Transportation & Infrastructure

Vision

Ensure County Cavan is a quality place to live, work and stay in with efficient and accessible transportation modes and infrastructure.

Policy

Promote and facilitate movement to, from and within County Cavan by integrating land use with a high quality, sustainable transport system that prioritises walking, cycling and public transport, provides road infrastructure and traffic management that supports commercial and industrial activity and new development and seeks to reduce greenhouse gas emissions from transport. To promote and support the delivery of energy infrastructure in the County in an environmentally acceptable manner.

7.1 Introduction

The maintenance and delivery of a high quality and sustainable transport network in line with National and Regional Policy is a fundamental element in growth across all areas of social, cultural and economic development. Cavan County Council recognises that the transportation network and the relative accessibility of particular locations is crucial in attracting investment, developing tourism and creating sustainable communities. The road network, which is essentially the only current major transportation infrastructure in the county, requires maintenance and upgrading at all levels.

Cavan County Council is committed to supporting an integrated and accessible public transport. Reference is made in this regard to the National Disability Inclusion Strategy (NDIS) 2017-2022 which includes specific actions assigned to Local Authorities, the United National Convention on the Rights of Persons with Disabilities and to the DMURS Interim Advice Note- COVID 19 Pandemic Response. Local Authorities are a key stakeholder in the 'whole journey approach' to making public transport fully accessible to people with disabilities to all elements that constitute a journey. This ensures a universal design approach to the built environment, including footpaths, cycle paths, roads, pedestrian crossing points, town greenways and bus stops/shelters.

Cavan County Council is committed to the promotion of sustainable modes of travel including public transport, walking and cycling, and where possible the encouragement of modal change from the private car. In planning for transport development, the Council will ensure that the needs of people with differing abilities are considered.

7.2 Policy Context

7.2.1 National Planning Framework -Ireland 2040

There are 10 National Strategic Outcomes and Priorities in the NPF and Sustainable Mobility is one of them. This seeks, in accordance with Irelands Climate Change Mitigation Plan to moving away from polluting and carbon intensive systems to new technologies such as electric and hybrid systems. The NPF has identified the need for connectivity in the Cavan/Monaghan subregion of the Northern and Western Region, noting that improvements in physical infrastructure will create new opportunities for employment and sustainable growth.

7.2.2 Northern and Western Regional Spatial and Economic Strategy

This Strategy seeks to integrate land use and transport planning to enhance the connectivity of people and places by promoting sustainable transport options for people of all age groups and levels of mobility. This strategy also recognises that the transport system of the region is an important component of the regional economy and a key factor in the attraction and retention of skilled labour force. It is recognised that the North West Region is highly dependent on the private car due to the low level of alternatives.

7.2.3 Climate Action Plan 2019

This sets out the Government's plan of action to combatting Climate Change and its impacts

Actions include:

- 70% of County's electricity to come from renewable resources by 2030
- Increase take up of electric cars and vans so 100% of new cars and vans are new cars and vans are electric by 2030, thus achieving target of 950,000 EV's on the road by 2030
- Make growth less transport intensive through better planning, remote and home working and modal shift to public transport
- Increase the renewable biofuel content of motor fuels.
- Set targets for the conversion of public transport fleets to zero carbon alternatives.

7.2.4 Smarter Travel- A Sustainable Transport Future – A New Transport Policy for Ireland 2009-2020 (Department of Transport, 2009)

This document aims to deliver a sustainable transport system as an important dimension of the climate change agenda. The Government reaffirms its vision for sustainable transport and sets out five key goals (i) reduce overall travel demand, (ii) maximise the efficiency of the transport network, (iii)reduce reliance on fossil fuels, (iv) reduce transport emissions and (v) improve accessibility to transport and improve our quality of life.

7.2.5 National Cycle Policy Framework 2009-2020 (Department of Transport)

This document derived from Smarter Travel and sets out a national policy for cycling, in order to create a stronger cycling culture, a safer environment for cycling and improved quality of life.

7.2.6 Spatial Planning and National Roads – Guidelines for Planning Authorities 2012

The Guidelines seek to achieve and maintain a safe and efficient network of National Roads in the broader context of sustainable development strategies, thereby facilitating continued economic growth, while encouraging a shift towards a more sustainable travel and transport in accordance with the Smarter Travel policy document. These Guidelines set out planning policy considerations relating to development affecting national primary and secondary roads, including motorways and associated junctions, outside the 50-60kmph speed limit zones for cities, towns and villages. These guidelines have been developed following a number of key principles and aim to facilitate a consistent approach that affords maximum support for the goals of achieving and maintaining a safe and efficient network of national roads, thereby facilitating continued economic growth and development.

7.2.7 Design Manual for Urban Roads and Streets, 2019

This sets out design standards for urban roads and streets, which balances the 'place function' (i.e. the needs of residents and visitors) with the 'transport function' (i.e. the needs of pedestrians, cyclists, public transport, cars and goods vehicles). The manual gives guidance on the layout of new developments (with a view to maximising permeability for sustainable modes), and on the design of individual roads and streets taking into account streetscape and urban design as well as engineering. The focus is on providing streets that are good places to live, work and play in, while providing appropriate capacity for pedestrians, cyclists, public transport and cars. The use of the Manual is mandatory for all Local Authorities.



Fig 7.1 New bus bays, cycle path & pedestrian crossing at Cavan Institute of Technology 2019

7.2.8 Traffic Management Guidelines 2019 – Department of Transport

The purpose of this Traffic Management Guidelines manual is to provide guidance on a variety of issues including traffic planning, traffic calming and management, incorporation of speed restraint measures in new residential designs and the provision of suitably designed facilities for public transport users and for vulnerable road users such as cyclists, motorcyclists and pedestrians (including those with mobility/ sensory impairments). It also focuses on how these issues must be examined and implemented in the context of overall transportation and land use policies.

7.2.9 Strategy for the Future Development of National and Regional Greenways, 2018 Department of Transport, Tourism and Sport

The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenway users. It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years resulting in a significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity.

7.2.10 Local Link Rural Transport Programme Strategic Plan 2018-2022

This document supports the provision of a quality nationwide community based public transport system in rural Ireland which responds to local needs. The National Transport Authority (NTA) provides rural transport services through the Local Link Rural Transport Programme Strategic Plan 2018-2022. The key priorities of this programme continue to be directed at addressing rural social exclusion and the integration of rural transport services with other public transport services. The services provided under this programme are therefore intended to fulfil a primary social function, in meeting the needs of communities in towns, villages and rural areas.

7.2.11 Transport and Landuse

A central theme associated with the aforementioned policy documents and guidance is the overriding requirement for enhanced integration of land use and transportation. In shaping the pattern of development and influencing the location, scale, density, design and mix of land uses, the integration of land-use and transportation can help reduce the need to travel and facilitate sustainable urban development. This plan therefore promotes an integrated approach to land-use and transportation which aligns with the Core Strategy and directs future development into existing towns and settlements within County Cavan, in order to reduce car dependency. The plan strongly supports the creation of compact urban growth, consolidation of existing settlements and prioritisation of the development of brownfield lands across the settlement hierarchy, which in turn will encourage the use of public transport, cycling and walking as viable alternatives to the private car. In order to strengthen the economic competitiveness and social advancement of the County, an effective transportation network is required to ensure adequate linkages.

The adopted RSES for the Northern and Western Region supports the collaborative preparation of Local Transport Plans led by local authorities in conjunction with the NTA and other stakeholders, based on Area Based Transport Assessment (ABTA) guidance. It is an objective of this plan to support effective integration of transportation and land-use to encourage sustainable patterns of development in the County, to reduce car dependency and to facilitate the economic provision of public transport. e.g. through facilitating development of sustainable compact settlements served by public transport.

There are a number of existing transport plans namely:

- Cavan Town and Environs Integrated Framework Plan 2020: Transportation Study (Mar 2007) by WSP
- Traffic & Transportation for Bailieborough (Dec 2009) by RPS
- Traffic & Transportation for Cootehill (Oct 2009) by RPS
- Traffic & Transportation for Kingscourt (Oct 2009) by RPS

The conclusions and recommendations of these studies will remain relevant.

	Land Use and Transportation Development Objectives It is a development objective of Cavan County Council to:
LUR 01	Support and facilitate the integration of land use with transportation infrastructure, through the development of sustainable compact settlements within the hierarchy of settlements as identified within the Core Strategy and which are well served by public transport.
LUR 02	Facilitate the provision, where appropriate, of rural transport initiatives and services in order to promote the socio-economic and cultural development of the entire County.
LUR 03	Provide for alternative forms of transportation and associated infrastructure in order to reduce the dependency on the private car, such as public transport initiatives and infrastructure for cyclists and pedestrians.
LUR 04	Engage with the NTA in conjunction with the Northern and Western Regional Assembly in the creation of a coordinated sustainable transport plan for the Northern and Western Region to guide and inform local policy in the development of more sustainable modes of transportation.
LUR 05	Promote sustainable land use planning measures which facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the greater use of public transportation throughout the County.
LUR 06	Integrate the County's transport and tourism strategies to promote increasingly sustainable travel patterns and improved linkages between the towns and villages within the County, with the aim of developing a coherent network dedicated to sustainable transport modes across the County and to the wider region.
LUR 07	Provide, where possible, for the establishment of integrated transport nodes.
LUR 08	Ensure that infrastructural policies and investments assist and enhance the economic and social development of County Cavan and preserve and improve the physical attractiveness of the County and minimise negative impacts on its background environment.
LUR 09	Require all major developments to submit Traffic Impact Assessments and Mobility Management Plans

7.3 Sustainable Transport

7.3.1 Walking and Cycling

Walking and cycling are the most sustainable modes of transport with benefits including reduction in air and noise pollution, traffic congestion and

contribution to healthy and active lifestyles. This mode of transport relies on an integrated pedestrian and cycling infrastructure and there is a need for a coherent network that places an emphasis on safety, serves areas where people wish to travel, provides priority over vehicular traffic at junctions and is free from obstructions and has adequate public lighting.



It is a development objective of Cavan County Council to:

Promote walking and cycling as efficient, healthy and environmentally friendly modes of transport by securing the development of a network of direct, comfortable, convenient and safe cycle routes and footpaths, particularly in urban areas and in vicinity of schools.

Design pedestrian, cycling and electric bike infrastructure in accordance with the principles, approaches and standards set out in the Transport Infrastructure Ireland Rural Cycleway Design Standard (Offline), National Cycle Manual and the Design Manual for Urban Roads and Streets and international best practice.



