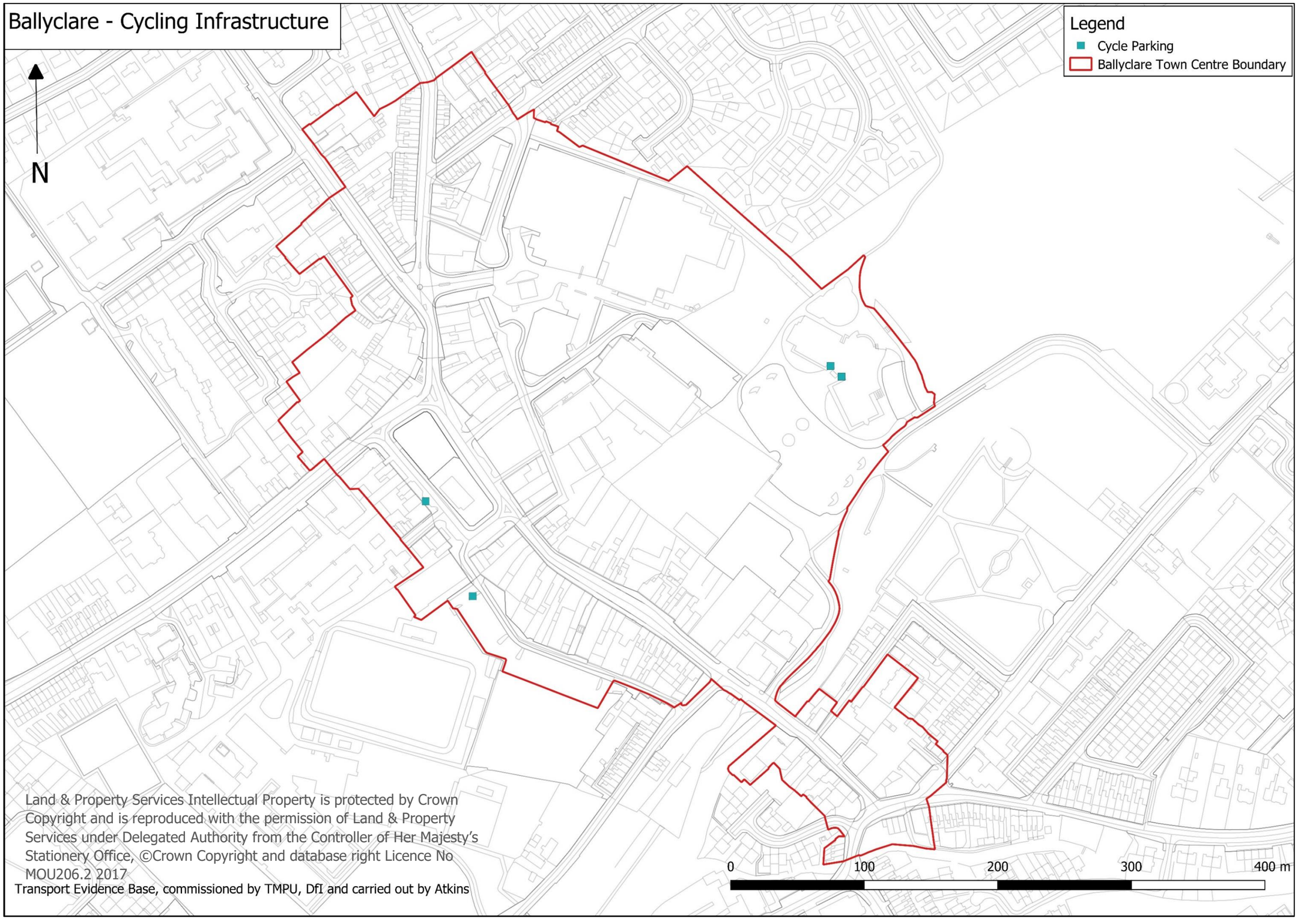


Figure 6c – Map of Cycling Infrastructure in <u>Randalstown</u>

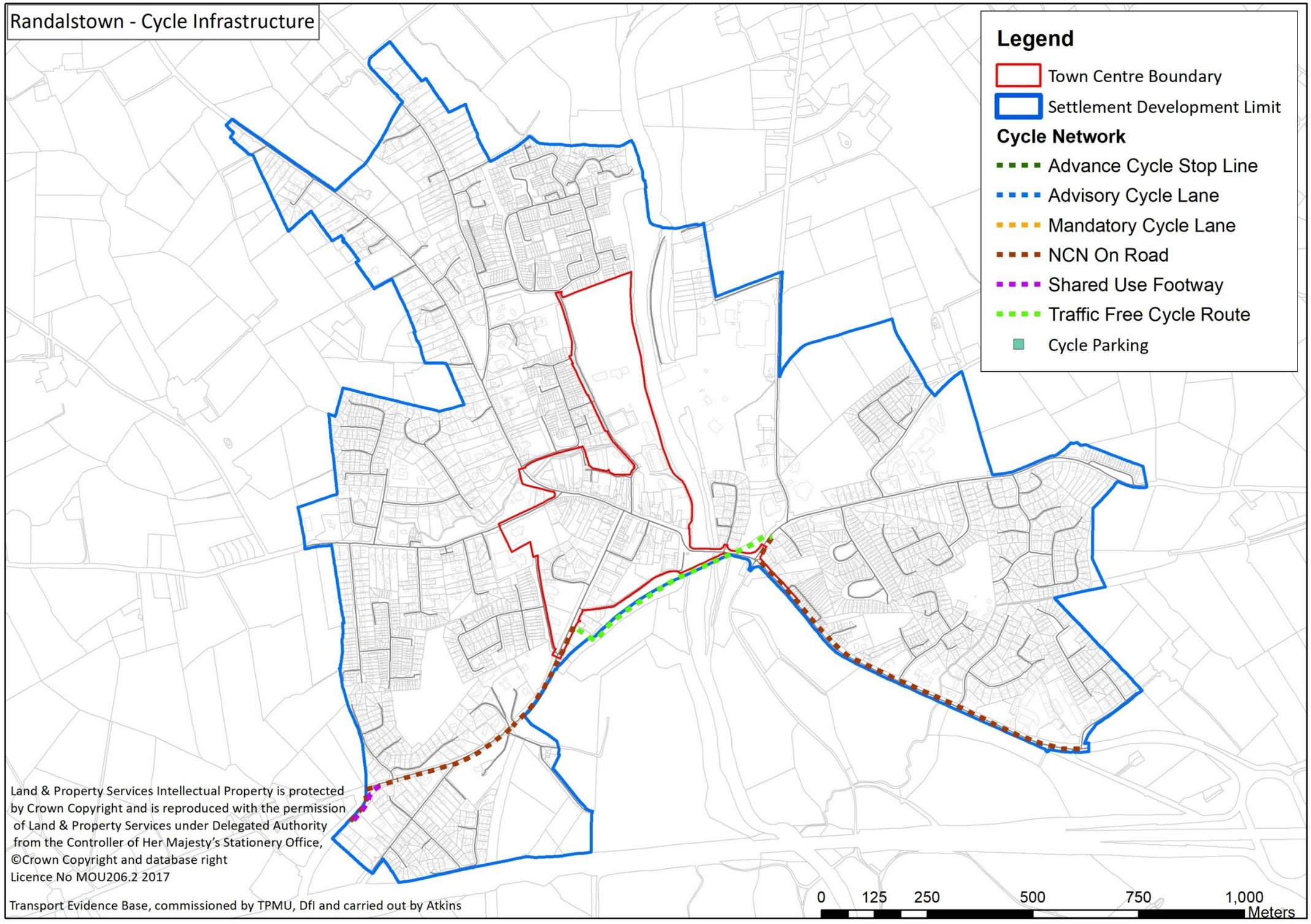


Figure 6d – Map of Cycling Infrastructure in <u>Crumlin</u>

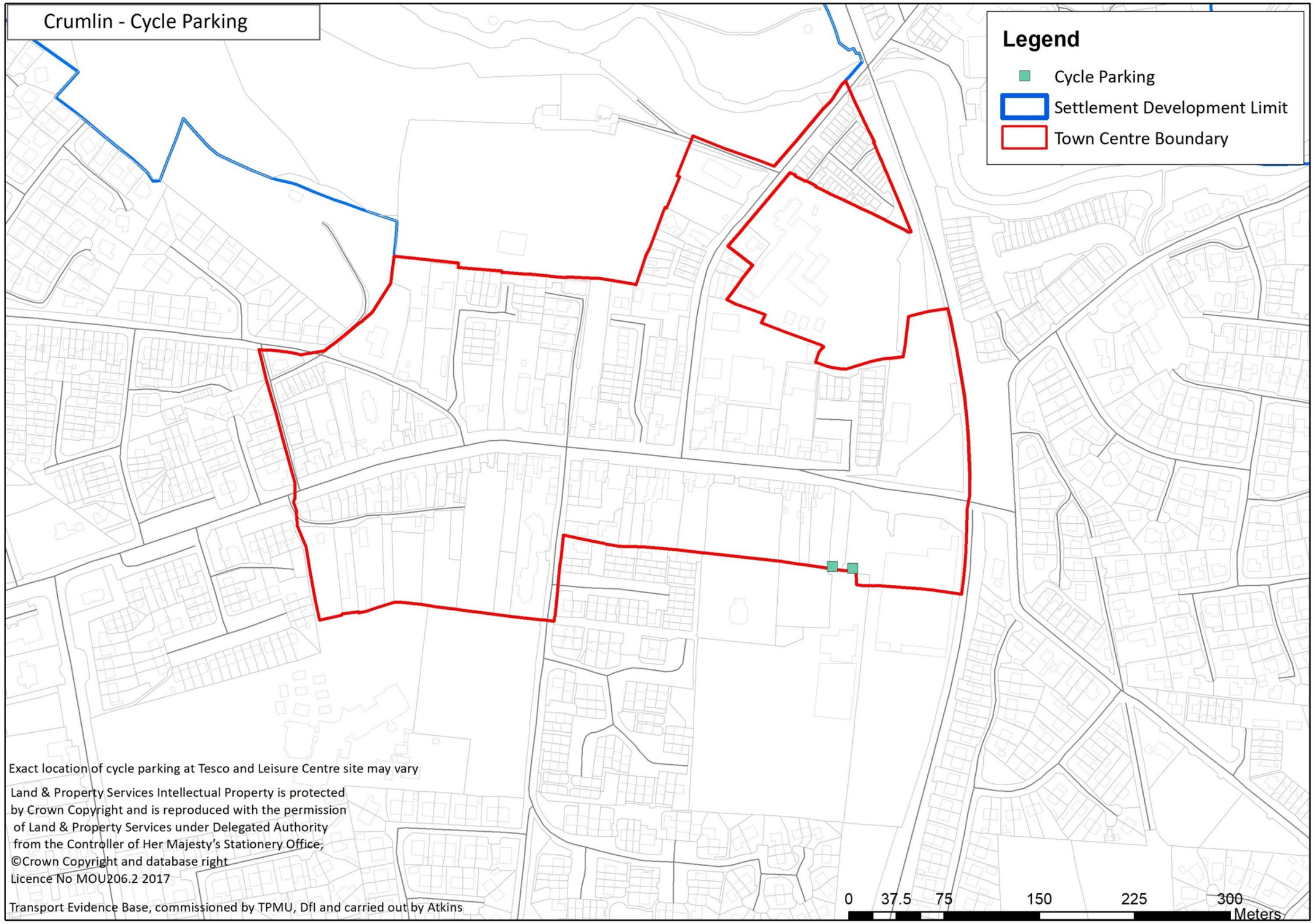


Table 4b – Cycle Parking Infrastructure in Ballyclare

Provision Type	Number of Facilities	Total Number of Bicycle Parking Spaces	% of Bicycle Parking Spaces by Type
Sheffield Stand	1	4	25.0%
Post and Ring	1	2	12.5%
Serpentine	2	10	62.5%
Total	**4**	**16**	**100%**

