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Callan
Mobility Management Study
2021 – 2026

for

Kilkenny County Council

February 2021

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1 Introduction

1.1 CONTEXT

Callan is a busy district town with a population of 2,475 persons approximately within the Callan settlement as shown on Figure 1.1 (source cso.ie: Census 2016).

The town is located approximately 17 km southeast of Kilkenny City and about 46 km northwest of Waterford, as shown in Figure 1.2 below. Thomastown lies approximately 22 kilometres east of the town of Callan.

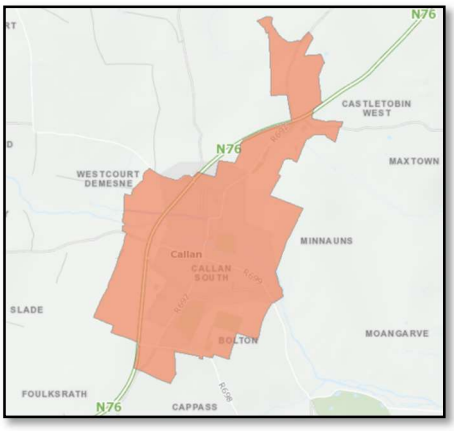

Figure 1.1 - Callan Settlement

Callan has historically been the converging point the national and regional road network comprising the following roads: N76 connecting Kilkenny with Clonmel via Killaloan and the N24 and the R699 connecting Knocktopher with Callan, the R698 connecting Piltown with Callan, the R695 connecting Kilmanagh with Callan and the R692 Mullinahone with Callan. Although bypassed some years ago with the N76 national secondary road realignment, the town is well-served by a strong network of radial roads extending from the town centre.

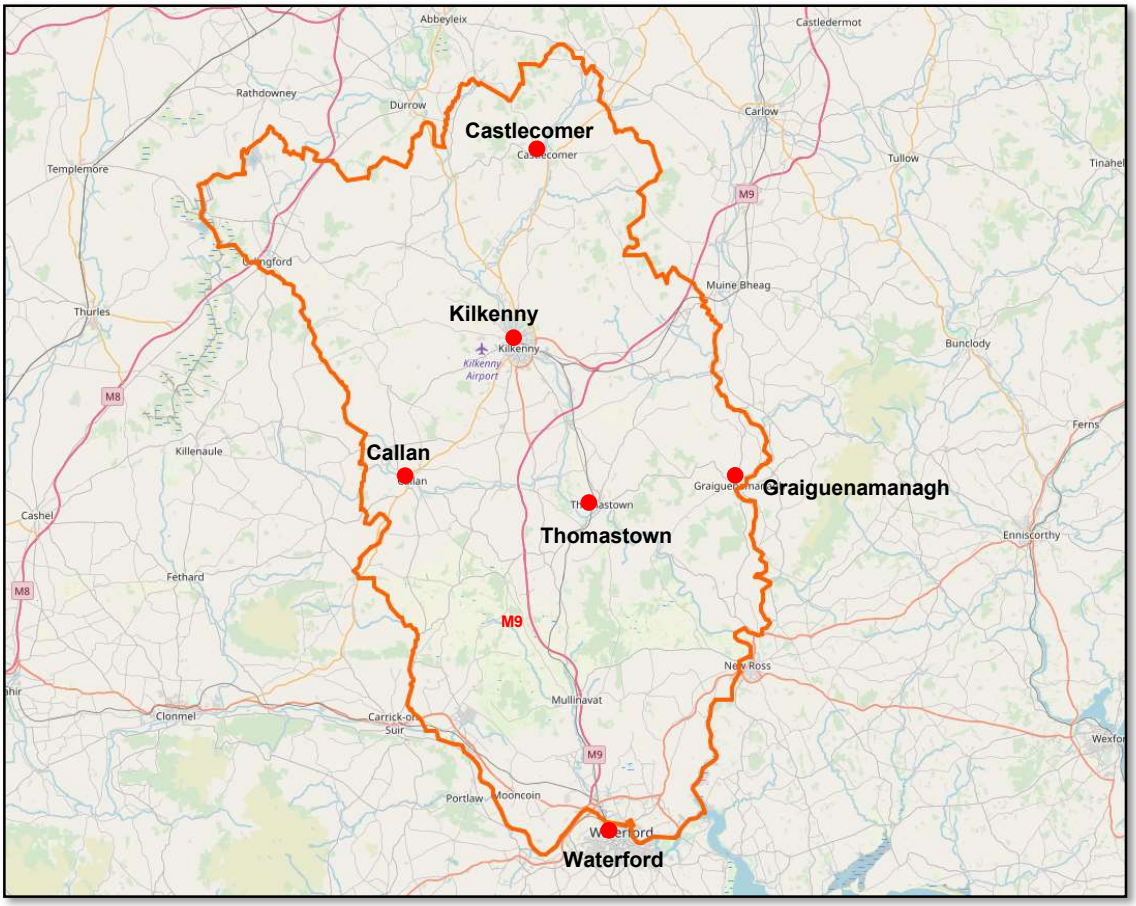

Figure 1.2 - Location within County Kilkenny

1.2 OBJECTIVES

Roadplan Consulting was appointed by Kilkenny County Council to compile a project/initiative lead mobility management study for Callan and its environs considering the following aims which are key and strategic objectives of the Callan Local Area Plan:

"Improving north south connections and pursuing a sustainable transport agenda, focusing on improving facilities for walking and cycling".

"Improving public access to and management of historic and cultural assets, including but not limited to St Mary's Church, Bridge Street, The Motte Meadow, the Friary Complex, and The Callan Workhouse."

"Focusing on Bridge Street, these measures will be combined with a range of traffic management proposals including additional off-street parking which will improve vitality of the town centre and Bridge Street in particular as well as supporting healthy living."

This Study therefore comprises of a review of the transportation network in and around the town and an assessment of the associated travel demands, with the objective of suggesting potential transport management improvements needed to cope with the expansion of the town. The Study suggests actions that could be taken to secure the optimal and sustainable movement of people, goods and vehicles and provides a set of mobility management objectives in respect of the below hierarchy:

- Exploring the feasibility of supporting improvements for pedestrians, cyclists and vehicles mobility;
- Exploring the feasibility of providing additional footway and cycleway links;
- Exploring the feasibility of supporting improvements for increased safety and accessibility of all modes of transport particularly public transport;
- Exploring the feasibility of reducing traffic congestion through traffic management and junction improvements;
- Exploring the feasibility of supporting improvements to car parking facilities.

The suggestions provided in this Study are intended to inform responses to transport needs in Callan. These suggestions do not define rules that must be compiled with when administrative consent of projects is being granted. They are non-binding and advisory and do not comprise public policy.

1.3 STUDY AREA

The study area of the Callan Mobility Management Study is approximately the area enclosed by the existing N76 Callan Bypass, R698 Regional Road, Roselawn Residential Development, 50 km/h speed limit on the R699 Regional Road and Collaire Court of the as outlined on Figure 1.3 below.

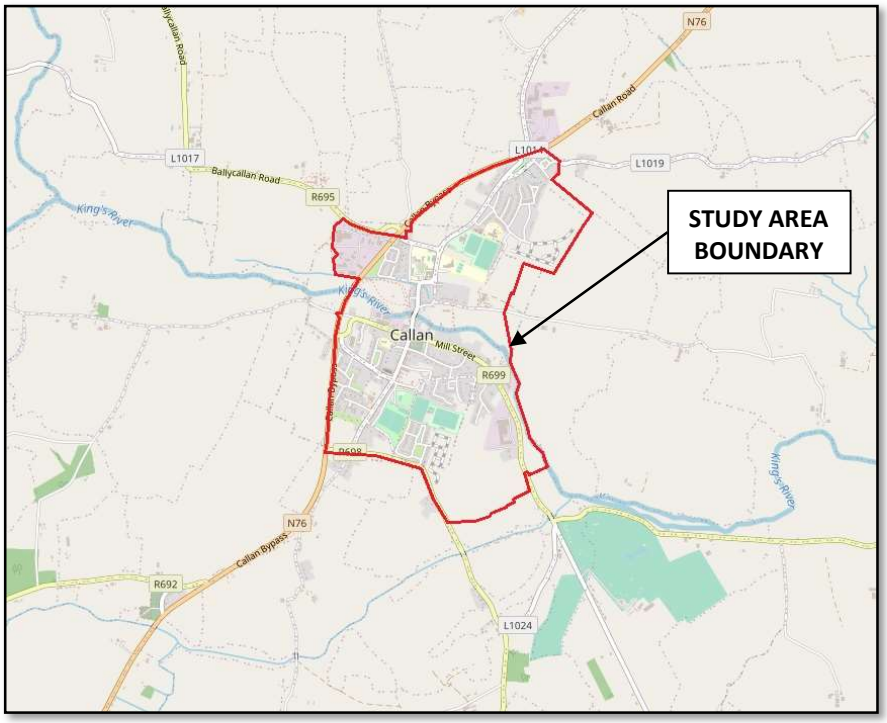

Figure 1.3 - Study Area

1.4 TEMPORAL RELEVANCE OF THE STUDY

The Study reflects current conditions in Callan, in terms of land use and demand for travel, and it also reflects the conditions predicted to exist over the coming five years period. However, those conditions are very much influenced by external factors such as the state of the national economy, public health travel restrictions, the cost of travel etc., and is therefore a high level of uncertainty attaching to long-term predictions. For example, connected autonomous electric vehicles are predicted to cause significant changes in how personal travel is undertaken in the coming decades and the infrastructure needed to support such future travel may be quite different to that required today. For those reasons, it is considered that the study will be most relevant over the following five years. It is intended that the findings of this study will be taken into account in the implementation of the Callan Local Area Plan. Any variation of or review to the Callan Local Area Plan will have to be subject to its own screening for environmental assessment processes as relevant.

Many of the suggested measures stated to be long-term are unlikely to be completed during the currency of the Study; however, the land required for their implementation could be retained free from development that could compromise future implementation of the measure, and the continuing relevance of the proposed measure should be re-assessed during the preparation of the next mobility management study for Callan and any review of the Local Area Plan for the town.

1.5 STUDY METHODOLOGY

The key steps in building an evidence-based approach to development of this Study were as follows:

- Data gathering:
  - Consultation with key stakeholders (i.e. schools etc);
  - Identification of existing transport conditions;
  - Framing of the policy context for the study;
- Identification of suggestions:
  - Outlining a set of measures and predicted outcomes.

Stakeholder engagement was a vital component of the compilation of this Study. Those who live, work and do business in the area have a keen understanding of current traffic and transportation issues, and it was necessary for that knowledge to be reflected in the Study. In addition, the suggestions identified by the Study would, if progressed, have the potential to impact upon the urban environment and on the daily lives of the local population and it is therefore important that the public is made aware of the reasons for the Study's suggestions.

The staging and sequencing of the implementation methodology of the Study is outlined in Fig 1.4.

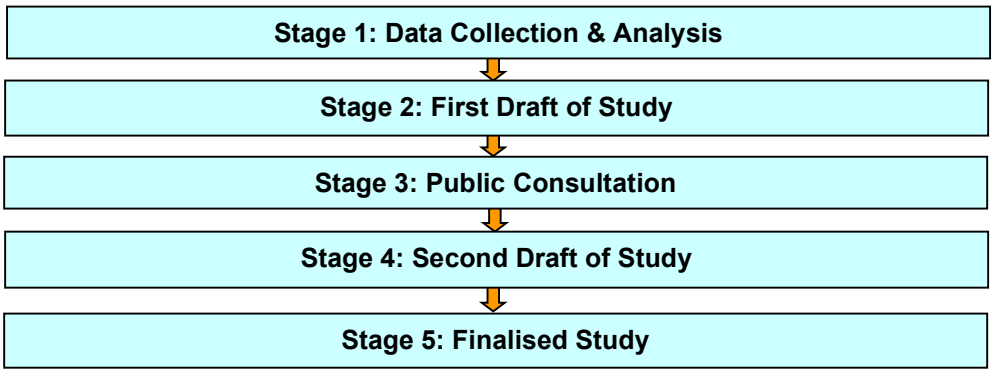

Figure 1.4 - Methodology

A functioning transport system consists of:

- Transport modes (foot, cycle, bus, rail, road etc.);
- Infrastructure providing for each mode (footway, cycleways, bus-stops, streets etc.);
- Regulations (signs, road markings, traffic signals etc);
- Users (pedestrians, cyclists, passenger, drivers etc.).