Encourage and seek sustainable transport movement at the earliest design stage of development proposals, to ensure accessibility by all modes of transport and all sections of society and promote the provision of parking spaces for bicycles in development schemes in accordance with Standards in Table 7.4.

WC 04	Improve the streetscape environment for pedestrians, cyclists and people with special mobility needs by providing facilities to enhance safety and convenience, including separation for pedestrian infrastructure from vehicular traffic.
WC 05	Provide better sign posting and public lighting where considered appropriate and ensure that the upgrading of roads will not impact negatively on the safety and perceived safety of cyclists.
WC 06	Work with the National Trails Office, Coillte, the Department of Planning, Housing and Local Government, the Department of Transport, Tourism and Sport, and other relevant stakeholders, to improve on the existing level of infrastructure and facilities for walking and cycling.
WC 07	Ensure that all new relevant developments are fully permeable for walking and cycling, the principles of filtered permeability are applied and that the retrospective implementation of walking and cycling facilities should be undertaken where practicable in existing neighbourhoods.

7.3.2 Greenways

This RSES has identified the importance of enhanced transport connectivity, to include crossborder road and rail, cycling and walking routes, as well as blueways, greenways and peatways. It notes that the National Greenway Strategy (NGS) has been published by the Department of Transport, Tourism and Sport (DTTAS) with the objective to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations, constructed to an appropriate standard, in order to deliver a quality experience for all Greenways users. Cavan County Council continues to source funding and invest resources in developing Greenways and walking & cycling trails throughout the County which are healthy modes of transport and are key components to movement and accessibility in urban and inter-urban areas. It is considered an efficient and relatively inexpensive form of transport and their development is in line with the principles of sustainable development.

Cavan County Council in partnership with Waterways Ireland have substantially completed the construction of a 5.5km recreational cycling and walking trail from the town of Ballyconnell, to Bellaheady Bridge, primarily along the Shannon-Erne Waterway, on the banks of the Woodford River, forming a section of the proposed Leitrim Cavan Greenway.

In 2020, the Council also successfully constructed a section of recreational trail and upgrade of existing forest trail, not only linking the town of Kingscourt to Coillte's Dun a Ri Forest Park, but also a link the town to the proposed Boyne Valley to Lakelands County Greenway, a proposed new 30km Greenway from Navan, Co. Meath, to Kingscourt, Co Cavan. Funding was achieved and works completed in 2020 on the initial part of Cavan Town Urban Greenway which runs along the obsolete Railway line from Loreto Road connecting to the back of Cavan General Hospital. This 640m section of paved greenway with public lighting is extensively used.

Cavan County Council received funding under the Carbon Tax Fund 2020, to progress the development of the Cavan Railway Greenway from Cavan Town to the Ulster Canal Greenway with a link to the Cavan Leitrim Greenway at Ballyconnell. The funding will allow for the project to be progressed to options selection stage.

Funding is also in place in 2021 to advance works on a section of Greenway / Blue way from Belturbet Town to Lock 1 at Corraquill. In partnership with Waterways Ireland, Cavan County Council has constructed this trail from Belturbet to Kilcorby, which uses the existing road network and upgrades private access tracks on its way towards Aghalane Bridge. An upgraded footbridge across the Rag River is also incorporated in the design. From Aghalane the trail extends along the Woodford Canal to the canal Lock at Corraquill.



Fig.7.2 Existing Trails

Existing Trail: Name and Location Aughrains/Drumbiste Walk, Lough Gowna Burren Loops, The Burren Forest, Blacklion Woodford River Walk, Ballyconnell Castle, Lake and Forest Walk, Bailieborough Cornamuckla Walk, Lough Gowna Deerpark Forest Walk, Virginia (A Sli na Slainte Route) Hamilton Trail, Killeshandra Lough an Leagh, (the lake of the cure), Bailieborough Mullagh Hill Walk, Mullagh Portruam/Quivy Country Land Walk, Belturbet Sean Samon Ruairi Trail, Glangevlin Hawkswood Trail, Swanlinbar The Cavan Way, West Cavan Cootehill Heritage Walking Trail, Cootehill Belturbet Town & Turbet Island Trails

Dun a Rí Forest Park, Kingscourt **Killykeen Forest Park** Fleming Folly, Ballinagh Lavey Lake, Lavey Blacklion Village and Macnean Link Castlesaunderson Castle Trails **Cuilcagh Mountain Park Trails** Bailieborough Town Trail Hawkswood Loop, Swanlinbar Cuilcagh Lowlands Trail Gowlan Loops, Blacklion Bawnboy Loop, Bawnboy Agharaskilly Leitrim Way through Dowra Link between Cavan and Leitrim Railway Greenway with Cavan Way and Sligo Leitrim and West Counties Railway Greenway. Aghakinnagh Walk, Swanlinbar Ballyconnell to Ballyheady / Agharaskilly



Planned Future Greenways / Trails

Cavan Leitrim Railway Greenway

- Belturbet to Cloverhill Railway Greenway
- Cavan to Clones Railway Greenway
- Cavan to Mullingar Railway Greenway

Crossdoney to Killeshandra Railway Greenway

Boyne Valley to Lakeland County Railway Greenway

Kingscourt to Carlingford Railway Greenway

- Ulster Canal Greenway
- Sligo to Leitrim North Counties Railway Greenway

Killykeen to Cavan Cycling Trail

Funding Application Measure 2

Killykeen Forest Park Walking and Cycling Trails

Cavan Town Railway Greenway

Kingscourt to Dun na Rí Forest Park

Mullagh to the Golden Mile Trail

Measure 3

Belturbet to Lock 1 (Corraquill) Recreational Trail

The Council recognises the numerous benefits arising from the further development of Greenways in Cavan in particular as a tourism product with a significant potential to attract overseas visitors, local communities and all users as an amenity for physical activity and a contributor to health and wellbeing. It is the Councils policy to continue to expand and create an integrated network of greenways across the County and maximise pedestrian and cycle access to same.



G

01

G

02

Greenways Development Objectives It is a development objective of **Cavan County Council to:**

Continue to develop an integrated and connected network of sustainable greenways and green routes within Cavan and to adjoining counties, in accordance with the 'Strategy for the Future Development of National and Regional Greenways'.

Progress the development of the proposed Cavan Railway Greenway from Cavan Town to the Ulster Canal Greenway and to the Cavan Leitrim Greenway at Ballyconnell.

G 03	Progress the development of the Cavan Leitrim Greenway and Sligo Leitrim Northern Counties Railway (SLNCR) Greenway in partnership with Sligo and Leitrim County Councils.
G 04	Progress the development of the Ulster Canal and Navan to Kingscourt Greenways.
G 05	Maximise both pedestrian and cycle connectivity to the network of existing greenways within the County.
G 06	Protect established Greenways within the County against inappropriate new vehicular access and increased traffic movements.
G 07	Support the enhancement and progression of existing and planned future greenways/trails as listed in Figure 7.2 above.
G 08	Engage with and support landowners in securing funding for the maintenance of walkways.

7.3.3 Public Transport

The Council acknowledges that there is little offer for public transport within the County and that Cavan is heavily reliant on private car as a mode of transport. In order to address this, the Plan seeks to support the growth of towns and villages, increase and provide for additional walking and cycling routes and support the local link for trips within the County and Bus Eireann intercounty links.

7.3.4 Bus

The development of a good quality bus service as an alternative to private car is an essential element of an integrated and balanced land use transport system. Bus Eireann operate a number of routes in the County and is well serviced with same.

7.3.5 Local Link

Local Link Cavan Monaghan are contracted by the National Transport Authority (NTA) to develop manage and coordinate 'Public Transport' on their behalf across the Cavan Monaghan region. It was formed under the NTA's restructuring of the Rural Transport Programme (RTP) in 2014.

Since 2016, increased funding has allowed Local Link Cavan Monaghan to develop new 'Rural Regular Services' (RRS) within the county, which saw Cavan become the first town of its demographic size, to introduce town based public transport services. Local Link Cavan Monaghan recognise that, while the NTA and the Department of Transport, Tourism and Sport have responsibility for providing the funding for public transport services, the Local Authority through its development plan has the ability to support this infrastructure through its planning processes and vision to support sustainable travel through facilitating measures.

Under the current network of services, DRT services provide access to Cavan town, Cootehill, Killeshandra, Ballyconnell, Ballyjamesduff, Kilnaleck, Butlersbridge, Ballyhaise, Virginia, Blacklion and Bawnboy.

The following is a brief outline of the services connections:

C1 – Ballyhaise, Butlersbridge, Drumgola, The Gallops, Cavan Institute, Bus Station, Aldi, Retail Park, Kilmore

C2 – Ballinagh, Corlorgan, Lidl, Bus Station, Town Centre, Swellan, Farnham Rd, Cavan General

C3 – Redhills, Ballyhaise, Rocklands, Drumalee, Castlemanor, Cavan Institute, Bus Station, Farnham Rd, Cavan General

929 – Corlough(Bawnboy), Ballinamore, Newtowngore, Killeshandra, Cavan Bus Station, Cavan Institute

176 – Monaghan, Threemilehouse, Newbliss, Clones, Scotshouse, Ballyhaise, Cavan Institute, Cavan Bus Station, Cavan General

All services are continually reviewed in order to improve and better serve the public need. There is an openness within the NTA to establish new services on an ongoing basis, particularly DRT. The NTA's new initiative 'Connecting Ireland', which is currently undergoing consultation will focus on building a national public transport network connecting all towns and villages in line with the National Development Plan 2018 – 2027 and National Planning Framework – Ireland 2040. The following needs have been identified

- Regular Service Bailieborough Ballyjameduff – Virginia - Cavan
- Cavan to Drogheda (Our Lady of Lourdes Hospital)
- Cootehill Monaghan co ordinated

7.3.6 Public Transport in Rural Areas

The availability of public rural transport plays a major role in combatting rural isolation and acts as a catalyst in creating models of partnership, at all levels, where key sectors actively engage in transport provision, to ensure equality of access for all including people with disabilities, reduced mobility and older people.

This invaluable service provides access to public services, employment, training, health and social facilities. In recognition of the importance of improving access to and from rural locations, the Council supports the extension of the *Rural Transport Programme* and other such initiatives, which respond to local travel needs throughout the County.

The requirement for Park and Ride in the County is currently under review with consideration along the N3 in locations like Lisgrea and Whitegate. Park and Ride facilities encourage shifts to public transport, reduce traffic congestion and parking demand and is an essential component to reduction in greenhouse gases in the strive towards reduction on the impact of climate change.