Table 4c – Cycle Network Infrastructure in Randalstown

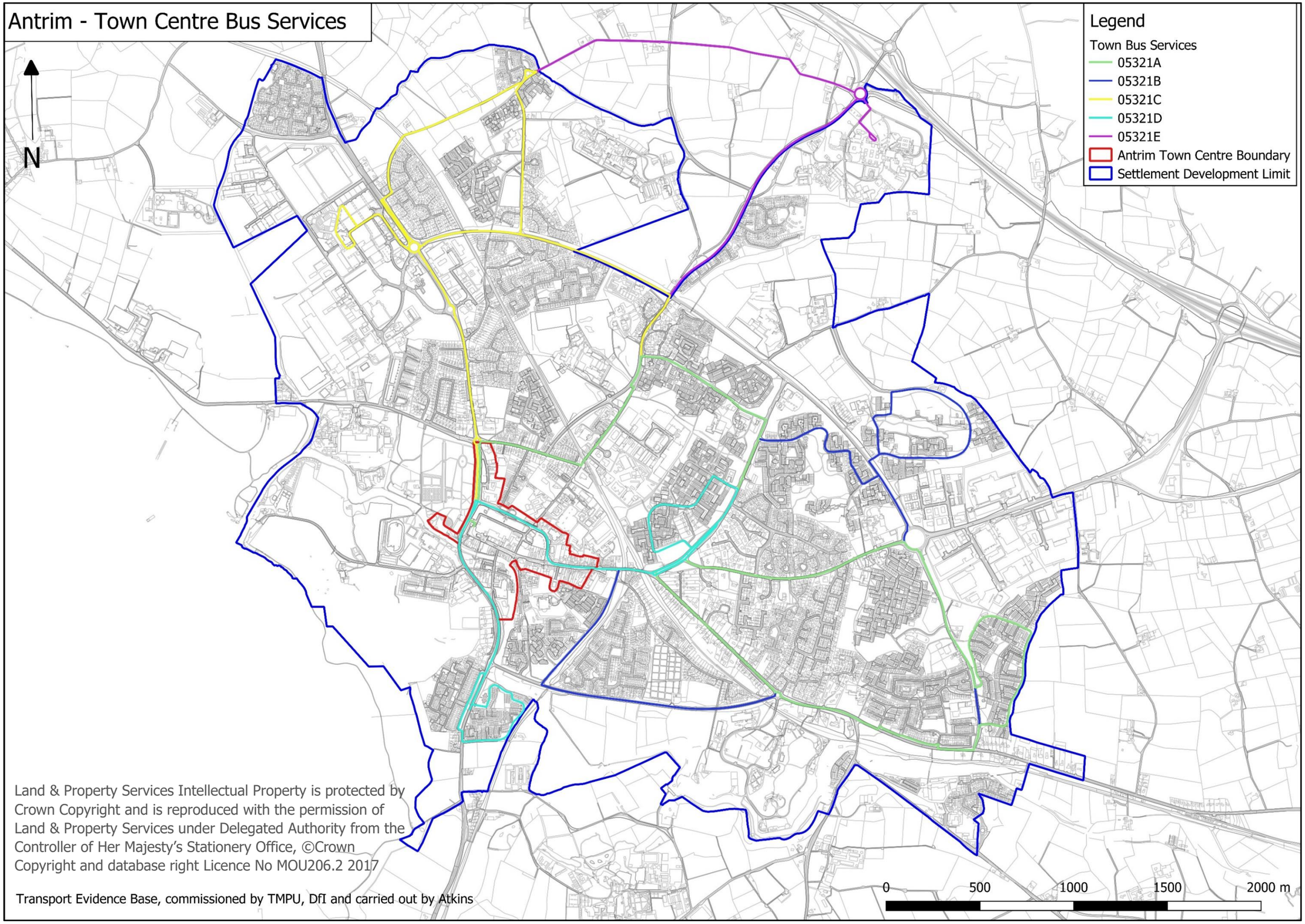
Provision Type	Number of Sections	Total Length
National Cycle Network – On Road	8	1.72km
Traffic Free Cycle Routes	1	0.6km
Shared Use Footway	1	0.11km
Total	**10**	**2.43km**

Table 4d – Cycle Parking Infrastructure in Crumlin*

Provision Type	Number of Facilities	Total Number of Bicycle Parking Spaces	% of Bicycle Parking Spaces by Type
Sheffield Stand	2	8	100%
Total	**2**	**8**	**100%**

*Provision type and number may vary

Figure 7 – Map of Town Centre Bus Services in Antrim



Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Table 5 – Town Centre Bus Services in Antrim

Service Number	Route Description	Weekday			Sat	Sun
		AM Peak Frequency	**Inter Peak Frequency**	**PM Peak Frequency**	**Inter Peak Frequency**	**Inter Peak Frequency**
321A	Buscentre - Greystone	1	2	1	1	0
321B	Buscentre – Aghaboy Gardens	1	2	1	1	0
321C	Market Sq – Springfarm Estate	0	1	1	0	0
321D	Market Square to Cedarmount	0	1	1	0	0
321E	Antrim Hospital Link	2	2	2	1	0

Section 3 – Travel to Work Destinations

Figure 8a – Map of Percentage of Travel to Work Journeys from Antrim to other LGDs (in 2011)

