

CHAPTER 7: INFRASTRUCTURE



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7.1 Transportation-Introduction

The context for this chapter is provided in Chapter Two of this Development Plan. The key to Navan's sustainable growth is the development of an integrated land use and transportation system which provides for a development pattern that protects Navan's architectural and natural heritage while providing for growth and economic development. The integration of land use and transportation policies, both in the town centre and outer suburban areas underpins the transportation strategy as outlined below.

7.2 Goals

It is the goal of Navan Town Council and Meath County Council to create vibrant urban areas with good provision of public transport, reduced traffic congestion and an attractive urban centre, which is not dominated by the car. It is the main objective of the Planning Authorities to create an integrated and environmentally sound system, with particular emphasis on:

- Accessibility and choice of transport for all;
- Strong integration between transportation planning and land use planning;
- General reduction in the need to travel, especially by car, through land use planning which promotes a sustainable mix of uses;
- Optimum use of existing infrastructure by traffic management, prioritised bus operations, and reduced travel times by sustainable modes and reduced congestion;
- Increasing the modal share of walking and cycling around Navan;
- Shift from car to more environmentally friendly modes of transport;
- Provision for the future transportation needs of Navan including rail,
- Protect the town centre from the impact of traffic congestion and examine the possibility of introducing pedestrianisation where appropriate.



It is an aim to promote a variety transport modes and to reduce conflict between them

7.3 Roads

Navan functions as a major transportation node in County Meath. The town is served by the N3 and N51 national roads along with the important R153, R161 and R162 regional roads. Transport 21, the Government's framework for the development of the national transport network to 2015, includes an objective to deliver the M3 Motorway which will bypass the town and significantly enhance its transport network.

Navan is heavily reliant on the local road network for public and private transport as well as the movement of commercial goods. The growth in population and the consequential increase in the number of vehicles on the roads is placing pressure on this critical road infrastructure. The pivotal location of Navan within the County means that improvements to the existing road network are of critical importance to the economic development of Navan and the quality of life attainable for the inhabitants of the town. The timely development of road infrastructure in and around the town not

just provides the necessary traffic capacity that will be required as the town grows, but also provides an excellent opportunity to enable appropriate enhancement of the public realm.

National Primary and National Secondary Roads

A “national road” is the highest statutory class of road under the Roads Acts 1993 to 2007. The Minister for Transport may by order classify any existing public road or any proposed public road as a national road. In April 2006 the Minister signed the Roads Act 1993 (Classification of National Roads) Order 2006 (S.I. No 187 of 2006). In Navan the order confirmed the N3 as a national road and the N51 as a national secondary road. It also confirmed that the M3 Motorway would become part of the N3 national route when completed.

M3 Motorway



M3 Motorway under construction in late 2008

The M3 Motorway is a key part of the Transport 21 plan to upgrade the overall national roads network. It will significantly improve road transport connections between the North West and the East of the country. The existing single carriageway N3 national primary road is coming under pressure from high traffic volumes which have been brought about by large population growth in towns such as Dunshaughlin, Navan and Kells over the last decade. Average annual daily traffic (AADT) movements on the N3 are in far excess of that recommended for a single carriageway road, though traffic levels on the N3 did reduce to some extent after the opening of the N2 Ashbourne bypass in May 2006 to which some traffic has diverted. This only further underlines the inadequacies and shortcomings of the existing N3 national road.

Notwithstanding their higher permitted speed limit, motorways are statistically proven to be the safest roads in the State, given the physical separation of the carriageways and given that access is limited to grade separated interchanges many kilometres apart. In this way, the M3 will offer Navan residents the opportunity to avail of a safer and faster transport option to Dublin and the Northwest. The project will also act as an incentive to enterprise to develop in Navan, thereby boosting the local economy through the creation of employment.

The Leinster Orbital Route

The proposal to develop an outer orbital route is included as a key objective of the Regional Planning Guidelines for the Greater Dublin Area 2004-2016 (RPG'S) and was also identified in other strategies such as the Dublin Transportation Office strategy “A Platform for Change”. Its importance is given more prominence within the context of the sustainable regional planning

strategy and the importance attached to providing accessibility and connectivity between large growth towns in the hinterland of the Greater Dublin Area.