	Public Transport Development Objectives It is a development objective of Cavan County Council to:
PT 01	Continue to work with the relevant transport providers, agencies and stakeholders to facilitate the integration of active travel (walking, cycling etc) with public transport, thereby making it easier for people to access and use the public transport system.
PT 02	Support the operation of existing bus service and facilitate the provision of improved facilities for bus users in towns and villages, including the provision, in collaboration with the relevant agencies, of set down areas for coaches and bus shelters for passengers.
PT 03	Support and encourage public transport providers and rural community transport initiatives to enhance the provision of public transportation services linking the rural villages and main towns of Cavan.
PT 04	Support the Local Link Rural Transport Programme which aims to address rural social exclusion and the integration of rural transport services with other public transport services.
PT 05	Assess and determine the potential for bus-based Park and Ride facilities, in particular, close to the N3 National Route, with direct bus links to commuter destinations in the Dublin area.
РТ 06	Promote and support the provision of Park and Ride facilities which improve public transport accessibility without compromising capacity or free flow of traffic on the public road, or causing increased car travel distances, at appropriate locations in the County.
РТ 07	Identify and develop suitable lands to provide for Park and Ride facilities at appropriate locations in the County.
РТ 08	Implement suitable charging structures for Park and Ride facilities to make it more likely that those who need the service (i.e. those outside walking distance and where alternative public transport options are not available), will obtain parking. In addition, implement, where appropriate, suitable measures on local roads adjacent to Park and Ride facilities to discourage commuters from parking on such roads.
РТ 09	Support through liaising with the NTA and Local Link Cavan Monaghan the expansion of the service to towns in the County.
РТ 10	Support the delivery of a Cavan Town Centre Public Transport Hub.
РТ 11	To work with the NTA to explore the need for additional public transport services in Shercock, Kingscourt and Bailieborough.

7.3.7 Electric Vehicles

Electric Vehicles refer to both Battery Electric Vehicles (BEV) and Plug In Hybrid Electric Vehicles (PHEV). Benefits of Electric vehicles include the emission of zero tailpipe greenhouse gas emissions thereby helping to improve air quality in our towns and villages, as well as reducing noise pollution. Irelands target is to achieve 10% electric vehicle usage by 2020. The Northern and Western Regional Spatial and Economic Strategy promotes deployment of targeted, convenient and safe recharging infrastructure across the region, to meet the changing needs of the electric vehicle with particular emphasis in public parking areas and employment locations. There are a number of charging points throughout the county and this plan promotes further installation and expansion of charging points for these vehicles. At present, there are a number of electric charging points registered in Cavan located as follows:

- 1 in Cootehill, at Market Street
- 2 in Bailieborough at Main Street and at Tesco Store
- 3 in Cavan Town at The Courthouse, Dublin Road near Breffni Park and at Radisson Hotel Farnham Estate
- 1 in Ballyconnell at the Slieve Russel Hotel
- 1 in Ballyjamesduff at the Grove

The Council will continue to support and facilitate the development of infrastructure to increase the usage of Electric Vehicles, by the inclusion of dedicated fully functional Electric Vehicle (EV) charging points through appropriate objectives.



7.3.8 Active Travel

Active Travel is travelling with a purpose using your own energy. Active Travel is part of a strategy to support compact development, social equity, economic prosperity and to help make our public spaces more liveable and climate resilient.

Cavan County Council are firmly committed to:

- encouraging the use of walking, cycling and other active travel methods.
- provide a safe and connected network to those who wish to commute to work or school or make other journeys through healthy and sustainable means

- delivery of dedicated infrastructure schemes such as the Safe Routes to School Programme. The Safe Routes to School Programme seeks to create safe walking and cycling routes within communities, to alleviate congestion at school gates and to increase the number of students who walk, scoot or cycle to school.
- the development of walking and cycling infrastructure in our towns and villages with a comprehensive network of safe, well-lit, and convenient footpaths/cycle lanes/shared surfaces within residential areas with links to schools, urban centres etc

These transformative schemes have the potential to substantially increase the numbers choosing to make active travel part of their daily life and should serve to encourage a shift in the population towards walking, cycling and scooting as transport modes, improving personal health and mental wellbeing, making our towns and village centres more vibrant and people focused spaces, and significantly addressing our climate action challenge.

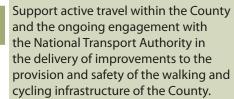
Encouraging people to walk or cycle will help CCC to respond to climate change. The Council is actively working to secure the development of a high-quality walking and cycling network across the County to prioritise the safety of pedestrians and cyclists. Suitable routes will retro fitted on all key nodes in the County to enhance pedestrian and cyclists' facilities. Town and village improvement schemes are also being developed to enhance the pedestrian and cyclist environment and maximising permeability and connectivity for pedestrians and cyclists to create direct attractive links to town and village centres.



ACT

01

Active Travel Development Objective It is a development objective of Cavan County Council to:



List of Projects Approved and Funded by the NTA

Project Name	Project Description
River Blackwater footbridge	Construction of a footbridge across the River Blackwater in Virginia to provide the residential area north of the river with access to the town centre south of the river for pedestrians and cyclists.
R198 Arvagh Pedestrian Crossing	Provision of a pedestrian crossing from an existing footpath along the R198 in Arvagh town to a Community Creche
Footpath Package A - Ballyconnell, Butlersbridge, Cavan Town, Ballinagh, Kilnaleck	Project is to improve the safety of pedestrians and cyclists within the towns of Ballyconnell, Butlersbridge, Cavan Town, Ballinagh, Kilnaleck. Works will include the construction of new footpaths and crossing points.
Cavan Town Urban Greenway Phase 2	Appointment of Consultants to carry out route selection, preliminary design, Part 8 planning in 2021 for Phase 2 of Cavan Urban Greenway
Cycle Schemes - Cavan Town	Provision of footpath / cycleway linking Keadue Lane to completed section of Cavan Town Urban Greenway. Appointment of consultants to design new cycle links lanes to town centre on Railway Road.
Footpath Package B - Cavan Town	Project is to improve the safety of pedestrians and cyclists within Cavan Town. Works will include the construction of new footpaths and crossing points.
Footpath Package C - Bailieborough, Kingscourt, Cootehill	Project is to improve the safety of pedestrians and cyclists within the towns of Bailieborough, Kingscourt, Cootehill. Works will include the construction of new footpaths and crossing points.
Cootehill Walking and Cycling Strategy	Preparation of a Walking and Cycling Strategy for Cootehill Town to identify walking and cycling routes to link existing residential areas to town core, Industry, Business Parks, schools and recreational facilities
Cavan Town Land Use and Transportation Study	Complete Transportation and Land Use Study for Cavan Town to identify key infrastructural projects, active travel measures, public transport needs and land use requirements
Safe to Schools Programme - Support	St. Aidans Secondary School, Cootehill & St. Marys N.S. Virginia

7.4 Road Infrastructure

The national road network is a critical enabler in facilitating an island-wide sustainable national transport system. The RSES recognises that in improving and maintaining the assets of national roads is critical and the efficiency, capacity and safety of the existing national road network within the region must be maintained, including the requirement to safeguard the strategic links into urban centres identified as key economic drivers in the region. The RSES has noted the importance of several key strategic Cross Border Transport Corridors within the border region that require further investment, including the N3.

In accordance with the National Development Plan investment commitments to progress The Virginia By-Pass through pre-appraisal and early planning in the short term and thereafter proceed to construction and be delivered to an appropriate level of service within the lifetime of the RSES is an objective of the RSES.

The RSES also commits to, in consultation with and subject to the agreement of TII, the pre-appraisal, early planning and construction as priority in the medium-term the N3 North of Kells to Enniskillen, via Cavan and the A509 in Fermanagh. The Council acknowledges the importance of Cavan's strategic road infrastructure in providing intra and inter county movement of goods and services. Whilst the plan supports the promotion of sustainable transport, it is recognised that the roads infrastructure maintains a central position in the overall transportation network.

7.4.1 National Roads

The N3, N54, N55, N87 and N16 traverse the County providing important linkages within, into and out of the County. Cavan has a total public road network of 3,000 KM in length of which approximately 126 km comprises of National Primary and Secondary Roads.

The Council will preserve a corridor to enable design options for National Road improvements and upgrade projects to be advanced.

Significant investment and improvements in the existing road infrastructure have been made by the Local Authority in terms of upgrades, realignments, maintenance, traffic management measures, traffic calming measures and road safety measures.

It is important to protect and maintain the carrying capacity of this road network in the future as deemed necessary and as resources allow. In doing so, regard will be made to the Spatial Planning and National Roads Guidelines for Planning Authorities 2012, relating to development affecting National Primary and Secondary roads, including motorways and associated junctions.

Consideration also needs to be given to avoid adverse impacts when introducing noise sensitive uses in proximity to existing and future national roads. Where warranted, proposals should include mitigation and should have regard to Section 3.7 of the DoECLG 'Spatial Planning and National Roads Guidelines'.

The policy objectives within this plan will seek to support and encourage sustainable and compact forms of development, which will have minimal impact on the carrying capacity, efficiency and safety of the road network.

	Route	Scheme
Improvement	N-3	N3 Virginia Bypass
Schemes	N-3	N3 Drumahirk to Killygrogan Realignment
	N-3	N3 Killygarry to Cavan Bypass Link
	N-3	N3 Dublin Road Roundabout Upgrade
	N-16	N16 Gortaquill to Co. Boundary upgrade
Pavement	N-3	Pavement Overlays, Strengthening and Minor Improvements
Schemes	N-16	Pavement Overlays, Strengthening and Minor Improvements
Safety Schemes	N-3	N3 Virginia Main Street, Phase 2
	N-3	N3 Virginia to Carrakeeltymore
	N-3	N3 Kilmore Hotel to Dublin Road Roundabout
	N-3	Safety Schemes identified and agreed with TII
	N-16	Safety Schemes identified and agreed with TII

Table 7.1: Proposed National Primary Road Improvement Projects

	Route	Scheme
Improvement	N-55	N55 Corduff to South of Killydoon Realignment, Section B
Schemes	N-55	N55 Ballinagh Relief Road
	N-54	N54 Kilnaglare Realignment link to N3
	N-54	N54 Butlersbridge to Co. Boundary upgrade
	N-87	N87 Belturbet to Ballyconnell Upgrade
Pavement	N-55	Pavement Overlays, Strengthening and Minor Improvements
Schemes	N-54	Pavement Overlays, Strengthening and Minor Improvements
	N-87	Pavement Overlays, Strengthening and Minor Improvements
Safety Schemes	N-55	Safety Schemes identified and agreed with TII
	N-54	Safety Schemes identified and agreed with TII
	N-87	Safety Schemes identified and agreed with TII

Table 7.2: Proposed National Secondary Road Improvement Projects

7.4.1.1 Virginia Bypass

The N3 corridor is a critical cross border economic route which is essential to facilitate strategic traffic movement and to maintain and improve connectivity to the North-West and Central Border Region. The need for a bypass of Virginia was initially identified by Cavan County Council in the 1980's and formally acknowledged nationally by its inclusion in the National Road Needs Study (1998) by the National Road Authority (NRA). The importance of this route is recognised in both the National Development Plan 2018-2027 and the NPF 2040.