In that general context, and through the implementation of the methodology outlined above, the following transportation aspects emerged as being of particular relevance to Callan and have therefore been considered in this Study:

- Pedestrian and cycle facilities;
- Public transport;
- School traffic;
- Town centre traffic management;
- Street and public realm enhancements;
- Car parking.

1.6 STRUCTURE OF REPORT

This mobility management study is set out as follows:

- Chapter 2 - Provides an overview of existing transport facilities in Callan;
- Chapter 3 - Outlines Policies and Plans applicable to study area;
- Chapter 4 - Provides a summary of the data collected as part of this Study;
- Chapter 5 - Provides a summary of the issues highlighted by public consultation;
- Chapter 6 - Describes the suggested transport management improvements.

2 Transportation Characteristics of the Study Area

2.1 ROADS INFRASTRUCTURE

Callan is linked to other neighbouring towns and villages by an approximate gridiron regional road network comprising of the R692, R695, R698 and R699 which all intersect and branch off the N76 national road just west of the town centre. These road corridors are key assets for both the town of Callan and the greater county.

As stated N76 national road is located immediately west of the town and forms the Callan Bypass which was completed in May 1997. As a result, large volumes of through-traffic on the Kilkenny-Clonmel/Carrick-on-Suir route, particularly heavy goods vehicles, have been removed from Callan.

The location of the town and its connecting road network is shown in Figure 2.1.

The topography of Callan is not that varied. Ranging from being relatively flat in and along the Kings River floodplain in which the town centre and the north half of the town is located. To being gradually inclined and rising in a southerly direction from the R699 West & Mill Street along the R692 Green Street and the Clonmel Road. The town is bisected by the Kings River, with most of the settlement located south of the river.

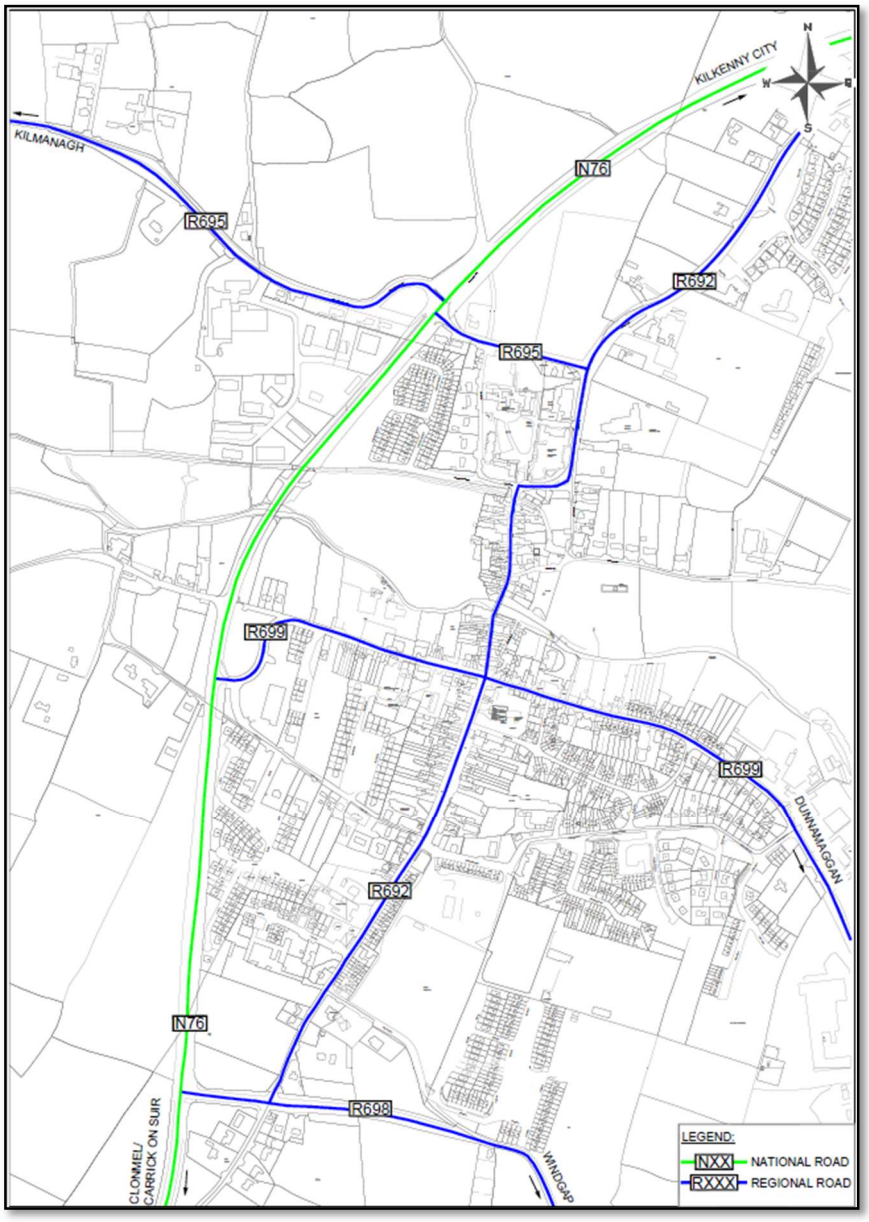

Figure 2.1 – Callan Road Network

The three approximately parallel and one perpendicular regional roads within Callan are as follows:

- R692 – runs from the N76 Callan (North) to the R698 Callan (South), Co. Kilkenny;
- R695 – runs from the N76 Callan to Kilkenny City via Kilmanagh, Co. Kilkenny;
- R698 – runs from the N76 Callan to the R697 Ticknock via Windgap, Co. Kilkenny;
- R699 – runs from the N76 Callan to the R448 (Former N10) Knocktopher, Co. Kilkenny.

2.2 TOWN CENTRE

Figure 2.2 shows the detail of the principal traffic infrastructure in Callan town centre.

- Priority controlled crossroad junction town centre traffic management system with approx. perpendicular and parallel side streets consisting of:
  - R692 Bridge Street (North), Kilkenny Road (North), Green Street (South) & Clonmel Road (South)
  - R699 Mill Street (East) & West Street (West)
  - Secondary perpendicular streets: Flaggy Lane (North), Mill Lane (North), New Market Lane (South) & Collins Park (South)
  - Secondary parallel streets: Green Lane-Mellows Park (East), New Market Lane-Collins Park (East), Keogh's Lane (East), R695 Haggards Green (West) & Chapel Lane (West)

- Current one-way only streets within the town are as follows:
  - Flaggy Lane (Westcourt Demesne to Haggards Green) and
  - Keogh's Lane (Bridge Street to KCATS Arts Centre Carpark).

- Current priority-yield streets within the town are as follows:
  - Chapel Lane (Green Street to Clermont Lane).

- Pedestrian crossings at various locations around the town and most are uncontrolled crossings.

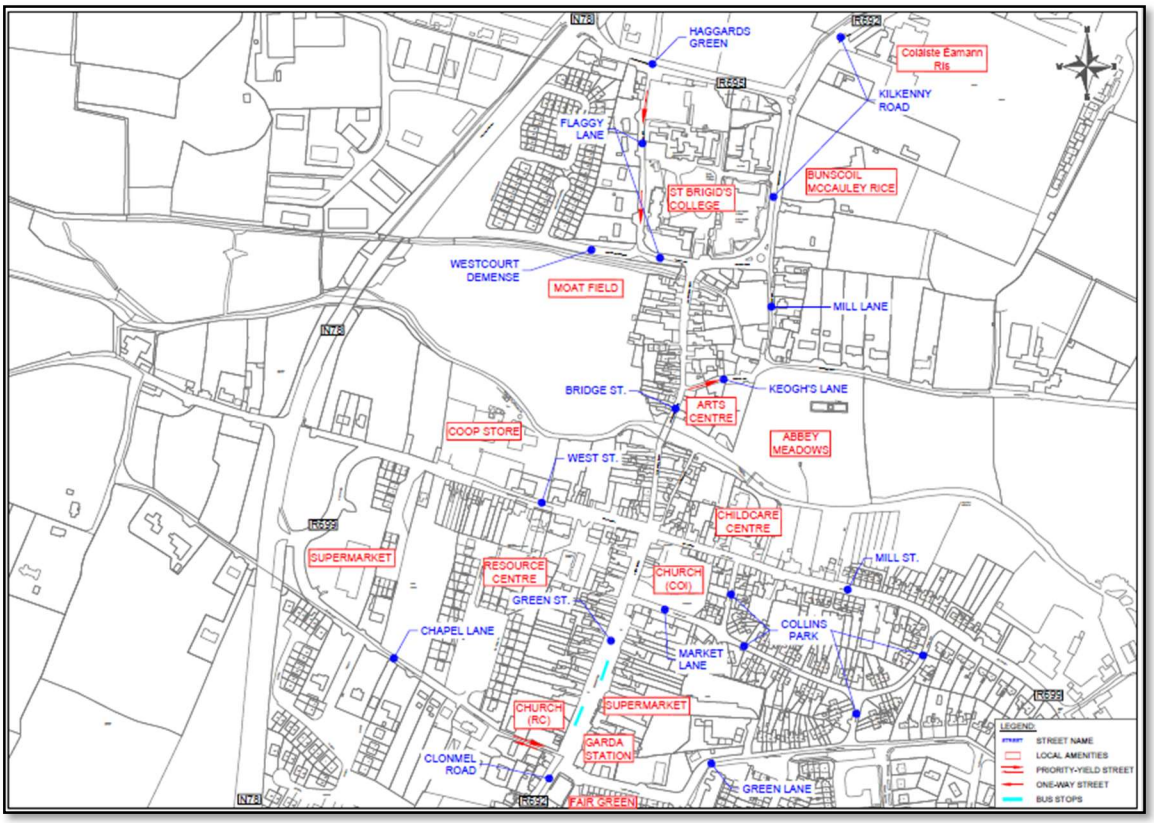

Figure 2.2 - Existing Town Centre Street Network

The majority of the existing junctions within the town are priority-controlled junctions. However, to the north of the town centre there are two roundabout junctions:

- R692 Kilkenny Road/R695 Haggards Green and
- R692 Kilkenny Road/Bridge Street/Mill Lane

The speed limit within the built-up area of the town is generally 50km/h with 60km/h and 80km/h zones on the approaches. Figure 2.3 shows the locations of the existing speed limit boundaries.

Figure 2.3 - Existing Speed Limits

2.3 PEDESTRIAN FACILITIES

In the town centre the majority of streets are flanked by footways on both sides. However, these are very narrow, in a poor state of repair and connected via inconsistent pedestrian crossings some of which are listed below. The exception being Green Street where the entire streetscape from its junction with Green Lane to the R699 junction was upgraded as part of town renewal scheme a few years ago.

On the regional and local road approaches to the town centre the existing footways are discontinuous, narrow and lack accessible pedestrian crossing facilities.

Controlled pedestrian crossings are present at the following locations:

- Green Street, at Café L'Arche (1 no. Signalised Crossing);
- Clonmel Road, at Library (1 no. Signalised Crossing);
- Kilkenny Road, at Bunscoil McCauley Rice (1 no. Signalised Crossing);

There is a high dependency of simple uncontrolled courtesy pedestrian crossings through the town where pedestrians do not have priority to cross.

2.4 CYCLIST FACILITIES

There are no existing dedicated cycle lanes in Callan. Some bicycles parking stands are present on Green Street.

2.5 PARKING FACILITIES

2.5.1 Off- street Car Parks

The majority off-street parking is located in close proximity to the town centre, the main retail and commercial area within Callan.

In total there are approximately 213 parking spaces in the main off-street carparks. Details of these existing carparks are contained in Table 2.1.