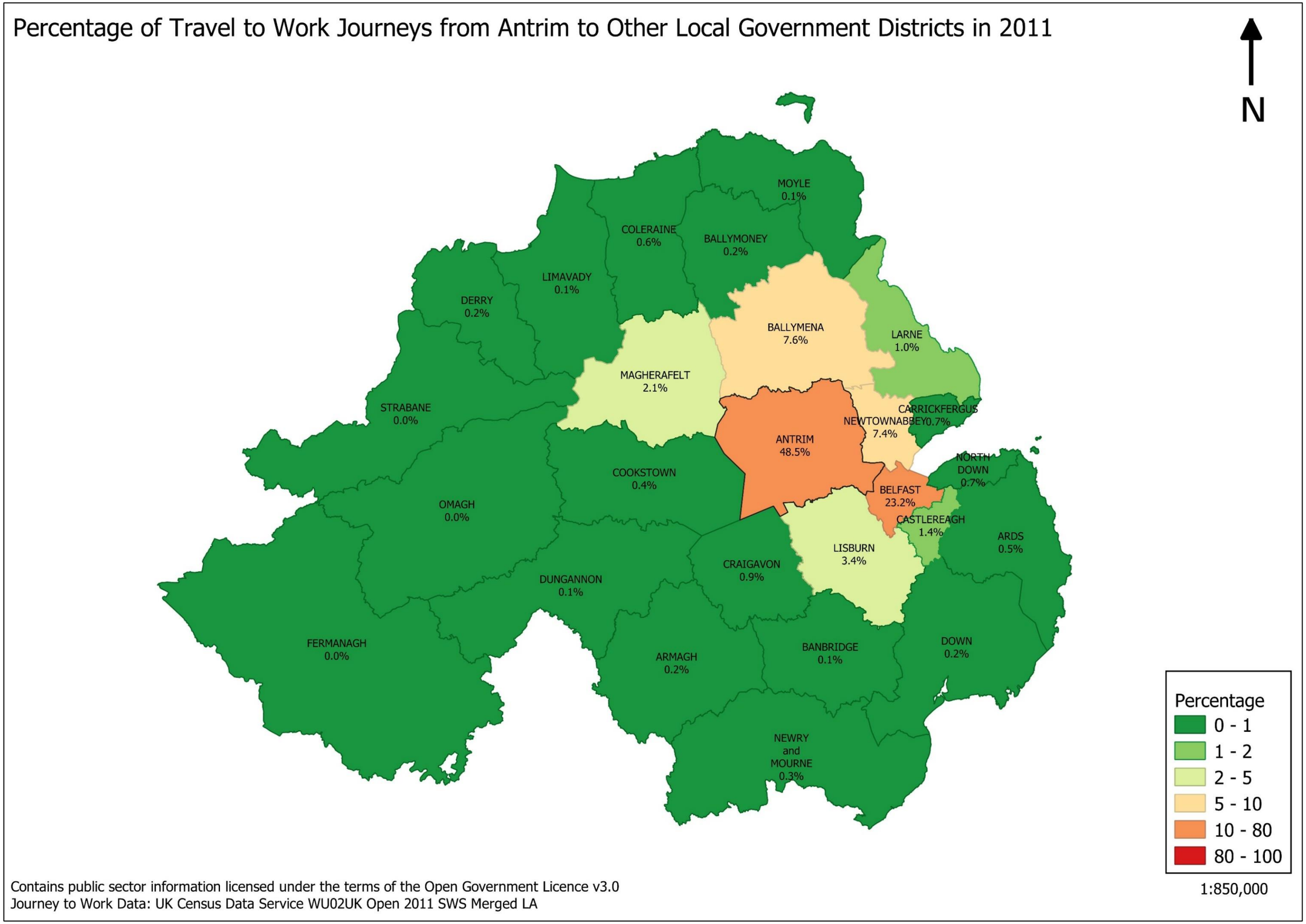
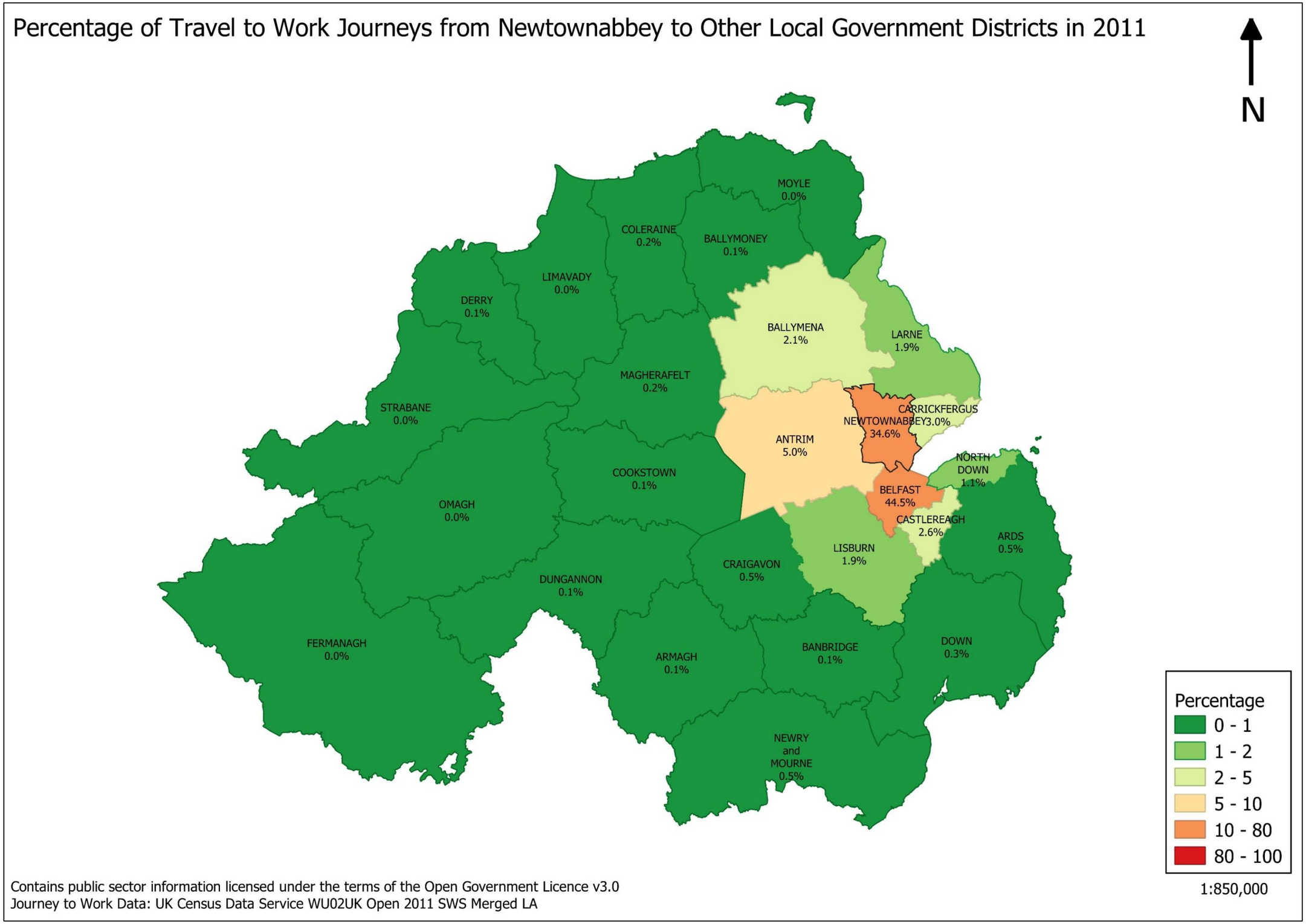
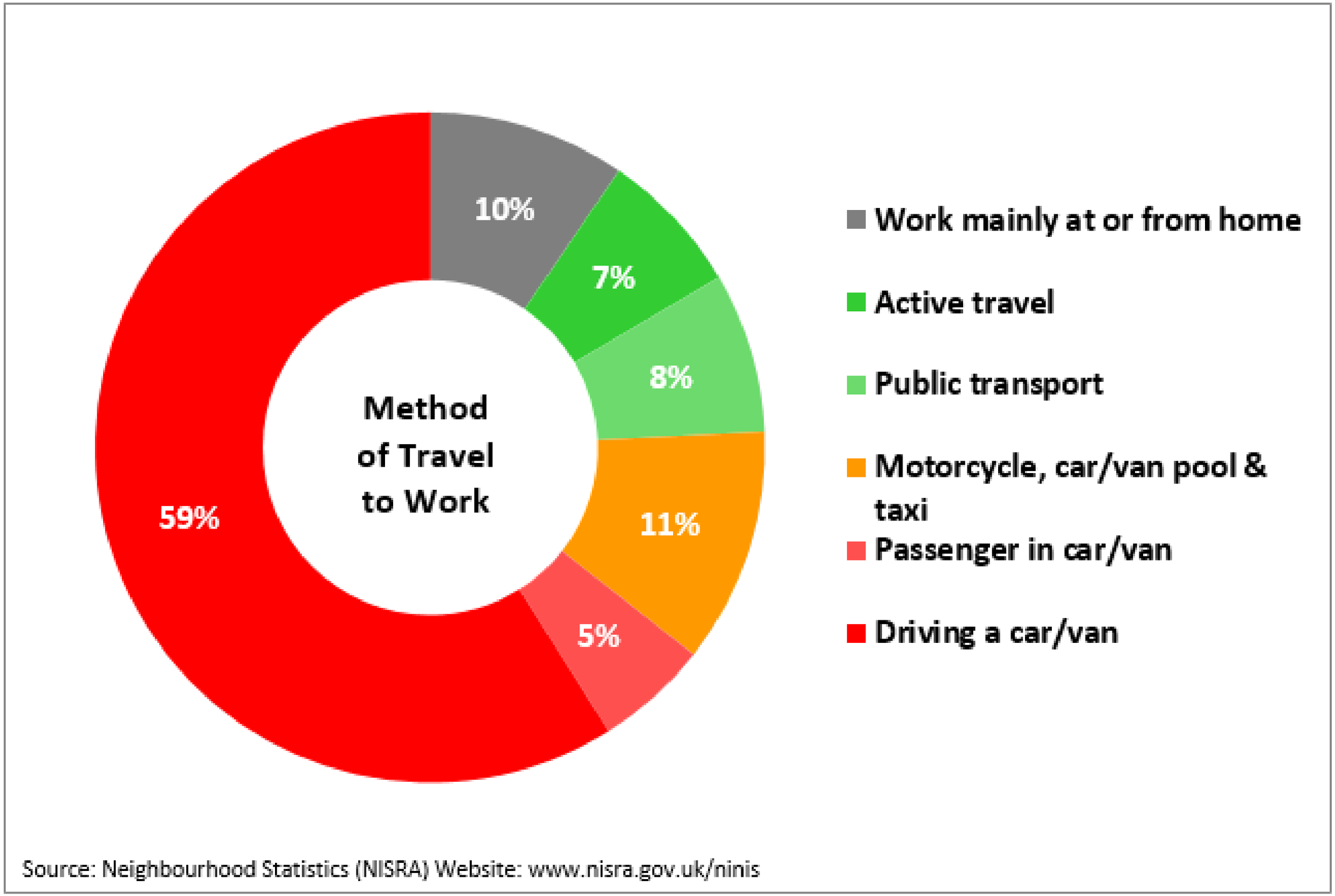


Figure 8b – Map of Percentage of Travel to Work Journeys from <u>Newtownabbey</u> to other LGDs (in 2011)



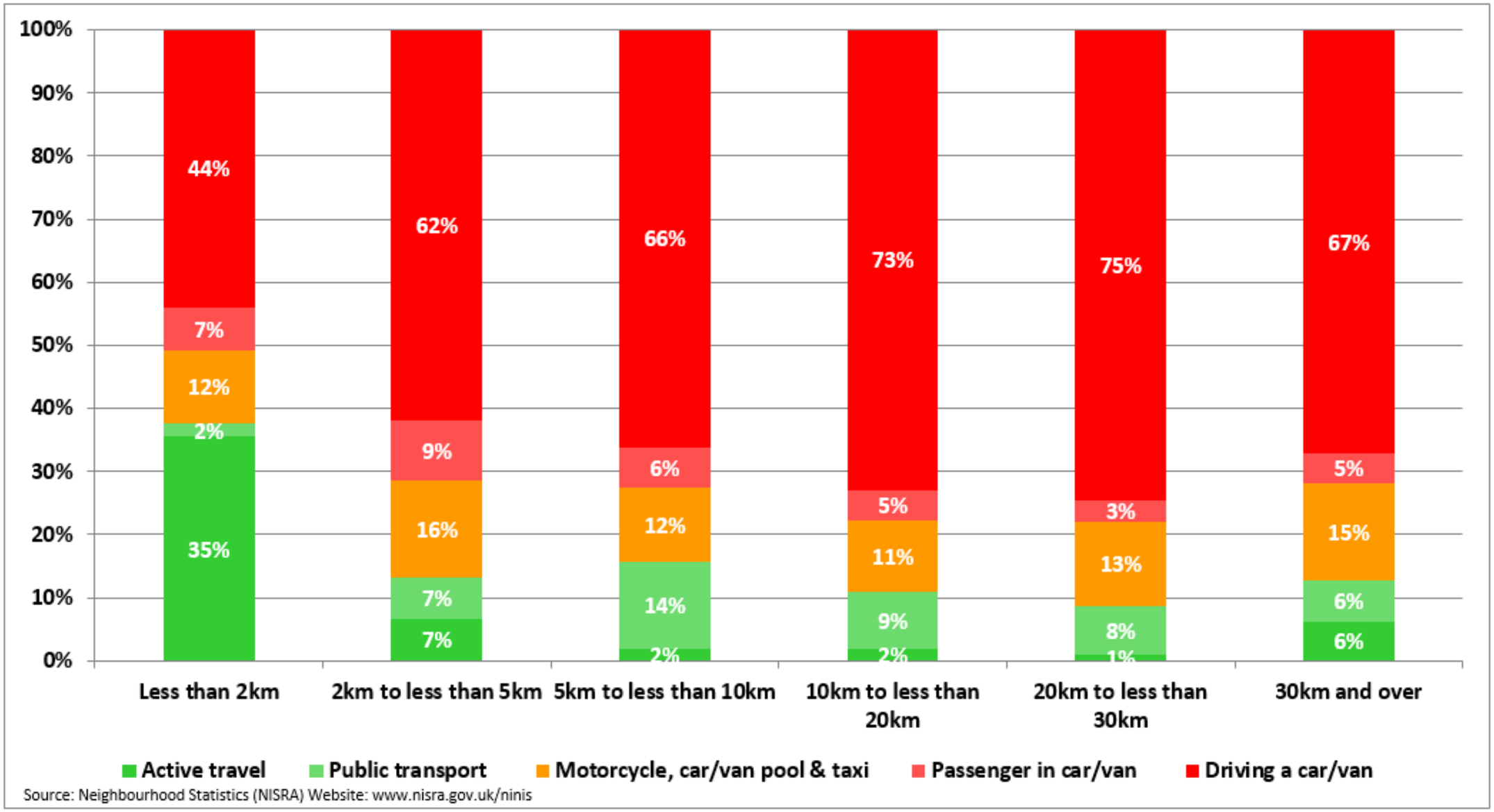
Section 4 – Modal Choice for Journeys to Work and Education across the Council Area