It is envisaged that the alignment of the Leinster Orbital Route would run within the vicinity of urban areas such as Drogheda, Navan, Trim, Enfield and Naas. In April 2007, the National Roads Authority (NRA) completed an updated feasibility study which built on an earlier study carried out in 2001, looking in particular at the costs and benefits of such a route. The 2001 study had concluded that an outer orbital route had significant merit and was feasible on engineering and environmental grounds. Apart from identifying a possible corridor for an outer orbital, the 2001 report did not consider route options, appropriate road type and costs as it simply constituted a high-level strategic study of the concept.

As part of the 2007 study various possible route corridors were examined in detail. A corridor linking Drogheda, Navan and Naas was identified as the optimum route. The proposed motorway would begin south of Drogheda, and continue on towards Navan, pass around Navan running close to Trim before ending near Naas, Co Kildare. It would provide a high quality road link between the M1, N2, M3, M4 and M7 Motorways and provide a safe and viable alternative to the M50 Motorway in this regard. The NRA has recommended that a Compulsory Purchase Order and an Environmental Impact Statement be prepared for the project.

The primary objective of the Leinster Orbital Route is to provide an alternative bypass of Dublin for national road traffic not wishing to access the metropolitan area and to provide a transport link between development centres in the hinterland area of the Greater Dublin Area, in a way which supports their sustainable, physical and economic development. This important route would bring major economic and environmental benefits as well as improved road safety in attracting long distance traffic off the existing regional and local road network in County Meath. The combined effect of this strategic initiative will make it easier to market the potential of a large growth town such as Navan as a major economic investment location. It will help fulfil the aim of bringing jobs closer to those living in the hinterland area of the Greater Dublin Area and as a result reduce the numbers who currently have to commute to Dublin City on a daily basis.

However delivery of the project is not a short term objective of the Government as the project is not included in either Transport 21 or the National Development Plan 2007-2013 and so the project is unlikely to be delivered during the lifetime of the 2009-2015 Navan Development Plan. Nevertheless the Planning Authorities recognise the potentially immense positive impacts that this project could bring about and therefore consider it prudent to plan for its delivery during the current Development Plan period.

Regional Roads

A “regional road” is statutory class of road under the Roads Acts 1993 to 2007. The Minister for Transport may by order classify any existing public road or any proposed public road as a regional road. In April 2006 the Minister signed the Roads Act 1993 (Classification of Regional Roads) Order 2006 (S.I. No 188 of 2006). This Order classified the following roads in the Navan Development Plan area as regional roads.

- R153: Navan – Kentstown - Balrath
- R161: Navan – Trim – Kinnegad
- R162: Navan – Kingscourt – Monaghan Town
- R895: Canon Row (and continuing north to junction with the N3)
- R896: Ludlow Street and Bridge Street

Under Article 4 and Schedule 3 of the Roads Act 1993 (Classification of National Roads) Order 2006 (S.I. No 187 of 2006) the M3 Motorway legally forms part of the N3 national route once it is completed and so the current N3 which runs through Navan will be reclassified as a Regional Road, namely the R147.



R161 Trim – Navan road improvements were completed in 2008

Over the life of the 2003-2009 Navan Development Plan major investment was made in the regional road network serving Navan. In particular the R153 Kentstown Road benefitted from significant structural improvement while the R161 Trim Road benefitted from major structural improvements including partial realignment and signage refurbishment.

Boulevard of Navan

The construction of the N3 Inner Relief Road in the late 1980's along the banks of the River Boyne and River Blackwater relieved the town centre of significant traffic congestion; however as a late addition to an established urban landscape, the road had little connection with the existing urban fabric of the town. For example while the old road's alignment through the town was addressed by the buildings that opened onto it, the new N3 Inner Relief Road was aligned to the rear of the established building line. This was and remains to some extent aesthetically unsatisfactory. It presents a poor image of Navan to through traffic and in addition represents an underutilisation of potential key edge of town centre lands.

The existing N3 is a noisy, dirty and unpleasant atmosphere for pedestrians due to the large number of vehicles that use this road. The River Blackwater currently cannot be seen from the existing N3 as trees and high artificial road embankments hide it from view. The development of the proposed "Boulevard of Navan" between Fire station and 'the Academy Square Development' off the Dublin Road, would create a quiet, traffic calmed area between Navan town centre and the River Blackwater, creating an attractive public place with significant potential for development that would reinvigorate this area at the heart of Navan. The downgrading of the N3 to regional road status and the resultant decrease in through traffic resulting from the provision of the M3 Motorway and local distributor road network provides the impetus required to realise this important objective of the previous Development Plan that heretofore could not be secured.

