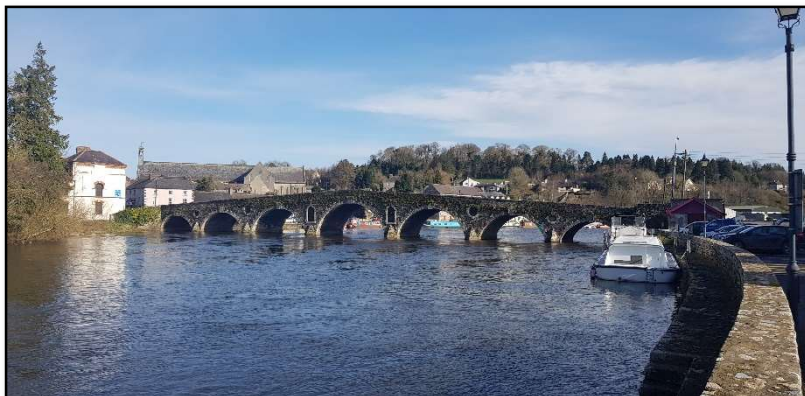


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Graigenamanagh-Tinnahinch Mobility Management Study 2021 – 2026

for

Carlow & Kilkenny County Council



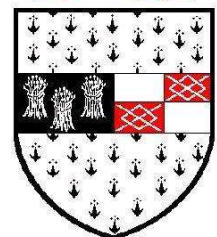
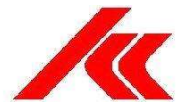
August 2021



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1 Introduction

1.1 CONTEXT

Graigenamanagh-Tinnahinch is a busy joint settlement with a population of approximately 1,475 persons living within the Graigenamanagh-Tinnahinch district as shown on Figure 1.1 (source cso.ie: Census 2016).

The joint settlement is located approximately 23 km southeast of Kilkenny City and about 34 km northeast of Waterford, as shown in Figure 1.2 below. Thomastown lies approximately 13 kilometres west of Graigenamanagh-Tinnahinch.

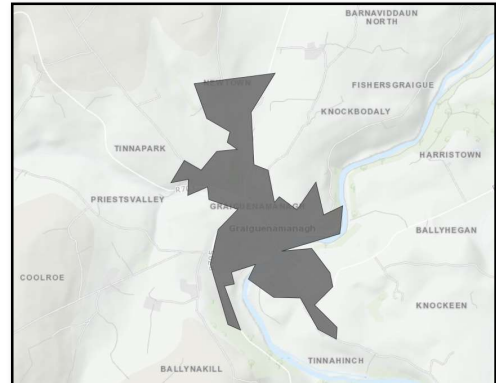


Figure 1.1 - Graigenamanagh-Tinnahinch Settlement

Graigenamanagh-Tinnahinch has historically been the convergence point of the regional road network comprising the following roads. The R703 connecting Thomastown with Ballymurphy and the R702 and the R705 connecting Leighlinbridge with The Rower via Bagnelstown and Borris. Although bypassed some years ago with the construction of the R705 Graigenamanagh Relief Road, Graigenamanagh is well-served by a strong network of radial roads extending from the joint settlement’s centre (i.e. Graigenamanagh) in comparison to Tinnahinch.

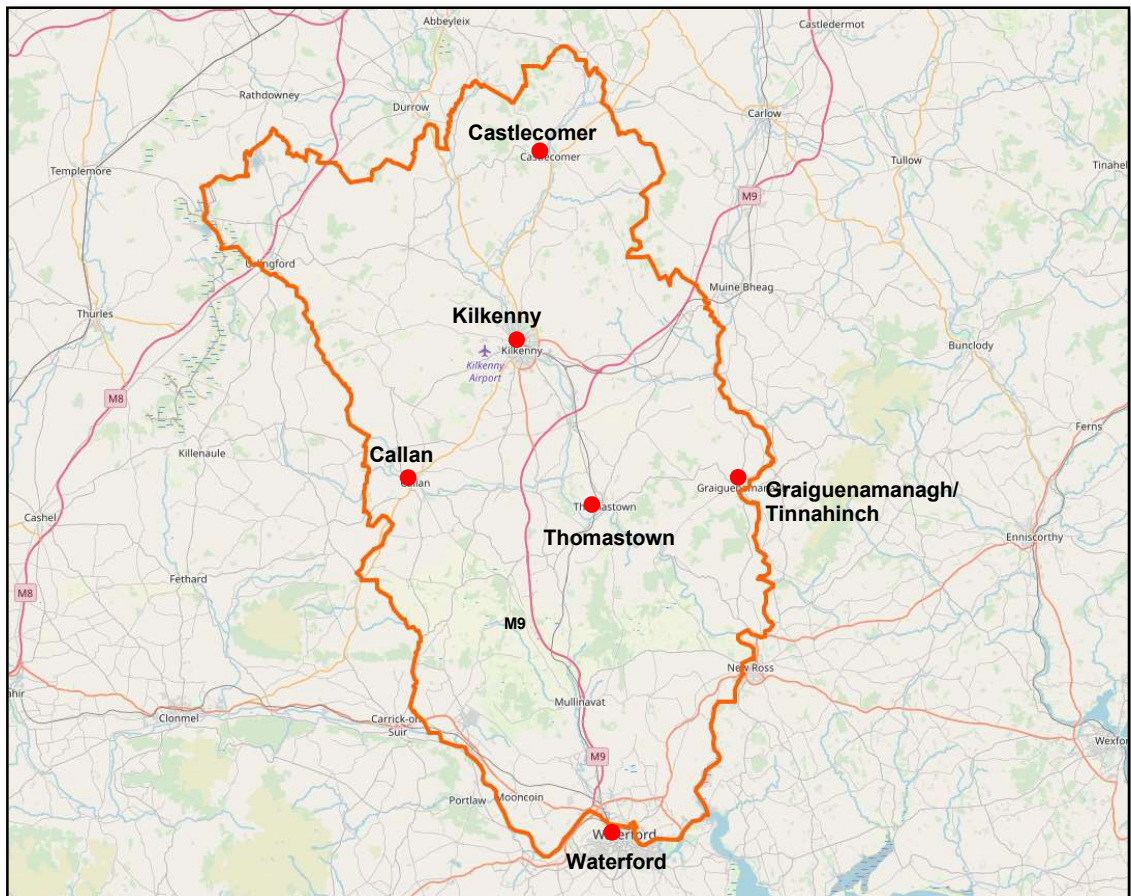


Figure 1.2 - Location within County Kilkenny

1.2 OBJECTIVES

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

“To improve the quality of the existing transport network in particular pedestrian connections in the settlement to increase permeability and connectivity in order to provide universal access to key land uses such as community facilities, including schools and sports clubs, and new and existing development lands.”

“To support improvements to the road and street network in Graiguenamanagh and Tinnahinch in order to provide connectivity and permeability throughout the settlement and to enable access for all to and from new communities and to reduce through traffic in the town centre.”

“To manage the provision of parking both car and bicycle to provide for the needs of residents, business and visitors to Graiguenamanagh and Tinnahinch.”

This Study therefore comprises of a review of the transportation network in and around the joint settlement 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 Graiguenamanagh-Tinnahinch. 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 Graiguenamanagh-Tinnahinch Mobility Management Study is exactly that of the development boundary Graiguenamanagh-Tinnahinch Local Area Plan (LAP) as outlined in Figure 1.3 below.



Figure 1.3 - Study Area

1.4 TEMPORAL RELEVANCE OF THE STUDY

The Study reflects current conditions in Graiguenamanagh-Tinnahinch, 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 Graiguenamanagh-Tinnahinch Local Area Plan. Any variation of or review to the Graiguenamanagh-Tinnahinch 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 Graiguenamanagh-Tinnahinch and any review of the Local Area Plan for the joint settlement.

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.

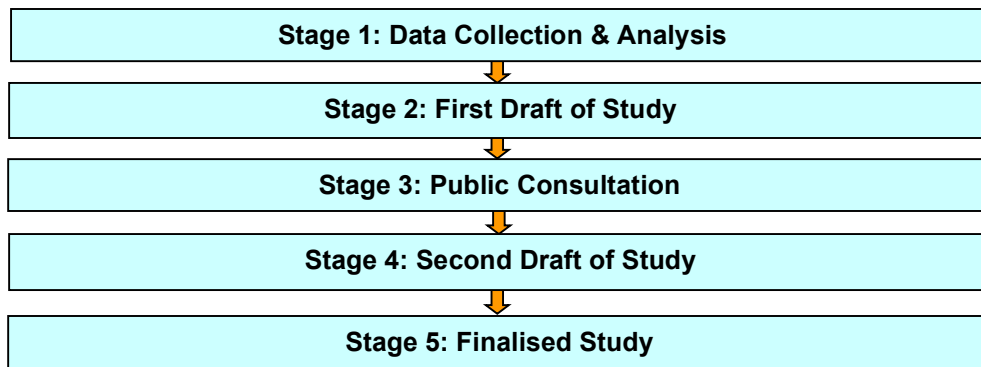


Figure 1.4 – Methodology

A functioning transport system consists of:

- Transport modes (i.e. foot, cycle, bus, rail, road etc.);
- Infrastructure provided for each mode (i.e. footway, cycleways, bus-stops, streets etc.);
- Regulations (i.e. signs, road markings, traffic signals etc);
- Users (i.e. 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 Graiguenamanagh-Tinnahinch 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 the settlement;
- 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

Graigenamanagh-Tinnahinch is linked to other neighbouring towns and villages by the intersection of two strategic regional roads the R703 & R705. These road corridors are key assets for the joint settlement of Graigenamanagh-Tinnahinch and the greater county.

The R705 regional road is located immediately west of the town and forms the Graigenamanagh Relief Road which was completed in February 2008. As a result, significant volumes of through-traffic on the Leighlinbridge-New Ross route, particularly heavy goods vehicles, have been removed from Graigenamanagh and Tinnahinch.

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

The topography of Graigenamanagh-Tinnahinch is varied. Ranging from being relatively flat in and along the River Barrow floodplain in which the settlement centre (i.e. Graigenamanagh-Tinnahinch Quays) is located. To being inclined and gradually rising in both a northerly and southerly direction away from the respective quays. The settlement is bisected by the River Barrow, with most of the settlement located north of the river (i.e. in Graigenamanagh).

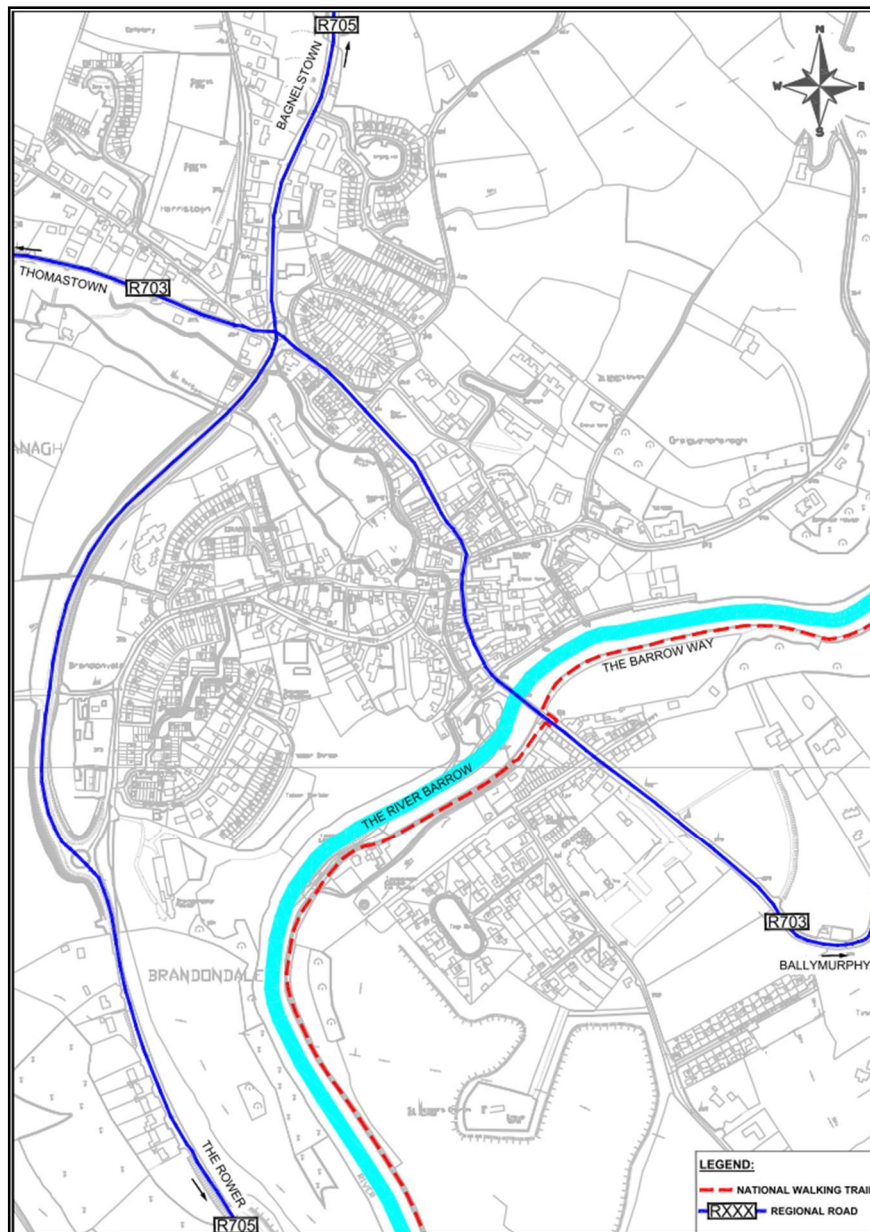


Figure 2.1 – Graigenamanagh-Tinnahinch Road Network

The two regional roads and a national/regional walking trail that inset in Graiguenamanagh-Tinnahinch are as follows:

- R703 – runs from Thomastown (West), Co. Kilkenny to Ballymurphy and the R702 (East), Co. Carlow;
- R705 – runs from Leighlinbridge (North), Co. Carlow to The Stripe and the R705 (South), Co. Kilkenny;
- The Barrow Way – the national/regional walking trail runs from Roberstown, Co. Kildare to St. Mullins, Co. Carlow.