The NPF identifies regional economic resilience and connectivity to the North-West as a strategic priority. The N3 Virginia Bypass will improve connectivity by reducing journey times. This in turn will make Cavan, the Border Region and the entire North - West a more attractive place to set up business, which will improve the economic resilience of the county and region. It will also benefit existing businesses in the county by reducing transport times and costs and improving journey time reliability which has been an ongoing issue for many years.

The National Development Plan makes particular reference to the progression of the N3 Virginia Bypass, which ties into the existing dual carriageway in the jurisdiction of Meath County Council. National Strategic Outcome No 2 identifies that it is an objective of the National Development Plan to improve and complete linkages to Dublin and "...that every region and all the major urban areas, particularly those in the North-West, which have been comparatively neglected until recently, are linked to Dublin by a high-quality road network". The Northern and Western RSES 2020-2032 supports the planning and delivery of this strategically important scheme. Regional Policy Objective 6.7 specifically references the progression of the N3 Virginia bypass "through pre-appraisal, early planning in the short term and shall thereafter proceed to Construction and be delivered to an appropriate level of service within the lifetime of the RSES". The delivery of these works will be supported and facilitated by the Council in conjunction with Meath County Council, TII and the Department of Transport.

The delivery of the bypassing of Virginia would see significant benefits in the areas of road safety, environmental impacts, accessibility and social inclusion, integration, and physical activity. In seeking to achieve these improvements, Cavan County Council is also cognisant of the need to mitigate and reduce any potential impacts on the environment or areas of historical and archaeological importance due to implementation of the Scheme.



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Virginia Bypass Development Objective It is a development objective of Cavan County Council to:

Work in conjunction with Transport Infrastructure Ireland, Department of Transport and Meath County Council in the planning and construction of the N3 Virginia Bypass Scheme.



Reserve and protect option corridors from development which would interfere with the delivery of the Virginia By-Pass.

7.4.2 Regional and Local Roads

Both regional and local roads provide vital links between the towns and villages to retail, service and employment centres throughout the County and to adjoining Counties. There are approximately 400km of regional roads and 2,481km of local roads in the County.

In order to safeguard the carrying capacity and safety of these roads, access for residential development will be restricted onto a regional roads where access to a lower category road is available. Regard shall be had to the requirement in the Spatial Planning and National Roads Planning Guidelines 2012, to preserve the carrying capacity of these routes and safeguard their strategic role in providing connections to the National Road Network.

For new development, access onto the road network is a key issue, the intensification of use of an existing access is normally preferable to the creation of a new access onto a rural road. Where new entrances are necessary, the relevant road design standards will be applied (DMRB in rural situations i.e. the Design Manual for Roads and Bridges- and DMURS in urban situations within the 50/60kmph speed zone -Design Manual for Urban Roads and Streets 2019). Such road standards are required to guarantee the safety of the general public in the County and protect the carrying capacity of the road network.

Table 7.3: Non-National & Other Strategic Road Improvement Projects

	Route	Scheme
	R-188, R-192, R-162, R-178.	Cavan to Dundalk Strategic Route Improvement Scheme
Improvement	R-198, R212, N3.	Cavan Northern Strategic Link Road (R198-R212-N3)
Schemes	Virginia Town Centre	Virginia Carpark to Ballyjamesduff Road (R194) Link
	Cootehill Town Centre	Cootehill Back Street

	General Road Development Objectives It is a development objective of Cavan County Council to:
GR 01	Planning for significant development proposals should be accompanied with a 'Traffic and Transport Assessment' (TTA) and a 'Road Safety Audit' (RSA) carried out by suitably competent persons, in accordance with the TII's Traffic and Transport Assessment Guidelines and which are assessed in association with their cumulative impact with other existing and committed developments on the road network.
GR 02	Require a Traffic and Transport Assessment and Road Safety Audit for any significant development proposing access to the Strategic Road Network.
GR 03	Require Traffic Assessments for proposed trip intensive developments, as appropriate and in accordance with the TII Publication PE-PDV-02045 - Traffic and Transport Assessment Guidelines.
GR 04	Promote the carrying out of Road Safety Audits on new road schemes, road and junction improvements, traffic management schemes and private developments as required in accordance with the TII Publication TII-GE-STY-01024 and advice contained in the DoT Traffic Management Guidelines 2019.
GR 05	Promote road safety and implement traffic safety measures in conjunction with Government Departments, the Road Safety Authority and other agencies.
GR 06	New access points onto the public road network shall generally be subject to sight line visibility standards as set out in Cavan County Councils document Sightline Visibility Requirements for Junctions and Direct Accesses as contained in Appendix 4 of this Plan.
GR 07	Facilitate the delivery of the road's projects outlined in the National Development Plan 2018-2027 and the Northern and Western Regional Spatial and Economic Strategy 2020-2032 in conjunction with the TII, the Department of Transport and other stakeholders.

GR

	08	process in accordance with Article 6(3) and Article 6 (4) of the Habitats Directive.
	GR 09	New roads and other transport infrastructure projects that are not already provided for by existing plans/programmes or are not already permitted, are subject to the undertaking of feasibility assessment, taking into account planning need, environmental sensitivities as identified in the SEA Environment Report and the objectives of the Plan relating to sustainable mobility. Where feasibility is established, a Corridor and Road Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages: Stage1 – Route Corridor Identification, Evaluation and Selections; and Stage 2 – Route Identification, Evaluation and Selection.
	\sim -	
(2 X	National Road Development Objectives It is a development objective of Cavan County Council to:
	NR 01	Maintain and protect the safety, capacity and efficiency of National roads and associated junctions in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities, DECLG (2012)
	NR 02	Protect national roads from inappropriate access in order to protect the substantial investment in the national road network, to preserve the carrying capacity and safety of the National Road Network
	NR 03	Support essential national road infrastructure including, bypasses and relief roads for local towns and villages and proposed upgrade and route improvement schemes and, where necessary, reserve the corridors of any such proposed routes free of development, which would interfere with the provision of such proposals.
	NR 04	Facilitate and carry out improvements to sections of national roads that are deficient in terms of alignment, structural condition or capacity, where resources permit, and to seek to maintain that standard thereafter.
	NR 05	To protect the capacity, efficiency and safety of the national road network in County Cavan by complying with the 'Spatial Planning and National Roads -Guidelines for planning authorities' (2012).
	NR 06	Seek to implement the Road Improvement Schemes indicated in table 7.1 and 7.2 above.
	NR 07	On urban streets and roads within the 50/60 kmph zone implement the recommendations of the Design Manual for Urban Roads and Streets (DMURS 2019). Within Transition zones on National Roads developments shall conform to TII Publications DN-GEO-03084 'The Treatment of Transition Zones to Towns and Villages on National Roads.
	NR 08	Seek to safeguard the capacity and efficiency of the national road network draining systems in County Cavan

Development of road projects will be subject to the outcome of the Appropriate Assessment

	Regional and Local Roads Development Objectives It is a development objective of Cavan County Council to:
RLR 01	Facilitate and carry out improvements to sections of regional and local roads that are deficient in terms of alignment, structural condition or capacity, where resources permit, and to seek to maintain that standard thereafter.
RLR 02	Safeguard the carrying capacity and safety of the Council's regional and local road network.
RLR 03	Develop and implement, in consultation with the Department of Transport, a programme for the improvement and maintenance of the non-national road network in the County.
RLR 04	Support essential non-national road infrastructure including, relief roads for local towns and villages and proposed upgrade and improvement schemes and, where necessary, reserve the corridors of any such proposed routes free of development, which would interfere with the provision of such proposals. Such road schemes include those listed in the non-exhaustive Table 7.3 and as identified in the following Transportation Studies:
	 Cavan Town and Environs Integrated Framework Plan 2020 Transportation Study (Mar 2007, by WSP)
	 Traffic & Transportation for Bailieborough (Dec 2009, RPS)
	Traffic & Transportation for Cootehill (Oct 2009, by RPS)
	Traffic & Transportation for Kingscourt (Oct 2009, by RPS)
RLR 05	Implement the recommendations of the Design Manual for Urban Roads and Streets (DMURS 2019) in relation to urban streets and roads within the 50/60 kmph zone.
RLR 06	Improve the standards and safety of our Regional and Local Roads and to protect the investment of public resources in the provision, improvement and maintenance of this public road network.
RLR 07	Seek the reduction of through-traffic passing through town centres.
RLR 08	Increase the safety of children at schools by assessing safe routes to schools for school children and by the installation of traffic management measures. Require School Travel Plans to be submitted with applications by schools or colleges in accordance with actions as set out under Smarter Travel, A Sustainable Transport Future 2009-2020.
RLR 09	Promote road safety measures throughout the County, including traffic calming, road signage and parking.
RLR 10	Ensure that environmental improvements, traffic calming, and parking provision are provided for, which will respect and enhance the urban form and create a well-designed public realm in towns and villages.
RLR 11	Protect strategic regional roads listed in Table 7.3, against development where a maximum speed limit applies, except in exceptional circumstances, in order to protect the carrying capacity and safety of such roads.
RLR 12	Seek to implement Regional Road Improvement Schemes whenever appropriate funding opportunities arise as indicated in Table 7.3.

7.5 Mobility Management Plans

Mobility planning by business, educational facilities and institutions that have high numbers of employees is a way of promoting sustainable means of access, reducing traffic congestion in urban areas and making more efficient use of land by reducing the need for car parking. It is Council policy to promote the use of mobility management and travel plans to bring about behaviour change and more sustainable transport use and the achievement of reduced car dependency.

Mobility management plans will be required to accompany planning applications for significant new developments or trip intensive developments. Mobility management plans must address:

The need to provide adequate, affordable and sustainable means of access for employees, visitors and others (e.g. students).

The need to promote and support alternative means of transport to the private car, i.e. public transport, cycling, walking.

The need to minimise the impact of traffic and parking generated by the business educational facility or institution in the surrounding areas.

The need to manage on-site parking (if any is to be provided).