Distributor Road and Local Roads

L-50555 local distributor road from the Dublin Road to Bailis

The construction of the local distributor road network is critical to the implementation of the masterplan contained in the Integrated Development Framework Plan that underpins the Development Strategy proposed in this Development Plan. The proposed local distributor road network will link all of the radial routes in Navan to each other and to the motorway interchanges without having to pass through the existing town centre.

An important consideration in the recommended alignment of the local distributor road network was the location of the proposed M3 Motorway by-pass of Navan and the two proposed interchanges. The proposed network splits the potential traffic from the town towards the two interchanges and the network is not looped. Traffic originated in the northern section of Navan will be channelled towards the south-west in the direction of the Athboy Road Interchange to the Motorway, while the traffic originated in the eastern areas of the town will access the Motorway via the Kilcarn Interchange. The traffic generated to the south of the town will have both interchange options available.

The ideal road network for any development area is a local distributor road configuration to minimise severance, which allows direct access to cells or parcels of development. Direct access between cells is not possible for vehicular traffic. Cell to cell movements by car must be undertaken via the local distributor road, but cells are permeable to bus and non-motorised modes. An area where permeability is allowed only for sustainable modes and car access is limited to a single or small number of accesses to a local distributor road is known as traffic cells. Such a structure allows for residential and other areas to be free of through traffic and for traffic to be directed and assigned to appropriate roads where amenity will not be significantly affected.

It shall be a key objective of this development plan to secure the provision of the local distributor road network as outlined in this chapter of the development plan and indicated on its attendant maps.

New Road Schemes



N51 Inner Relief Road Phase 2A

For the overarching goals of the Planning Authorities to be secured and for the road hierarchy to be implemented several new road schemes will be required in order to support the sustainable development of the town. The construction of new and improved roads will also facilitate the reallocation of road space on the existing road network to pedestrians, cyclists and /or public transport users. This Development Plan maintains the objective to complete the local distributor road network as contained in the 2003-2009 Navan Development Plan which was initially informed by the Land Use, Urban Design and Transportation Framework for Navan published in December 2002. The 2003 -2009 Navan Development Plan contained a number of specific “RT” or Road and Transportation objectives. A number of these were significantly advanced during the 2003-2009 plan period such as the M3 Motorway and N51 Navan Inner Relief Road Phase 2B as well as part of “RT 6” which involved the provision of a new bridge over the River Boyne and local road which connects the N3 to the Forfás Road. The other schemes remain outstanding and it will be a key objective of the Planning Authorities to progress these during the life of the Development Plan. Some sections of the Distributor Road network have been re-classified in the Development Plan from RTs road objectives to Strategic Transport road objectives in recognition of their strategic importance, namely RT 5, RT 6 and RT 7 as detailed below.

ST 1 (Formerly RT 6 and RT7) Construction of Distributor Road between Trim Rd (R161) and the N3 at Limekiln Hall and construction of link road between Trim Rd and the M3 (Kilcarn Interchange) slip road to N3 at Kilcarn including traversing the Borallion

This road will provide an important link between R161 and N3, thereby reducing congestion in Town Centre. It will complete a link between R161 and R153 as the eastern portion (R153 to N3) is already completed. This road will also provide an important link between R161 and M3, and new development in the Commons Road and Trim Road areas.

ST 2 (Formerly RT 5) Construction of Local Distributor Road between the Athboy Road N51 to the Trim Road R161 intersecting the Commons Lane and Commons Road

This route extends approximately 2.5 kilometres. The section of the road from Commons Road to the Trim Road will be constructed commensurate with the development of the LAP 3 lands at Duffslane and Balreask Old, and will be developer driven.

ST 3 Completion of Local Distributor Road between the Athboy Road and the Ratholdren Road including the provision of a bridge over the Blackwater. The section of the road will provide access to the lands to the north west of the town to be developed for community facilities to include the provision of the Regional Hospital.

RT 1 Construction of the M3 Motorway providing for a by-pass of Navan and direct access to Navan via two interchanges

This major road project is currently under construction and is due for completion during the first year of this development plan.