2.2 TOWN CENTRE

Figure 2.2 shows the detail of the principal traffic infrastructure in Graiguenamanagh-Tinnahinch joint settlement.

- Signalised shuttle traffic management system of Lower Main Street with approx. perpendicular and parallel side streets consisting of:
 - R703 Upper & Lower Main Street (Northeast & Southwest)
 - R705 Borris Road (North) & R705 Graiguenamanagh Relief Road (West)
 - Secondary perpendicular streets: The Quay (North), Main Street (North), High Street (North), Mill Road (North), Bray Lane (North), Fairview (North), The Quay (South) & Mill Road (South)
 - Secondary parallel streets: Barrow Lane (East), Convent Lane (East), Fairview (East), Turf Market (West) & Mill Road (West)
- Current one-way only streets within the joint settlement are as follows:
 - Fairview (Abbey/Community Hall Section)
- There are no priority-yield streets within Graiguenamanagh-Tinnahinch.
- Pedestrian crossings at various locations around the town and the majority are uncontrolled crossings.

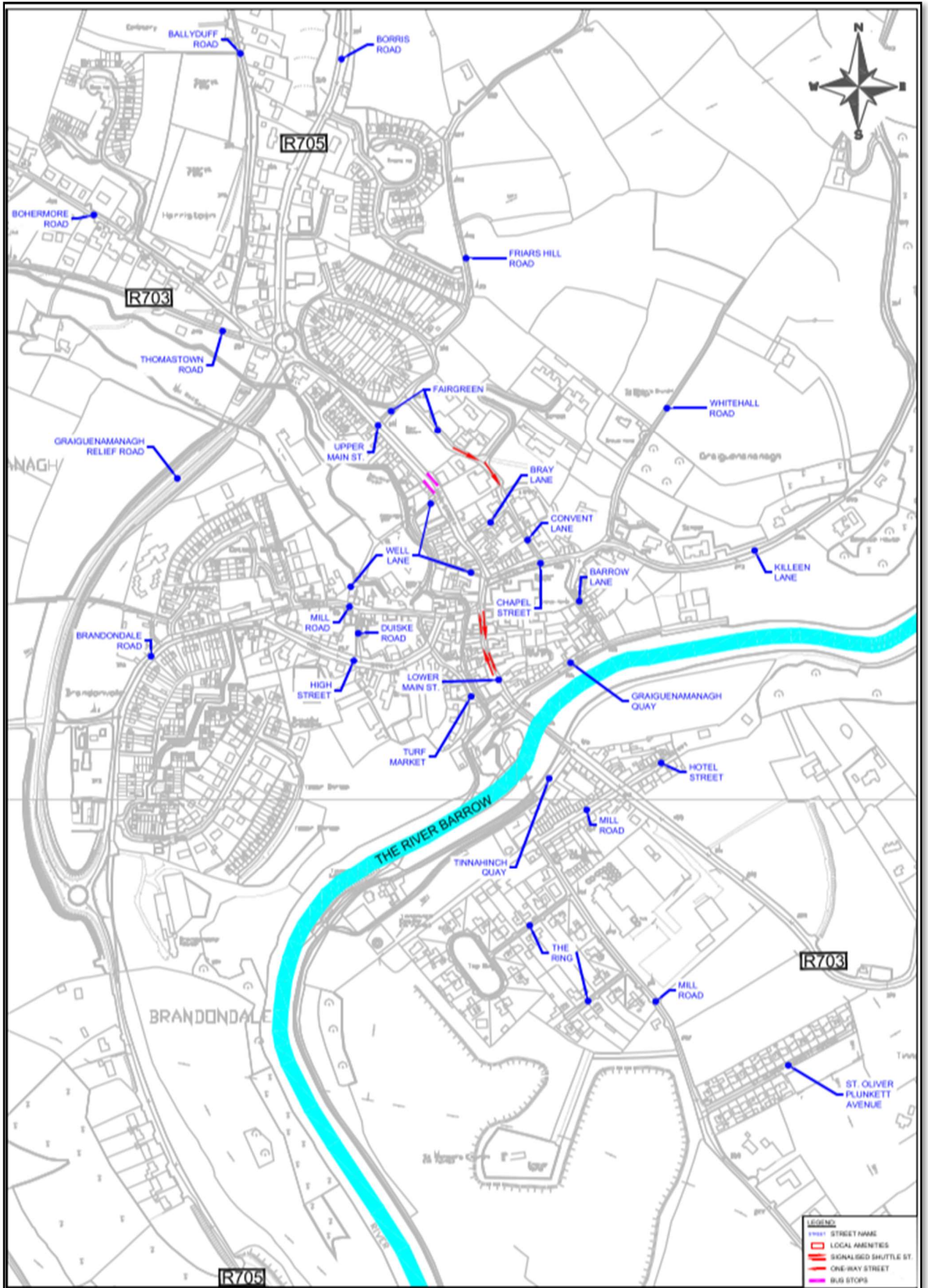


Figure 2.2 - Existing Town Centre Street Network

The majority of the existing junctions within the joint settlement are priority-controlled junctions. However, to the north and southwest of Graigenamanagh town centre there are two roundabout junctions at the extremities of R705 Graigenamanagh Relief Road:

- R705/R703 Upper Main Street, Harristown Roundabout and
- R705/Brandondale Road, Brandondale Roundabout

The speed limit within the built-up area of the joint settlement 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.

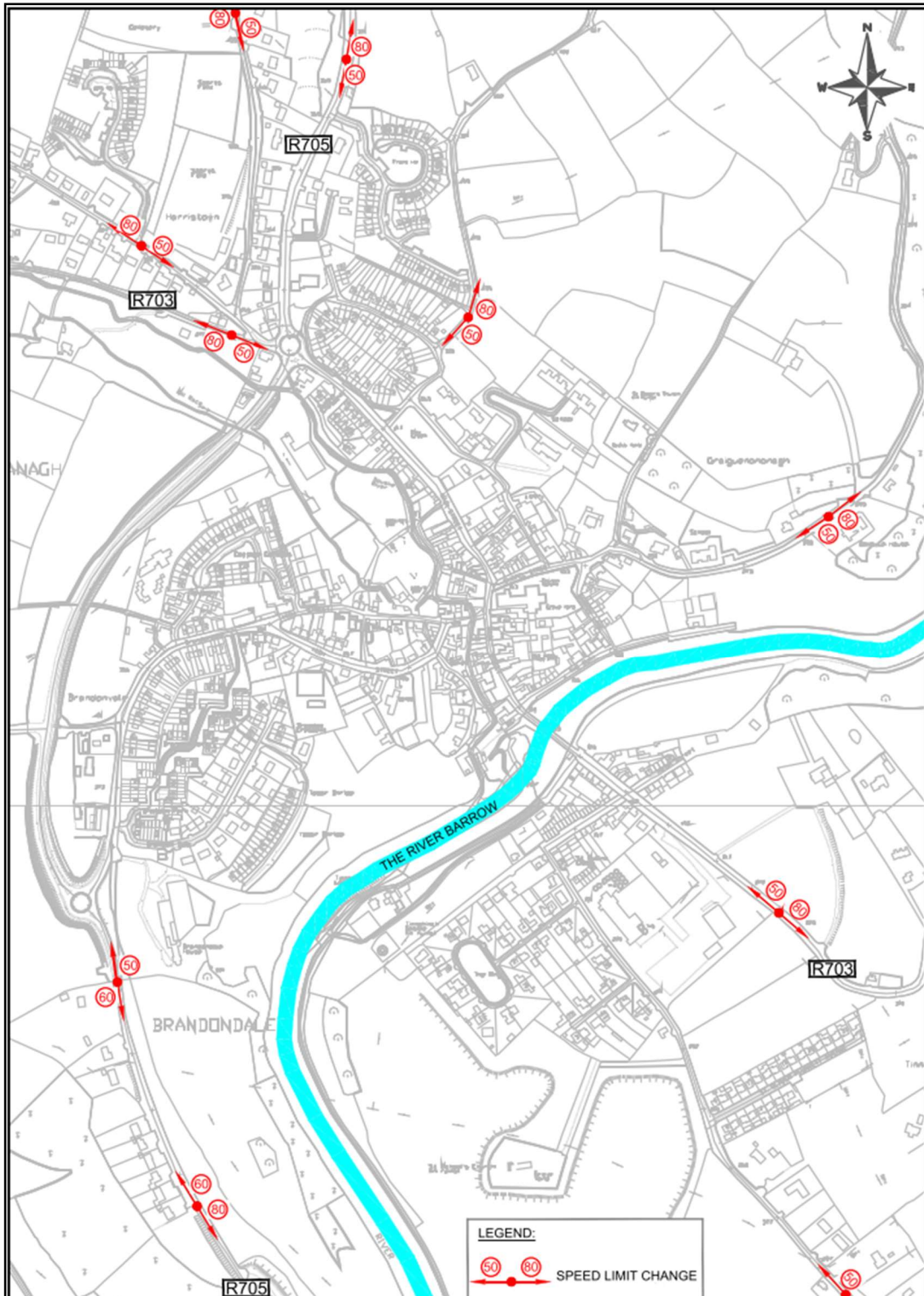


Figure 2.3 - Existing Speed Limits

2.3 PEDESTRIAN FACILITIES

Throughout the settlement, 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 Graiguenamanagh Lower Main Street where the entire streetscape from its junction with Chapel Street/Upper Main Street to The Quay 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:

- Upper Main Street, adjacent to Bank of Ireland (1 no. Zebra Crossing);
- High Street, adjacent to Duiske College (1 no. Zebra Crossing);
- Aldi Access (1 no. Zebra Crossing);

There is a high dependency on simple uncontrolled courtesy pedestrian crossings throughout Graiguenamanagh and Tinnahinch where pedestrians do not have priority to cross.

2.4 CYCLIST FACILITIES

There are no existing dedicated cycle lanes in Graiguenamanagh-Tinnahinch and there is a general absence of bicycle parking throughout the settlement. Some bicycle parking has been provided as part of recent developments such as Aldi.

2.5 PARKING FACILITIES

2.5.1 Off-street Car Parks

The majority off-street parking is located in close proximity to the centre, the main retail and commercial area of Graiguenamanagh-Tinnahinch.