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Mobility Management Plans **Development Objective** It is a development objective of **Cavan County Council to:**

Require Mobility Management Plans MMP for proposed, existing and established trip intensive developments, to be submitted with applications.

7.6 Car Parking

Parking provision can have significant effects in influencing transport choices, reducing traffic congestion and encouraging the use of more sustainable forms of transportation. Being a rural County, there are a number of areas in the County that are highly dependent on private car use, particularly in areas serviced by poor public transport networks.

The rationale for the application of car parking standards is to ensure that consideration is given to the accommodation of vehicles, including provisions for those with limited mobility, in assessing development proposals, while being mindful of the need to promote a shift towards more sustainable forms of transport. There is a degree of flexibility, depending on the nature and location of the development and its proximity to public transport, which allows developers to submit a car parking analysis of a particular area, in order to demonstrate the supply and demand for car parking spaces.

A reduced number of car parking spaces may be acceptable in the following circumstances, where sufficient evidence has been provided to the Planning Authority that:

- It forms part of a set of measures to promote alternative transport modes (as supported by a Traffic and Transport Assessment (TTA); or
- The development can avail of spare parking capacity available nearby e.g. car parks routinely open to the public or on-street car parking; or
- The development is in a highly accessible location sufficiently well served by public transport; or
- The development's proposed uses facilitate staggered parking i.e. one of the uses is daytime use and the other is evening use.

The overall car parking provision will require a proportion of spaces be reserved:

- for people with disabilities in accordance with best practice; and
- as charging points for electric vehicles in accordance with best practice.

Consideration of an overall reduction in the level of parking provision will not normally apply to the number of reserved spaces to be provided.

\bigcirc	Car Parking Development Objectives It is a development objective of Cavan County Council to:
CP 01	Require development proposals to provide adequate car parking provision and associated servicing arrangements. The specific amount of car parking will be determined according to the characteristics of the development and its location having regard to the standards set out in Table 7.4.
CP 02	Seek to ensure that all new private car parking facilities are provided to an appropriate standard, proximate to the development which it serves and in accordance with the <i>Design Manual for Urban Roads and Streets (2020)</i> .
CP 03	Allow for the reduction in car parking standards in suitable town centre locations in order to encourage a modal shift away from the private car to more sustainable forms of transport, such as public transport, cycling and walking.
CP 04	Manage the provision of on-street parking by encouraging short term business/ shopping activity, whilst discouraging long stay on street commuter parking and parking by Heavy Goods Vehicles (HGVs).
CP 05	Facilitate and support purpose built off-street car parks including multi storey carpark, in preference to on street car parking
CP 06	Ensure that applications for surface car parking are accompanied by landscaping proposals.
CP 07	Seek and promote the provision of Age Friendly parking arrangements and further provide for the improvement of parking arrangements for people with disabilities
CP 08	Ensure all applications for car parking are accompanied with EV Charging points.
CP 09	Require proposed car parks to include the provision of necessary wiring and ducting to be capable of accommodating future Electric Vehicle charging points, at a rate of 10% of total space numbers.
CP 10	Ensure that car parking or EV charging infrastructure does not detract from the comfort and safety of pedestrians and cyclists.
CP 11	Seek the provision of designated HGV parking areas within new industrial developments, as appropriate.
CP 12	Encourage the use of materials and engineering solutions that optimise natural surface water drainage as part of Sustainable Urban Drainage Systems (SuDS) (Refer to Strategic Flood Risk Assessment) associated with large scale car parks.

7.7 Bicycle Parking Facilities

Cycling is becoming increasingly recognised for the contribution it provides as a sustainable and healthy form of transport for work, education and leisure trips within and around the County. Provision of secure cycle parking facilities is essential for supporting the promotion and development of cycling as a more sustainable mode of transport. A lack of appropriate cycle parking facilities is often cited as a barrier to cycling and cycle ownership and could be a constraint on the further growth of cycling. In that regard, high quality secure cycle parking at origins and destinations is considered a key element of any strategy aimed at encouraging cycling. High quality cycle parking should be regarded as an integral part of any new development.



Bicycle Parking Development Objectives It is a development objective of <u>Cavan County Council</u> to:



Ensure the provision of appropriate Bicycle parking facilities as per Table 7.4 below as part of any new applications in urban areas to assist with supporting modal shift away from private cars to more sustainable modes of transport i.e. cycling, walking, public transport.

Table 7.4: Parking Standards

DEVELOPMENT	MAXIMUM CAR PARKING REQUIREMENT	BICYCLE STANDARDS
Residential	2 spaces per unit	To be agreed
	Smaller bedroom units to be examined on a case by case basis	
Residential – Apartments	1 space per unit and 25% visitor parking	1 stand per 10 units
Student Accommodation	1 space per 3 student beds	1 stand per unit
Shop/ retail units	1 space per 20 m.sq. of net retail floor space	1 stand per 100 m.sq. of retail floor space
Shopping Centres > 1000sqm	Individually assessed	Individually assessed
Supermarkets. (Brownfield Town Centre Sites)	1 space per 20 m.sq. of gross floor space	1 stand per 100 m.sq. of gross floor space
Supermarket (Greenfield Town Centre Sites and Environs Area)	1 space per 20 m.sq. of gross floor space	1 stand per 100 m.sq. of gross floor space
Retail warehousing/ Cash & Carry	1 space per 35 m.sq. gross floor space	1 stand per 150 m.sq. gross floor space
Garden Centres	1 space per 25 m.sq. net floor space	1 stand per 150 m.sq. net floor space
Car Showrooms: Gross Floor space	1 space per 100 m.sq. gross floor space	N/A
Factory Retail Floor space.	1 space per 50 m. sq. gross floor space but individually assessed based on the number of employees operating patterns etc.	1 stand per 150 m.sq. gross floor space
Public Houses (Public Area).	1 space per 10 m. sq. net floor space	1 stand per 150 m. sq. net floor space
Restaurants.	1 per 10 m.sq. of dining space	1 stand per 100 m.sq. of dining space
Café	1 per 19 m.sq. of dining space	1 stand per 100 m.sq. of dining space
Take aways	3 per takeaway	1 stand per 100 m.sq. of net floor space
Offices, Financial & Professional Services (including banks other agencies, betting shops): Gross Floor space	1 space per 25 m. sq. of gross floor space	1 stand per 100 m.sq. of gross floor space
Manufacturing Industrial/Light Industrial	1 space per 50 m.sq. of working floor space but individually assessed based on the number of employees, operating patterns etc.	1 stand per 500 m.sq. of working floor space
Garage (service)	1 space per 50 m.sq. of net floor space plus 1 per 10m2 NFS where food is served	1 stand
Warehouses	1 space per 150 m.sq. of gross floor space but individually assessed based on the number of employees, operating patterns etc.	1 stand per 500 m.sq. of gross floor space

Conference Centres	1 space per 25 m. sq. of public area plus set down area	To be agreed
Surgeries, Clinics and Group Medical Practices, Health centres, surgeries, clinic etc.	1 per consultant plus 2 per consultant room	1 stand per clinic/ practice
Guesthouse/Hotels (excluding Public Areas)	1 per Bedroom or 1 space per 10 bed dormitory	1 per 20 beds
Hostels	1 per 2 bedrooms	1 per 10 beds
Cinemas, Theatres, Stadia, library, Places of Worship	1 space per 3 seats and where GFA exceeds 1,000m2 1 space per 5 seats	1 stand per 20 seats
Swimming Pools, Ice Rinks, Bowling alley, Amusement/Entertainment, Gymnasium, Sports Clubs, grounds etc.	1 space per 20 m. sq. of GFS	1 stand per 20 m. sq. of pool/rink plus one per three staff.
Community centre	1 space per 10 m.sq. of public floor space	1 stand per 75 m.sq. of gross floor space
Crèches	1 space per 4 children and 1 per staff plus set down area	1 stand per unit
Hospital and Acute Care Facilities / Nursing homes	1 space per doctor or consultant, 2 space per 3 nursing staff, 1 space per outpatient consulting room plus operational space for ambulance/ services etc.	1 stand per 10 staff on duty
Funeral Home	1 per 5m2 NFS	N/A
Schools (Primary)	1 per teaching staff and 1 space per classroom plus circulation and off loading facilities	1 stand per school.
Schools (Secondary)	1 per teaching staff and 1 space per classroom plus circulation and off loading facilities	2 stands per school
Post Second Level	Determined on a case by case basis by Planning Authority	2 stands per school
Notes on Parking Standards		

Notes on Parking Standards

• Car Parking Standards are expressed in Maximum Standards

- Where the parking standards shown in table 7.4 do not cover the type of development proposed, the requirement shall be calculated relative to the most appropriate standards.
- Car parking will be based on performance criteria that seek to achieve well-designed high-quality
 outcomes in order to achieve targets growth. These standards will be subject to a range of tolerance
 that enables alternative solutions to be proposed to achieve stated outcomes, provided public safety is
 not compromised and the environment is suitably protected.
- In exceptional circumstances, the Council may at their discretion accept a reduced/increased parking
 requirement, where the applicant has clearly demonstrated that this would not impact on road
 safety or traffic flow, and where it is considered to be required for the operations of the business/use
 concerned and is in the interests of the proper planning and sustainable development of the area.
- The Planning Authority will specify, in certain developments, the requirement for a number of disabled car parking spaces and a number of parent and child spaces.
- Parking layouts shall make provision for commercial and service vehicles depending on the type attracted to the development and should provide for manoeuvring space to enable vehicles to exit the site in forward gear.
- Minimum perpendicular car-parking space dimensions shall be 5 x 2.5 metres. Minimum parallel carparking space dimensions shall be 6 x 2.4 metres. Car parking design should comply with the standards set out in the publications listed in section 4.1.12.
- A bicycle stand comprises of a shelter with a minimum of 5 racks per stand.

7.8 Natural Gas

It is ambition of the RSES to build out gas supply in the region, in that the expansion of the network would bring competitive advantages to the region. The secure supply of natural gas is in itself an important part of the suite of infrastructure necessary to assist in the improvement of regional accessibility generally.

7.9 Electricity

Cavan County Council takes cognisance of the 'Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure' 2012 issued by the Department of Communications, Energy and Natural Resources' which acknowledges the strategic and economic importance of investment in networks and energy infrastructure. The Regional Spatial and Economic Strategy fully supports the delivery of these regionally important electricity interconnectors projects. The Planning Authority recognises the need for development and renewal of energy networks, in order to meet both economic and social policy goals.