RT 2 Completion of Distributor Road between Slane Rd (N51) and Ratholdren Road.

This road will serve as a distributor for traffic in the Clonmagadden Strategic Development Zone. It will provide an important link between R162 and N51, thereby reducing congestion at the Round'O junction. It extends some 1,100m in length. It has an estimated cost of €4.7m and it has an estimated delivery timeframe of 5 years.

RT 3 Construction of Distributor Road between Ratholdren Rd and the Kells Road (N3)

This road will improve access to lands in the north of the town between the Ratholdren Road and the Kells Road including Clonmaggaden SDZ. It will also reduce traffic congestion at the Round'O junction and in the Town Centre.

RT 4 Construction of the Local Distributor Road Link between the existing N3 Kells Road with the proposed M3 Motorway Interchange on the N51 Athboy Road.

This road will improve access onto the M3 motorway.

RT 8 Construction of link road between Duleek Rd (R153) and the Boyne Rd Navan including crossing the Navan/Kingscourt railway line by underbridge

This road will provide an important link between R153, the Old Athlumney Road and the Boyne Road by opening up access to lands in the LAP 4 development boundary and linking east and west of the Drogheda Railway line by means of an underbridge. Taken along with RT6 and the Bailis Distributor Road, this will form an outer loop for the southeast quadrant of Navan creating good access for commercial, industrial and tourism industries. This road extends to some 1600m and has an estimated delivery cost of €10.5m excluding land acquisitions.

RT 9 Phase 2B of the Navan Inner Relief Road linking the N3 Kells Road via Moathill with the N51 Athboy Road

This road will provide an important link between the Kells and Athboy Roads. This road is substantially complete.

Policies

In terms of Roads Infrastructure, it is the policy of Navan Town Council and Meath County Council:

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| INF POL 1 | To implement a programme of road construction / improvement works and local measures to improve road safety closely integrated with existing and planned land uses. |
| INF POL 2 | To co-operate with the National Roads Authority and other Local Authorities to provide the proposed Leinster Orbital Route as proposed in the Regional Planning Guidelines for the Greater Dublin Area. |
| INF POL 3 | To regulate, control and improve signage throughout the town. |

INF POL 4	In accordance with the “Traffic Management Guidelines” issued by the Department of the Environment, Heritage & Local Government / Department of Transport / Dublin Transportation Office, Traffic and Transport Assessments, undertaken by and at the expense of the developer, shall be carried out to assess the impacts of developments on local and regional roads in accordance with guidelines given in Section 1.11 and Table 1.4 of the document which lists thresholds above which a Traffic and Transport Assessment is mandatory. The Traffic and Transport Assessment will be assessed by the Planning Authority and any additional works required as a result of the Traffic and Transport Assessment shall be funded by the developer.
INF POL 5	To require developers to provide a Traffic and Transport Assessment, as carried out by competent professionals in this field, where new developments will have a significant effect on travel demand on a National Road, having regard to the “Traffic and Transport Assessment Guidelines” published by the National Roads Authority in September 2007. Where a Traffic and Transport Assessment identifies necessary on and off site improvements for the development to be able to proceed, the developer will be expected to fund the improvements by entering into a formal agreement with the appropriate planning authority. Any additional works required as a result of the Traffic and Transport Assessment shall be funded by the developer.
INF POL 6	To provide for the future transportation needs of Navan and environs in a sustainable manner which provides for different transport modes.
INF POL 7	To integrate land use planning and transportation planning.
INF POL 8	To consolidate development in areas which are served by public transport and a good road network.
INF POL 9	To reduce the need to travel, especially by car, by compact development with mixed uses.
INF POL 10	To concentrate developments which generate large numbers of trips, such as offices, shops and labour intensive employment along existing and proposed transportation corridors.
INF POL 11	To locate development that generates large numbers of heavy goods vehicle movements close to major roads.
INF POL 12	To ensure new road construction is integrated into the urban fabric of Navan.
INF POL 13	To establish a clear road hierarchy, in which each of the road links has a function and where the mixing of national, regional and local traffic is reduced to the minimum possible.
INF POL 14	To provide additional road capacity, subject to environmental and conservation considerations, in order to remove the volume of through traffic from the central streets of the town, and to improve circulation within the town centre.
INF POL 15	To facilitate the development of the national and regional road network in line with the provisions of the ‘National Development Plan’ and ‘Transport 21’, in accordance with the policy of the Department of Transport and National Roads Authority.