In total there are approximately 231 parking spaces in the main off-street car parks. Details of these existing car parks are contained in Table 2.1.

| | Car Park | Charge | Spaces | Accessible (Disabled) | Additional Information |
|---|-----------------------------|--------|------------|-----------------------|-------------------------|
| 1 | Aldi, Off Upper Main Street | Free | 85 | 5 | Private, Good Markings |
| 2 | Fair Green | Free | 50 | 3 | Public, Worn Markings |
| 3 | Supervalu, Off The Quay | Free | 22 | 1 | Private, Access Barrier |
| 4 | Turf Market | Free | 15 | 1 | Public, New Markings |
| 5 | Market Square, Lwr Main St. | Free | 8 | - | Public, Worn Markings |
| 6 | The Quay Graiguenamagh | Free | 38 | 2 | Public, New Layout |
| 7 | The Quay Tinnahinch | Free | 13 | - | Private, Worn Markings |
| | TOTAL | | 231 | 12 | - |

Table 2.1 - Existing Off-street Carparks

Parking in Graiguenamanagh-Tinnahinch is free and parking time limits do not apply to any of the on-street and off-street parking.

It is noted that informal on-street parking occurs along both/either sides of Chapel Street, Barrow Lane, Bray Lane, Convent Lane, Graiguenamanagh Quay and Mill Road despite the narrowness or residual width of those streets.

Consequently, there does not appear to be acute demand for on-street parking in the centre of the joint settlement for the majority of the year. However, the key exception to that observation is the fact that during the summer months the demand for all motorised vehicle parking becomes critical due to the high annual influx of tourists and leisure activity patrons to Graiguenamanagh-Tinnahinch and its environs.

This seasonal parking situation presents major road safety issues for all road users, businesses and residents within Graiguenamanagh-Tinnahinch (e.g. obstructed/restricted emergency vehicle access along Graiguenamanagh Quay). Therefore, this seasonal parking deficit needs to be addressed temporarily in the short to medium term followed by a more permanent solution in the longer term to mitigated against the road safety hazards its causes for the joint settlement.

2.6 PUBLIC TRANSPORT PROVISIONS

The joint settlement of Graiguenamanagh-Tinnahinch is served by bus public transport only. The number of services by type and route are listed in Table 2.3.

A dual informal bus stop for the respective bus services is located within Graiguenamanagh itself. The both the northbound and southbound are respectively situated adjacent to the Garda Station and Bank of Ireland on Upper Main Street. The Location of the subject informal dual bus stop is shown in Figure 2.2.

| Bus Route | Service |
|-----------|--|
| 881 | Kilbride Coaches operates a return local bus service Monday to Saturday twice daily from Graiguenamanagh to Kilkenny City (i.e. The Parade & MacDonagh Junction) via Borris, Goresbridge, Gowran & Clara. |
| 481 | South Carlow to Carlow Town Ring a Link operates a pre-booked door-to-door, demand-responsive Local Bus Service on Mondays and Wednesdays and run once those days. Graiguenamanagh – Ballymurphy – Borris– Goresbridge – Myshall – Kildavin – Paulstown – Bagenalstown – Leighlinbridge – Fairgreen Carlow. |
| 486 | Borris to Bagenalstown Ring a Link operates a pre-booked door-to-door, demand-responsive Local Bus Service on Saturdays and run once that day. Corries – Graiguenamanagh – Ballymurphy – Borris– Goresbridge – Paulstown – Bagenalstown. |
| - | Graiguenamanagh-Tinnahinch to New Ross School Bus Service operates Monday to Friday and run once daily. |

Table 2.3 – Existing Bus Services/Routes

2.7 TAXI RANKS

There are no registered taxi services operating in Graiguenamanagh-Tinnahinch. Taxi services in many district towns 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 joint settlement 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 is one existing loading bay in Graiguenamanagh itself and this is located at the southern end of Lower Main Street and caters for most of retail units in the vicinity of Main Street and it is approximately 30m 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 north and west of Graiguenamanagh. However, there is one medium size housing estate south of the River Barrow in Tinnahinch;
- Employment is distributed across the joint settlement with the majority of businesses located in Graiguenamanagh
- Tourist, leisure activity and hospitality business are generally located along both guays/riverbanks

- Retail is located along Griaguenamanagh Main Street
- Schools are one of the largest generators of peak-time vehicular traffic and all are located in Graiguenamanagh

There are three schools catering for a total of 374 pupils. The locations of the schools are shown Figure 2.4:

- Boys National School, Whitehall, Graiguenamanagh – 74 pupil primary school
- Scoil Mhuire Gan Smál, Convent Road, Graiguenamanagh – 154 pupil primary school.
- Duiske College, High Street, Graiguenamanagh – 146 pupil secondary school.

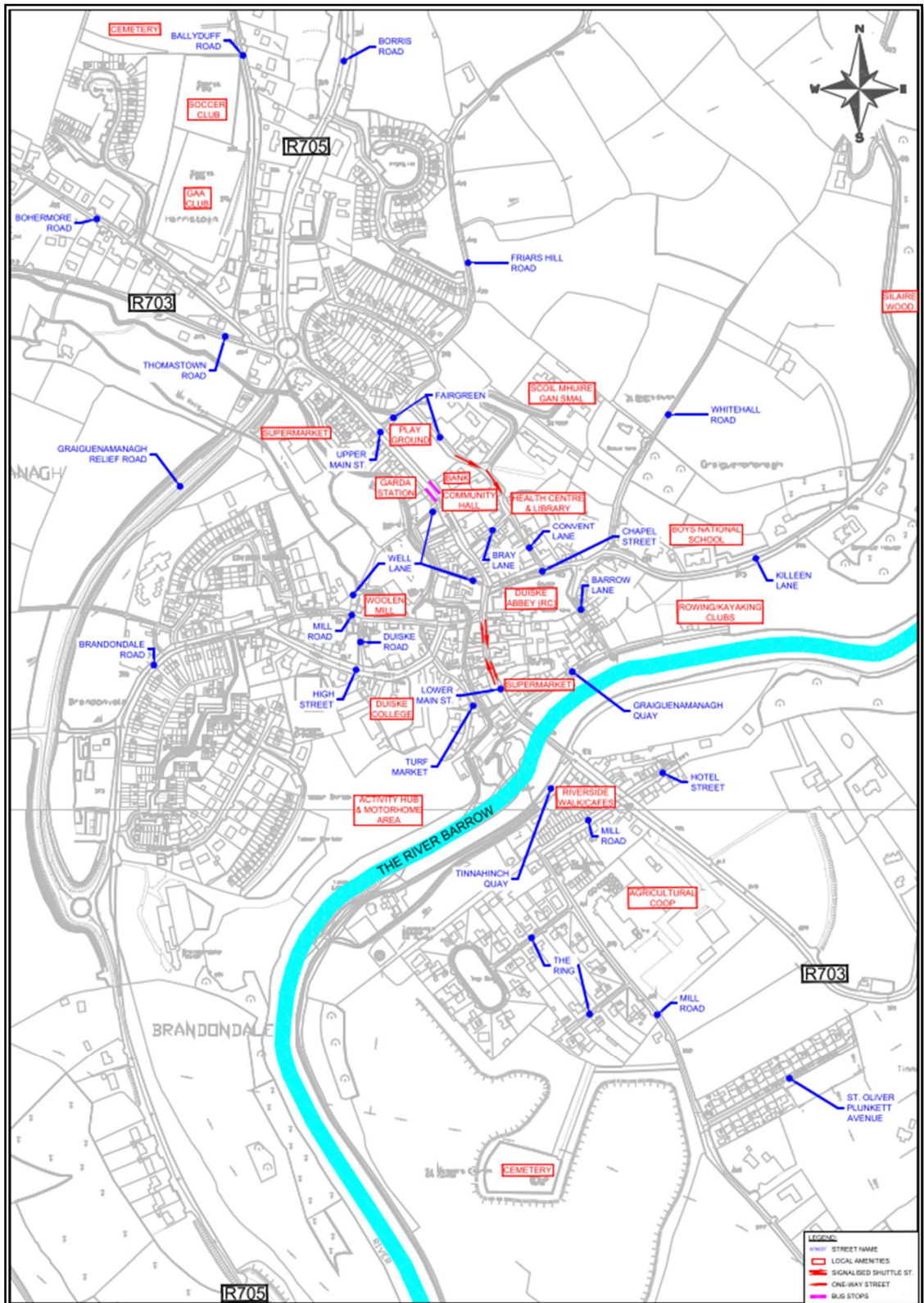


Figure 2.4 - Significant Traffic Generators

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 Graigenamanagh-Tinnahinch 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,
- Carlow County Development Plan 2015 – 2021,
- Kilkenny County Development Plan 2014 – 2020,
- Kilkenny City and Environs Development Plan 2014 – 2020,
- Kilkenny Age Friendly County Strategy 2017 – 2022,
- Graigenamanagh-Tinnahinch Draft Joint Local Area Plan 2021 – 2027.

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, Carlow & 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 CARLOW COUNTY DEVELOPMENT PLAN (CDP) 2015 – 2021

The current adopted development plan is the *Carlow County Development Plan (CDP) 2015 – 2021*. In summary, the plan provides the following:

- *A sustainable spatial development strategy to guide the location of development*
- *Clear guidance on the future use of land and the pattern of development over the next six years*
- *A framework for the future investment in physical and social infrastructure;*
- *A framework for developing the county's economy*
- *Management and control by indicating standards to be achieved in new developments*
- *Ways to conserve and enhance the urban and rural environment and to protect the diversity of the natural and cultural landscape*
- *Guidance for public and private investors in relation to land use and development*
- *A framework for developing tourism in the County Carlow*

Relevant key policies within the plan are as follows:

Walking & Cycling Policy

Trans – Policy 8

Promote walking and cycling, subject to appropriate environmental assessments, including Habitats Directive Assessment, as an alternative mode of transport for travelling to work and for recreational purposes, to require the provision of cycle ways and walkways and associated facilities as part of new development and to support safer walking and cycling routes to schools under the Green Schools Initiative where feasible.

Consider the development of off-road routes, such as disused railway lines and bridle paths, for both walking and cycling to improve access to rural tourist attractions and support the development of the 'Barrow Corridor' in County Carlow in connection with adjoining Local Authorities.

Introduce minimum cycle-parking standards for retail, commercial, residential and community development and public transport stops and stations.

Implement the relevant policies of the Department of Transport's National Cycle Policy Framework and support the provision of a national cycle network.

Provide appropriate facilities for pedestrians and for people with special mobility needs in line with the aims of the European Charter of Pedestrian Rights.

Implement the relevant provisions of the Department of Transport's Walking Policy Plan and make provision for the safe and efficient movement of cyclists and pedestrians in and around built-up areas – Prohibit the intrusion of development along public walking routes and public rights of way, particularly those in scenic areas and along inland waterways.

Protect the integrity of walking routes and potential routes and take the impact of proposed development into account when considering planning applications.

Encourage walking to become the principal method for shorter journeys through arranging land uses and by utilising good urban design.

Provide a comprehensive network of safe, well-lit and convenient footpaths (both road-side and segregated) within new residential areas with links to schools, local neighbourhood centres, public transport stops and workplaces which will encourage people to walk.

Support pedestrianisation in town and village centres where appropriate.

Establish new Walkways and cycle routes on a legal and permanent basis and ensure that Walking/Cycle Routes are signposted/waymarked, where possible and appropriate.

Provide, improve and extend cycle and pedestrian routes on existing roads, proposed roads, roads being upgraded and green corridors (including river corridors), where feasible and practical, subject to compliance with Habitats Directive, to create a more convenient, pleasant and user-friendly environment. The needs of walkers and cyclists will be given full consideration in proposals to upgrade any road network.

Implement standards of Design Manual for Urban Roads and Streets for urban street developments.

Ensure that all surfaces used by cyclists are maintained to a high standard and ensure the provision of new cycle paths as part of development proposals by developers in urban or suburban areas or as part of road development schemes in urban areas by the County. Where possible these cycle lanes should be segregated from vehicular transport corridors and ensure the upgrading of national roads will not impact negatively on the safety and perceived safety of cyclists.

Promote the expansion of cycle facilities and liaise with Failte Ireland, the Sports Council, the National Transportation Authority and other bodies in the development of cycle touring routes throughout the county and adjoining counties, in particular in areas of high amenity.

Provide parking areas for bicycles in urban areas throughout County Carlow.

Public Transport Policy

Trans – Policy 9

Support the provision of public transport services by reserving land in suitable locations for public transport infrastructure and ancillary facilities, such as park-and-ride.

Support local, community transport services in consultation with the local communities.

Continue to work with the service providers to reduce the need for car trips by improving the availability, reliability and quality of public transport.

Work with the relevant organisations to develop and maintain bus stops, waiting areas, and up to date travel information for the local population and tourists alike. The availability of such services should be promoted

Bus Policy

Trans – Policy 11

Encourage the provision of shared bus stop facilities in appropriate locations in urban centres such as Train Stations to facilitate public and private operators, as designated in the County Settlement hierarchy.