	Car Park	Charge	Spaces	Accessible (Disabled)	Additional Information
1	Fair Green	Free	65	1	Public, New
2	Supervalu Off Green Street	Free	88	2	Private, Worn Markings
3	Chapel Lane	Free	24	-	Public, Unmarked, 1 electric vehicle point
4	KCATS Arts Centre	Free	36	3	Public, Well Marked
	TOTAL		**213**	**6**	-

Table 2.1 - Existing Off-street Carparks

Parking in Callan is free and parking time limit apply to any of the on-street and off-street parking.

It is noted that informal on-street parking occurs along both sides of Mill Street, Green Lane, Mellows Park, Collins Park and New Market Lane despite the narrowness of these streets.

Consequently, there does not appear to be an acute demand for on-street parking in the town core which is common issue in other district towns. All other carparks and on-street parking were adequately occupied/utilised. Parking is generally not considered to be an issue within the town centre the only exception being Bridge Street. Due to its narrow cross section, it can just provide a 3m wide carriageway flanked by minimal width footways and so there is a notable absence of residential/commercial on-street parking which is an issue for Bridge Street residents and traders.

2.6 PUBLIC TRANSPORT PROVISIONS

The town of Callan is served by bus public transport only. The numbers of service by type and route are provided in Table 2.3.

Bus stops for the respective bus services are located within the town centre itself. The northbound bus stop is situated at the War Memorial on Green Street while the southern bus stop is located

at Supervalu Carpark Access on Green Street. Location of the subject bus stops are shown in Figure 2.2.

Bus Route	Service
717	JJ Kavanagh & Sons operates an Express/Commuter Service Monday to Sunday nine times daily and runs Clonmel – Kilkenny – Dublin City – Dublin Airport via Callan.
470	Callan and Ballingarry to Kilkenny Ring a Link operates Local Bus Service on Tuesday's and run once daily Callan – Ballingarry – Kilmanagh – Ballycallan – Tullaroan – Dunnes Stores. Kilkenny.
502	Callan to Windgap School School Bus Service operates Monday to Friday and run once daily. Callan CBS – St. Nicholas National School, Windgap
503	Callan to Kilkenny School Bus 1 School Bus Service operates Monday to Friday and run once daily. Callan CBS – Lidl, Waterford Road – St. Kieran's College – IMC Cinema
504	Kilkenny to Callan School Bus 1 School Bus Service operates Monday to Friday and run once daily. Lidl, Waterford Road – IMC Cinema – AXA, Dublin Road – Callan CBS
506	Callan to Kilkenny School Bus 2 School Bus Service operates Monday to Friday and run once daily. Poulacapple National School – Callan CBS –Presentation Secondary School – St. Kieran's College – IMC Cinema – AXA, Dublin Road
507	Kilkenny to Callan School Bus 2 School Bus Service operates Monday to Friday and run once daily. IMC Cinema – AXA, Dublin Road – Lidl, Waterford Road – Callan CBS
514	Kilkenny to Callan School Bus 3 School Bus Service operates Monday to Friday and run once daily. Maxol, Dublin Road – Lidl, Waterford Road – Callan Road Roundabout – Callan CBS
817E	Grangemockler to Callan and Camphill Ring a Link operates Local Bus Service on Tuesday's and run once daily Grangemockler – Green St., Callan – KCAT Arts Centre, Callan.

Table 2.3 – Existing Bus Services/Routes

2.7 TAXI RANKS

There are a few taxi services operating in Callan. The taxis are on-call services in that they do not have a taxi rank and it is unlikely there is a sufficient demand at any single location within the town to warrant provision of a rank at present.

Local Authorities (in consultation with An Garda Síochána) are responsible for planning the location of taxi ranks, deciding on their size, hours of operation and managing their use. The need for a taxi rank or taxi parking should be kept under review in consultation with the town's taxi operators.

2.8 LOADING / DELIVERIES

There are two existing loading bays in Callan and these are located on:

- Green Street
- West Street and,
- Flaggy Lane.

Loading bay on Green Street and West Street are approximately 15m long.

2.9 LAND USE

Demand for transport arises because the various locations in which we live, work, shop and carry out business and leisure activities are distant from each other. The distance and the directness of the connections has a significant bearing on the demand for transport and on the mode of transport used. In that context we have mapped, on Figure 2.4, the key generators of traffic within the town.

It is noteworthy that:

- there are more residential estates south of the town centre; however there is one large housing estate north of the River Kings;
- employment is distributed around the town (i.e. Meat Processing, Agribusiness);
- Industrial and commercial business are generally located northwest of the town;
- retail is located within town centre and on the edge of town;
- schools are one of the largest generators of peak-time vehicular traffic in the town.

There are three schools catering for a total of 942 pupils. The locations of the schools are shown Figure 2.4:

- Bunscoil McAuley Rice, Kilkenny Rd, Callan North – 447 pupil primary school and
- St Brigid's College, Callan Co. Kilkenny – 244 pupil secondary school.
- Coláiste Éamann Rís, Kilkenny Rd, Blackstaff, Callan, – 251 pupil secondary school.

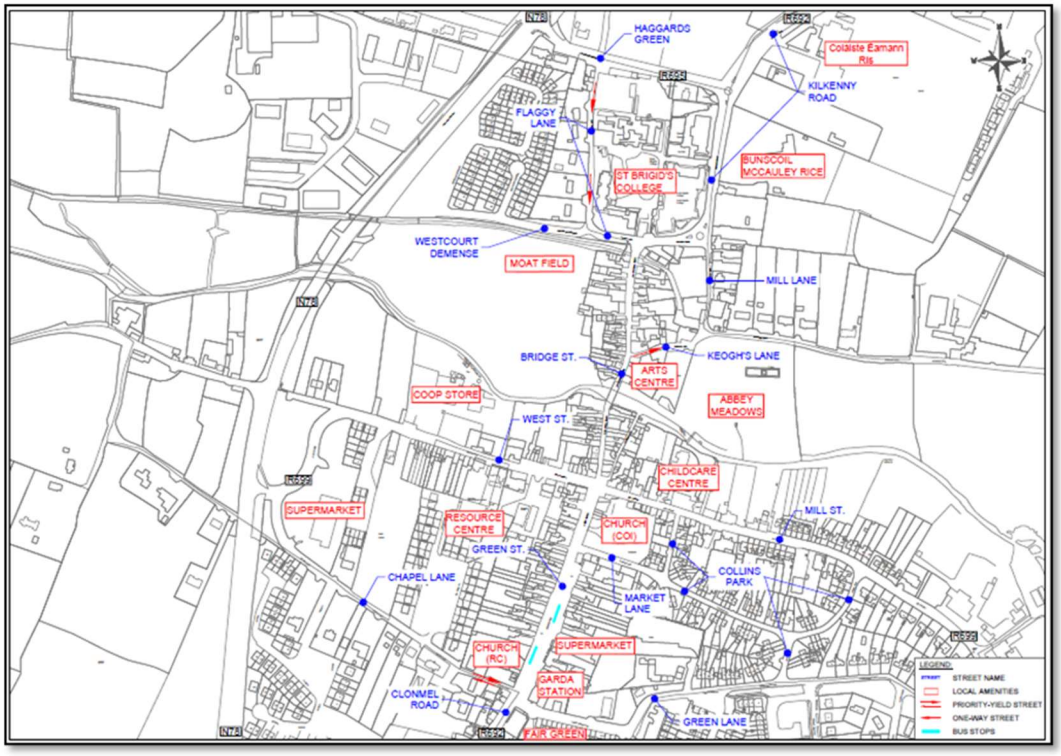

Figure 2.4 - Significant Traffic Generators

3 Policies & Plans

3.1 BACKGROUND

The rationale for compiling a mobility study can be viewed in the context of national, regional and local policies and requirements.

In undertaking this mobility management study, the following overarching policies and plans relevant to Callan and its mobility management were consulted:

- Project Ireland 2040
- Smarter Travel – A Sustainable Transport Future 2009 – 2020
- National Cycle Policy Framework 2009 – 2020,
- NTA Permeability Best Practice Guide,
- Design Manual for Urban Streets & Roads,
- Traffic Management Guidelines,
- Kilkenny County Development Plan 2014 – 2020,
- Kilkenny City and Environs Development Plan 2014 – 2020,
- Kilkenny Age Friendly County Strategy 2017 – 2022,
- Callan Town Improvement Plan 2019,
- Callan Local Area Plan 2019 – 2025.

3.2 SMARTER TRAVEL – A SUSTAINABLE TRANSPORT FUTURE 2009 – 2020

In 2009 the Government published "Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020" which has the five key goals, and these are as follows:

- improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport;
- improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks;
- minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions;
- reduce overall travel demand and commuting distances travelled by the private car;
- improve security of energy supply by reducing dependency on imported fossil fuels.

Similar to other Local Authorities, Kilkenny County Council has fully adopted this national policy and has stated that it will promote walking, cycling, public transport and other more sustainable forms of transport as an alternative to the private car, together with the development of the necessary infrastructure and promotion of the initiative contained within "Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020".

3.3 NATIONAL CYCLE POLICY FRAMEWORK 2009-2020

The backdrop to this policy is Smarter Travel - A Sustainable Transport Future. Irish transport policy seeks to reduce private car dependence from 65% to 45% for commuting by 2020. It is essential that designers actively consider reducing traffic speed and volumes for all new traffic management schemes. When determining the appropriate cycle facility required, consider the possibility of providing for cyclists in a mixed traffic environment first. The National Cycle Policy Framework, Department of Transport, summarises this approach.

It recommends that designers consider the following steps in hierarchical order:

1) Traffic reduction;
2) Traffic Calming;
3) Junction treatment and traffic management;
4) Redistribution of carriageway;
5) Cycle lanes and cycle tracks;

6) Cycleway (public roads for the exclusive use of cyclists and pedestrians.

This approach requires the cycle designer to fundamentally (re)assess the degree to which the existing traffic is a 'given'. While it is acknowledged that solutions at the upper tiers of the hierarchy will not always be viable, under no circumstances should designers dismiss them out of hand at the outset.

3.4 NTA PERMEABILITY BEST PRACTICE GUIDE

This policy guidance on how best to facilitate demand for walking and cycling in existing built-up areas. This relates to the retention and creation of linkages within the urban environment for people to walk and cycle from their homes to shops, schools, local services, places of work and public transport stops and stations. In the latter case, by providing connections to existing public transport services, access to these services will be improved and increased levels of use may be expected. This in turn supports enhancement of these public transport services through increased frequency and improved stop facilities and can also make a key difference in decisions about service retentions.

People need to access services and workplaces on a daily basis. An approach to urban development which creates choice in this regard is therefore required. This guidance note seeks to provide a basis for the delivery of this choice in existing built-up areas by promoting permeability for pedestrians and cyclists, thereby addressing the legacy of severance built-in to recent expansions of Irish towns and cities.

3.5 KILKENNY COUNTY DEVELOPMENT PLAN (CDP) 2014 – 2020

The current adopted development plan is the *Kilkenny County Development Plan (CDP) 2014 – 2020*, the review of the plan commenced in April 2018. The following six key issues to be addressed by the CDP are:

- *Economic recovery.*
- *Settlement hierarchy within the county & compliance with regional planning guidelines.*
- *Renewable energy strategy.*
- *Continued protection of the natural and built heritage.*
- *Planning frameworks for smaller towns and villages.*
- *Identification of key infrastructure for the county to bolster its development.*

In particular the CDP sets out measures that encourage redistribution and re-allocation of public road space from the private car to other forms of transport in a manner that supports, sustains and enhances the economic vitality of town centres whilst providing for a targeted modal shift, achieve reductions in carbon emissions, enhance permeability in and around the town centres, reduce traffic congestion and promote universal access arrangements to and from the town centres for the mobility/visually impaired, cyclists, pedestrians and public transport operators.

The strategic aim with the CDP for transportation is to coordinate transport and land use planning, reducing the demand for travel and the reliance on the private car in favour of public transport, cycling and walking.

Walking and Cycling Objectives

7C - To develop a walking and cycling strategy within the life of this plan.