Bulk electricity, generated in the various Generating Stations in Ireland is transported around the Country using a system of 110kV, 220kV and 400kV overhead lines to the major load centres. Underground cables are generally used in heavily populated areas, where there is no room to install overhead lines. It is recognised that overhead lines are faster and easier to repair and not subject to excavating activities, however, underground cabling will be encouraged in heavily populated areas, if feasible.

The development of secure and reliable electricity transmission infrastructure is recognised as a key factor for supporting economic development and attracting investment to the area.

Cavan County Council takes cognisance of the 'Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure' 2012 issued by the Department of Communications, Energy and Natural Resources' which acknowledges the strategic and economic importance of investment in networks and energy infrastructure. The Government endorses the major investment underway in the high voltage electricity system under EirGrid's Grid 25 Programme. The Planning Authority recognises the need for development and renewal of energy networks, in order to meet both economic and social policy goals.

7.9.1 North South Interconnector

The north-south interconnector is an above ground electricity connection proposal linking the existing station at Woodland, Batterstown, Co Meath and traversing though Meath, Cavan and Monaghan linking to a converter station at Turleenan in County Tyrone. Planning permission has been granted by An Bord Pleanala for the sections in Counties Meath, Cavan and Monaghan in December 2016.

Section 10.3 of the RSES outlines the following in relation to the interconnector 'increased connectivity with other grids is also needed and projects such as the north-south interconnector are of great importance to the region'.



Gas and Electricity Development Objectives It is a development objective of Cavan County Council to:

GE 01

Support and promote the sustainable improvement and expansion of the electricity transmission and distribution network that supply the county, subject to landscape, residential amenity and environmental considerations.



Support and facilitate the development of enhanced electricity and gas supplies and associated networks, to serve the existing and future needs of the County and to facilitate new transmission infrastructure projects.



Co-operate and liaise with statutory and other energy providers in relation to power generation in order to ensure adequate power capacity for existing and future business and enterprise needs of the County.

GE 04

Ensure that energy transmissions infrastructure follows best practice with regard to siting, design and environmental impact and landscape protection.

GE 05

GE

06

Respect, where appropriate, the 14m wide BGE Wayleaves associated with the High Pressure Gas Transmission Pipelines.

Support and promote the improvement and the expansion of the Gas network in County Cavan, including a cross border expansion.

E 7	Support the reinforcement and strengthening of the electricity transmission network with particular reference to the North South Interconnector.	
E 8	Where undergrounding and/or overgrounding of cables is being pursued, proposals should demonstrate that environmental impacts including the following are minimised:	
	- Habitat loss as a result of removal of field boundaries and hedgerows (right of way preparation) followed by topsoil stripping (to ensure machinery does not destroy soil structure and drainage properties).	
	- Short to medium term impacts on the landscape where, for example, hedgerows are encountered;	\

- Impacts on underground archaeology;

- Impacts on soil structure and drainage;

- Impacts on surface waters as a result of sedimentation and

- Visual impacts.

GE

09

Support the necessary integration of the transmission network requirements to allow linkages with renewable energy proposals at all levels to the electricity transmission grid in a sustainable and timely manner.

7.10 Renewable Energy

It is a policy of this plan to support sustainable energy sources and locally based renewable energy alternatives where such development does not have a negative impact on the surrounding environment including landscape, water, biodiversity, natural or built heritage or local amenities. It is policy to encourage renewable development proposals which contribute positively to reducing energy consumption and carbon footprint.

Rural areas have the potential to be harnessed for renewable energy projects – including wind, hydro and solar energy. In addition, waste to energy projects, such as biomass, anaerobic digestion and dry digestion may be suitable subject to planning and development considerations. The Council will support renewable energy projects in rural areas. However, it is mindful of the need to protect landscape sensitivities, residential amenities, views or prospects, public rights of way, wildlife, habitats, special areas of conservation, protected structures, bird migration paths etc.

Reference is made to the Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change 2017. It is the intention of Cavan County Council to prepare a Renewable Energy Strategy within a 6 month period of the adoption of this development plan, in order to guide and measure how Cavan County Council can facilitate a low-carbon future in the County by supporting the sustainable development of the renewable energy sector in Cavan.





7.10.1 Wind Energy

Wind Energy Guidelines 2006

Wind Energy Guidelines offer advice to Planning Authorities on Planning for Wind Energy through the Development Plan progress. The development of new Wind Energy Guidelines is at an advanced stage and these will facilitate informed decision making in relation to renewable energy infrastructure. The Council recognises the importance of wind energy as a renewable energy source and its potential in contributing to reductions in fossil fuel dependency and greenhouse gas emissions. It is policy of Cavan County Council to require compliance with the Wind Energy Guidelines (2006) and Circular PL20-13, and any updates thereof.



Wind Energy Development Objectives It is a development objective of Cavan County Council to:

Require compliance with the principles and planning guidance set out in with the Wind Energy Guidelines (2006) and Circular PL20-13, and any updates thereof.

WE
02

Ensure that the assessment of wind energy development proposals will have regard to the following:

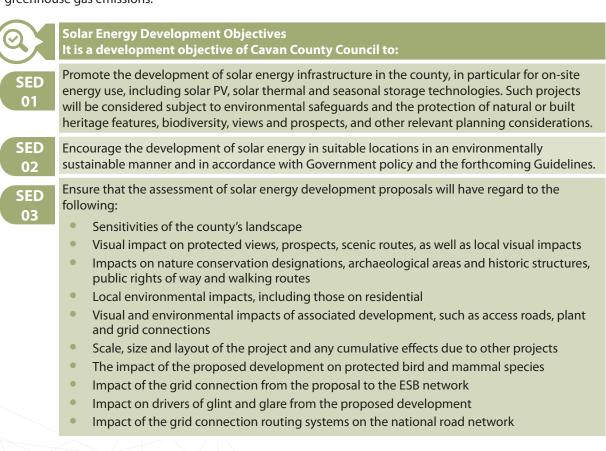
- sensitivities of the county's landscapes;
- visual impact on protected views, prospects, scenic routes, as well as local visual impacts;
- impacts on nature conservation designations, archaeological areas and historic structures, public rights of way and walking routes;
- local environmental impacts, including those on residential properties, such as noise and shadow flicker;
- visual and environmental impacts of associated development, such as access roads, plant and grid connections;
- scale, size and layout of the project and any cumulative effects due to other projects;
- the impact of the proposed development on protected bird and mammal species;
- impact of the grid connection from the proposed wind farm to the ESB network.
- Carbon benefit analysis



Encourage and support the development of wind energy development and single turbines in urban and rural areas and Industrial Parks, provided they do not negatively impact upon environmental quality, landscape, wildlife and habitats or residential amenity or other relevant planning consideration.

7.10.2 Solar Energy

Solar Energy is available in the form of roof top domestic, roof top commercial, large-scale ground solar installations and solar energy storage facilities. The Council recognises that solar farms, as a renewable energy source, can contribute to reductions in fossil fuel dependency and greenhouse gas emissions. Currently, there is no national policy guidelines on solar farms. Section 28 Guidelines are awaited from the Department of Housing Planning and Local Government and when available it will be policy of Cavan County Council to implement them.



7.10.3 Geothermal Energy

Geothermal energy refers to heat energy stored in the ground. Deep geothermal energy can only be accessed through geological processes or by drilling through the surface. The second source of heat in the ground is from radiation from the sun and is regarded as stored energy, which stays relatively warm throughout the year and can be extracted using a ground source heat pump.



GEDO

01

Geothermal Energy Development **Objectives** It is a development objective of Cavan County Council to:

Facilitate large and smaller scale geothermal energy generating developments, subject to the proper planning and sustainable development of the area and consideration of environmental and ecological sensitivities.

GEDO 02

Promote the use of geothermal heat pumps for space heating and cooling as well as water heating in domestic, commercial and recreational buildings subject to the protection of water quality and any other relevant considerations.

7.10.4 Biomass

Biochemical processes typically involve the anaerobic digestion (AD) of biomass which can result in the generation of heat and/or electricity and the production of transport fuel or for grid injection. Multiple feedstock anaerobic digestion facilities vary from on-farm digesters, using various agricultural and food wastes such as grass, slurry, and food waste as feedstocks. There is also potential to produce renewable gas from anaerobic digestion of organic wastes and residues from domestic/commercial food waste. Renewable gas is carbon neutral and identical in function to natural gas, so the existing network can be used, and gas customers do not need to change boilers or gas-powered appliances.



BD

01

Biomass Development Objectives It is a development objective of Cavan County Council to:

Facilitate the development of projects that convert biomass to energy, subject to proper planning considerations including the impact of nitrogen deposition on sensitive Natura 2000 sites.



03

Promote and prioritise utilisation of existing waste streams from agricultural and forestry sectors for renewable energy projects including anaerobic digestion, subject to proper planning and environmental considerations.

Promote the development of waste BD heat technologies and the utilisation and sharing of waste heat in new or extended industrial and commercial developments, where the processes associated with the primary operation on site generates waste heat.



Locate biomass installations in areas that do not affect residential or visual amenity, and which are served by public roads with sufficient capacity to accommodate increased traffic flows.



Support the National Policy Statement on the Bioeconomy (2018), and the exploration of opportunities in the circular resource-efficient economy.

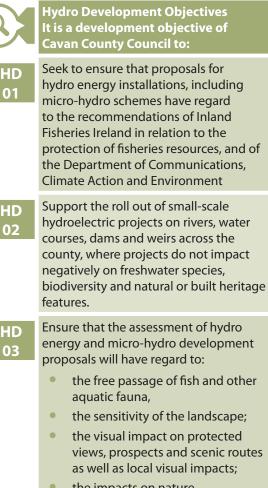


Support the potential creation of scaled local multi-feedstock bio-refining hubs across the northern and western region as well as potential creation of biodistricts/clusters.

Support the future-proofing of BD infrastructure planning to allow for 07 the potential upgrading of existing industrial sites to bio-refining plants while also supporting the use of biorenewable energy for the sustainable production of bio-based products.

7.10.5 Hydro

Hydro energy or hydroelectricity is the term for the process whereby electrical energy is generated when falling water from reservoirs or flowing from rivers, streams or waterfalls (run of the river) is channelled through water turbines. Hydro-energy is a clean source of energy, that does not create pollution or require fuel to function.



 the impacts on nature conservation designations, archaeological areas and historic structures, public rights of way and walking routes.