Work with Rural Transport Providers to research and promote sustainable options for rural transport given the increased running costs with the rising cost of fuel.

Work with transport providers to develop an urban public bus service for the Greater Carlow and Graiguecullen Urban Area

General Road Policy

Trans – Policy 5

Encourage and facilitate investment in the road network at National, Regional and Local level and prioritise delivery to maximise the economic benefit to the County and ensure that any plan or project associated with transportation (roads, rail or other forms) which has the potential to significantly affect a Natura 2000 site is appropriately assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity of the site.

Promote road and traffic safety measures in conjunction with relevant Government Departments and other agencies through the provision of appropriate signage, minimising or removing existing traffic hazards and preventing the creation of additional or new traffic hazards.

Provide, extend and maintain street lighting on the public road/footpath network throughout the county in accordance with best international practice.

Facilitate the development of on-line or off-line 'Motorway Services Areas' within the County in line with the NRA Policy on Motorway Services Areas (NRA Service Area Policy - August 2014) and subject to appropriate assessment and assessment of all environmental issues.'

Regulate, control and improve signage throughout the County, in conjunction with the National Roads Authority and other relevant agencies.

Ensure that flood risk management measures are incorporated into the provision of transport and emergency planning infrastructure.

Require developers to provide a detailed Traffic Impact Assessment, as carried out by competent professionals in this field, where new developments will have a significant effect on travel demand and the capacity of surrounding transport links. Where a Traffic Impact Assessment identifies necessary on and off-site improvements for the development to be able to proceed, the developer will fund the improvements to the satisfaction of the Council.

Bring national roads up to appropriate standards, as resources become available, and continue improvement works on non-national roads, so as to develop a safe and comprehensive road system for the county.

When designing or inputting into road schemes, the importance of hedgerows and roadside boundaries for wildlife and biodiversity shall be recognised. Retention of such features should be incorporated into design and where this is not possible, replacement planting with native species of indigenous provenance will be provided.

Seek to ensure access to the highest possible category of the road network hierarchy when considering applications for quarries.

Improve deficiencies in pavement surface, riding quality and general alignment to protect the heavy investment in existing facilities.

Ensure that necessary new entrances are located in such a manner as to provide effective visibility for both users of the entrance and users of the public roads so that opportunities for conflicting traffic movements are avoided, in the interests of public safety.

Support the upgrade of the N80 Enniscorthy – Carlow Road and improvements to linkages from the South East Region and Midlands, in line with Regional Planning Guidelines for the South East Region 2010 – 2022, Strategic Objective PPO 5.12

3.6 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.

3.7 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 Graiguenamanagh-Tinnahinch 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 joint settlements like Graiguenamanagh-Tinnahinch. 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 GRAIGUENAMANAGH-TINNAHINCH DRAFT JOINT LOCAL AREA PLAN 2021 – 2027

The Graiguenamanagh-Tinnahinch Local Area Plan (LAP) 2021-2027 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 Graiguenamanagh-Tinnahinch in the context of the Carlow & Kilkenny County development plans, the regional planning guidelines (RPGs) for the southeast region 2010 – 2022 (as

amended) together with EU requirements regarding strategic environment assessment (SEA) And Appropriate Assessment (AA). The 2021-2027 LAP has now been adopted and therefore replaces the 2009 LAP (as amended/extended). The key objectives of the 2021-2027 LAP are:

- *“To improve the quality of the existing transport network in particular pedestrian connections in the settlement to increase permeability and connectivity in order to provide universal access to key land uses such as community facilities, including schools and sports clubs, and new and existing development lands.”*
- *“To support improvements to the road and street network in Graiguenamanagh and Tinnahinch in order to provide connectivity and permeability throughout the settlement and to enable access for all to and from new communities and to reduce through traffic in the town centre.”*
- *“To manage the provision of parking both car and bicycle to provide for the needs of residents, business and visitors to Graiguenamanagh and Tinnahinch.”*

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

Core Strategic Objectives

CSO1.1: To support and facilitate development on zoned lands at appropriate locations and deliver at least 30% of all new homes within the existing built-up footprints in Graiguenamanagh and Tinnahinch to satisfy the housing needs of the settlement over the period of the Plan.

CSO1.2: To provide for serviced sites with appropriate infrastructure in accordance with Objective 18(b) of the National Planning Framework (ca.3.52ha of land has been identified in the settlement to facilitate such a proposal).

CSO1.3: To implement the zoning objectives set out in Appendix A of this Draft Joint LAP

CSO1.4: To manage the provision of one-off housing on lands zoned as 'Agriculture'. Limited one-off housing will be permitted in accordance with the policy set out under Section 6.4 of Kilkenny County Development Plan 2014-2020 and Section 2.7 of Carlow County Development Plan 2015-2021 or as maybe amended in any subsequent reviews.

CSO1.5: It is an objective of this plan to review the housing allocation / requirement as provided in this Joint LAP to the settlement of Graiguenamanagh-Tinnahinch following the adoption of the Housing Demand Need Assessment and Core Strategies of the Kilkenny County Development Plan 2021-2027 and Carlow County Development Plan 2022-2026. Where deemed necessary an amendment to the Joint LAP will be commenced within one year following the adoption of the Carlow County Development Plan 2022-2028 and Kilkenny County Development Plan 2021-2027.

Town Centre Objectives

TCO1.1: To support the delivery of projects for town centre regeneration which comply with the provisions of the relevant CDP and this Joint LAP submitted as funding applications to the Rural Regeneration and Development Fund.

TCO1.3: To improve the accessibility of the town centre with particular emphasis on creating an environment that is accessible to pedestrians and cyclists through improved parking and pedestrian facilities.

TCO1.4: To facilitate enhancement and improvement of the physical fabric and environment of the town centre through public realm initiatives including footpath and public lighting improvements to assist in making the town centre a more pedestrian friendly place.

TCO1.5: To investigate traffic managements options for strengthening the pedestrian links across the River Barrow to better integrate the town centres of Graiguenamanagh and Tinnahinch and maximise access to local shops, schools and other amenities.

Arts, Culture & the Creative Economy

ACCE1.3: To support the development of linkages between historical sites within and around Graiguenamanagh-Tinnahinch and the amenity sites in its hinterland.

Tourism Objectives

TO2.4: To facilitate tourism activities such as waterways activities, eco-tourism, niche retailing, food markets, local and other craft type activities so as to diversify the tourism product in Graiguenamanagh-Tinnahinch, subject to relevant environmental assessments.

TO2.5: To support the development of linkages between historical sites within and around Graiguenamanagh-Tinnahinch including pedestrian access to St. Michael's Well in Tinnahinch.

Community & Housing Objectives

COM1.1: To support and facilitate improvements to existing educational, childcare and community facilities within the Graiguenamanagh-Tinnahinch LAP area.

Green Infrastructure Objectives

GIO1.1: To carry out, as resources allow, Habitat and Green Infrastructure Mapping for Graiguenamanagh-Tinnahinch in order to reduce and avoid fragmentation or deterioration of the Green Infrastructure network and strengthen ecological links within Graiguenamanagh-Tinnahinch and to the wider regional network.

GIO1.2: To preserve, protect and augment trees, groups of trees, woodlands and hedgerows within the settlement by increasing, where appropriate, tree canopy coverage using locally native species by incorporating them within design proposals and supporting their integration into the existing Green Infrastructure network.

Open Spaces Objectives

OSO2.1: To support and facilitate the provision of open spaces with ecological and recreational corridors to aid the movement of biodiversity and people, subject to appropriate environmental assessment.

OSO2.2: To promote a network of paths and cycle tracks to enhance the use of the strategic open spaces in the town, while ensuring that the design and operation of the routes responds to the ecological protection needs of each site.

OSO2.3: New residential development is required to be consistent with standards set out in the Kilkenny and Carlow County Development Plans where playable space is to be provided as an integral part of each new development. This playable space can form part of the overall open space provision of a development but must be dedicated to play and must be accessible in accordance with the standards in the relevant County Development Plan.

Movement & Transport Policy Objectives

MTO1.1: To require all new developments to comply with the recommendations of the Design Manual for Urban Roads and Streets (DMURS) and National Cycle Manual, or any subsequent relevant publication.

MTO1.2: To undertake a Mobility Management Plan for Graiguenamanagh/Tinnahinch which will include investigation of the appropriate interventions for the provision of upgrades to footpaths and public lighting throughout the town. Particular consideration shall be given to the following locations:

- Approaches on both sides to and across the George Semple Bridge.
- The Quay Graiguenamanagh and Tinnahinch.

MTO1.3: To improve the pedestrian and cyclist environment and promote ease of movement within the settlement to include facilities for older people. Direct, attractive, well-lit and overlooked linkages between community, education, retail and recreational facilities will encourage the residents and visitors to the settlement to walk rather than using unsustainable modes of transport.

MTO1.4: To provide an enhanced pedestrian and cycle network in Graiguenamanagh-Tinnahinch including the provision of footpath improvements to ensure ease of access to public transport, the town centre, heritage sites and other recreational / community facilities.

MTO1.5: To require the co-location of pedestrian and cycle routes on all new infrastructure connecting key destinations within the settlement, particularly between the schools, community centre and heritage sites such as Duiske Abbey etc.

MTO1.6: To support the provision of age friendly bus shelters at appropriate locations in Graiguenamanagh-Tinnahinch and to facilitate and support the provision of electric car charging stations at appropriate locations across the Draft Joint LAP area.

MTO1.7: To ensure all footpaths in the settlement provide adequate access for persons with a disability or who have impaired mobility.

MTO1.8: To undertake a mobility management plan that will consider the feasibility of all options for improving pedestrian and cyclist mobility between Graiguenamangh and Tinnahinch and to implement the recommendations of the plan.

MTO1.9: Dependent upon the success of other public realm projects the Draft LAP will provide for a high-quality shared surface area along 'The Quay' Graiguenamanagh and Tinnahinch to further facilitate recreational use of the River Barrow.

MTO1.10: To investigate and implement the best practise solution for the provision low level lighting on the George Semple bridge

4 Data Review & Transport Survey

4.1 CSO DATA

Central Statistics Office (CSO) data shows that the population of Graiguenamanagh-Tinnahinch in 2016 was 1,475 persons. Data from 2011 show that Graiguenamanagh-Tinnahinch population was 1,543. The population of Graiguenamanagh-Tinnahinch has declined by 4.4% in the period between the 2011 and 2016 censuses whereas the national population grew by 3.8% in the same period. That said the population of the settlement increases several fold in summertime due to a large influx of tourists to the Graiguenamanagh-Tinnahinch area annually.

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.

| Purpose | Distance | | | | |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|
| | <2 km | 2<4 km | 4<6 km | 6<8 km | 8+ km |
| 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

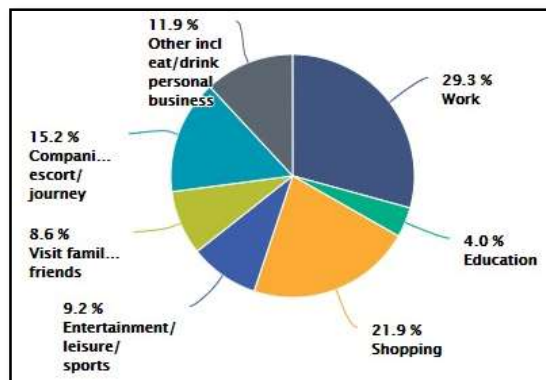


Figure 4.1 - Percentage distribution of journeys by purpose 2016: National Data

The information in the Table 4.3 below relates to Graiguenamanagh-Tinnahinch 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 | | Graiguenamanagh-Tinnahinch | | |
|------------------------------------|----------------------------|----------------------------|-------------|-------------|
| | | Persons | Percentage | |
| Sustainable Transport | On foot | 182 | 24% | 31% |
| | Bicycle | 0 | 0% | |
| | Bus, minibus or coach | 46 | 6% | |
| | Train | 5 | 1% | |
| Car Based Transport | Motorcycle or scooter | 1 | 1% | 62% |
| | Motor car: Driver | 307 | 40% | |
| | Motor car: Passenger | 125 | 16% | |
| | Other (incl. Lorry or van) | 45 | 5% | |
| Work mainly at or from home | | 21 | 3% | 3% |
| Not stated | | 33 | 4% | 4% |
| Total | | 756 | 100% | 100% |

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

Graiguenamanagh-Tinnahinch has a good number of trips on foot – 24%, while car-based trips are 62%. The results show that driving is used less as a form of transport in Graiguenamanagh-Tinnahinch than in other similar towns, by both workers and students which is a good starting point for the subject Study. CSO data for Graiguenamanagh-Tinnahinch in relation to journey time (trip duration) is provided in Table 4.4.

| Journey Time | Persons | |
|----------------------------|------------|-------------|
| Under 15 mins | 315 | 42% |
| 1/4 hour - under 1/2 hour | 136 | 18% |
| 1/2 hour - under 3/4 hour | 115 | 16% |
| 3/4 hour - under 1 hour | 61 | 8% |
| 1 hour - under 1 1/2 hours | 36 | 5% |
| 1 1/2 hours and over | 18 | 2% |
| Not stated | 63 | 9% |
| Total | 744 | 100% |

Table 4.4 - Average journey times for Graiguenamanagh-Tinnahinch

Graiguenamanagh-Tinnahinch has a very high percentage of short-distance local trips – 42 to 60%. There is a relatively low percentage of long-distance commuting – 7%. 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 The Boys National School, Scoil Mhuire Gan Smál and Duiske College. The survey was carried in June 2021.