INF POL 16	To promote the provision of telematics such as electronic variable information signage on the approach roads to the town centre to inform motorists about the availability of car parking spaces in car parks.
INF POL 17	To construct the Local Distributor Road Network and ensure its integration into the urban area of Navan.
INF POL 18	To provide for and carry out the improvements to sections of regional roads and county roads that are deficient in respect of realignment, structural condition or capacity, where resources permit and to maintain that standard thereafter.

Objectives

In terms of Roads Infrastructure it will be an objective of Navan Town Council and Meath County Council

INF OBJ 1 To promote the development of a Boulevard between the Fire Station and the 'Academy Square Development' off the Dublin Road following the downgrading of the N3 to regional road status.

INF OBJ 2 To preserve and secure from further development a route for the future provision of Distributor Road Corridors for the development of the following routes:

-ST 1 (Formerly RT 6 & RT 7) Construction of Local Distributor Road link between the Trim Road R161 to the existing section of Local Distributor Road at Limkilin and construction of a Link Road connecting the aforementioned section of the Local Distributor Road with the Kilcarn Interchange to the Motorway, including traversing the Borallion,

-ST 2 (Formerly RT 5) Construction of the Local Distributor Road link between the Athboy Road N51 to the Trim Road R161 intersecting the Commons Lane and Commons Road,

-ST 3 Construction of the Local Distributor Road link between the Athboy Road and the Ratholdren Road including a new bridge over the Blackwater,

-RT 1 Construction of the M3 Motorway providing for a by-pass of Navan and direct access to Navan via two Interchanges,

-RT 2 Completion of the Local Distributor Road link between the Slane Road and the Rathaldron Road,

-RT 3 Construction of the Local Distributor Road link between the Rathaldron Road and the Kells Road (N3), including a new bridge over the Blackwater River,

-RT 4 Construction of the Local Distributor Road Link between the existing N3 Kells Road with the proposed M3 Motorway Interchange on the N51 Athboy Road,

-RT 8 Construction of the Local Distributor Road Link between the Boyne Road to the Kentstown Road R153 including the construction of a bridge over the existing Navan – Drogheda Rail Line and traversing the Old Road, Athlumney,

-RT 9 Phase 2B of the Navan Inner Relief Road linking the N3 Kells Road via Moathill with the N51 Athboy Road,

-LOR The construction of the Leinster Orbital Route (LOR) providing for the development of a National Primary Route to facilitate growth in the primary and secondary development centres (as originally designated in the Strategic Planning Guidelines) and provide for a strategic by pass of Dublin.

INF OBJ 3 To examine roads and streets within the development plan area over the period of the plan and to devise a phased program for the improvement of those of poor quality. Such improvements may incorporate realignment, paving works, new parking arrangements, and footpath and street furniture installation.

INF OBJ 4 To carry out road/street improvement works along the following urban roads;

-UR 1 Kentstown Road, beyond St. Michael's Loreto Convent as far as Casey's Cross

-UR 2 Old Road, Athlumney, including junction treatment with Kenstown Road at Gaffney's Filling Station

-UR 3: Swan Lane

-UR 4: Mill Lane/Blackcastle Lane

-UR 5: Kilsaran Lane

INF OBJ 5 To carry out street lighting improvements as required, but including at the following locations;

-Along the Proudstown Road

-Along the Athboy Road at Our Lady's Hospital and beyond

-Along the Rathaldron Road

-Along the Commons Road

-At Beechmount Homepark

-Along the Boyne Road

-Along the L5050 at Johnstown

INF OBJ 6 To provide footpaths and cycleways at the following locations;

-In Johnstown Village (From Carne Hill Housing Development to the Local Distributor Road)

-Along the L5050 at Johnstown

-Along the eastern side of the Trim Road from the entrance to Beaufort College to the extent of the Development Plan envelope

INF OBJ 7 To provide footpath improvements at the following locations;

-Along the eastern side of the Trim Road from Woodlands Housing Development to the entrance to Beaufort College

-Along the northern side of the Athboy Road from the junction of the Boreen Keel to St. Patrick's Classical School

-Along the southern side of the Athboy Road from the junction with the Commons Road, past the entrance of Our Lady's Hospital to Mullaghboy Industrial Estate

-Along the Commons Road towards the entrance with Claremount Stadium

INF OBJ 8 Promote the redevelopment of the lands between the Trim Road, Carriage Road and the Dan Shaw Road as a major transportation node in County Meath, with a multi-modal interchange, catering for rail, bus (local and regional), car parking and bicycle facilities.