Figure 9 – Chart of Modal Choice for Journey to Work in Antrim and Newtownabbey



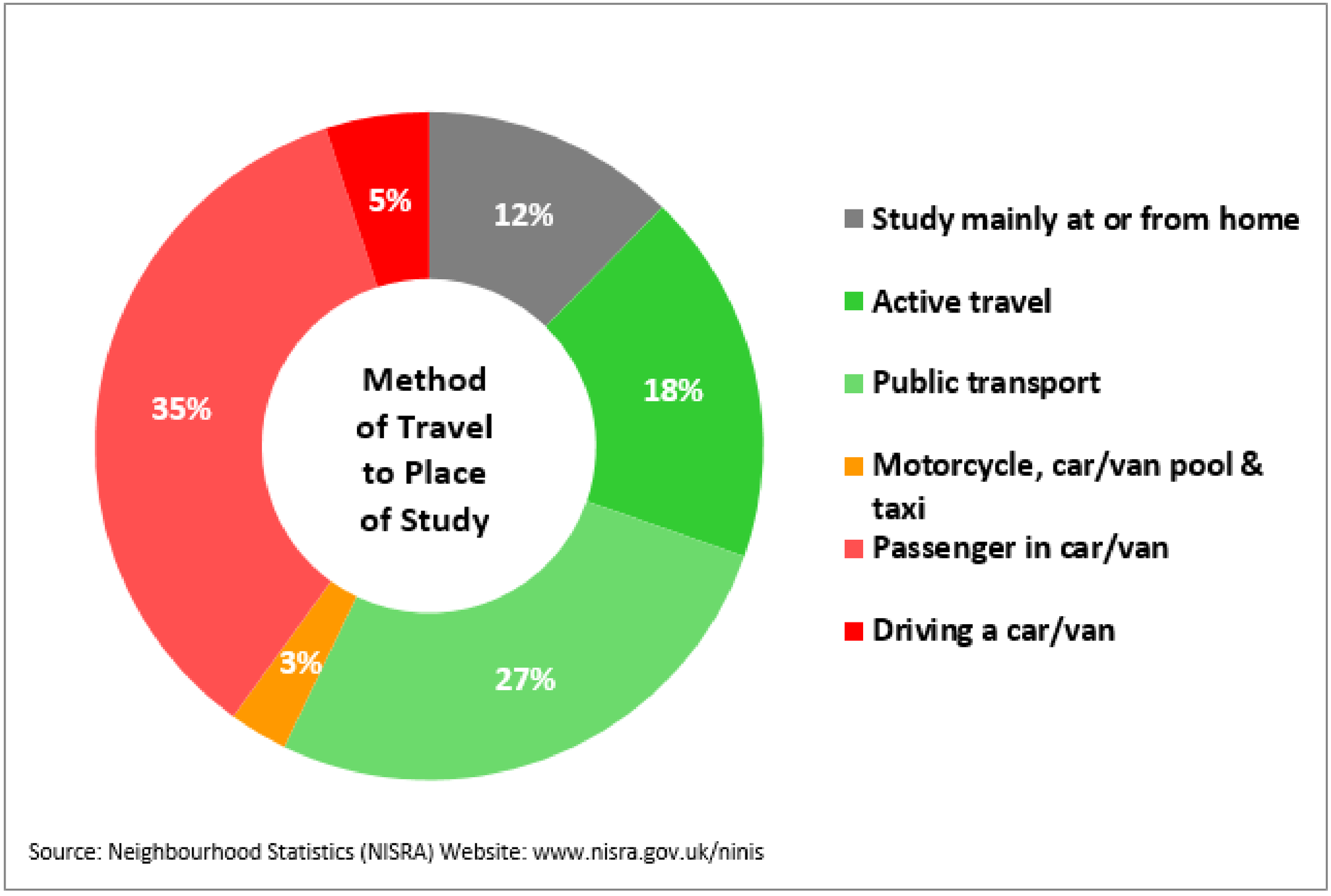
Source: Neighbourhood Statistics (NISRA) Website: www.nisra.gov.uk/ninis

Figure 10 – Graph of Modal Choice for Journey to Work by Distance in <u>Antrim and Newtownabbey</u>



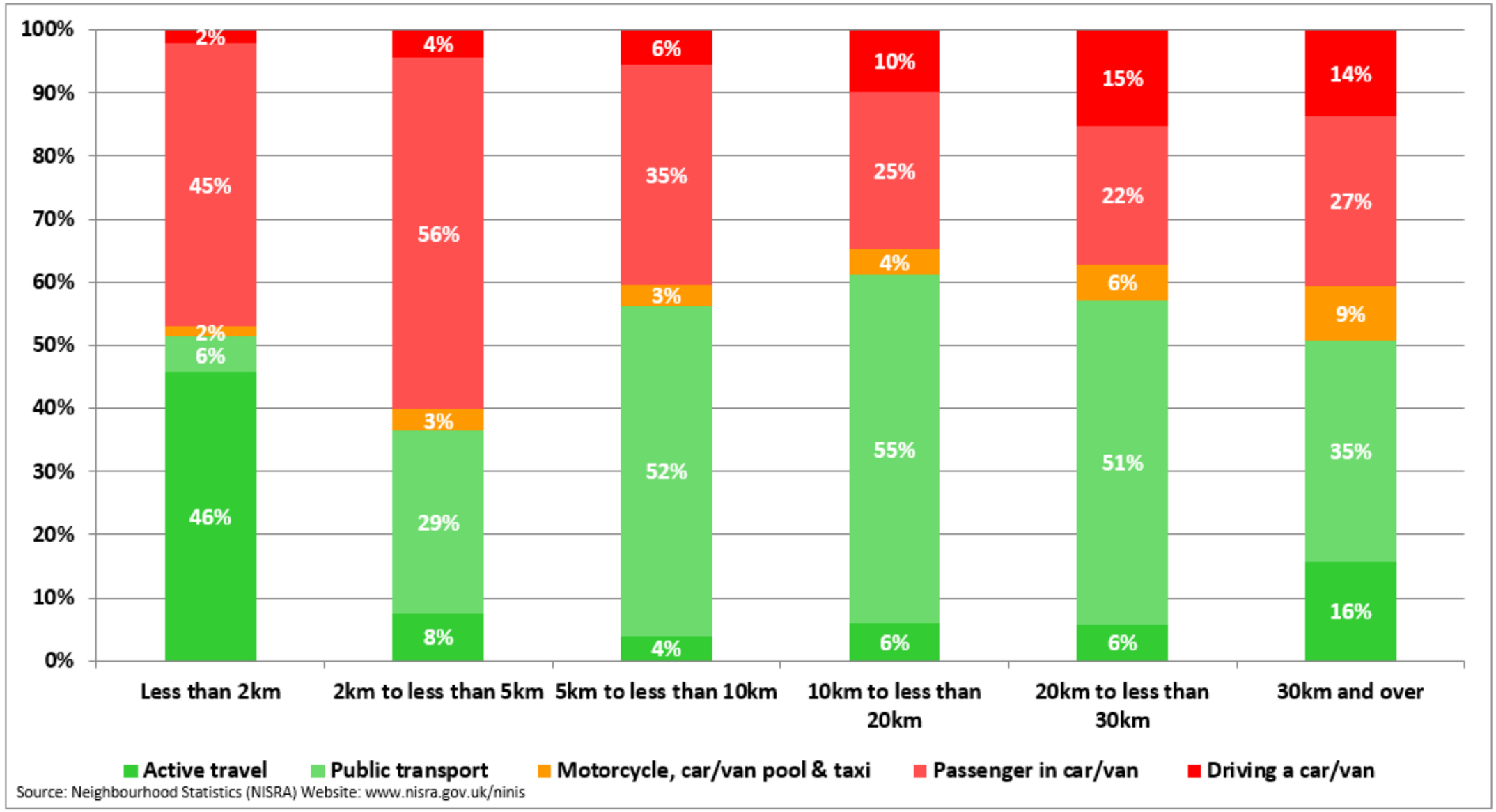
Source: Neighbourhood Statistics (NISRA) Website: www.nisra.gov.uk/ninis

Figure 11 – Chart of Modal Choice for Journey to Education in Antrim and Newtownabbey



Source: Neighbourhood Statistics (NISRA) Website: www.nisra.gov.uk/ninis

Figure 12 – Graph of Modal Choice for Journey to Education by Distance in Antrim and Newtownabbey



Source: Neighbourhood Statistics (NISRA) Website: www.nisra.gov.uk/ninis

Section 5 – Road Network Speeds at Peak and Off-Peak Time Period

Figure 13 – Map of Average Off Peak Speeds (mph) for Roads in <u>Antrim and Newtownabbey</u>