7.10.6 Hydrogen

Hydrogen is carbon free flammable gas that can be produced from renewable electricity and utilised for high heat applications, heavy use transport, industry and power generation. It can be stored indefinitely and like other gas technologies can play a significant role in the Net Zero Carbon. Reducing Irelands total carbon emissions, tackling climate change in addition to ensuring that Ireland has a sustainable and secure energy future are just some of the benefits of this technology. Hydrogen has the potential to offer an alternative that can assist with the decarbonisation of industrial processes where the reduction of carbon emissions is both difficult and urgent. The Hydrogen Strategy published by the EC outlines Europe's ambition for utilisation of this technology. There is also an intention to make substantial investment into this sector as a means of promoting it as a major pillar in a future decarbonised energy environment.



HYD

01

Hydrogen Development Objective It is a development objective of Cavan County Council to:

Support the use of Hydrogen as a renewable energy resource subject to proper planning considerations.

7.10.7 Compressed Natural Gas

CNG is natural gas that has been compressed to fit into a vehicle's tank and is particularly suitable for use in commercial vehicles. The development of CNG Infrastructure will enable fuel switching from diesel to CNG for HGVs and buses. CNG is an established technology that is used in many countries around the world. CNG contains virtually no particulate matter (PM) and also has low emission levels of nitrogen oxides (NOx)6 which is beneficial from an air quality perspective. CNG vehicles can be run on 100% renewable gas. This is a renewable and carbon neutral fuel, produced using Anaerobic Digestion technology from existing waste streams and a variety of sustainable biomass sources, including grass, animal waste, crop residues and food waste. Infrastructure development for CNG is already underway in Ireland, with 14 fast fill CNG stations being installed across the Core TEN-T road network via a project called the Causeway Study 7, that is supported by the European Commission through the CEF Transport Fund and the Commission for Regulation of Utilities (CRU).

CNG

01

Compressed Natural Gas It is a development objective of Cavan County Council to:

Support the use of gas in transport through the facilitation of CNG refuelling infrastructure subject to proper planning considerations.

7.11 Public Rights of Way

Public Rights of Way constitute an important recreational amenity for local people and visitors. They enable the enjoyment of high quality landscape and cultural heritage. A public right of way is a persons' right of passage along a road or path, even if the route is not in public ownership'.

It is a policy of Cavan County Council to maintain, protect, preserve, promote, enhance, support, improve and encourage the provision of, for the common good, a network of Public Rights of Way to traditional outdoor amenities including heritage sites and features of archaeological interest, national monuments, mountains, hills, rivers, forests, lakes, geological and geomorphic systems, water corridors, places of natural beauty and other natural amenities. Where appropriate links to established public rights of way in other counties be identified. A preliminary list of potential rights of way has been included in Appendix 5.



7.12 Information Technology and Broadband

Cavan Digital Strategy was formally launched in July 2021.Cavan needs to build a recognised digital ecosystem in niche areas of strength to attract external investment and sustain a dynamic enterprise base. The common features will include a vibrant start-up community, a critical mass of large firms, R&D and innovation, specialised 3rd level education programmes, a dynamic and skilled labour market and a proactive support network.

The Strategy contains the following 4 pillars

- Pillar 1 digital society & skills
- Pillar 2 digital economy
- Pillar 3 digital connectivity
- Pillar 4 digital transformation

Connected Cavan will set the foundations and roadmap for a citizen focused, entrepreneurial and dynamic digital economy & society over the coming decade. This will be delivered through intensive partnership & collaboration and the targeting of resources into assets and activities that have a real and lasting impact on local communities, carbon reduction and economic prosperity for the county and region.

Information Communication and Technology Investment is essential for furthering the social and economic development of County Cavan. The provision of an efficient broadband service is critical in the development of a knowledge based economy. To this end, the need to build new infrastructure to provide increased capacity in order to raise the quality of coverage and to meet the demand for services is recognised.

7.12.1 Broadband

The National Broadband Plan (NBP) was signed on 19th November 2019 with National Broadband Ireland (NBI) to build, operate and maintain the network. The rollout is currently in progress with a 3 to 5 year implementation period for the bulk of connections (90% or the 537,595 fibre connections will be complete within this period). This is the final piece of this enormous investment in the ICT infrastructure of Ireland and will see fibre brought to the last remaining areas, business premises, households, schools and community facilities in the difficult to reach and commercially unviable locations of the state. Cavan is in the first wave of homes and businesses being connected to high-speed broadband through commercial operators. Cavan County Council led the way by being the first Local Authority to grant a licence for the scheme and in January 2021 became one of the first counties in the country where premises have been successfully connected.

High Speed Broadband will be delivered to every premises in Ireland through a combination of commercial investment and state investment.

This table provides an overview of the total number of premises per county that are in the commercial area (BLUE) and the State's Intervention Area (AMBER).

The figures are based on the most recent map update and include any new premises.

Despite Cavan having a relatively high percentage of connections which need to be delivered under the NBP (38%), the county still has a fairly extensive fibre infrastructure around the urban centres and some larger rural villages. In Cavan town, there is a 1Gb fibre under the Siro service into a number of enterprises and commercial clusters. The Eir fibre service is also extensively available in Cavan town and other urban centres which delivers speed of up to 150mbps.

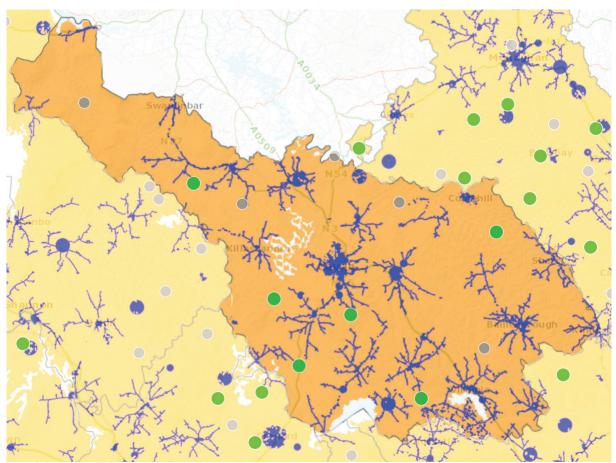
Broadband Connection Points (BCP) are key NBP priority locations in communities across Ireland. The BCP's have been selected for prioritising as high speed broadband points in the community in the first year of the roll out of the NBP.

The rollout of the WiFi4EU initiative across towns and villages in Cavan, releasing up to €60,000 in European funds for free public Wi-Fi access.

An efficient telecommunications system is important in the development of the economy.

County	Total Premises	NBP Intervention Premises	%	Commercial Operator Premises	%
Cavan	42,250	16,242	38%	26,008	62%

Fig. 7.3



	ICT Development Objectives It is a development objective of Cavan County Council to:	7.13 Preve Accidents
ICT 01	Support the delivery of high capacity Information Communications Technology Infrastructure, broadband connectivity and digital broadcasting, throughout the county, in order to ensure economic competitiveness for the enterprise and commercial sectors and in enabling more flexible work practices.	The EU Directive accident hazards, SEVESO II Directiv 1999. It was intro SI EC (Control of N Dangerous Substa 476 of 2000), on I aims to prevent r dangerous substa limitation of their
ICT 02	Support the co-ordinated and focused development and extension of broadband infrastructure throughout the county.	and the environn pursued through The siting of Modification
ICT 03	Co-operate with the Department of Communications, Energy and Natural Resources and public and private agencies where appropriate, in improving high quality broadband infrastructure throughout the county.	 Developmen establishmer or siting, is lik consequence The Health & Safe
ICT 04	Achieve a balance between facilitating the provision of telecommunications infrastructure in the interests of social and economic progress, and sustainable residential amenity and environmental quality.	Planning Authori of planning appli a certain distance The document, e Health & Safety Au Land-use Planning
ICT 05	Ensure the locations of telecommunications structures minimise and/or mitigate any adverse impacts on communities, public rights of way and built or natural environment.	Authority on the of the Europear of major accide EU was adopted other factors, the classification of
ICT 06	Encourage co-location of antennae on existing support structures and to require documentary evidence as to the non availability of this option in proposals for new structures. The shared use of existing structures will be required where the numbers of masts located in any single area is considered to have an excessive concentration.	for citizens to acc Directive is know III Directive. Direc into Irish legislati <i>Chemicals Act (Co Involving Danger</i> S.I. No. 209 of 201 2015. For clarity, the SE
ICT 07	Facilitate the provision of telecommunications infrastructure throughout the county in accordance with the requirements of the 'Telecommunications Antennae and Support Structures – Guidelines for	the SEVESO II Dir requirements of S Health and Safety relevant Planning distance for a SEV the receipt of a n

Planning Authorities' July 1996 and

thereof.

Circular Letter PL 07/12 or any update

7.13 Prevention of Major Accidents

The EU Directive (96/82 EC) on the control of major accident hazards, commonly referred to as the SEVESO II Directive, was adopted on February 3rd 1999. It was introduced into Irish Law through the SI EC (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000), on December 21st 2000. The Directive aims to prevent major accident hazards involving dangerous substances and chemicals and the limitation of their consequences for people and the environment. These objectives must be pursued through controls on the following:

- The siting of new establishments,
- Modifications to existing establishments,
- Development in the vicinity of an establishment which, by virtue of its type or siting, is likely to increase the risk or consequences of a major accident.

fety Authority provides advice to rities, where appropriate, in respect lications for development within e of the perimeter of these sites. entitled 'Policy & Approach of the Authority to COMAH Risk-based ng', sets out the policy of the e landuse planning requirements 'Seveso' Directive on the control nt hazards. Directive 2012/18/ taking into account, amongst e changes in EU legislation on the chemicals and increased rights cess information and justice. This wn for convenience as the SEVESO ective 2012/18/EU was transposed tion through *S.I. No. 209 of 2015* ontrol of Major Accident Hazards rous Substances) Regulations 2015. 15 came into effect on June 1st

For clarity, the SEVESO III Directive replaced the SEVESO II Directive (96/82/EC). One of the requirements of S.I. No. 209 of 2015 is that the Health and Safety Authority shall advise the relevant Planning Authority of a consultation distance for a SEVESO III establishment, following the receipt of a notification from the operator, and shall periodically review and update the consultation distance as necessary. The Directive provides that appropriate consultation distances must be put in place so as to ensure that before decisions are taken, technical advice is available to Planning Authorities in respect of relevant establishments. The Health and Safety Authority provides such advice, where appropriate, in respect of planning applications within a certain distance of the perimeter of these sites. At present, there is one approved Seveso site in the County.