For The Boys National School response has been provided for 96% of school population, which is deemed as adequate sample. For Scoil Mhuire response has been provided for 98% of school population, while for Duiske College a response is still pending, therefore the results at this time should be considered as indicative only. The findings of the survey are summarised in the Table 4.5 below.

| Mode of Travel | Boys National School | Scoil Mhuire | Duiske College | Average |
|--------------------------|----------------------|--------------|----------------|---------|
| Walk | 21% | 14% | - | 17.5% |
| Cycle | 3% | 1% | - | 2% |
| Bus | 23% | 22% | - | 22.5% |
| Car | 54% | 64% | - | 59% |
| School population* | 74 | 154 | 146 | - |
| No of pupils surveyed | 71 | 151 | - | - |
| % of population surveyed | 96% | 98% | - | 97% |

* Information sourced from Schooldays.ie or Education.ie for year 2020/2021.

Table 4.5 - Modal Split for Pupils (Percentage)

The average number of children walking to school is 17.5%, which is below the average 24% of overall Graiguenamanagh-Tinnahinch 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 22.5% compared to only 6% (see Table 4.3) for the overall Graiguenamanagh-Tinnahinch area. Cycling as a mode of school transport is practically non-existent in Graiguenamanagh-Tinnahinch with 2% on average cycling to school. This is not surprising due to the absence of cycling facilities and road/traffic environment throughout the joint settlement.

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 8 road collisions in combined settlement of Graiguenamanagh-Tinnahinch: 7 minor and 1 fatal in nature.

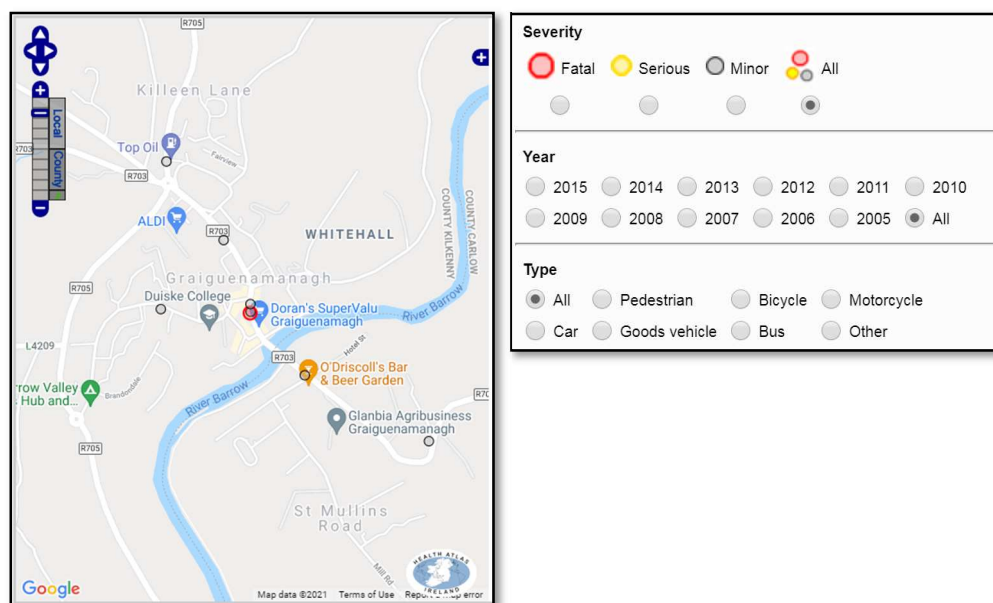


Figure 4.4 - Road collisions

When considering the road collisions involving pedestrians for the same period 2005-2016 as shown in Figure 4.5 below. The information shows that 5 of the 8 road collisions involved pedestrians – 1 Fatal and 4 Minor.

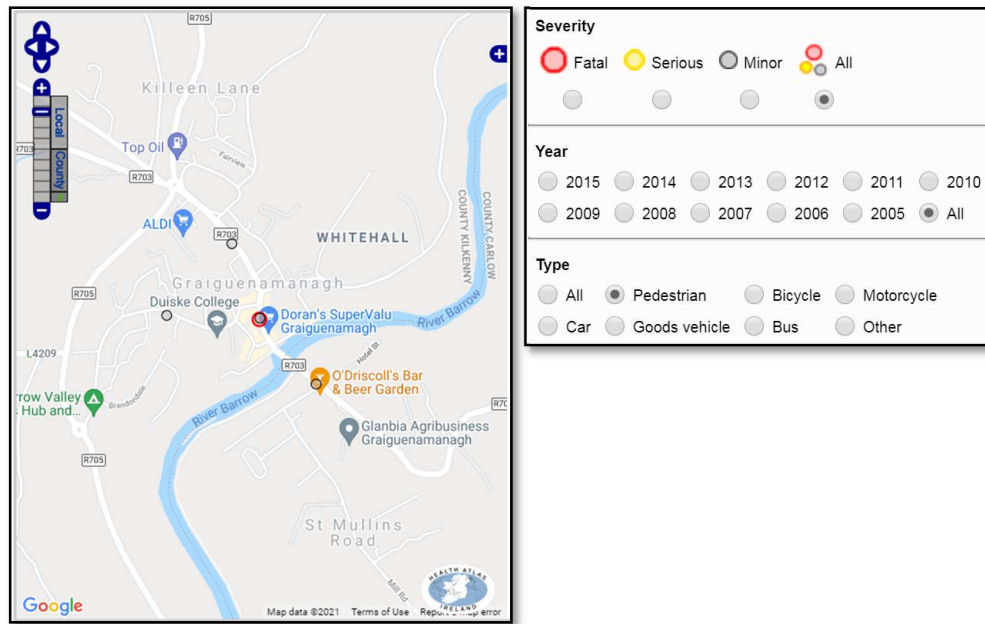


Figure 4.5 - Road collisions with Pedestrians

Ireland’s overall road collisions for 2005-2016 was 70,451 incidents and 11,826 of these involved pedestrians (17%). Graigenamanagh-Tinnahinch’s overall road collisions for 2005-2016 was 8 incidents and 5 of these involved pedestrians (62.5%). 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 throughout the joint settlement.

We note that there were no recorded cyclist collisions within the study area for the 2005-2016 period which might be due to low cycling numbers and capacity of the settlement 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 Graigenamanagh-Tinnahinch is on Lower Main Street between Duiske Abbey and The Quay which was upgraded a few years ago as part of the Graigenamanagh Urban Renewal Scheme. Extending a high-quality urban realm onto the other and adjoining streets in addition to Graigenamanagh town centre is highly recommended such as Graigenamanagh /Tinnahinch Quay, George Semple Bridge, Turf Market, Barrow Lane, Chapel Street, Mill Road and High Street.

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.

5.4 OVERVIEW OF THE EXISTING TRANSPORT SYSTEM

In general, the qualities of a transport system that would be desirable for a joint settlement such as Graiguenamanagh-Tinnahinch are as follows:

- The absence of congestion and queues;
- Sustainable travel (i.e. 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, Graiguenamanagh itself does not suffer from a high level of transport severance; the R705 to the west of the town is a severance line, but it is away from the settlement's centre and its impact on movement is not very significant. However, River Barrow is big in size and is located in the centre of the joint settlement of Graiguenamanagh-Tinnahinch and does constrain north-south traffic movement (i.e. The George Semple Bridge) and the symmetric development of the overall settlement. Development of the joint settlement has been concentrated around the centre of the settlement with the major on the Graigurnamanagh side of the River Barrow to the west and north.

The growth of the street network has been quasi gridiron in nature, mainly north and south of the river, with two-way traffic occurring on the majority of streets despite many being too narrow to safely facilitate. Lower Main Street being a prime example where a section of same (i.e. between Duske Abbey and The Quay) is controlled by a signalised shuttle traffic management system. The presence of the R705 western relief road is a major easement to traffic and congestion to the joint settlement particularly at the centre (i.e. Graiguenamanagh).

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 Graiguenamanagh-Tinnahinch 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 Graiguenamanagh-Tinnahinch, predominantly north and south of the River Barrow. The latter coupled with moderate traffic congestion, narrow streets and discontinuous/narrow footways within the joint settlement's centre (i.e. Graiguenamanagh), adjacent streets and a single narrow bridge joining both settlements with no pedestrian/cyclist facilities act as real barriers to walking and cycling alike for even the shortest of journeys in Graiguenamanagh-Tinnahinch.

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 Graiguenamanagh-Tinnahinch. This sustainable transport network would be the key to unlocking Graiguenamanagh-Tinnahinch'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 Graiguenamanagh-Tinnahinch LAP and Calow & Kilkenny CDPs (detailed above). This includes compliance with natural heritage and biodiversity objectives and development management standards of the Graiguenamanagh-Tinnahinch 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 Graiguenamanagh-Tinnahinch 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 parallel to enhancing the existing mobility infrastructure.

- 6.1.3.1 Explore the feasibility of supporting the improved road safety and pedestrian environment of the existing George Semple Bridge particularly on both approaches to the bridge including traffic calming measures.
- 6.1.3.2 Explore the feasibility of supporting improved traffic management, road safety and pedestrian environment of Graiguenamanagh Quay.
- 6.1.3.3 Explore the feasibility of supporting improved traffic management, road safety and pedestrian environment of Barrow Lane.
- 6.1.3.4 Explore the feasibility of supporting the construction of a new combined footway/cycleway along Duiske Lane.
- 6.1.3.5 Explore the feasibility of supporting the upgrade of the existing Barrow Valley Activities Hub Access to a shared footway/cycleway.

- 6.1.3.6** Explore the feasibility of supporting the construction of new western infill footways along the Ballyduff Road to the Cemetery including the installation of a pedestrian crossing at the southern junction.
- 6.1.3.7** Explore the feasibility of supporting the construction of approx. 141m of new northern infill footway along Bohermore Road from the Cois na Bearu Residential Development Access.
- 6.1.3.8** Explore the feasibility of supporting the construction of a new southern footway along R703 Tinnahinch from St Oliver Plunkett's Avenue to the terminus of existing footway at Glanbia Cooperative.
- 6.1.3.9** Explore the feasibility of supporting the construction of approx. 367m of new southern footway along Bohermore Road from the R703 Thomastown Road Junction.
- 6.1.3.10** Explore the feasibility of supporting the construction of approx. 168m of new western infill footway along Brandondale Road from No. 13 Brandondale to the Coach House including a pedestrian crossing on the local access road/R705 pedestrian slip.
- 6.1.3.11** Explore the feasibility of supporting the construction of a new northern footway along the latter local access road/R705 pedestrian slip including a pedestrian crossing on the R705 Graigenamanagh Relief Road to provide safe connectivity with the Brandon Hill Walk.
- 6.1.3.12** Explore the feasibility of supporting the construction of a combined footway/cycleway from Barrow Valley Activities Hub and Motorhome Aire to the Brandondale Road adjacent to the Tobar Bhríde Residential Development.
- 6.1.3.13** Explore the feasibility of supporting the construction of dual footways along The Turf Market from its junction from High Street to Lower Main Street.
- 6.1.3.14** Explore the feasibility of supporting the construction of a combined footway/cycleway along the western bank of the Duiske River from Well Lane via Lady's Well to the Turf Market's junction with High Street including pedestrian crossings on High Street and Mill Road.
- 6.1.3.15** Explore the feasibility of supporting the construction of a combined footway/cycleway along the western bank of the Duiske River from Cottage Row to the R705 Graigenamanagh Relief Road.
- 6.1.3.16** Explore the feasibility of supporting the upgrade of the existing lane to a combined footway/cycleway to provide connectivity from Newpark to the R705 Graigenamanagh Relief Road in addition to exploring the feasibility of supporting the reestablishment of pedestrian/cyclist link between Newpark and Cottage Gardens Residential Developments.
- 6.1.3.17** Explore the feasibility of supporting the extension of the existing southern footway at the southwest end of the R705 Graigenamanagh Relief Road (i.e. The Brandondale Roundabout) along the southern verge of the R705 to the Brandondale Water Treatment Plant.
- 6.1.3.18** Explore the feasibility of supporting the construction a new recreational combined footway/cycleway along the northern riverbank of the Barrow from The Dock Graigenamnagh to the R705 Regional Road via the Brandondale Water Treatment Plant.
- 6.1.3.19** Explore the feasibility of supporting the construction a new recreational combined footway/cycleway along the northern riverbank of the Barrow from Graigenamnagh Quay Carpark to Silaire Wood and Boardwalk.
- 6.1.3.20** Explore the feasibility of supporting the construction of a new pedestrian/cyclist bridge across the River Barrow from north bank of the river opposite the Barrow Valley

Activities Hub and Motorhome Aire to the Barrow Way/Tinnahinch Lock on south bank of the river.