11B - The Council will implement the provisions of the National Cycle Policy Framework where possible.

Bus Objectives

11C - To facilitate the provision of bus shelters as appropriate.

11D - To facilitate parking provision for tourist buses in towns and villages and at tourist attractions.

Road Objectives

11G - To support the implementation of TII projects.

11N - To improve substandard sections of regional roads throughout the County, in particular those most heavily trafficked, and those providing access to existing or proposed industrial, residential or commercial developments.

3.6 KILKENNY CITY AND ENVIRONS DEVELOPMENT PLAN 2014 – 2020

Kilkenny City and Environs Development Plan 2014 – 2020 reiterates the planning objectives previously stated in the County Development Plan in relation to Callan and its hinterland.

3.8 KILKENNY AGE FRIENDLY COUNTY STRATEGY 2017 – 2022

The Kilkenny Age Friendly County Strategy 2017-2022 presents an excellent opportunity to enhance the quality of life for older people in County Kilkenny including towns like Callan. This process has provided an opportunity to explore what the issues existing for older people in the county and how they can be tackled together. Kilkenny County Council have engaged with the various agencies and organisations which form the Kilkenny Age Friendly Alliance which is the driving force for implementing the Kilkenny Age Friendly County Strategy 2017-2022.

3.9 CALLAN TOWN IMPROVEMENT PLAN 2019

The Callan Town Improvement Plan sets out a vision for the town alongside the actions to achieve that vision. It addresses the key issues facing Callan. The need to address vibrancy and quality of life is recognised by all. The plan acts to mobilise all communities in Callan to share responsibility and co-operate locally and with the identified Implementing Partners (and others) to implement feasible and achievable solutions. The plan identifies solutions to key issues identified through the public consultation process.

3.10 CALLAN LOCAL AREA PLAN 2019 – 2025

The Callan Local Area Plan 2019-2025 (LAP) has been prepared in accordance with the requirements and provisions of the planning and development act, 2000 (as amended). It sets out an overall strategy for the proper planning and sustainable development of Callan in the context of the Kilkenny county development plan 2014 – 2020 (CDP) and the regional planning guidelines (RPGs) for the south east region 2010 – 2022 (as amended) together with EU requirements regarding strategic environment assessment (SEA) And Appropriate Assessment (AA). The 2019-2025 LAP has now been adopted and therefore replaces the 2009 LAP (as amended/extended). The key objectives of the 2019-2025 LAP are:

- *"Improving north south connections and pursuing a sustainable transport agenda, focusing on improving facilities for walking and cycling".*
- *"Improving public access to and management of historic and cultural assets, including but not limited to St Mary's Church, Bridge Street, The Motte Meadow, the Friary Complex, and The Callan Workhouse."*
- *"Focusing on Bridge Street, these measures will be combined with a range of traffic management proposals including additional off-street parking which will improve vitality of the town centre and Bridge Street in particular as well as supporting healthy living."*

The Callan Town Local Area Plan is a six-year plan for the town that sets out Kilkenny County Council's strategy for the proper planning and sustainable development of the Callan and its hinterlands. The Callan LAP has many objectives of direct relevance to this Mobility Management Study, the most relevant of these are listed below;

Strategic Objectives

Strategic Objective 2: It is an objective of Kilkenny County Council to support the delivery of projects submitted as funding applications to the Rural Regeneration and Development Fund.

Strategic Objective 3: It is an objective of Kilkenny County Council to support the development and implementation of the Town Centre Living – Pilot Project.

Strategic Objective 4: It is an objective of Kilkenny County Council to implement land use zoning objectives for the plan area as set out in Map 01 and Appendix 1 of the Callan Local Area Plan.

Town Centre/Retail Objectives

TCO 3: Addressing town centre dereliction and vacancy, on upper Bridge Street in particular will be supported by the preparation of the Bridge Street/Mill Street Regeneration and Mobility Management Plan.

TCO 7: To support the delivery of projects submitted under the Rural Regeneration and Development Fund, where details are compatible with the proper planning and sustainable development of the town. Projects include: Bridge Street/Mill Street Regeneration and Mobility Management Plan etc.

TCO 8: Ensuring accessibility of the retail area by a range of transport modes.

TCO 9: Prepare a car parking strategy, focusing on the management of existing on-street car parking on Green Street and the provision of additional off-street car parking in and around the town centre.

TCO 10: Create an attractive and safe town centre for pedestrians/cyclists.

TCO 11: Provide pedestrian connections along Chapel Lane, notwithstanding the restrictive width along parts of the lane.

Tourism Objectives

TO5: To support the development of linkages between historical sites within and around Callan.

Housing & Community Objectives

HC8: It is an objective of the Plan to support the actions set out in Kilkenny Age Friendly County Strategy 2017 – 2022 where practicable.

Green Infrastructure Objectives

GI1: It is an objective of Kilkenny County Council to develop a Green Infrastructure Strategy for the town, linked to its urban regeneration. The strategy will identify a youth space on existing open space within the town.

Open Spaces Objectives

OS1: It is an objective of Kilkenny County Council to improve the quality of these strategic open spaces through improved linkages and support for active uses surrounding these sites.

Transport & Movement Policy Objectives

TSDO1: It is an objective of Kilkenny County Council to carry out a Bridge Street / Mill Street Regeneration and Mobility Management Plan.

TSDO2: Safety improvements on the National Road at the junction of the N76 and R699 are required to address general safety issues and sight lines in particular in consultation with the TII.

TSDO3: Improve Pedestrian crossing facilities on the N76 at the R695 and L1020 junctions in consultation with the TII.

TSDO4: To implement the Fair Green Regeneration Scheme in line with a recently approved Part 8 application.

TSDO5: It is an objective of Kilkenny County Council to carry out a car parking strategy for the town centre as part of the mobility management plan that identifies an improved and managed approach to parking on Green Street and provide more opportunities for off street parking elsewhere in the town.

TSDO6: It is an objective of Kilkenny County Council to support the provision of pedestrian / cycle access, through provision of bridge infrastructure in order to enhance connectivity between the town and the Motte Field.

TSDO7: It is an objective of Kilkenny County Council to provide a walking and cycling route from Clodeen Lane to the car park at Mill Lane/Friary Meadow through provision of bridge infrastructure.

TSDO8: It is a long-term objective to make a road connection between the Windgap road and Mill Street.

TSDO9: It is a long-term objective to improve road connections between north and south Callan over the King's River.

TSDO10: To require all significant developments to be accompanied by Traffic and Transport Assessments (TTA) and Road Safety Audit (RSA) to be assessed in association with their cumulative impact with neighbouring developments on the road network. Regard should be had to the thresholds advised in the TII Traffic and Transport Assessment Guidelines (2014) and sub threshold TAA requirements for proposals affecting National Roads.

4 Data Review & Transport Survey

4.1 CSO DATA

Central Statistics Office (CSO) data shows that the population of Callan in 2016 was 2,475 persons. Data from 2011 show that Callan population was 2,330. The growth of the settlement has been somewhat in excess of the national average: Callan recorded growth of 6% in the period between the 2011 and 2016 censuses whereas population growth nationally was 3.8%.

Table 4.1 below (source: CSO) shows the national trip distances (to school or work) and gives an indication of the percentages of trips that may be susceptible to change to more sustainable modes of travel.

	Distance				
	<2 km	2<4 km	4<6 km	6<8 km	8+ km
Purpose	**%**	**%**	**%**	**%**	**%**
Work	17.4	24.4	27.3	33.3	38.1
Education	6.4	4.0	4.1	3.2	2.5
Shopping	29.2	22.8	21.7	19.9	17.6
To eat or drink	3.9	2.3	2.8	2.1	1.5
Visit family / friends	6.6	7.2	7.7	6.5	10.7
Entertainment / leisure / sports	8.6	10.9	9.3	9.2	9.0
Personal business	5.3	5.2	4.5	4.0	6.7
Companion / escort journey	18.5	18.9	17.7	19.0	10.7
Other	4.2	4.2	4.9	2.8	3.3
All purposes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table 4.1 - Percentage distribution of journey purpose by distance 2016: National Data

The percentage distribution of journeys by purpose nationally in 2016 is shown in Table 4.2 and Figure 4.1.

Purpose	Total (%)
Work	29.3
Education	4.0
Shopping	21.9
To eat or drink	2.4
Visit family / friends	8.6
Entertainment / leisure / sports	9.2
Personal business	5.7
Companion / escort journey	15.2
Other	3.8
All purposes	**100.0**

Table 4.2 - Percentage distribution of journeys by purpose 2016: National Data

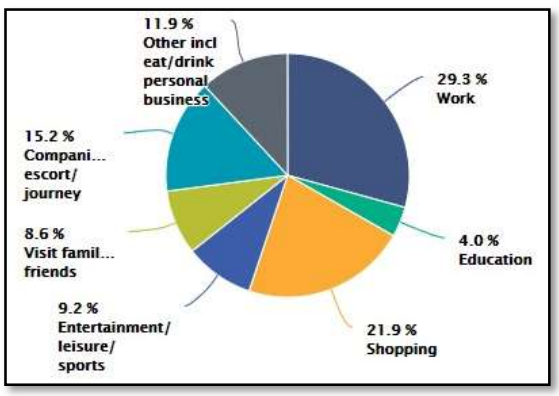

Figure 4.1 - Percentage distribution of journeys by purpose 2016: National Data

The information in the *Table 4.3* below relates to Callan and has been abstracted from the CSO database for small areas, theme *'Persons aged 5 years and over by means of travel to work, school or college, 2016'*.

Persons at Work, School or College		***Callan***			***Other towns****	
		Persons	***Percentage***		***Percentage***	
Sustainable Transport	*On foot*	347	23%	30%	11%	15%
	Bicycle	25	2%		1%	
	Bus, minibus or coach	56	4%		2%	
	Train	5	1%		1%	
Car Based Transport	*Motorcycle or scooter*	1	-	65%	0%	81%
	Motor car: Driver	633	42%		68%	
	Motor car: Passenger	276	18%		5%	
	Other (incl. Lorry or van)	80	5%		8%	
Work mainly at or from home		38	3%	3%	-	-
Not stated		33	2%	2%	4%	4%
Total		**1,436**	**100%**	**100%**	**100%**	**100%**

**Other towns are "Towns with population 1,500 – 2,999"*

Table 4.3 - Population aged 5 years and over by means of travel to work, school or college

Callan has a good number of trips on foot – 23%, while car-based trips are 65%. The results show that driving is used less as a form of transport in Callan than in other similar towns, by both workers and students which is a good starting point for the subject Study.

CSO data for Callan in relation to journey time (trip duration) is provided in Table 4.4.

Journey Time	**Persons**	
Under 15 mins	549	37%
1/4 hour - under 1/2 hour	521	36%
1/2 hour - under 3/4 hour	173	12%
3/4 hour - under 1 hour	58	4%
1 hour - under 1 1/2 hours	41	3%
1 1/2 hours and over	29	2%
Not stated	85	6%
Total	**1,456**	**100%**

Table 4.4 - Average journey times for Callan

Callan has a very high percentage of short-distance local trips – 37 to 73%. There is a relatively low percentage of long-distance commuting – 5%. This presents a significant opportunity for modal shift to active and more sustainable travel, in that it is likely to be feasible for many of those who drive short distances at present to adopt walking or cycling if current barriers to same are removed.

4.2 SITE VISITS

A series of site visits were undertaken comprising of the following observations:

- current traffic management arrangements;
- the conditions experienced by each road user type: mobility impaired individuals, pedestrians, cyclists, cars, taxi's, buses, heavy goods vehicles;
- travel behaviour of people and how they respond to the existing transport network;
- the streetscape, to evaluate the public realm;
- land-use and its influence on traffic and transport arrangements;
- junction arrangements including traffic lane definition, traffic signal arrangements, junction type, access arrangement for schools; and

- road safety issues.

4.4 SCHOOL TRAVEL MODE SURVEYS

A survey of how the pupils travel to school at present was carried out in Bunscoil McCauley Rice, St. Brigid's College and Coláiste Éamann Rís. The survey was carried in October 2020.