INF OBJ 9 To improve the junction arrangement at the intersection of Circular Road / Bridge Street / Academy Street.

INF OBJ 10	To prepare a Traffic Management and Circulation Study of Navan following the completion of the M3 and the downgrading of the N3 to regional road status.
INF OBJ 11	To examine over the lifetime of the Plan the requirement and case for a bridge crossing and distributor road link connecting the Slane Road to the Boyne Road.
INF OBJ 12	The Planning Authority shall require that redevelopment proposals at the Round O Gateway site adequately address traffic management issues.

7.4 Pedestrians and Cyclists



Facilities for Pedestrians and Cyclists on the N51 Navan Inner Relief Road Phase 2A

The European Charter of Pedestrian Rights which was comprised in a resolution adopted by the European Parliament in 1988, states that: The pedestrian has the right to live in a healthy environment and to freely enjoy the amenities offered by public areas under conditions that adequately safeguard both physical and psychological well-being. In order to achieve sustainability, walking and cycling must be encouraged. The compact nature of Navan town centre means that improvements to pedestrian facilities in this area to make the town centre a safer and more pleasant place in which to walk would inevitably increase the number of people who would rather walk than drive.

Existing pedestrian facilities particularly in the town centre are generally of a good standard with a number of pedestrian crossings where traffic must give way to pedestrians when they step out onto the crossing. In other areas pedestrians benefit from signal controlled crossings. Cyclist facilities, however, are very limited forcing cyclists to share road space with other road users. This has the effect of discouraging cycling as a mode of transport as it poses an increased road safety hazard to the cyclist. This is unfortunate as the topography of the town lends itself very favourably to cycling as a mode of transport. It is considered that retro fitting cycleways into a town with an existing streetscape character such as Navan would be problematic due to the narrowness of the older streets however where this is deemed feasible it shall be investigated further. It would be less problematic to provide cycle lanes as part of new and existing sections of the local distributor road network and this will be examined. There is also a lack of bicycle parking facilities in Navan. The councils shall require that secure cycle parking facilities are provided for in new developments along with cycle lanes on any new access roads.

The DTO have recently published the 'National Cycle Policy Framework (NCPF) 2009-2020. The backdrop to this policy is the Government's new transport policy for Ireland 2009 - 2020 Smarter Travel - A Sustainable Transport Future. The vision is to create a strong cycling culture in Ireland and that all cities, towns, villages and rural areas will be bicycle friendly.

Pedestrianisation of Trimgate Street

Trimgate Street is Navan's main street and forms part of the N51 national secondary road. It forms part of the core retail area and many of the towns retailers and key service providers are located on this street. However, the vibrancy and conviviality of the Street could be significantly improved by the removal of vehicular traffic and the enhancement of the public realm. The completion of the M3 Motorway and local distributor road network will provide an opportunity for major pedestrian enhancements on this street and possible full pedestrianisation between Canon Row and Kennedy Road. In the longer term as part of subsequent phases the pedestrianisation of Watergate Street, Bakery Lane, Old Cornmarket will be explored.

The proposed pedestrianisation of Trimgate Street in the medium term would dramatically increase the attractiveness of Navan town centre with safer movement of pedestrians, reduction in exhaust emissions, reduction of ambient noise levels and reduced congestion in the narrow street pattern of Navan. This would encourage the uptake of environmentally sustainable modes of transport with quick access to the central public transport interchange and pedestrian and cycle routes to local residential and employment centres.