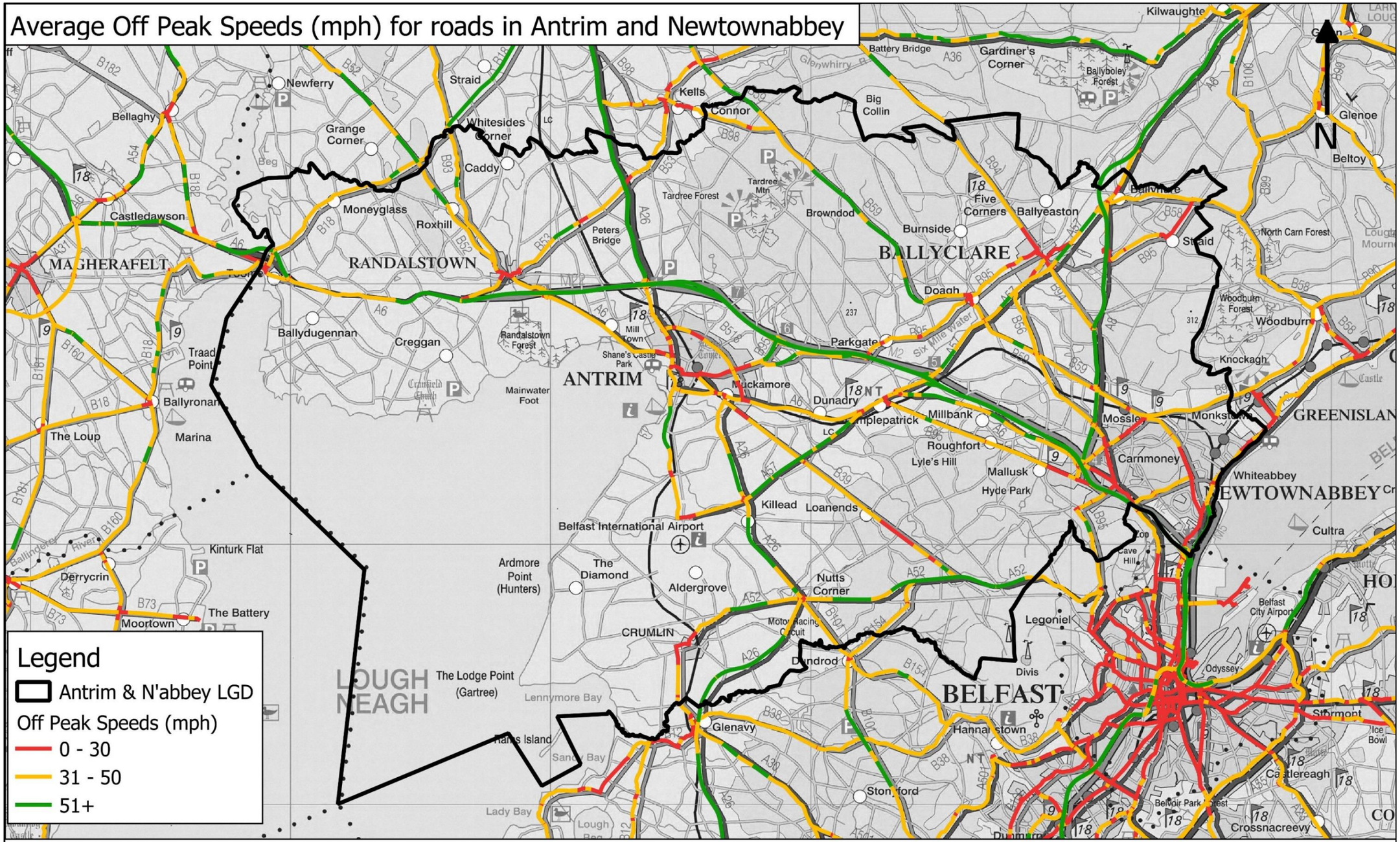


Figure 14 – Map of Average Peak Speeds (mph) for Roads in Antrim

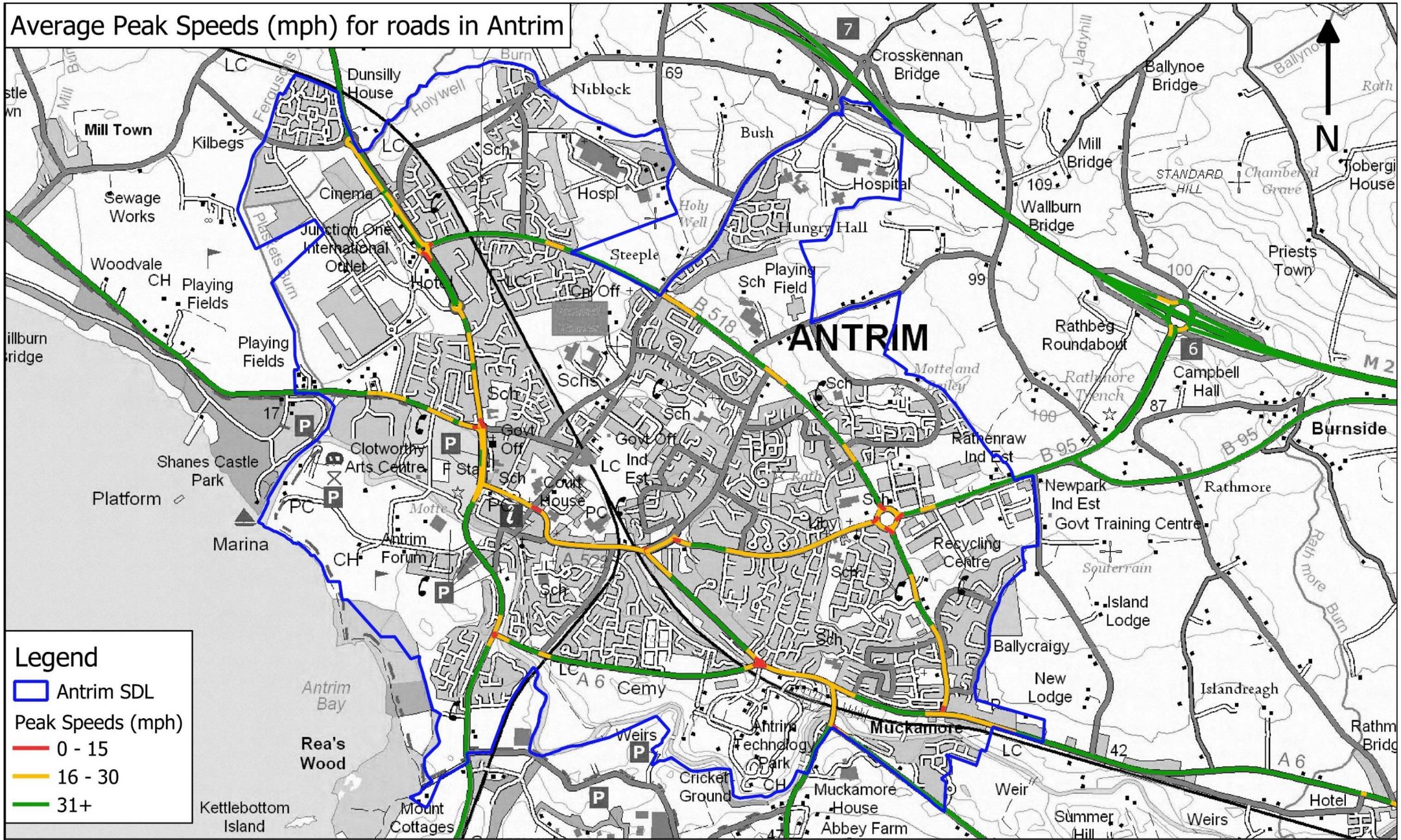


Figure 14 – Map of Average Peak Speeds (mph) for Roads in Ballyclare

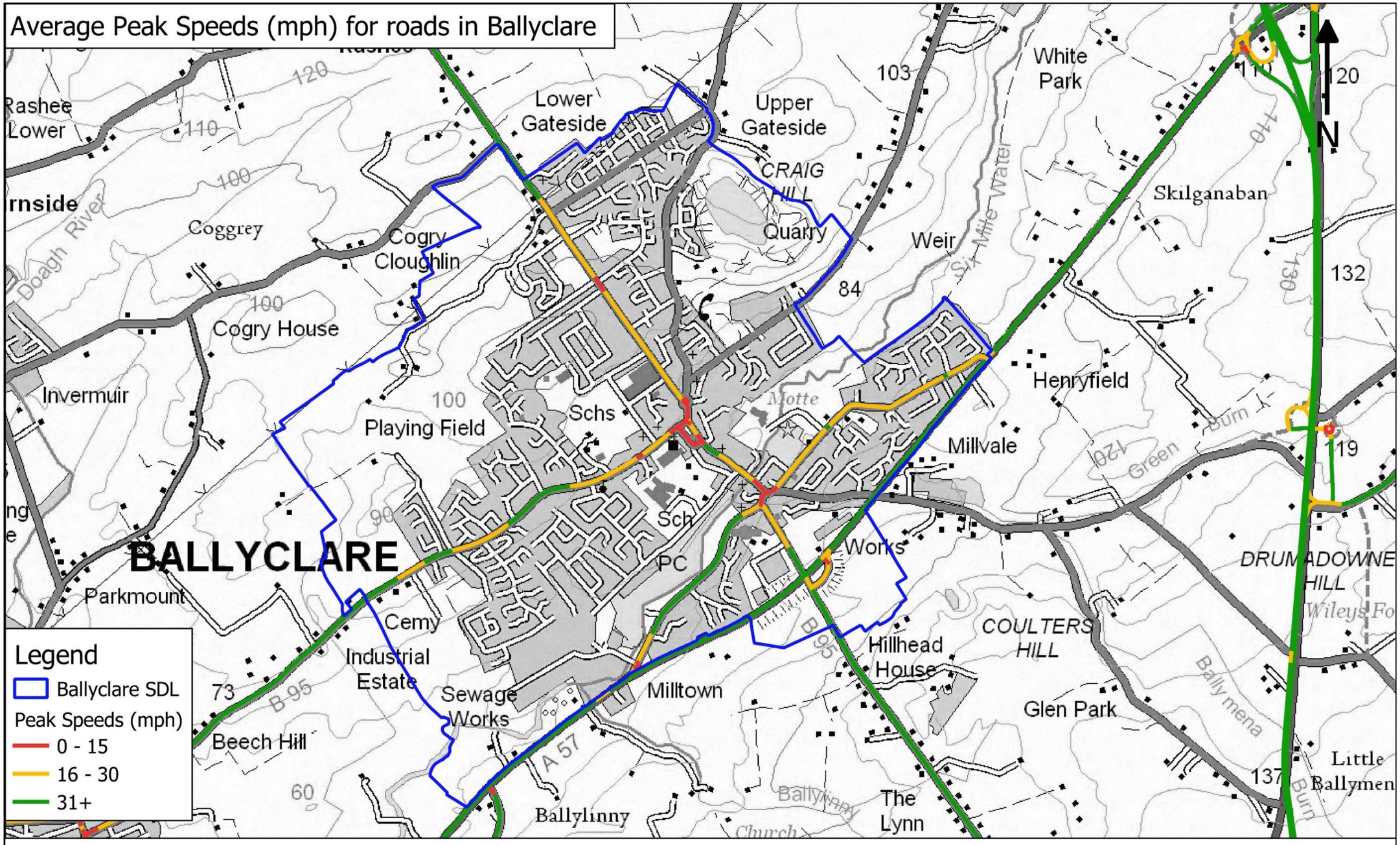


Figure 14 – Map of Average Peak Speeds (mph) for Roads in Crumlin

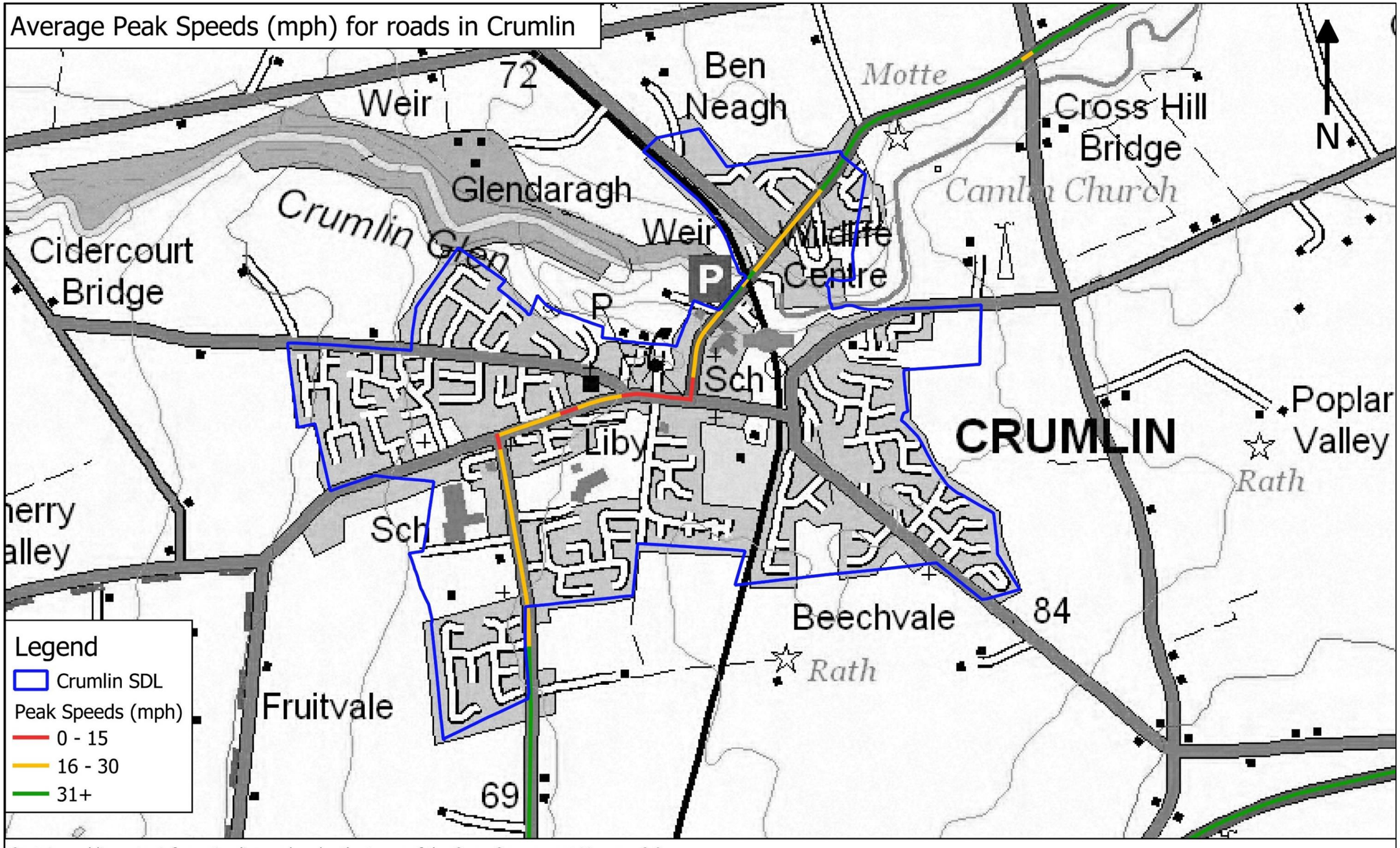
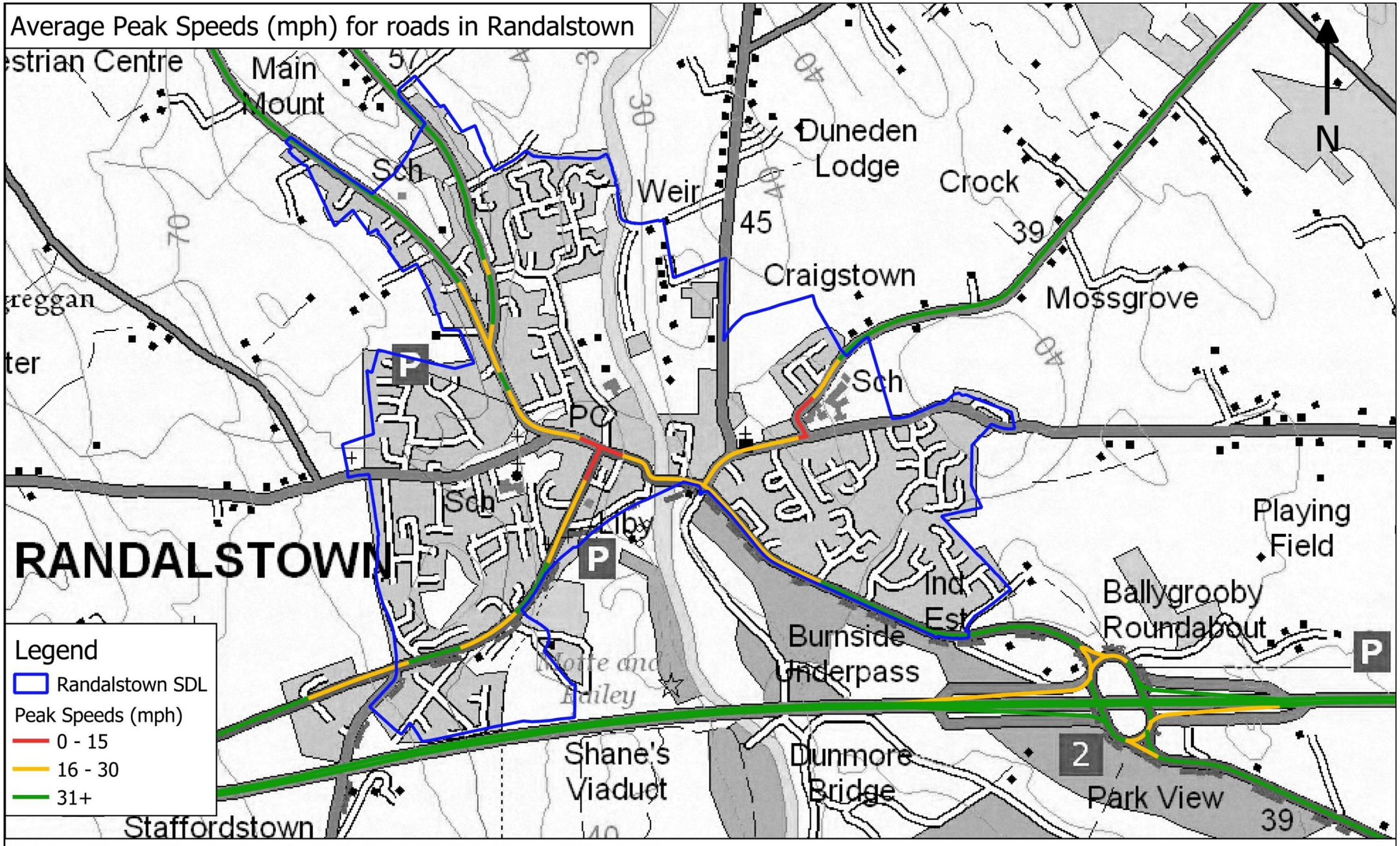


Figure 14 – Map of Average Peak Speeds (mph) for Roads in Randalstown



Section 6 – Road Collision History

Table 6a – Number of Road Traffic Casualties by Severity and Road User Type in Antrim, 2007-2016

Road User Type	2007-2011			
	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	299	1	10	288
Pedestrians	42	0	6	36
Car Users (inc Passengers)	226	0	2	224
Motorcyclists (inc Pillion Passengers)	17	1	2	14
Pedal Cyclists	11	0	0	11
Other Road Users	3	0	0	3

2012-2016			
All Casualties	Fatalities	Serious Injuries	Slight Injuries
288	0	9	279
38	0	5	33
226	0	1	225
8	0	1	7
15	0	2	13
1	0	0	1

2007-2016 (Combined)			
All Casualties	Fatalities	Serious Injuries	Slight Injuries
587	1	19	567
80	0	11	69
452	0	3	449
25	1	3	21
26	0	2	24
4	0	0	4

Casualties in Antrim 2012-2016 - Modal Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	288	0	9	279
Pedestrians (%)	13.2%	0%	55.6%	11.8%
Car Users (inc Passengers) (%)	78.5%	0%	11.1%	80.6%
Motorcyclists (inc Pillion Passengers) (%)	2.8%	0%	11.1%	2.5%
Pedal Cyclists (%)	5.2%	0%	22.2%	4.7%
Other Road Users (%)	0%	0%	0%	0%

Casualties in Antrim 2012-2016 - Severity Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	288	0%	3.1%	96.9%
Pedestrians	38	0%	13.2%	86.8%
Car Users (inc Passengers)	226	0%	0.4%	99.6%
Motorcyclists (inc Pillion Passengers)	8	0%	12.5%	87.5%
Pedal Cyclists	15	0%	13.3%	86.7%
Other Road Users	1	0%	0%	100%

Source: Department for Infrastructure (DfI)

Table 6b – Number of Road Traffic Casualties by Severity and Road User Type in Ballyclare, 2007-2016

Road User Type	2007-2011			
	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	72	0	7	65