For St. Brigid's College response has been provided for 91% of school population, which is deemed as adequate sample. For Bunscoil McCauley Rice response has been provided for 57% of school population, while for Coláiste Éamann Rís (CBS) response has been provided for 1st Year only, therefore so results should be considered as indicative only.

The findings of the survey are summarised in the Table 4.5 below.

Mode of Travel	Bunscoil McCauley Rice	St. Brigid's College	Coláiste Éamann Rís	Average
Walk	20%	24%	12%	19%
Cycle	4%	-	-	1%
Bus	9%	29%	28%	22%
Car	67%	47%	60%	58%
School population*	447	244	251**	-
No of pupils surveyed	254	222	58	-
% of population surveyed	57%	91%	23%***	57%

* Information sourced from Schooldays.ie for 2019/2020 year
* Information sourced from Education.ie
** Information provided for 1st Year students only

Table 4.5 - Modal Split for Pupils (Percentage)

The average number of children walking to school is 19%, which is above the average 20% of overall Callan population aged 5 and over by means of travel to work, school or college (see Table 4.3). Also, bus usage is higher amongst the school population of 22% compared to only 7% (see Table 4.3) for the overall Callan area. Cycling as a mode of school transport is practically non-existent in Callan with 1% on average cycling to school. This is not surprising due to the absence of cycling facilities and road/traffic environment within the town.

4.5 ROAD COLLISIONS

Information on road collisions was taken from the Road Safety Authority website and is provided in Figure 4.4.

During the period 2005-2016 there were 28 road collisions in Callan: 25 minor, 2 serious and 1 fatal.

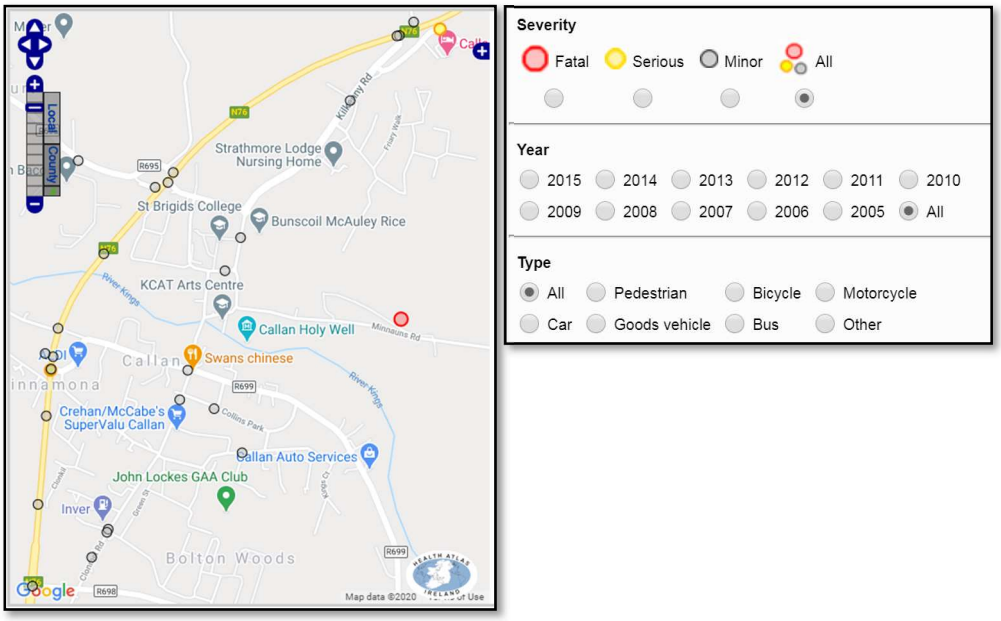

Figure 4.4 - Road collisions

When considering the road collisions involving pedestrians for the same period 2005-2016 as shown in Figure 4.5 below. The information shows that 4 of the 28 road collisions involved pedestrians – 1 Serious and 3 Minor.

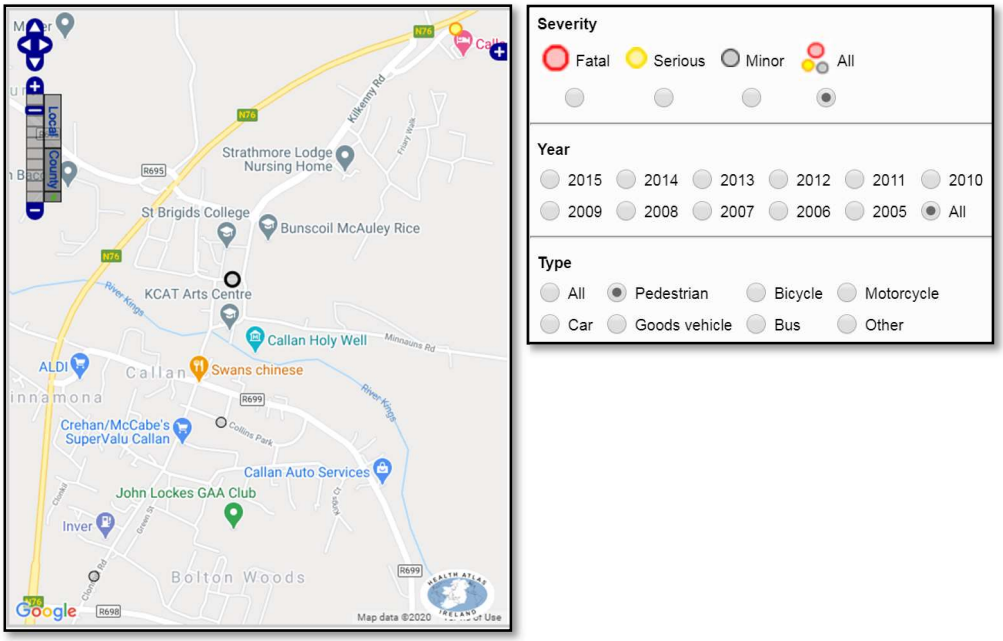

Figure 4.5 - Road collisions with Pedestrians

Ireland's overall road collisions for 2005-2016 was 70,451 incidents and 11,826 of these involved pedestrians (17%). Callan's overall road collisions for 2005-2016 was 28 incidents and 4 of these involved pedestrians (14%). Again, this is not surprising due to the lack of continuous footways, very narrow footway, narrows streets, shortage of accessible pedestrian crossing facilities and road/traffic environment within the town.

We note that there was also one recorded minor cyclist collision within the study area for the 2005-2016 period which might be due to low cycling numbers and capacity of the town in general.

4.6 PUBLIC REALM

Urban design is the process of shaping the public realm for life in our towns. One of the key issues to address is how the public realm works together with the built form and transportation infrastructure.

The urban realm of highest quality in Callan is in the area of Green Street, The Fair Green and Moat Lane. Extending a high-quality urban realm onto the other town streets in addition to the town centre is highly recommended such as Bridge Street and Keogh's Lane.

Some simple standard design measures that can achieve an appealing public realm are:

- wide, even footpaths with public seating on the sunnier side of the street;
- well-designed pedestrian crossing points where pedestrian priority is clear by design;
- removal or undergrounding, as appropriate, of unsightly utilities;
- simple clear signage;
- increased permeability for pedestrians and cyclists;
- increased accessibility to specific points of interest.

The intention is to create a comfortable and stimulating public realm that encourages social interaction through detailed attention to the structure of space and the elements it contains.

5 Public Consultation

5.1 INTRODUCTION

The public consultation that occurred during the compilation of the Study entailed the following key elements:

- meetings and discussion with Local Authority elected representative, engineers and planners;
- liaison with key stakeholders;
- one three-week online public consultation.

5.2 PUBLIC CONSULTATION

An open public consultation was held online, via www.consult.kilkenny.ie/en/consultation/, due to the prevailing public health travel restrictions between the 11th of December 2020 and the 4th of January 2021. This afforded the public an opportunity to make submissions and suggestions relating to the deficiencies and perceived problems associated with transportation and general mobility in Callan. In addition, the public were given an opportunity to comment on the measures suggested in the Study for further consideration by Kilkenny County Council.

Within the online public consultation platform the public were facilitated to make written submissions directly to Kilkenny County Council expressing their views on the transportation issues in Callan and suggested measures to improve its connectivity, permeability and mobility. Consequently, twenty-eight submissions were received during the public submission period, including submissions from the town residents and business owners.

5.3 ISSUES RAISED IN THE PUBLIC CONSULTATION

Table 5.1 contains an overall summary of the issues raised by the various stakeholders who made written submissions to Kilkenny County Council during the consultation period of the Study.

Location/Concern	Description	Identified by
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety, security, quality of life, play/amenity space and property value. Increased maintenance costs/fees.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety, security and play/amenity space. Potential increase in anti-social behaviour.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety and security.	Submission, Clonkil Resident
Bridge Street, Suggested Permanent One-waying of Bridge Street	Difficulties with deliveries e.g. oil. No residential parking provision. Proliferation of bollards on the Street.	Submission, Bridge Street Resident
Bridge Street, Clonkil Residential Development, Chapel Lane, Mill St, West St.	Need for proposed pedestrian crossings, footway/cycleway links, one-waying of street, bus stops and shared spaces queried on certain streets.	Submission, General Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety and security.	Submission, Clonkil Resident
Minnauns Road Suggested Footway/Cycleway Links	Negative impact on operation of existing farms along the road. Potential biosecurity and general security hazard. Minnauns Road is too narrow and busy to support	Submission, Minnauns Road Resident

Location/Concern	Description	Identified by
	additional footways/cycleways. Mill Lane is too narrow with a blind steep hill to support a dedicated footway/ cycleway.	
Mill Lane Suggested New Footway/Cycleway facilities	The possibility of making a walkway along the old Mill Race should be considered and explored. The unfinished existing footpath on Mill Lane at the former Bacon Factory is road safety issue. The pinch point at the intersection of Mill Lane and Minnauns Road is also a concern due to narrowness for pedestrians and vehicles to pass each other safely.	Submission, West Street Resident & Mill Lane Property Owner
Moat Field to West St. & Bridge St. Proposed off-road combined footway/cycleway link	Future engagement requested re this proposal as same affects the business owner's property.	Submission, West Street Business Owner
Bridge Street, Suggested Permanent One-waying of Bridge Street	Reduced access, safety and property value.	Submission, Bridge Street Business Owner
Minnauns Road Suggested new off-road Footway/Cycleway Links	Reduced safety, security and property rights. Potential for anti-social behaviour and illegal dumping. No perceived benefits of the proposal.	Submission, Minnauns Road Resident
Mainly Bridge Street & Town in General Proposals	No residential parking provision on Bridge St. and disagreement with parking assessment. Flooding issues on Clodeen Lane & Bridge St. raised. Requested reduction of town and bypass speed limits. Disappointed with lack of public consultation re the mobility study.	Submission, Bridge Street Resident, Business Owner & Town Team Secretary
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced safety and security.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy and play/amenity space.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety and security.	Submission, Clonkil Resident
Minnauns Road Suggested Footway/Cycleway Links	Negative impact on operation of the farm. Potential biosecurity and general security hazard. Minnauns Road is too narrow and busy to support additional footways/cycleways.	Submission, Minnauns Road Farm Owner/Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced safety and security.	Submission, General Resident
Friary/Mill Lane to Abbey Meadow Suggested Footway/Cycleway Links.	Generally supportive of the Study. Some observation re existing/proposed pedestrian/cyclists linkages to the Abbey Meadow (i.e. public right of way, bridge arrangements and planning considerations).	Submission, General Resident

Location/Concern	Description	Identified by
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced safety and security.	Submission, Clonkil Resident
Minnauns Road & Mill Lane Suggested Footway/Cycleway Links	Negative impact on operation of the farm. Potential biosecurity hazard. Mill Lane is too narrow with a blind steep hill to support a dedicated cycleway.	Submission, Minnauns Road Farm Owner/Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety, security and play/amenity space. Potential increase in anti-social behaviour. The estate has not been taken in charge by the Local Authority.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety and security.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety, security and play/amenity space. Potential increase in anti-social behaviour.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety and security.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety, security and play/amenity space. Potential increase in anti-social behaviour. Disappointed the draft study was published over the Christmas time.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy, safety, security and play/amenity space. Potential increase in anti-social behaviour. Disappointed the draft study was published over the Christmas time.	Submission, Clonkil Resident
Clonkil Residential Development, Suggested Footway/Cycleway Links	Reduced privacy and security.	Submission, Clonkil Resident
Secondary School Transport, Access & Parking. Pedestrian/cyclist bridges over the King's river to the Moat Field and the Abbey Meadow	Generally in supportive of Study. Proposed suggestions re school parking provision particularly with the proposed amalgamation of both secondary schools and the potential for traffic/parking congestion as a result of same. Noted difficulties of land ownership with implementing the Study's proposals.	Submission, Town Team & Community Network Member

Table 5.1 – Summary of Public Consultation Feedback

5.4 OVERVIEW OF THE EXISTING TRANSPORT SYSTEM

In general, the qualities of a transport system that would be desirable for a town such as Callan are as follows:

- the absence of congestion and queues;
- sustainable travel (walking, cycling and public transport) as the main travel mode;
- consistent and reliable urban travel speeds;
- sufficient bike parking, car parking, accessible parking, public transport stops and goods loading areas;
- a high level of transport safety; a low level of collision occurrence and low level of collision severity;
- a public realm of high quality; well-connected streetscapes providing enjoyment to all users.