- 6.1.3.21 Explore the feasibility of supporting the construction of a new pedestrian/cyclist bridge across the River Barrow from north bank of the river opposite the Rowing/Kayaking Club to the Barrow Way on the south bank of the river.
- 6.1.3.22 Explore the feasibility of supporting the construction a new recreational combined footway/cycleway from the Barrow Way via St. Michael Church & Cemetery to Mill Road Tinnahinch including a pedestrian crossing on Mill Road.
- 6.1.3.23 Explore the feasibility of supporting the upgrade of the existing lane between Friars Hill and Fairview Residential Developments to a combined footway/cycleway including pedestrian/cyclist linkages to/from the Friars Hill, Fairview and the R705 Borris Road.
- 6.1.3.24 Explore the feasibility of supporting the construction of a combined footway/cycleway from Killeen Road to Scoil Mhuire Gan Smál including a pedestrian crossing on Killeen Road.
- 6.1.3.25 Explore the feasibility of supporting the construction of a combined footway/cycleway from the R705 Borris Road via the Soccer and GAA Club to the Cois na Bearu Residential Development including two pedestrian crossings, one on the Borris Road and one on the Ballyduff Road.
- 6.1.3.26 All new pedestrian/cyclist facilities should be compliant with the accessibility requirements for persons with disabilities and impaired mobility. Existing pedestrian facilities should also be subject to accessibility audit and it is suggested that the recommendations of that audit are implemented as a matter of urgency once complete.

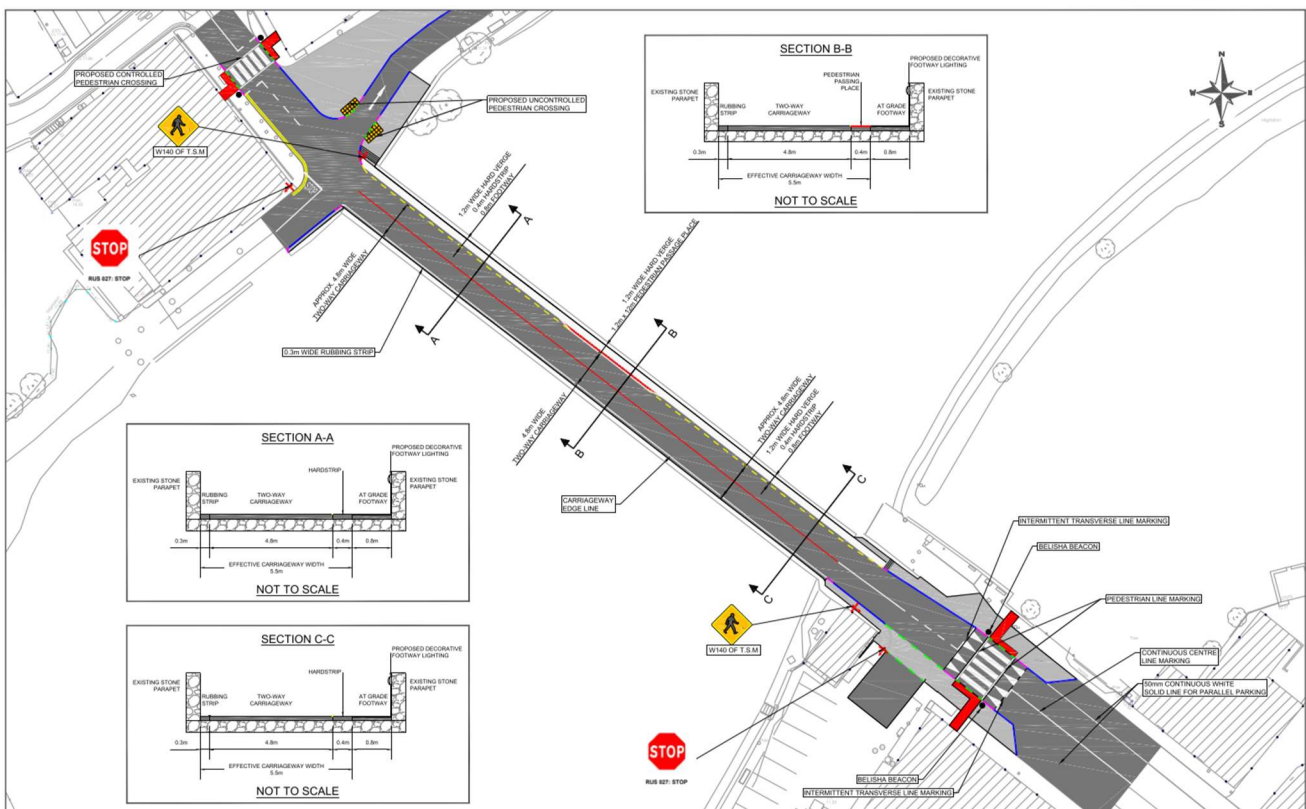
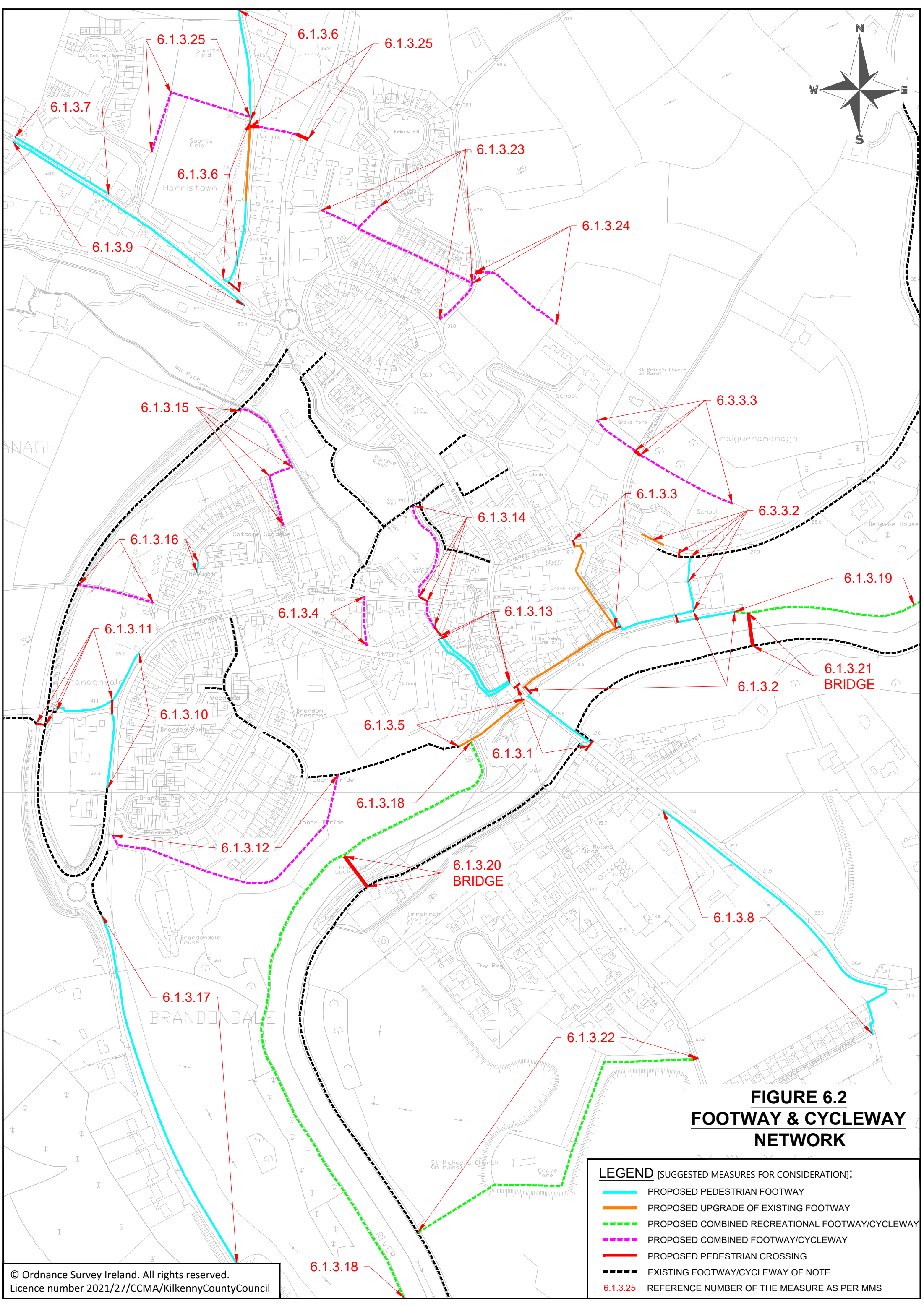


Figure 6.1 – George Semple Bridge & Graigenamanagh Quay Suggestion for Consideration

Figure 6.2 below shows the suggested footway & cycleway network for consideration, building on and upgrading the existing footway network within Graigenamanagh-Tinnahinch including new footways/cycleway, improvements to existing footways, signage, pedestrian crossings and new raised shared spaces at junction/crossing points.



**FIGURE 6.2
FOOTWAY & CYCLEWAY
NETWORK**

LEGEND [SUGGESTED MEASURES FOR CONSIDERATION]:

| | |
|----------|---|
| | PROPOSED PEDESTRIAN FOOTWAY |
| | PROPOSED UPGRADE OF EXISTING FOOTWAY |
| | PROPOSED COMBINED RECREATIONAL FOOTWAY/CYCLEWAY |
| | PROPOSED COMBINED FOOTWAY/CYCLEWAY |
| | PROPOSED PEDESTRIAN CROSSING |
| | EXISTING FOOTWAY/CYCLEWAY OF NOTE |
| 6.1.3.25 | REFERENCE NUMBER OF THE MEASURE AS PER MMS |

6.2 BUS ROUTES & STOPS

6.2.1 Existing Situation

There is only one existing informal dual bus stop within the joint settlement of Graiguenamanagh-Tinnahinch that serves the main local bus route and the two Ring-A-Link services which pass through both Graigurnamanagh and Tinnahinch. Table 2.3 above provides a summary of all existing bus services.

The northbound bus stop is approximately situated adjacent to the Garda Station while the southern bus stop is approximately situated adjacent to the Bank of Ireland on Upper Main Street. Traffic congestion and disruption does not appear to be an issue on Upper Main Street during passenger pick-up and drop-off.

However, informal parking does occur within the vicinity of both informal bus stops. As Graiguenamanagh-Tinnahinch does not have a Traffic Warden this informal practice cannot be effectively controlled resulting in in-carriageway stopping of buses and boarding/alighting of passengers via on-street parking areas which is not ideal particularly for the mobility and visually impaired.

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 Graiguenamanagh-Tinnahinch a new local "Town Link" bus service between Graiguenamanagh-Tinnahinch and Thomastown should be investigated to serve the aforementioned existing informal bus stops in addition to a new dual bus stop adjacent to Walsh's Funeral Directors, R705 Tinnahinch –

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. The likely journey duration for the proposed Town Link service would be approximately 40 minutes with an 80-minute return time. This potential new bus service could be further extended to Bennettsbridge to provide further regional connectivity and offer a connection with the existing Kilkenny-Bennettsbridge "Ring A Link" Bus Service. The likely journey duration for this extended "Town Link" would be approximately 50 minutes with a 100-minute return time.