Pedestrians	16	0	3	13
Car Users (inc Passengers)	48	0	2	46
Motorcyclists (inc Pillion Passengers)	4	0	1	3
Pedal Cyclists	4	0	1	3
Other Road Users	0	0	0	0

2012-2016			
All Casualties	Fatalities	Serious Injuries	Slight Injuries
91	1	5	85
14	0	2	12
72	1	2	69
3	0	1	2
2	0	0	2
0	0	0	0

2007-2016 (Combined)			
All Casualties	Fatalities	Serious Injuries	Slight Injuries
163	1	12	150
30	0	5	25
120	1	4	115
7	0	2	5
6	0	1	5
0	0	0	0

Casualties in Ballyclare 2012-2016 - Modal Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	91	1	5	85
Pedestrians (%)	15.4%	0%	40.0%	14.1%
Car Users (inc Passengers) (%)	79.1%	100%	40.0%	81.2%
Motorcyclists (inc Pillion Passengers) (%)	3.3%	0%	20%	2.4%
Pedal Cyclists (%)	2.2%	0%	0%	2.4%
Other Road Users (%)	0%	0%	0%	0%

Casualties in Ballyclare 2012-2016 - Severity Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	91	1.1%	5.5%	93.4%
Pedestrians	14	0%	14.3%	85.7%
Car Users (inc Passengers)	72	1%	2.8%	95.8%
Motorcyclists (inc Pillion Passengers)	3	0%	33%	67%
Pedal Cyclists	2	0%	0%	100%
Other Road Users	0	0%	0%	0%

Source: Department for Infrastructure (DfI)

Table 6c – Number of Road Traffic Casualties by Severity and Road User Type in Crumlin, 2007-2016

Road User Type	2007-2011				2012-2016				2007-2016 (Combined)			
	All Casualties	Fatalities	Serious Injuries	Slight Injuries	All Casualties	Fatalities	Serious Injuries	Slight Injuries	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	18	0	0	18	22	0	1	21	40	0	1	39
Pedestrians	3	0	0	3	9	0	1	8	12	0	1	11
Car Users (inc Passengers)	14	0	0	14	12	0	0	12	26	0	0	26
Motorcyclists (inc Pillion Passengers)	0	0	0	0	0	0	0	0	0	0	0	0
Pedal Cyclists	1	0	0	1	1	0	0	1	2	0	0	2
Other Road Users	0	0	0	0	0	0	0	0	0	0	0	0

Casualties in Crumlin 2012-2016 - Modal Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	22	0	1	21
Pedestrians (%)	40.9%	0%	100%	38.1%
Car Users (inc Passengers) (%)	54.5%	0%	0.0%	57.1%
Motorcyclists (inc Pillion Passengers) (%)	0%	0%	0%	0%
Pedal Cyclists (%)	4.5%	0%	0%	4.8%
Other Road Users (%)	0%	0%	0%	0%