In overall terms, Callan does not suffer from a high level of transport severance; the N76 to the west of the town is a severance line, but it is away from the town centre and its impact on movement is not very significant. However, Kings River is medium in size and is located in the town centre though it does constrain the symmetric development of the town. The Moat Field and Callan Friary has caused the northern development of the town to be separated from the town centre itself where more recent developments being situated even further along the R692 Kilkenny Road and further north of the R699 West-Mill Street.

The growth of the street network has been quasi gridiron in nature, mainly south of the river, with two-way traffic occurring on the majority of streets despite many being too narrow to safely facilitate same (i.e. Bridge Street, Mill Lane, Chapel Lane etc.). The presence of the western bypass is a major relief to town centre traffic and congestion.

6 Assessment & Suggestions for Consideration

6.1 FOOTWAYS & CYCLEWAYS

6.1.1 Existing Situation

The overall permeability and connectivity of the pedestrian and cycle network in Callan is poor. This is a result of the historic fabric and natural topography of the town and its location in a river valley. It has consequently led to the fragmentation of Callan, predominantly north and south of the Kings River. The latter coupled with significant traffic congestion, narrow streets and discontinuous/narrow footways within the town centre and adjacent streets acts a real barrier to walking and cycling alike for even the shortest of journeys in Callan.

6.1.2 Challenges & Opportunities

Opportunities for permeability improvements have the potential to transform existing neighbourhoods into permeable ones, where people can walk or cycle safely and conveniently to schools, community facilities and the town centre. New developments designed as permeable and connected areas with pedestrian and cyclist linkages being an important consideration: put simply, connecting and strengthening existing and proposed communities through sustainable linkages.

Consequently, the existing town structure with its key trip generators were analysed to identify potential opportunities for increased non-motorised permeability with a view to establishing a comprehensive pedestrian/cyclist network for Callan. This sustainable transport network would be the key to unlocking Callan's fragmented nature and socio-economic potential.

6.1.3 Suggested Projects & Initiatives to be Considered

The Council is already committed to endeavouring to support projects and initiatives relating to footways and cycleways. All potential works should be subject to a feasibility assessment to explore potential options in terms of design, site selection, alternatives, funding options etc. In addition to this the feasibility assessment should ensure compliance with all relevant policies and objectives within the planning hierarchy, specifically the Callan LAP and Kilkenny CDP (detailed above). This includes compliance with natural heritage and biodiversity objectives NHB1 to 6 and development management standards NHB-DM1 to 8 of the Callan LAP.

The following is a list of the potential footway & cycleway mobility improvement schemes considered as part of this Study that could be implemented within Callan in the short, medium and long term to reduce current and future congestion within the town in addition to improving its permeability and promoting more sustainable travel patterns in addition to enhancing existing mobility infrastructure.

6.1.3.1 Explore the feasibility of supporting the construction of a controlled pedestrian crossing on the east and the west side (i.e. Mill Street and West Street) of the R692/R699 Junction.

6.1.3.2 Explore the feasibility of supporting the construction of new footways along Flaggy Lane inclusive of the following:

a) A northern footway from its junction with the R692 Kilkenny Road to its junction with Westcourt Demesne.
b) An uncontrolled pedestrian across Flaggy Lane immediately north of its junction with Westcourt Demesne.
c) A western combined footway/cycleway along Flaggy Lane from its junction with Westcourt Demesne to approx. 38m south of its junction with Haggards Green.
d) A raised shared surface at the Flaggy Lane/Haggards Green Junction.

6.1.3.3 Explore the feasibility of supporting the construction of a new eastern combined footway/cycleway along Mill Lane from the R692 Kilkenny Road Roundabout to approximately 41m north of its junction with Minnauns Road including an uncontrolled pedestrian crossing immediately south of the Kilkenny Road Roundabout.

6.1.3.4 Explore the feasibility of supporting the upgrading/conversion of Bridge Street to an at grade shared surface from its junction with Moat Lane to the R692/R699 Junction, Keogh's Lane and its junction with Mill Lane & Minnauns Road including the installation of the following uncontrolled pedestrian crossing:

a) Bridge Street, south of its junction with Flaggy Lane/Kilkenny Road
b) Bridge Street, north of its junction with Moat Lane
c) Bridge Street, immediately north and south of the river bridge
d) Bridge Street, pinch point between the river bridge & the R692/R699 Junction.
e) Bridge Street, north of its junction with the R699 (i.e. Mill & West Street)
f) Keogh's Lane, east of its junction with Bridge Street.

6.1.3.5 Explore the feasibility of supporting the construction of a new southern footway on the Kells Road from the Collaire Court Residential Development to the R692 Kilkenny Rd.

6.1.3.6 Explore the feasibility of supporting the construction of a new northern and southern combined footway/cycleway on Minnauns Road from the 50 km/h speed limit sign to approximately 230m east of same including the installation of an uncontrolled pedestrian crossing into the Abbey Meadows connecting with adjacent existing boundary footway.

6.1.3.7 Explore the feasibility of supporting the construction of two east/west and north/south new combined off-road footway & cycleway links from the Kiln Lane Residential Development to the R692 Kilkenny Road and Minnauns Road.

6.1.3.8 Explore the feasibility of supporting the installation of a northbound and southbound on carriageway cycle lane from the Westcourt Demesne Residential Development along Flaggy Lane (South) and the R692 Kilkenny Road to the N72/R692 Junction including the provision a new bicycle parking stand at the following locations:

a) St Brigid's College, Bunscoil McCauley Rice, Coláiste Éamann Rís and
b) Callan Primary Care Centre

6.1.3.9 Explore the feasibility of supporting the installation of an eastbound and westbound on carriageway cycle lane along R692 Haggards Green from the N72/R695 Junction to the R692/R695 Junction.

6.1.3.10 Explore the feasibility of supporting the installation of a southeast bound and northwest bound on carriageway cycle lane along Friary Walk from its junction with R692 Kilkenny Road to its junction with Kiln Lane.

6.1.3.11 Explore the feasibility of supporting the construction of a new off-road combined footway/cycleway recreational loops around the Moat Field in addition to recreational links across the Abbey Meadows and along the northern bank of the Kings River.

6.1.3.12 Explore the feasibility of supporting the upgrade of the existing eastern footway at the southern end of the R692 Clonmel Road and the existing informal combined footway/cycleway from Coolagh Road to Green Lane including the construction of a combined footway/cycleway link from the latter to the Clonmel Road and the provision of new bicycle stand adjacent to Callan Library.

6.1.3.13 Explore the feasibility of supporting the construction of uncontrolled pedestrian crossings at the following locations:

a) Coolagh Road, just east of its junction with the R692 Clonmel Road
b) Coolagh Road, just west of its junction with the Roselawn Residential Development Access.
c) Parkview Road, just north of its junction with the Roselawn Residential Development Access.
d) Vehicle Access Road east and parallel to the Clonmel Road, just north of its junction with Coolagh Road.
e) R698, just west of its junction with the R692.

6.1.3.14 Explore the feasibility of supporting the construction of a new northern footway on the R698 and a new south-eastern footway on the R698/L5062 including the joining of the existing southern footways on Coolagh Road and Roselawn Road and the construction of an uncontrolled pedestrian crossing just east of the R692/R698 Junction and approximately 145m southwest of the R692/R698 Junction.

6.1.3.15 Explore the feasibility of supporting the upgrade of the existing N76 narrow footways to standard width combined footways/cycleways over the entire length of the existing Callan Bypass.

6.1.3.16 Explore the feasibility of supporting the construction of a southern footway along Chapel Lane from Clermont Lane to its junction with the R699 West Street including the provision of an uncontrolled pedestrian crossing approximately 37m west of the Clonkil Residential Development Access.

6.1.3.17 Explore the feasibility of supporting the construction of new pedestrian/cyclist links to connect The Meadows Residential Development to the West Street and Green Street (North) via Keating's Lane including a raised shared surface at its intersection with West Street.

6.1.3.18 Explore the feasibility of supporting the construction of new pedestrian/cyclist links to connect The Moat Field to West Street and Bridge Street including a new pedestrian/cyclist bridge over the Kings River.

6.1.3.19 Explore the feasibility of supporting the construction of new pedestrian/cyclist links along the southern bank of the Kings River to connect Bridge Street (South) and Clodeen Lane to the Abbey Meadows including the upgrade of Clodeen Lane to a combined footway/cycleway route and the existing eastern pedestrian/cyclist bridge over the Kings River.

6.1.3.20 Explore the feasibility of supporting the construction of a new northeast footway along Mill Street from No. 337A to the Callan Wastewater Treatment Plant including the construction of a shared raised surface at the Green Lane/Mill Street Junction.

6.1.3.21 Explore the feasibility of supporting the construction of 2 no. new sections of southern footway along Green Lane to connect isolated sections of the existing footway including the installation of a raised shared surface between the Supervalu Access Road and the Fair Green pedestrian/cyclist access.

6.1.3.22 Explore the feasibility, in consultation with the relevant landowner, of supporting the construction of new perimeter footways to the Supervalu Carpark and Access Road including the following:

a) A new pedestrian/cyclist to connect Green Lane to Market Lane/Collins Park
b) A shared raised surface at the latter links intersection with the Supervalu Access Road and just east of the Access Roads intersection with Green Street.
c) Two uncontrolled crossing at both entrances to the existing carpark.

6.1.3.23 Explore the feasibility of supporting the construction of a new eastern combined footway & cycleway from the Fair Green to Coolagh Road includes footway links to the Parkview Residential Development and the west side of the Fair Green.

6.1.3.24 Explore the feasibility of supporting the construction of new pedestrian/cyclist link to connect the Fair Green with the Bolton Green Residential Development via John Lockes GAA Club.

6.1.3.25 Explore the feasibility of supporting the construction a raised shared surface at the junction of Market Lane and Green Street, Collins Park (West) and Mill Street and Collins Park (South) and Green Lane including and an at grade shared surface to improve the pedestrian, cyclist and parking environment over the entire length of Market Lane and Collins Park.

6.1.3.26 Explore the feasibility of supporting the installation of an eastbound on carriageway cycle lane along the R699 West Street from its junction with the N76 and along Mill Street to its junction with Green Lane including the provision a new bicycle parking stand at Lidl, Bridge Street/Clodeen Lane and the Droichead Childcare Centre.

6.1.3.27 Explore the feasibility of supporting the installation of a westbound on carriageway cycle lane along Green Lane from its junction with Mill Street to its junction with Green Street including the provision a new bicycle stand and a raised shared surface at its junction with Green Street.