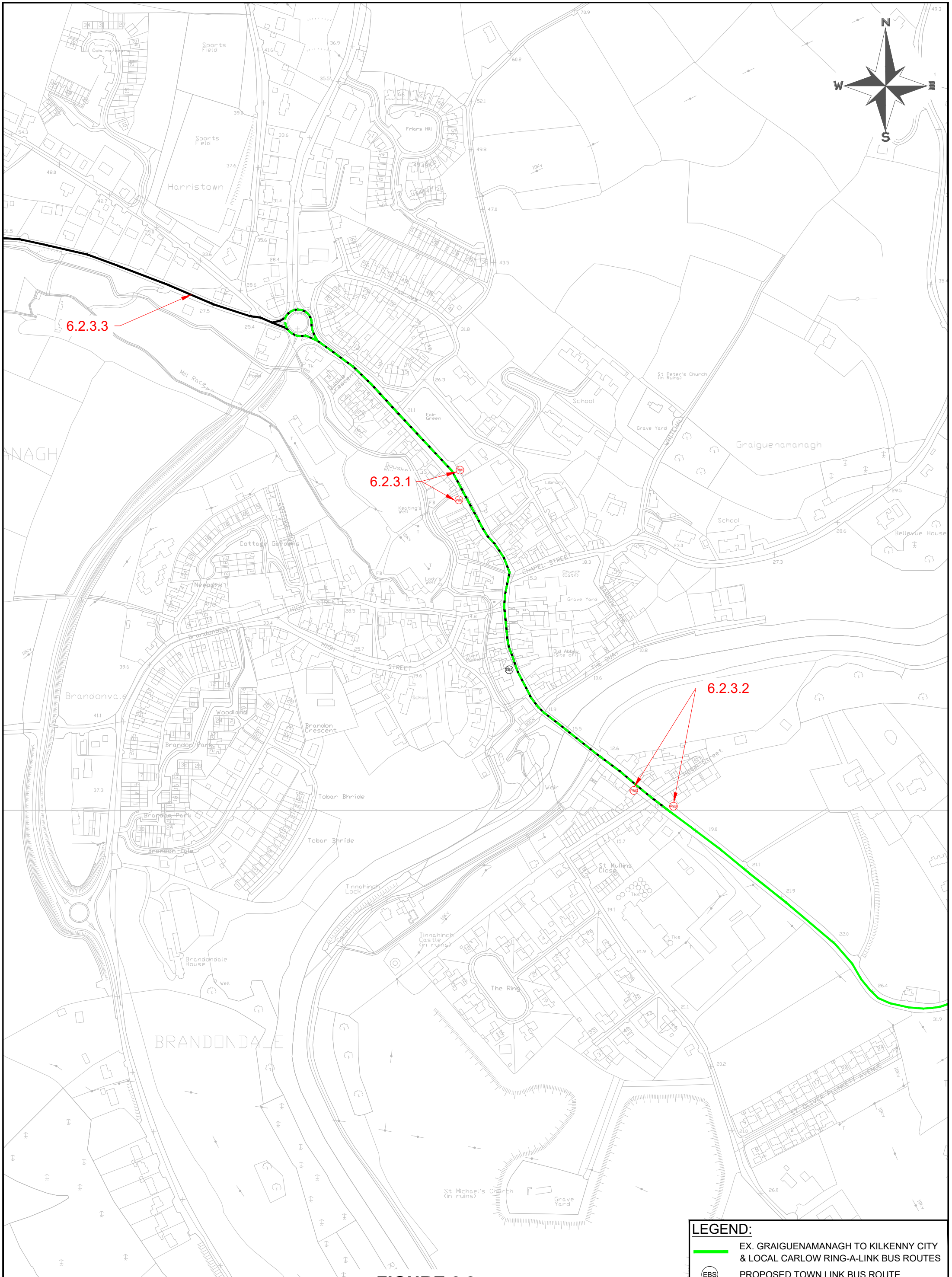
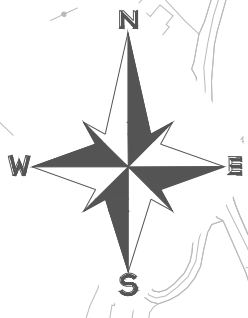
6.2.3 Suggested Projects and Initiatives to be Considered

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 Graiguenamanagh-Tinnahinch LAP and Calow & Kilkenny CDPs (detailed above). This includes compliance with natural heritage and biodiversity objectives and development management standards of the Graiguenamanagh-Tinnahinch 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 Graiguenamanagh-Tinnahinch 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 parallel to enhancing the existing mobility infrastructure.

- 6.2.3.1** Explore the feasibility of supporting the upgrade of the existing informal Upper Main Street Graiguenamnagh bus stops to standard bus stops including age friendly bus shelters and kassel kerbing.
- 6.2.3.2** Explore the feasibility of supporting the provision of a new dual bus stop on the R703 Tinnahinch including age friendly bus shelters and kassel kerbing.
- 6.2.3.3** A feasibility study into a potential Graiguenamanagh-Tinnahinch to Thomastown "Town Link" bus service should be commissioned as a first step in determining the viability of same.

Figure 6.3 shows the suggested upgraded/new bus stops for consideration and existing/potential bus routes within the joint settlement of Graiguenamanagh-Tinnahinch.



**FIGURE 6.3
BUS NETWORK**

| LEGEND: | |
|---------|--|
| | EX. GRAIGUENAMANAGH TO KILKENNY CITY & LOCAL CARLOW RING-A-LINK BUS ROUTES |
| | PROPOSED TOWN LINK BUS ROUTE |
| | PROPOSED TOWN LINK BUS ROUTE |
| | PROPOSED BUS STOP LOCATIONS |

6.3 SCHOOLS

6.3.1 Existing Situation

Significant trip generators in Graiguenamanagh-Tinnahinch, particularly in the AM and PM peak hours are Scoil Mhuire Gan Smál Primary School, Graiguenamanagh Boys National Primary School and Duiske College Secondary School with a total combined population of approximately 409, consisting of 374 students and 35 staff. All three schools are situated in Graiguenamanagh and in relatively close proximity to each other with Duiske College the exception being located just west of the Main Street and south of High Street. Consequently, congestion is experienced on Convent Lane, Chapel Street, High Street and Lower Main Street due to the concentration of school traffic on these streets 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 Graiguenamanagh-Tinnahinch LAP and Kilkenny CDP (detailed above). This includes compliance with natural heritage and biodiversity objectives and development management standards of the Graiguenamanagh-Tinnahinch 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 Graiguenamanagh-Tinnahinch 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 parallel to enhancing the existing mobility infrastructure.

- 6.3.3.1** Request that a Mobility Management Plan be produced by Scoil Mhuire Gan Smál Primary School, Graiguenamanagh Boys National Primary School, and Duiske College 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 that Duiske College Secondary School is planning to relocate outside of Graiguenamanagh Town Centre in the near future. This will provide a further opportunity to formalise Duiske College's commuting plans and promote more sustainable travel patterns at its new site just off the R705 Graiguenamanagh Relief Road adjacent to Graiguenamagh Fire Station. The later should form one of the key objectives of the relocation plan if not already included in same.
- 6.3.3.2** Explore the feasibility of reopening and upgrading the existing pedestrian link from the Graiguenamanagh Quay Carpark to Wood Rood including the provision of a pedestrian crossing on Wood Road and the infilling of discontinuities in the existing northern footway on Wood Road to facilitate The Quay Carpark becoming a Park & Stride facility for Graiguenamanagh Boys National School and potentially Scoil Mhuire Gan Smál if other proposed pedestrian/cyclist's linkages are realised.
- 6.3.3.3** Explore the feasibility of constructing a combined footway/cycleway between Scoil Mhuire Gan Smál and Graiguenamanagh Boys National School including the provision of a pedestrian crossing on Whitehall Road.

6.4 SETTLEMENT CENTRE

6.4.1 Existing Situation

As previously stated, Graiguenamanagh-Tinnahinch is linked to other neighbouring towns and villages by the intersection of the R703 and the R705 Regional Roads just northwest of Graiguenamanagh itself. These road corridors are significant connectivity, travel and distribution arteries for Graiguenamanagh-Tinnahinch and the greater county. As a result, they are highly trafficked routes.

The R705 regional road is located immediately west of the town and forms the Graiguenamanagh-Relief Road which was completed in February 2008. As part of the Relief Road two full access junctions were provided at the intersection of the Relief Road with the R703 (i.e. Harristown Roundabout) and Brandondale Road (i.e. Brandondale Roundabout). The Harristown Roundabout serves the northwest of the joint settlement and the Brandondale Roundabout southwest of the joint settlement. The relief road continues to remove significant volumes of through-traffic on the Leighlinbridge-New Ross route, particularly heavy goods vehicles, from centre of the joint settlement (i.e. Graiguenamanagh) daily.

In addition, the flow of the traffic through Graiguenamanagh itself is control by a signalised shuttle traffic management system. The latter appears to operate satisfactorily with the phasing being well optimised which prevents significant queues developing at end of Main Street. That said, the presence and operation of such a traffic management system, due to Lower Main Street's narrowness, limits other potential traffic management options from being considered/implemented within the joint settlement (e.g. The George Semple Bridge).

6.4.2 Suggestions for Potential Improvements to be Considered

The following improvements are suggested for consideration to alleviate the current congestion experienced within the joint settlement and to produce a freer flowing traffic system within the settlement's core:

- 1) Improve the road safety, pedestrian environment and traffic flow of the existing George Semple Bridge particularly on both approaches to the bridge.
- 2) Remove conflicting two-way traffic from the following narrow streets:
 - a) Graiguenamanagh Quay, Barrow Lane, Convent Lane, Mill Road (Graiguenamanagh) and The Turf Market.
- 3) To improve two-way traffic flow and general traffic circulation particularly with the proposed one-way of the latter streets in the northern part of the joint settlement's centre, Chapel Street's existing on street carparking arrangement should be reviewed and revised.

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 Graiguenamanagh-Tinnahinch LAP and Calow & Kilkenny CDPs (detailed above). This includes compliance with natural heritage and biodiversity objectives and development management standards of the Graiguenamanagh-Tinnahinch LAP.

The following is a list of all the potential traffic mobility improvement schemes considered as part of this Study that could be implemented within Graiguenamanagh-Tinnahinch 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 parallel to enhancing the existing mobility infrastructure.