Casualties in Crumlin 2012-2016 - Severity Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	22	0%	4.5%	95.5%
Pedestrians	9	0%	11.1%	88.9%
Car Users (inc Passengers)	12	0%	0%	100%
Motorcyclists (inc Pillion Passengers)	0	0%	0%	0%
Pedal Cyclists	1	0%	0%	100%
Other Road Users	0	0%	0%	0%

Source: Department for Infrastructure (DfI)

Table 6d – Number of Road Traffic Casualties by Severity and Road User Type in Randalstown, 2007-2016

Road User Type	2007-2011			
	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	44	0	3	41
Pedestrians	7	0	1	6
Car Users (inc Passengers)	32	0	0	32
Motorcyclists (inc Pillion Passengers)	4	0	2	2
Pedal Cyclists	1	0	0	1
Other Road Users	0	0	0	0

2012-2016			
All Casualties	Fatalities	Serious Injuries	Slight Injuries
30	0	3	27
3	0	1	2
26	0	2	24
0	0	0	0
1	0	0	1
0	0	0	0

2007-2016 (Combined)			
All Casualties	Fatalities	Serious Injuries	Slight Injuries
74	0	6	68
10	0	2	8
58	0	2	56
4	0	2	2
2	0	0	2
0	0	0	0

Casualties in Randalstown 2012-2016 - Modal Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	30	0	3	27
Pedestrians (%)	10.0%	0%	33%	7.4%
Car Users (inc Passengers) (%)	86.7%	0%	66.7%	88.9%
Motorcyclists (inc Pillion Passengers) (%)	0%	0%	0%	0%
Pedal Cyclists (%)	3.3%	0%	0%	3.7%
Other Road Users (%)	0%	0%	0%	0%

Casualties in Randalstown 2012-2016 - Severity Split (%)				
Road User Type	All Casualties	Fatalities	Serious Injuries	Slight Injuries
All Road Users	30	0%	10.0%	90.0%
Pedestrians	3	0%	33.3%	66.7%
Car Users (inc Passengers)	26	0%	8%	92%
Motorcyclists (inc Pillion Passengers)	0	0%	0%	0%
Pedal Cyclists	1	0%	0%	100%
Other Road Users	0	0%	0%	0%

Source: Department for Infrastructure (DfI)

Section 7 – Parking Provision

Figure 15a – Map of Parking Provision Locations in Antrim

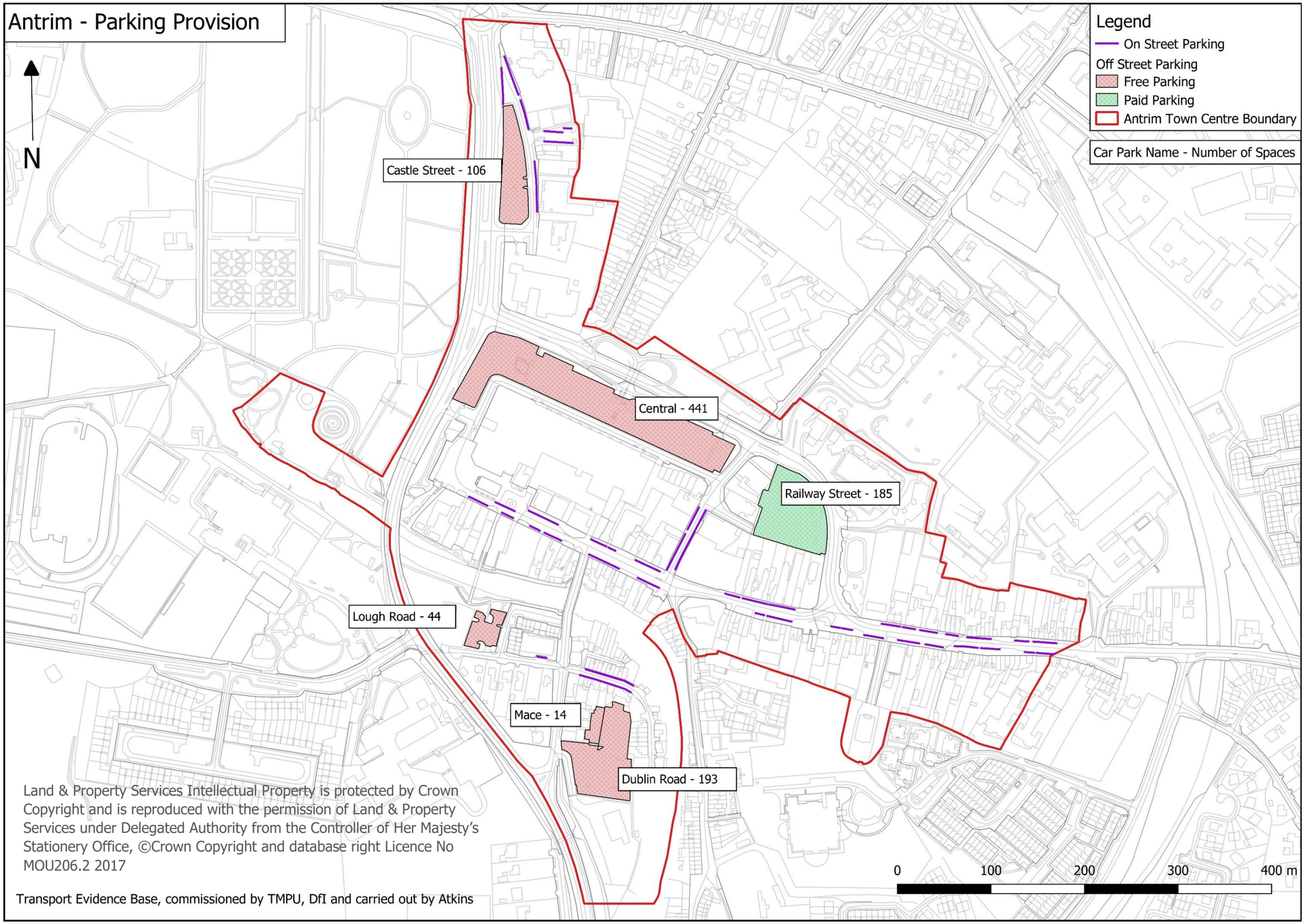


Table 7a – Off-Street Parking Provision by Spaces and Type in Antrim

Site Name	Free/Paid	Ownership	Total Number of Spaces	Includes Number of Disabled Spaces
Central (Castle Way)	Free	Council*	441	12
Railway Street	Paid	Council*	185	6
Castle Street	Free	Council*	106	1
Dublin Road	Free	Council*	193	1
Mace	Free	Private	14	1
Lough Road	Free	Council	44	2
		TOTAL	**983**	**22**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Table 8a – On-Street Parking Provision in Antrim

Parking Length Description	Number of Parking Spaces	Percentage of Total Spaces
Limited Waiting 9am-5pm Mon-Sat 0.5 hours no return within 2 hours	118	54.9%
Disabled Limited Waiting 9am-5pm Mon-Sat 0.5 hours no return within 2 hours	11	5.1%
Disabled Persons Bay	3	1.4%
Unrestricted Kerb	62	28.8%
Loading Only 9am-5pm Monday-Saturday	14	6.5%
Taxi Only	7	3.3%
Total	**215**	**100%**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Figure 15b – Map of Parking Provision Locations in <u>Ballyclare</u>

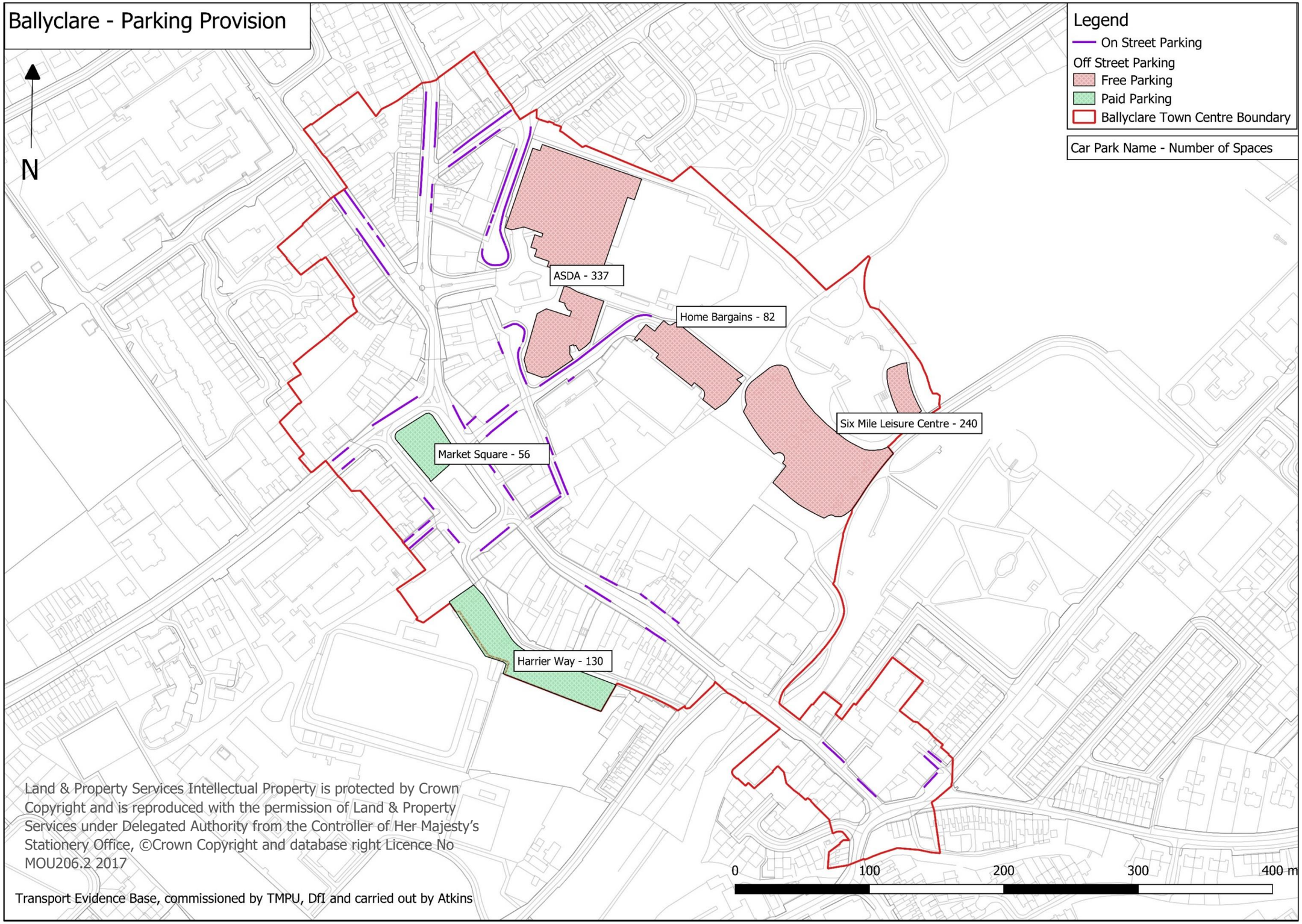


Table 7b – Off-Street Parking Provision by Spaces and Type in Ballyclare

Site Name	Free/Paid	Ownership	Total Number of Spaces	Includes Number of Disabled Spaces
ASDA	Free	Private	337	16
Home Bargains	Free	Private	82	7
Market Square	Paid	Council*	56	2
Harrier Way	Paid	Council*	130	2
Six Mile Leisure Centre	Free	Private	240	8
		TOTAL	**845**	**35**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Table 8b – On-Street Parking Provision in Ballyclare