6.1.3.28 Explore the feasibility of supporting the installation of a westbound on carriageway cycle lane along Chapel Lane from its junction with Green Street to its junction with the N76 including the provision a raised shared surface at the existing pinch-point just east of Clermont Lane.

6.1.3.29 Explore the feasibility of supporting the installation of a northbound and southbound on carriageway cycle lane along The Meadows Residential Development Access Road to connect the proposed eastbound West Street cycle lane with the westbound Chapel Lane cycle lane amongst other proposed pedestrian/cyclist links.

6.1.3.30 Explore the feasibility of supporting the installation of a northbound and southbound on carriageway cycle lane along Supervalu Access Road to connect the proposed eastbound Mill Street cycle lane with the westbound Green Lane cycle lane amongst other proposed pedestrian/cyclist links including the provision a new bicycle stand.

6.1.3.31 Explore the feasibility of supporting the installation of a westbound on carriageway cycle lane loop off Green Lane (East) to connect the Kings Court and Bolton Green Residential Developments amongst other proposed pedestrian/cyclist links.

6.1.3.32 Explore the feasibility of supporting the installation of a westbound on carriageway cycle lane loop off Green Lane (West) through the Fair Green via the GAA Club, Soccer Club and Playground including the provision three new bicycle stand at latter locations.

6.1.3.33 Explore the feasibility of supporting the installation of an eastbound and westbound on carriageway cycle lane along the R698 from the N72/R698 Junction to the intersection of the existing off-road footway/cycleway and the R698.

6.1.3.34 Explore the feasibility of supporting the upgrade of the existing southern footway to a combined footway/cycleway along Coolagh Road from the Callan Dental Clinic to its junction with the R698 and the provision of new bicycle stand adjacent to Callan Dental.

6.1.3.35 All new pedestrian/cyclist facilities should be compliant with the accessibility requirements for persons with disabilities and impaired mobility. Existing pedestrian facilities should be subject to accessibility audit in addition to the walkability audit carried out 2018 as part of the Callan Town Improvement Plan 2019. It is suggested that recommendations from both audits are implemented as a matter of urgency.

Figure 6.1 shows the suggested footway network for consideration, building on and upgrading the existing footway network within Callan including new footways, improvements to existing footways, signage, courtesy pedestrian crossings and new raised shared spaces at junction points.

Figure 6.2 shows the complete proposed cycleway network building on and upgrading the existing footway and road network within Callan including new cycleways, improvements to existing footways, signage, new raised or at grade shared spaces at junction points and bicycle parking facilities.

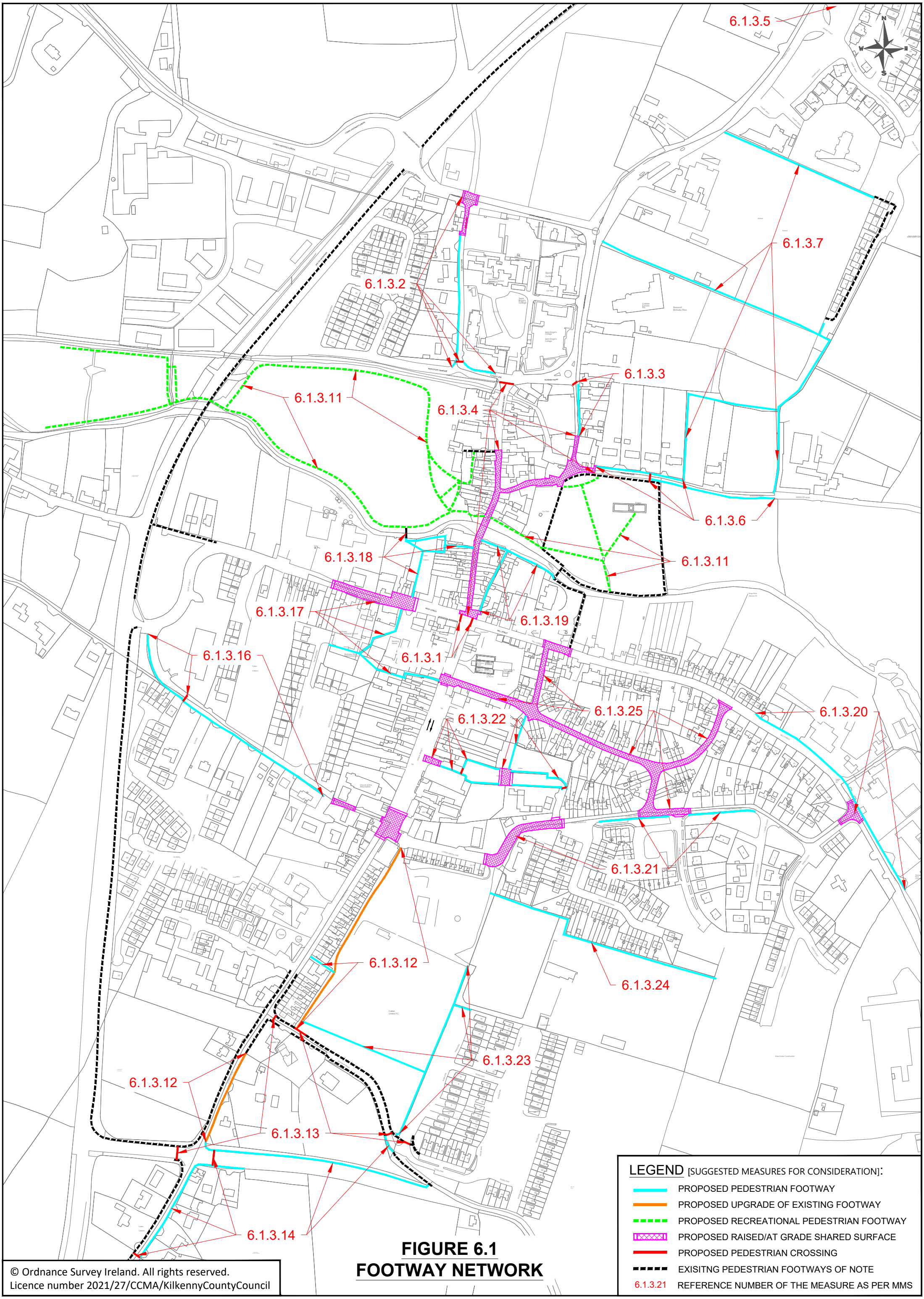

FIGURE 6.1
FOOTWAY NETWORK

6.1.3.15
6.1.3.8
6.1.3.10
6.1.3.9
6.1.3.8
6.1.3.7
6.1.3.2
6.1.3.8
6.1.3.11
6.1.3.26
6.1.3.6
6.1.3.18
6.1.3.11
6.1.3.17
6.1.3.19
6.1.3.26
6.1.3.28
6.1.3.29
6.1.3.22
6.1.3.25
6.1.3.30
6.1.3.27
6.1.3.27
6.1.3.32
6.1.3.12
6.1.3.24
6.1.3.34
6.1.3.31
6.1.3.23
6.1.3.15
6.1.3.33

FIGURE 6.2
CYCLEWAY NETWORK

LEGEND [SUGGESTED MEASURES FOR CONSIDERATION]:

- PROPOSED OFF-ROAD CYCLE FACILITY (NEW ROUTES)
- PROPOSED ON-ROAD ONE-WAY CYCLE FACILITY
- PROPOSED OFF-ROAD CYCLE FACILITY (WITHIN EXISTING ROUTES)
- PROPOSED RECREATIONAL CYCLE ROUTE
- PROPOSED RAISED/AT-GRADE SHARED SURFACE
- EXISITNG CYCLEWAYS
- EBP PBP — EXISTING BICYCLE PARKING/PROPOSED BICYCLE PARKING
- 6.1.3.21 — REFERENCE NUMBER OF THE MEASURE AS PER MMS

6.2 BUS ROUTES & STOPS

6.2.1 Existing Situation

There are only two existing bus stops within Callan that serve the two main bus routes/services which pass through the town. Table 2.3 above provides a summary of all existing bus services.

The northbound bus stop is situated at the War Memorial on Green Street while the southern bus stop is located at the junction to the Supervalu carpark on Green Street. Traffic congestion and disruption does not appear to be an issue on Green Street during passenger pick-up and drop-off.

However, informal parking does occur in the existing southbound bus stop bay. As Callan does not have a Traffic Warden this informal practice cannot be effectively controlled resulting in the potential displacement of stopping buses and the restriction of the visibility of egressing vehicles from the adjacent supermarket access.

6.2.2 Suggestions for Potential Improvements to be Considered

To further promote and encourage public transport use for longer intra county journeys and improve rural/urban connectivity with and within Callan the extension of the existing local 499 South Kilkenny to Kilkenny City “Ring A Link” bus service via Callan should be investigated to serve the aforementioned stops in addition to potentially two other new bus stops within Callan which are as follows:

1) Moat Lane Access, Bridge Street – Single Stop,
2) Callan Primary Care Centre, Kilkenny Road – Dual Stop,

It is suggested that all proposed bus stops should have age friendly bus shelters and improved footway connections to same utilising shared spaces where existing road and footway widths are currently constrained.

6.2.3 Suggested Projects and Initiatives to be Considered

The Council is already committed to endeavouring to support projects and initiatives relating to bus routes and stops. All potential works should be subject to a feasibility assessment to explore potential options in terms of design, site selection, alternatives, funding options etc. In addition to this the feasibility assessment should ensure compliance with all relevant policies and objectives within the planning hierarchy, specifically the Callan LAP and Kilkenny CDP (detailed above). This includes compliance with natural heritage and biodiversity objectives NHB1 to 6 and development management standards NHB-DM1 to 8 of the Callan LAP.

The following is a list of all the potential bus routes & stops mobility improvement schemes considered as part of this Study that could be implemented within Callan in the short, medium and long term to reduce current and future congestion within the town in addition to improving its permeability and promoting more sustainable travel patterns in addition to enhancing existing mobility infrastructure.

6.2.3.1 Explore the feasibility of supporting the upgrade of the existing Green Street bus stops to super bus stops including age friendly bus shelters incorporating a real time passenger information display. Coupled with exploring the potential relocation of the existing northbound bus stop to opposite Callan Garda Station to facilitate the upgrade of this stop and installation of measures to prevent vehicles parking within the bus cage of the southbound bus stop.

6.2.3.2 A feasibility study into the potential extension of the existing 499 South Kilkenny to Kilkenny City “Ring A Link” bus service via Callan should be commissioned as a first step in determining the viability of same.

Figure 6.3 shows the suggested new / relocated bus stops for consideration and existing/potential bus routes within Callan.

6.2.3.2

6.2.3.2

6.2.3.1

6.2.3.2

FIGURE 6.3
BUS NETWORK

LEGEND:

- EX. CLONMEL-KILKENNY-DUBLIN CITY/AIRPORT BUS ROUTE
- EX. CALLAN-BALLINGARY-KILKENNY RING A LINK BUS ROUTE
- EX. GRANGEMOCKLER-CALLAN RING A LINK BUS ROUTE
- EX. KILKENNY-CALLAN SCHOOL BUS ROUTES
- EX. WINDGAP-CALLAN SCHOOL BUS ROUTE
- EBS — EX. BUS STOPS

SUGGESTED MEASURES FOR CONSIDERATION

- PROPOSED EXTENSION OF EX. RING A LINK BUS ROUTE
- PBS — PROPOSED BUS STOP LOCATIONS

6.3 SCHOOLS

6.3.1 Existing Situation

Significant trip generators in Callan, particularly in the AM and PM peak hours is Bunscoil McCauley Rice Primary School, St. Brigid's College Secondary School and Coláiste Éamann Rís Secondary School with a total combined population of approximately 1003, consisting of 942 students and 61 staff. All three schools are situated in very close proximity to each other on the R692 Kilkenny Road in the northern part of town centre. Consequently, congestion is experienced on the lower half of the Kilkenny Road due to the concentration of school traffic in this area during the AM and PM peaks.