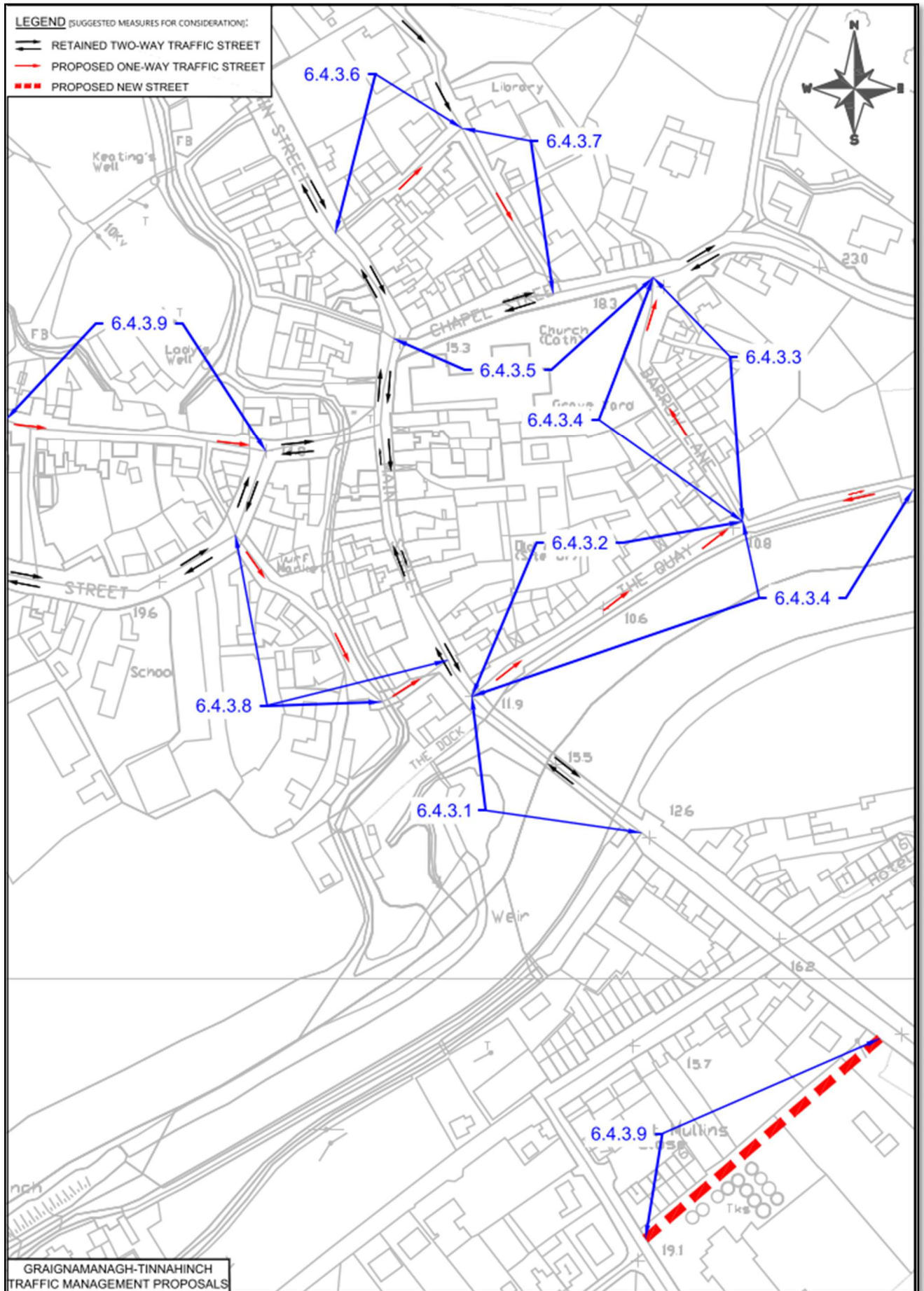


Figure 6.4 – Joint Settlement Traffic Management Suggestion for Consideration

- 6.4.3.1** Explore the feasibility of supporting the improved road safety and pedestrian environment of the existing George Semple Bridge particularly on both approaches to the bridge including traffic calming measures.
- 6.4.3.2** Explore the feasibility of supporting improved traffic management, road safety and pedestrian environment of Graiguenamanagh Quay.
- 6.4.3.3** Explore the feasibility of supporting improved traffic management, road safety and pedestrian environment of Barrow Lane.
- 6.4.3.4** To facilitate the latter three proposals, explore the feasibility of making the following streets traffic flow changes:
 - a) Graiguenamanagh Quay one-way eastbound from Lower Main Street to Barrow Lane.
 - b) Barrow Lane one-way northbound from Graiguenamanagh Quay to Chapel Street
 - c) Introduction of priority control on Graiguenamanagh Quay from Barrow to the Quay Carpark.
- 6.4.3.5** Explore the feasibility of supporting layout optimisation and relocation of the existing street parking on Chapel Street to improve two-way traffic flow particularly during the AM & PM school runs.
- 6.4.3.6** Explore the feasibility of making Bray Lane a one-way eastbound street from Upper Main Street to Convent Lane to provide safer vehicle egress.
- 6.4.3.7** Explore the feasibility of making Convent Lane a one-way southbound street from Bray Lane to Chapel Street to remove conflicting traffic on this existing narrow street.
- 6.4.3.8** Explore the feasibility of making The Turf Market a one-way southbound only street from High Street to Lower Main Street to facilitate the installation of proposed footways along same.
- 6.4.3.9** Explore the feasibility of making Mill Road (Graiguenamanagh) a one-way eastbound only street from Cottage Row to High Street.
- 6.4.3.10** Explore the feasibility of constructing a new more accessible and safer street connecting the R703 Tinnahinch to Mill Road (Tinnahinch) and The Ring Residential Development.

6.5 PARKING

6.5.1 Existing situation

Generally, Graiguenamanagh-Tinnahinch is well served with parking having 7 no. existing main public/private car parks in and in the vicinity of the settlement's centre (i.e. Aldi, Fair Green, Supervalu, Turf Market, Market Square & The Quays (i.e. Graiguenamanagh & Tinnahinch)) in addition to significant lengths of on-street parking along Upper Main Street, Chapel Street and High Street including accessible spaces. Consequently, there does not appear to be an acute demand for on-street parking in the settlement's core which is common issue in other district towns. All carparks and on-street parking were observed as being adequately occupied/utilised. Parking is generally not considered to be an issue except during the summer months due to the high annual influx of tourists and leisure activity patrons to Graiguenamanagh-Tinnahinch and its environs. The identification of the existing car park locations is poor particularly for visitors to Graiguenamanagh-Tinnahinch and the joint settlement 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 Graiguenamanagh-Tinnahinch LAP and Calow & Kilkenny CDPs (detailed above). This includes compliance with natural heritage and biodiversity objectives and development management standards of the Graiguenamanagh-Tinnahinch 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 the joint settlement of Graiguenamanagh-Tinnahinch 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 parallel to enhancing the existing mobility infrastructure.

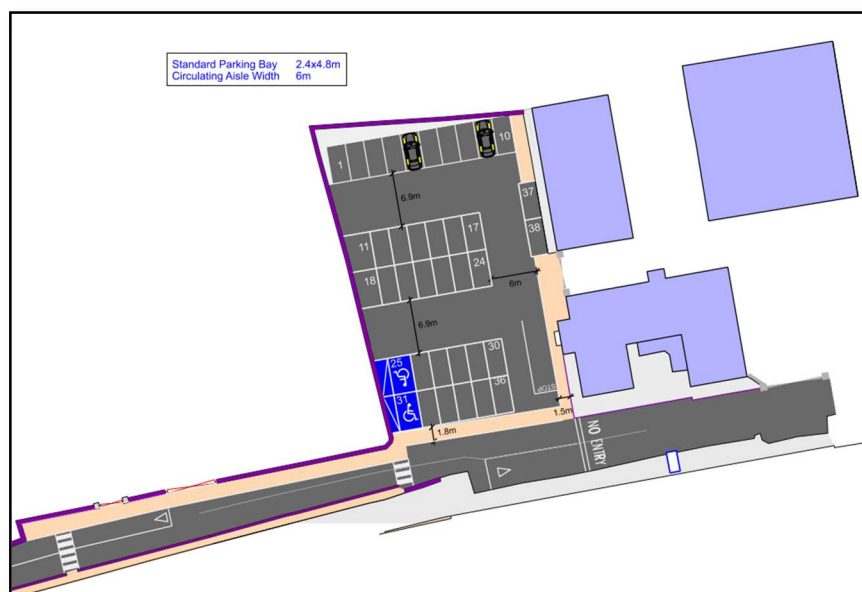


Figure 6.5 – Graiguenamanagh Quay Carpark Suggestion for Consideration

- 6.5.3.1** Explore the feasibility of improving the layout and general accessibility of Graiguenamanagh Quay Carpark including the provision designated mobility impaired and age friendly car parking spaces.
- 6.5.3.2** Explore the feasibility of installing a new signage scheme detailing all parking facilities and public transport options within Graiguenamanagh-Tinnahinch in addition to providing a temporary overflow carpark in Tinnahinch opposite Boats Café to ease the acute seasonal carparking demand during the summer months in the joint settlement

with a view to potentially developing same into a fully serviced trail head parking area for the Barrow Way in the longer term.

- 6.5.3.3** Explore the feasibility of installing an electric car charging station in the Fair Green, Market Square and The Quay (i.e. Graigenamanagh & Tinnahinch) Carparks.

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 | Grauquenanagh-Tinnahinch LAP Objectives | |
|----|--------------------|----------|----------------------|--|---|
| 1 | Immediate to Short | 6.1.3.1 | Footways & Cycleways | TCO1.1, TCO1.3, TCO1.4, TCO1.5, ACCE1.3, TO2.4, TO2.5, COM1.1, GIO1.1, GIO1.2, OSO2.1, OSO2.2, | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8, MTO1.10 |
| 2 | | 6.1.3.2 | Footways & Cycleways | | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.6, MTO1.7, MTO1.8, MTO1.9. |
| 3 | | 6.1.3.3 | Footways & Cycleways | | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.6, MTO1.7, MTO1.8 |
| 4 | | 6.1.3.4 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8 |
| 5 | | 6.1.3.5 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8 |
| 6 | | 6.1.3.6 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 7 | | 6.1.3.7 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 8 | | 6.1.3.8 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 9 | | 6.2.3.1 | Bus Routes & Stops | | MTO1.1, MTO1.4, MTO1.6, MTO1.7 |
| 10 | | 6.3.3.1 | Schools | | MTO1.1, MTO1.3, MTO1.4 MTO1.5, MTO1.7, MTO1.8 |
| 11 | | 6.4.3.1 | Settlement Centre | | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8, MTO1.10 |
| 12 | | 6.4.3.2 | Settlement Centre | | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.6, MTO1.7, MTO1.8, MTO1.9. |
| 13 | | 6.4.3.3 | Settlement Centre | | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.6, MTO1.7, MTO1.8 |
| 14 | | 6.3.3.4 | Settlement Centre | | MTO1.1, MTO1.2, MTO1.3, MTO1.4, MTO1.5, MTO1.6, MTO1.7, MTO1.8, MTO1.9, MTO1.10 |
| 15 | | 6.5.3.1 | Parking | | MTO1.1, MTO1.6, MTO1.7, MTO1.8 |
| 16 | Short to Medium | 6.1.3.9 | Footways & Cycleways | TCO1.1, TCO1.3, TCO1.4, TCO1.5, ACCE1.3, TO2.4, TO2.5, COM1.1, GIO1.1, GIO1.2, OSO2.1, OSO2.2, | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 17 | | 6.1.3.10 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 18 | | 6.1.3.11 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 19 | | 6.1.3.12 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 20 | | 6.1.3.13 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 21 | | 6.1.3.14 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 22 | | 6.1.3.15 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 23 | | 6.1.3.16 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 24 | | 6.2.3.2 | Bus Routes & Stops | | MTO1.1, MTO1.4, MTO1.6, MTO1.7 |
| 25 | | 6.3.3.2 | Schools | | MTO1.1, MTO1.3, MTO1.4 MTO1.5, MTO1.7, MTO1.8 |
| 26 | | 6.4.3.5 | Settlement Centre | | MTO1.1, MTO1.3, MTO1.4, MTO1.8 |
| 27 | | 6.4.3.6 | Settlement Centre | | MTO1.1, MTO1.3, MTO1.4, MTO1.8 |
| 28 | | 6.4.3.7 | Settlement Centre | | MTO1.1, MTO1.3, MTO1.4, MTO1.8 |
| 29 | | 6.4.3.8 | Settlement Centre | | MTO1.1, MTO1.3, MTO1.4, MTO1.8 |
| 30 | | 6.5.3.2 | Parking | | MTO1.1, MTO1.3, MTO1.8 |

| No | Phase | Item | Suggested Measures | Graigenamanagh-Tinnahinch LAP Objectives | |
|----|---------------------|----------|----------------------|--|---|
| 31 | Medium to Long Term | 6.1.3.17 | Footways & Cycleways | TCO1.1, TCO1.3, TCO1.4, TCO1.5, ACCE1.3, TO2.4, TO2.5, COM1.1, GIO1.1, GIO1.2, OSO2.1, OSO2.2, | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 32 | | 6.1.3.18 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 33 | | 6.1.3.19 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 34 | | 6.1.3.20 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 35 | | 6.1.3.21 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 36 | | 6.1.3.22 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 37 | | 6.1.3.23 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 38 | | 6.1.3.24 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 39 | | 6.1.3.25 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 40 | | 6.1.3.26 | Footways & Cycleways | | MTO1.1, MTO1.3, MTO1.4, MTO1.5, MTO1.7, MTO1.8. |
| 41 | | 6.2.3.3 | Bus Routes & Stops | | MTO1.1, MTO1.4, MTO1.6, MTO1.7 |
| 42 | | 6.3.3.3 | Schools | | MTO1.1, MTO1.3, MTO1.4 MTO1.5, MTO1.7, MTO1.8 |
| 43 | | 6.4.3.9 | Settlement Centre | | MTO1.1, MTO1.3, MTO1.4, MTO1.8 |
| 44 | | 6.4.3.10 | Settlement Centre | | MTO1.1, MTO1.3, MTO1.4, MTO1.8 |
| 45 | | 6.5.3.3 | Parking | | MTO1.1, MTO1.6, MTO1.8 |

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.