	Major Accidents Development Objectives It is a development objective of Cavan County Council to:
MA 01	Have regard to the provision of the 'Major Accident Directive' (Seveso III) (European Council Directive 2012/18/EU) and impose restrictions in consultation with the HSA, on developments abutting or within proximity of a Seveso site. The extent of restrictions on development will be dependent on the type of risk present and the quantity and form of the dangerous substance present or likely to be present.
MA 02	Permit new Seveso development only in low risk locations away from vulnerable residential, retail and commercial development. In areas where Seveso sites exist in appropriate locations with low population densities, ensure that proposed uses in adjacent sites do not compromise the potential for expansion of the existing Seveso use, and in particular the exclusion of developments with the potential to attract large numbers of the public.
MA 03	Have regard to the advice of the Health and Safety Authority when proposals for new Seveso sites are considered.
MA 04	Require developers to submit a detailed consequence and risk assessment with all Environmental Impact Statements and/or legislative licence applications for all Seveso sites.

7.14 Roads and Infrastructure Climate Context and Development Objectives

In accordance with the format set out in Chapter 5 Climate Change of this Plan the following is an assessment of the content of this chapter in a climate context and associated development objectives.

Travel is a source of unwanted noise, emissions, and energy use, accounting for 42.2% of Ireland's Total Final Energy Consumption in 2018, the largest take up of any sector¹. When compared to Energy, Industry, Residential and Agriculture, Transport has also been the only sector that has not reduced its CO2 emissions since 1990, continuing to account for nearly 30% of Ireland's total emissions – 72% of which coming from road transportation alone; with passenger cars accounting for 61% of same.² In line with Ireland's National Mitigation Plan (NMP) 2017 on climate change and the NPF shared goals, by 2040 we need to have moved away from polluting and carbon intensive propulsion systems in favour of cleaner and quieter towns and cities, completely free from combustion engines. Separately, the Northern & Western Regional Assembly (NWRA) Regional Spatial and Economic Strategy (RSES) 2020 – 2032 has prioritised reducing the 'need' for travel over economically 'efficient' travel, reinforced by the Climate Action Plan 2019 (CAP) in its ambition to make growth less transport intensive, through better planning, remote and home-working and modal shift to public transport.

The CAP also aims to accelerate the take up of Electric Vehicle (EV) cars to meet a target of 950,000 EVs on the road by 2030, which will see approximately a third of all new vehicles sold within the next decade to be Battery Electric Vehicle (BEV) or Plug-in Hybrid Electric Vehicle (PHEV).

1 Sustainable Energy Authority of Ireland (SEAI) (2019), 'Energy in Ireland – 2019 Report', December 2019. https://www.seai.ie/publications/Energy-in-Ireland-2019-.pdf

2 European Parliament (2019), 'CO2 emissions from cars: facts and figures', 22 March 2019.

https://www.europarl.europa.eu/news/en/headlines/society/20190313STO31218/co2-emissions-from-cars-facts-and-figures-infographics

Current Government proposals will see the banning of a new petrol and diesel cars by the same 2030 deadline under the Climate Action Amendment Bill 2019.

Census 2016 data reveals that in County Cavan, most commuters travel by car either as a driver (19,919) or passenger (10,243). Almost two thousand people work from home (1,961); 5,576 use a bus/coach; 4,201 travel on foot; and 239 cycle to work, school or college. The proportion opting for cycling as a mode of commuting in Cavan is 0.49 per cent compared to 2.7 per cent nationally.

Green Infrastructure serves a wide variety of important functions including but not limited to; provision of habitat, increase biodiversity, ecological corridors, climate change adaptation and mitigation, water treatment, water retention, local amenity provision, air quality improvement, cultural and heritage preservation, a mental restorative environmental and flood mitigation.

Biodiversity protection relies heavily on quality Green Infrastructure, defined as a strategically planned network of natural and semi-natural areas, designed and managed to deliver a wide range of ecosystem services in both rural and urban settings (EU Green Infrastructure Strategy). The EU Biodiversity Strategy has set the backdrop, requiring that by 2020, ecosystems and their services are maintained and enhanced by established 'Green Infrastructure' and restoring at least 15% of degraded ecosystems. The responsibility lies with the local authority to consider the potential for carbon sequestration in Green Infrastructure Strategies, whereby certain areas can be considered as a strategic and integral mechanism for the long-term storage of carbon to mitigate the contribution of fossil fuels emissions and combat climate change.

Careful land management is also needed to ensure that land use changes do not impact on the ability of the natural environment to absorb climate impacts. Sustainable land use management and natural flood risk mitigation measures can slow down the water flow in catchments and rivers, for example by protection and/or rewetting of peatlands and bogs and by planting hedgerows across hillsides. Such measure may not be able to solve severe flood problems on their own but can form part of the solution and can also help to achieve environmental goals, including improving water quality, nature conservation / biodiversity and climate change mitigation and adaptation.

Green adaptation seeks to use ecological properties to enhance the resilience of human and natural systems in the face of climate change, such as creation of green spaces and parks to enable better management of urban micro-climates.

Today most of Ireland's energy use comes from the burning of fossil fuels, like coal, oil and peat. To counteract this reliance, the NPF proposes an aggregate reduction (since 1990) in carbon dioxide emissions of at least 80% by 2050 across electricity generation, built environmental and transport sectors. Ireland has excellent renewable energy resources including wind, bio-energy and solar. By 2020, Ireland has a commitment to generating a minimum of 16% of all energy from renewable resources (Renewable Energy Directive Ireland), having already achieved 22% in 2016 (Ireland 2050) from a base of 9.1% in 2015. This will include 40% from renewable electricity, 12% from renewable heat and 10% from renewable transport.

A report prepared by Baringa commissioned by the Irish Wind Energy Association has claimed that renewable energy technologies like wind, solar, bioenergy and hydro alone can provide 70% of our electricity demand by 2030. This target can also be achieved in a way that is cost neutral to the electricity consumer while simultaneously reducing CO2 emissions by 30%. Wind energy is both Ireland's largest and cheapest renewable electricity resource, third in the world in its usage behind Denmark and Uruguay. In 2018, wind provided 85% of Ireland's renewable electricity and 30% of our total electricity demand, second only to natural gas3. Since 2010, solar PV has been the fastest growing power generation technology worldwide, however solar PV installed capacity in Ireland is amongst the lowest in Europe. One square metre of solar panels provides the same amount of hot water as the equivalent of more than 100 litres of oil and is effective even when the sky is overcast or cloudy (SEAI).

3 Sustainable Energy Authority of Ireland (2020), 'Wind Energy'. https://www.seai.ie/technologies/wind-energy/ Worldwide, the sun delivers more energy to earth in an hour, than is used worldwide in a year. To capitalise on this effect, designing our homes and buildings to face south and capture as much light as possible can reduce our energy bills by more than 10%. Aside from Solar and Wind, Biomass and Hydroelectricity at 3.5% combined largely makes up the remainder of Ireland's renewable energy supply⁴.

Biomass by comparison to other forms of renewable energy is comparatively expensive, with a limited availability of indigenous biomass, high import costs and its inconvenience in comparison to other fuels, such as oil and gas. Although poorly developed, Tidal/Wave Energy potential in Ireland is enormous, calculated by the SEAI to be 29GW, and easily meeting Ireland's peak electricity demands of above 5GW (Eirgrid).

New energy systems and transmission grids will be necessary for a more distributed renewablesfocused energy generation system, harnessing both the considerable onshore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand.

	Roads and Infrastructure Climate Development Objectives It is a development objective of Cavan County Council to:
RIC 01	Support the use of Electric Vehicles (EV) at all Cavan County Council public service locations, and the use of EV vehicles.
RIC 02	Require all one-off housing to install a minimum of 1 no. Electric Vehicle (EV) home charger unit in accordance with current Sustainable Energy Authority of Ireland (SEAI)recommendations.
RIC 03	Require all multi-unit, residential developments to install 1 recharging point per 5 units, and ducting infrastructure for every parking space within the development boundary.
RIC 04	Require all non-residential developments with more than 10 parking spaces to install 1 no. recharging point per 20 parking spaces, and ducting infrastructure for at least 1 in 5 parking spaces within its property boundary.
RIC 05	Actively encourage and incentivise public and private carpooling / carsharing, assigning 10% of all public parking, and parking associated with future commercial and industrial applications, for its sole provision.
RIC 06	Require all developments to provide bicycle parking in accordance with Table 7.4. Bicycle parking shall be well lit, sheltered, with cycle racks fixed to a permanent structure.
RIC 07	Prepare a feasibility study (to include route options) for a cycle route on approach and through each town within its functional area.
RIC 08	Prioritise the appointment of public transport service providers with the lowest, demonstrated CO2 emissions across their fleet.
RIC 09	Require all future footpaths to be a minimum of 2 metres in width, space permitting.
RIC 10	Facilitate community participation and/or micro-generation of renewable power, as well as community gain arrangements, while encouraging the development of small scale, community owned wind farms.
RIC 11	Convert all public streetlighting within the functional area to well designed and directed LED lights, with dimmable capabilities where preferable.

⁴ Sustainable Energy Authority of Ireland (2020), "Electricity'

https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/electricity/

RIC 12	Actively participate and achieve the targets as set out by the Sustainable Energy Authority of Ireland (SEAI) Public Sector Energy Efficiency Strategy.
RIC 13	Support the introduction of speed reduction zones, incorporating shared surfaces and pedestrian only streets in towns throughout the County.
RIC 14	Establish a program to prepare and publish a full Building Energy Rating (BER) inventory for all publicly owned social housing within its functional area, GDPR permitting.
RIC 15	Ensure all relevant developments take account of the Seveso-III Directive (e.g. storage of hazardous chemicals) and reduce excessive energy consumption / CO2 production.
RIC 16	Collaborate with CARO and adjoining local authorities regarding the provision of strategic locations for renewable locations within the region.
RIC 17	 Maintain existing green infrastructure and encourage and facilitate, in consultation with relevant stakeholders, the development of green infrastructure that recognises the synergies that can be achieved through the following: Provision of open space amenities; Sustainable management of water; Protection and management of biodiversity; Protection of cultural heritage; Protection of protected landscape sensitivities; Planting drought resistant plants.
RIC 18	Undertake a feasibility study identifying 'pocket park' opportunities for all towns within its functional area.
RIC 19	Seek to implement the principals of the 'Green Street' concept for all future, urban regeneration of streets, prioritising the integration of Sustainable Drainage Systems (SuDS) (Refer to Strategic Flood Risk Assessment).
RIC 20	Work with the National Trails Office, Coillte, the Department of Planning, Housing and Local Government, the Department of Transport, Tourism & Sport, and other relevant stakeholders, to improve on the existing level of infrastructure and facilities for walking and cycling.
RIC 21	Require the incorporation of Sustainable Drainage Schemes (SuDS) (Refer to Strategic Flood Risk Assessment) for all future developments with an identified need.