6.3.3 Suggested Projects & Initiatives to be Considered

The Council is already committed to supporting certain projects and initiatives relating to the local schools. All potential works should be subject to a feasibility assessment to explore potential options in terms of design, site selection, alternatives, funding options etc. In addition to this the feasibility assessment should ensure compliance with all relevant policies and objectives within the planning hierarchy, specifically the Callan LAP and Kilkenny CDP (detailed above). This includes compliance with natural heritage and biodiversity objectives NHB1 to 6 and development management standards NHB-DM1 to 8 of the Callan LAP.

The following is a list of all the potential school access traffic mobility improvement schemes considered as part of this Study that could be implemented within Callan in the short, medium and long term to reduce current and future congestion within the town in addition to improving its permeability and promoting more sustainable travel patterns in addition to enhancing existing mobility infrastructure.

6.3.3.1 Explore the feasibility of introducing traffic management measures (i.e. flexible bollards and signage) to ensure left-in and left-out access to Bunscoil McCauley Rice.

6.3.3.2 Request that a Mobility Management Plan be produced by Bunscoil McCauley Rice Primary School, St. Brigid's College Secondary School and Coláiste Éamann Rís Secondary School under the travel theme of An Taisce's Green Schools Programme/Safer Routes to School Programme/Subject School`s own programme. It is noted the amalgamation of St. Brigid's College and Coláiste Éamann Rís Secondary Schools has commenced and will be concluded over the next couple of years. This will provide a further opportunity to consolidate both school current travel patterns and promote more sustainable travel patterns in Coláiste Abhainn Rí, the amalgamated school, which is be mostly likely located on the site of St. Brigid's College. The later should form one of the key objectives of the amalgamation plan if not already included in same.

6.4 TOWN CENTRE

6.4.1 Existing Situation

A previously stated, Callan is linked to other neighbouring towns and villages by an approximate gridiron regional road network comprising of the R692, R695, R698 and R699 which all intersect and branch off the N76 national road just west of the town centre. These road corridors are significant connectivity, travel and distribution arteries for Callan and the greater county. As a result, they are highly trafficked routes.

The N76 national road is located immediately west of the town and forms the Callan Bypass which was completed in May 1997. As part of the Callan Bypass four full access junction were provided at the intersection of the above-mentioned regional roads. Two of which serve the north of the town centre and the other two serve the south of the town centre. The bypass continues to remove large volumes of through-traffic on the Kilkenny-Clonmel/Carrick-on-Suir route, particularly heavy goods vehicles, from Callan daily.

That said, regional and local traffic is a different issue. Southbound and eastbound traffic appear to exit the Callan Bypass too early at the two northern junctions and use Bridge Street to access Callan town centre and beyond instead of continuing along the N76 and exiting at the appropriate southern junction. Consequently, Bridge Street has become a rat run for local and regional traffic which is not desirable or safe from traffic management and pedestrian environment perspectives. In short, Bridge Street is too narrow to support normal two-way traffic not to mention faster AM & PM dominant rat-running traffic along same. Consequently, queuing and turbulent traffic flows occur throughout the day and daily, not just the peak hours, on this link street due to the need for an opposing vehicle to yield to oncoming traffic particularly between the Moat Lane and the R692/R699 Green/West/Mill Junction.

In addition, the flow of the traffic through the existing R692/R699 Junction is hampered by the current priority of the approach arms. The latter causes driver hesitation, poor lane discipline, opposing manoeuvres which ultimately leads to unnecessary queuing and turbulent traffic flows throughout the day and daily not just the peak hours. Hence, the unnecessary traffic congestion.

6.4.2 Suggestions for Potential Improvements to be Considered

The following improvements are suggested for consideration to alleviate the current congestion and produce a freer flowing traffic system within the town core:

1) Change the priority of the R699/R692 crossroad junction (i.e. the intersection of Bridge Street, Green Street, West Street and Mill Street).
2) Introduce priority control on the Kilkenny Road approach to the Bridge Street/Flaggy Lane/Kilkenny Road Junction.
3) Remove conflicting two-way traffic from the following narrow streets:
    a) Bridge Street, Mill Lane, Chapel Lane and New Market Lane
4) In addition to the latter and to improve circulatory traffic flow in the northern part of the town centre Flaggy Lane's existing one-way traffic flow should be reversed from southbound to northbound.

6.4.3 Suggested Projects & Initiatives to be Considered

The council will endeavour to support projects and initiatives relating to the Town Centre. All potential works should be subject to a feasibility assessment to explore potential options in terms of design, site selection, alternatives, funding options etc. In addition to this the feasibility assessment should ensure compliance with all relevant policies and objectives within the planning hierarchy, specifically the Callan LAP and Kilkenny CDP (detailed above). This includes compliance with natural heritage and biodiversity objectives NHB1 to 6 and development management standards NHB-DM1 to 8 of the Callan LAP.

The following is a list of all the potential town centre traffic mobility improvement schemes considered as part of this Study that could be implemented within Callan in the short, medium and long term to reduce current and future congestion within the town in addition to improving its permeability and promoting more sustainable travel patterns in addition to enhancing existing mobility infrastructure.

6.4.3.1 Explore the feasibility of reversing the priority of the R699/R692 crossroad junction so that the R699 has priority over Green and Bridge Street.

6.4.3.2 To facilitate the latter, explore the feasibility of making Mill Lane a priority-yield street.

6.4.3.3 Explore the feasibility of making Bridge Street a traffic calmed one-way northbound only street including the introduction of priority control on the Kilkenny Road approach to the Bridge Street/Flaggy Lane/Kilkenny Road Junction.

6.4.3.4 Explore the feasibility of reversing the existing one-way traffic flow of Flaggy Lane from southbound to northbound from the Westcourt Demesne Residential Development to R695 Haggards Lane.

6.4.3.5 Explore the feasibility of making Chapel Lane a one-way westbound bound only street from the R692 Green Street to the Clonkil Residential Development's Access.

6.4.3.6 Explore the feasibility of making Market Lane a one-way eastbound bound only street from the R692 Green Street to Collins Park.

6.5 PARKING

6.5.1 Existing situation

Generally, Callan is well served with public parking having 4 no. existing main public car parks in the town centre (i.e. The Fair Green, Chapel Lane, Supervalu & KCATS Arts Centre) in addition to significant lengths of on-street parking along Green Street, West Street and Mill Street including accessibility spaces. Consequently, there does not appear to be an acute demand for on-street parking in the town core which is common issue in other district towns. All other carparks and on-street parking were adequately occupied/utilised. Parking is generally not considered to be an issue within the town centre the only exception being Bridge Street. Due to its narrow cross section it can just provide a 3m wide carriageway flanked by minimal width footways and so there is a notable absence of residential/commercial on-street parking as previously mentioned. In addition, the identification off the existing car parks location is poor particularly for visitors to the town and the town could benefit from better signage of same.

6.5.3 Suggested Projects & Initiatives to be Considered

The Council are already committed to supporting certain projects and initiatives relating to parking. All potential works should be subject to a feasibility assessment to explore potential options in terms of design, site selection, alternatives, funding options etc. In addition to this the feasibility assessment should ensure compliance with all relevant policies and objectives within the planning hierarchy, specifically the Callan LAP and Kilkenny CDP (detailed above). This includes compliance with natural heritage and biodiversity objectives NHB1 to 6 and development management standards NHB-DM1 to 8 of the Callan LAP.

The following is a list of all the potential parking mobility improvement schemes considered as part of this Study that could be implemented within Callan in the short, medium and long term to reduce current and future congestion within the town in addition to improving its permeability and promoting more sustainable travel patterns in addition to enhancing existing mobility infrastructure.

6.5.3.1 Explore the feasibility of installing road markings including designated mobility impaired and age friendly car parking spaces in the Chapel Lane Carpark.

6.5.3.2 Explore the feasibility of installing a new signage scheme detailing all parking facilities and public transport options within the town.

6.5.3.3 Explore the feasibility of installing an electric car charging station in the Fair Green and KCATS Arts Centre Carparks like Chapel Lane Carpark.

6.5.3.4 Explore the feasibility of providing off-street parking, in consultation with the relevant landowner, for the residents and businesses on Bridge Street by utilising existing private/commercial car parking facilities west of Bridge Street including pedestrian and cyclist linkages to/from Bridge Street.

6.7 PHASING OF IMPLEMENTATION / ASSESSMENT OF SUGGESTED MEASURES

The phasing and prioritisation of the feasibility assessment of the Study's suggested measures are listed in Table 6.1. Three indicative phasing durations are stated: immediate to short, short to medium and medium to long term which are subject to change. Immediate to short objectives should aim to be assessed and potentially implemented in first two years of the Study lifetime, short to medium objectives in the range of two to four years, while medium to long objectives in the fifth year of the Study lifetime.

No	Phase	Item	Suggested Measures	Callan LAP Objectives
1	Immediate to Short	6.1.3.1	Footways & Cycleways	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
2		6.1.3.2	Footways & Cycleways	
3		6.1.3.3	Footways & Cycleways	
4		6.1.3.4	Footways & Cycleways	
5		6.1.3.5	Footways & Cycleways	
6		6.1.3.6	Footways & Cycleways	
7		6.1.3.7	Footways & Cycleways	
8		6.1.3.8	Footways & Cycleways	
9		6.1.3.9	Footways & Cycleways	
10		6.1.3.10	Footways & Cycleways	
11		6.4.3.1	Town Centre	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
12		6.4.3.2	Town Centre	
13		6.4.3.3	Town Centre	
14		6.3.3.1	Schools	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
15		6.2.3.1	Bus Routes & Stops	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
16		6.5.3.1	Parking	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO5, TSDO6, TSDO7, TSDO8, TSDO9.
17	Short to Medium	6.1.3.11	Footways & Cycleways	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
18		6.1.3.12	Footways & Cycleways	
19		6.1.3.13	Footways & Cycleways	
20		6.1.3.14	Footways & Cycleways	
21		6.1.3.15	Footways & Cycleways	
22		6.1.3.16	Footways & Cycleways	
23		6.1.3.17	Footways & Cycleways	
24		6.1.3.18	Footways & Cycleways	
25		6.1.3.19	Footways & Cycleways	
26		6.1.3.20	Footways & Cycleways	
27		6.1.3.21	Footways & Cycleways	
28		6.1.3.22	Footways & Cycleways	
29		6.4.3.4	Town Centre	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
30		6.4.3.5	Town Centre	
31		6.4.3.6	Town Centre	
32		6.5.3.2	Parking	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
33	Medium to Long Term	6.1.3.23	Footways & Cycleways	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
34		6.1.3.24	Footways & Cycleways	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
35		6.1.3.25	Footways & Cycleways	
36		6.1.3.26	Footways & Cycleways	
37		6.1.3.27	Footways & Cycleways	
38		6.1.3.28	Footways & Cycleways	
39		6.1.3.29	Footways & Cycleways	
40		6.1.3.30	Footways & Cycleways	

No	Phase	Item	Suggested Measures	Callan LAP Objectives
41		6.1.3.31	Footways & Cycleways	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
42		6.1.3.32	Footways & Cycleways	
43		6.1.3.33	Footways & Cycleways	
44		6.1.3.34	Footways & Cycleways	
45		6.1.3.35	Footways & Cycleways	
46		6.2.3.2	Bus Routes & Stops	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
47		6.3.3.2	Schools	SO2, SO3, TCO3, TCO7, TCO8, TCO10, TCO11, TO5, HC8, GI1, OS1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO6, TSDO7, TSDO8, TSDO9.
48		6.5.3.3	Parking	SO2, SO3, TCO3, TCO7, TCO8, TCO9, TCO10, TCO11, TO5, HC8, GI1, TSDO1, TSDO2, TSDO3, TSDO4, TSDO5, TSDO6, TSDO7, TSDO8, TSDO9.
49		6.5.3.4	Parking	

Table 6.1 – Phasing of Implementation / Assessment of Suggested Measures

The actual delivery of these suggested measures will be dependent on the results of the varies feasibility assessments, subsequent further consideration, planning, detailed design, procurement, construction period and the availability of funding to the Local Authority to implement the measures that are ultimately determined to be feasible. However, there would be no disadvantage to bringing forward the feasible assessment of longer-term suggestions should they become more critical and/or funding becomes available in the meantime.