Parking Length Description	Number of Parking Spaces	Percentage of Total Spaces
Limited Waiting 10am-6pm Monday-Saturday 0.5 hour no return within 1 hour	3	1.5%
Limited Waiting 8am-6pm Monday-Saturday 0.5 hour no return within 1 hour	33	16.8%
Limited Waiting 8am-6pm Monday-Saturday 1 hour no return within 1 hour	9	4.6%
Disabled Limited Waiting 8am-6pm Monday-Saturday 0.5 hour no return within 1 hour	2	1.0%
Disabled Persons Bay	1	0.5%
Unrestricted Kerb	148	75.5%
Total	**196**	**100%**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Figure 15c – Map of Parking Provision Locations in <u>Crumlin</u>

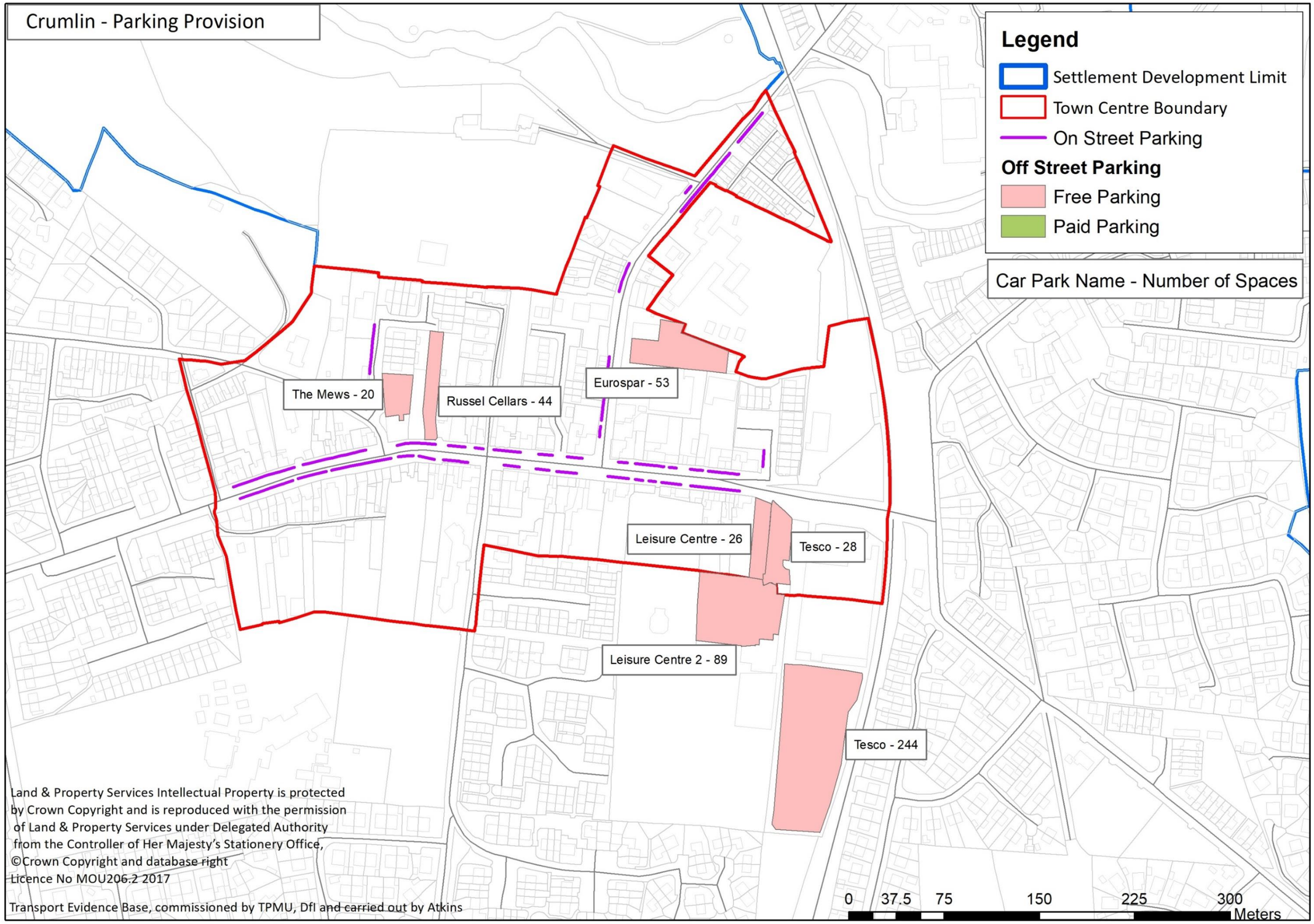


Table 7c – Off-Street Parking Provision by Spaces and Type in Crumlin

Site Name	Free/Paid	Ownership	Total Number of Spaces	Includes Number of Disabled Spaces
Tesco	Free	Private	28	0
Russel Cellars	Free	Private	44	0
The Mews	Free	Private	20	0
Leisure Centre	Free	Private	26	0
Eurospar	Free	Private	53	2
Tesco	Free	Private	244	16
Leisure Centre 2	Free	Private	89	5
		TOTAL	**504**	**23**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Table 8c – On-Street Parking Provision in Crumlin

Parking Length Description	Number of Parking Spaces	Percentage of Total Spaces
Limited Waiting 8am-5pm Monday-Saturday 1 hour no return within 1 hour	61	46.9%
Disabled Persons Bay	4	3.1%
Unrestricted Kerb	65	50%
Total	**130**	**100%**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Figure 15d – Map of Parking Provision Locations in <u>Randalstown</u>

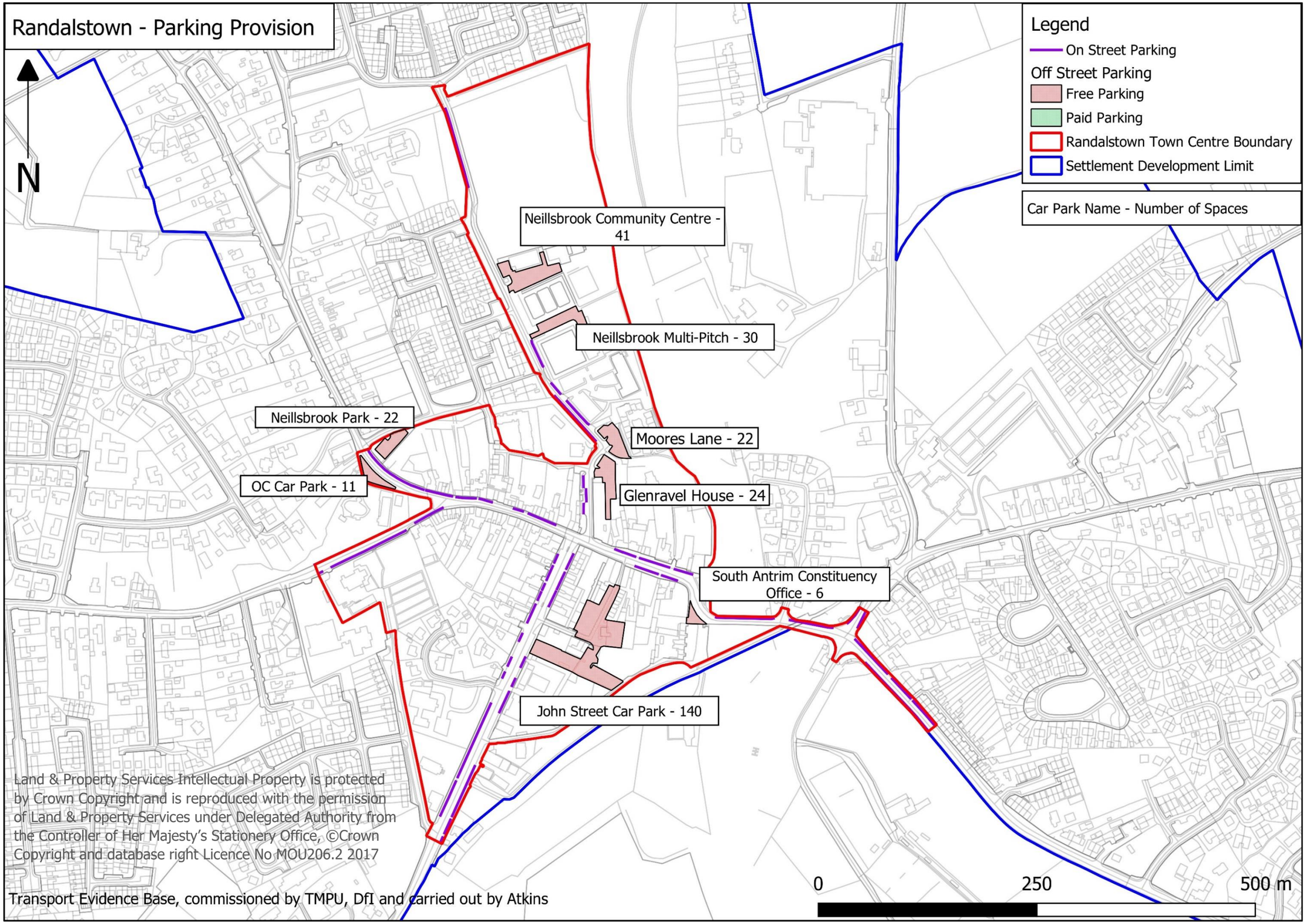


Table 7d – Off-Street Parking Provision by Spaces and Type in Randalstown

Site Name	Free/Paid	Ownership	Total Number of Spaces	Includes Number of Disabled Spaces
Neillsbrook Community Centre	Free	Private	41	3
Neillsbrook Multi-Pitch	Free	Private	30	0
Moores Lane	Free	Private	22	0
Glenravel House	Free	Private	24	4
South Antrim Constituency Office	Free	Private	6	0
John Street Car Park	Free	Council	140	10
Neillsbrook Park	Free	Council	22	0
OC Car Park	Free	Private	11	0
		TOTAL	**296**	**17**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins

Table 8d – On-Street Parking Provision in Randalstown

Parking Length Description	Number of Parking Spaces	Percentage of Total Spaces
Limited Waiting 9am-5pm Monday-Saturday 1 hour no return within 2 hours	67	24.6%
Unrestricted Kerb	200	73.5%
Disabled Persons Parking	4	1.5%
Loading only 9am-5pm	1	0.4%
Total	**272**	**100%**

Source: Transport Evidence Base, commissioned by TMPU, DfI and carried out by Atkins