Policies

In terms of pedestrians and cyclists, it is the policy of Navan Town Council and Meath County Council:

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| INF POL 19 | To promote an attractive public realm of pedestrian footpaths, cycle ways, street landscaping, bus stops/shelters, street furniture, good signage and quality public lighting. |
| INF POL 20 | To promote the policies set out in the National Cycle Policy Framework 2009-2020. |

Objectives

In terms of Pedestrians and Cyclists it will be an objective of Navan Town Council and Meath County Council;

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|------------|--|
| INF OBJ 13 | To improve accessibility and facilities for people with mobility impairments and /or disabilities. |
| INF OBJ 14 | To prepare an integrated pedestrian and cycle path network for Navan, inclusive of additional bridging points over the Boyne & Blackwater Rivers, and to implement the emerging network, subject to the availability of finances, resources and physical constraints. |
| INF OBJ 15 | To examine the feasibility of pedestrianising Trimgate Street from Cannon Row to Kennedy Road once the M3 Motorway has been completed and progress has been made in delivering the local distributor road network and if deemed feasible, to carry out the necessary works to facilitate the introduction of pedestrianisation. To similarly examine and implement where appropriate the pedestrianisation of Bakery Lane, Old Cornmarket and Watergate Street as part of subsequent phases. |

INF OBJ 16	To require that all new significant developments including new institutions, employment centres, sports complexes, leisure facilities and industries provide for adequate cycle facilities, in the form of bike parking, sheltered bike parking, lockers and shower facilities.
INF OBJ 17	To provide a pedestrian crossing on the Slane Road adjacent to the large residential areas over the lifetime of the plan.
INF OBJ 18	To promote and facilitate the development of cycling and walking facilities in the town.
INF OBJ 19	To encourage the successful incorporation of safe and efficient cycleways, accessible footpaths and pedestrian routes into the design scheme for town centres/neighbourhood centres, residential, educational , employment, recreational developments and other uses.
INF OBJ 20	To provide cycle ways, where appropriate, as part of all road improvement/redesign schemes.
INF OBJ 21	To ensure, where possible, that cycleways and footpaths are effectively separated from major vehicular carriageways.

7.5 Public Transport

Bus



A recently improved Bus Stop

The main public transport services in Navan are related to the demand for commuter trips towards Dublin and these are outlined in Chapter 2. The Bus Éireann 109 service, is the main bus service between Navan and Dublin in this regard and also provides residents with the ability to visit Cavan and Kells or Dunshaughlin and Blanchardstown. The 109A bus service connects Navan with Dublin City University and Dublin Airport as well as Ratoath. In addition to these main services Bus Éireann operates a wide range of services with the following routes serving the town; 107 Dublin - Kingscourt, 109N Dublin - NavanNightrider, 134 Navan – Dunsany and 136 Navan – Ross Cross, as well as a three route town bus service. Some bus services to Dublin from Navan are also provided by the private sector.

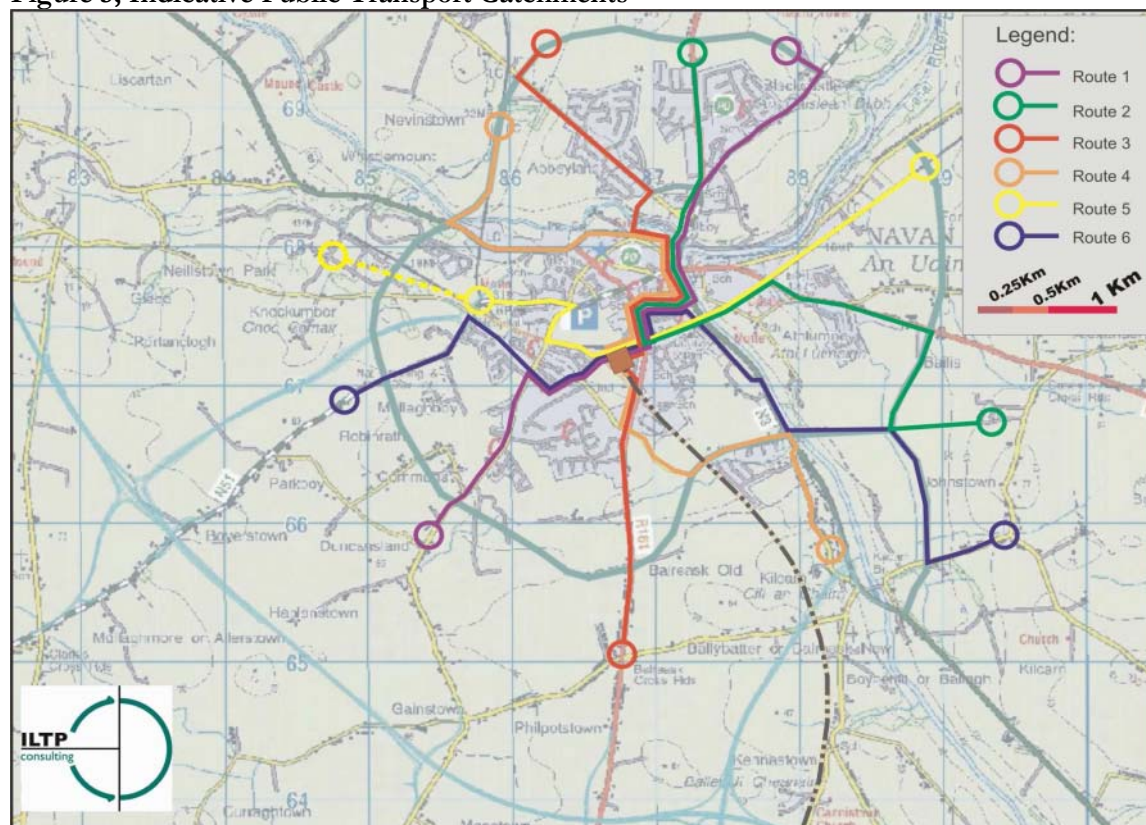
Flexibus rural transport service, Meath's Accessible Transport Project also services Navan. Flexibus is a limited company, run by a voluntary board. The company is funded under the National Development Plan through the Rural Transport Initiative. The Rural Transport Initiative is the response by the Government to the shortfall in available public transport in rural areas. This includes:

- People who live away from the main transport routes
- People with disabilities who need accessible transport
- Community groups with limited funding and transport needs
- People in rural areas with limited access to health care services

The Planning Authorities acknowledge that there will be an increased demand for external bus trips during the lifetime of this development plan, primarily to Dublin. The commuter bus service to Dublin will continue to play a critical role in the public transport system in this regard. In the longer term, it is expected that an element of this custom will be transferred to rail via the Navan-Dublin rail line. It is also envisaged that increased bus stop provision or a bus station will be necessary in the town centre expansion areas as these areas develop. The provision of park and ride facilities would also encourage increased use of bus and rail services.

Quite unique for a town of its size, Bus Eireann operates a local service in Navan comprising of three different routes that link the residential periphery of Navan with the town centre. As Navan grows, the alignment of town bus routes in the town will need to be altered and new routes created to improve the convenience and accessibility of public transport and to reduce trip times. The Integrated Development Framework Plan recommended that additional local bus services be developed, phased and extended over time as development in the zoned areas is realised and the level of internal trips increases.

Figure 5; Indicative Public Transport Catchments



A network of 6 routes is proposed, taking into consideration the linkages between the town centre and the various residential neighbourhoods in the periphery. The network is shown on Map no. X including an indicative public transport population catchment. The proposed additional routes will pass through or near the existing town centre, thereby ensuring a quality service to all. The services will be provided at more regular frequencies of between 15 and 20 minutes throughout the day. The

Local Authorities will continue to work with Bus Eireann in establishing the integration between the bus service and future land use decisions.

Rail- Navan Railway Line



A modern rail service is critical to the sustainable development of Navan

Strategy 2000-2016: Platform for Change' was published by the Dublin Transportation Office in November of 2001 to support and complemented the strategic land use planning and transportation framework provided for by the Strategic Planning Guidelines. A Platform for Change provided for the construction of a new spur line off the Maynooth line near Clonsilla via Dunboyne to Navan. Córas Iompair Éireann (CIE) made an application to An Bord Pleanála on the 7th of September, 2007 for a Railway Order authorising the necessary railway works to enable the company to reopen a section of the old Navan railway line which runs between Clonsilla Station and a proposed new station to be constructed adjacent to the M3 Motorway in the townland of Pace, approximately two kilometres north of Dunboyne. An Bord Pleanála approved a Railway Order in respect of the project, also known as the Dunboyne (M3) commuter rail project, on February 28th 2008. The contract for this phase was officially signed on November 10th 2008 and construction commenced in December 2008. It is planned that all Dunboyne services will terminate at the Docklands Station. Services on phase 1 are scheduled to commence in 2010.

Iarnród Éireann is currently examining route options for Phase 2 of the Navan Railway line project. The project involves the extension of the Dunboyne (M3) commuter rail project from Pace onwards to the north side of Navan. This will involve the provision of approximately 34km of double track, including other infrastructure such as signalling and bridge works. Four Stations are proposed as part of the project at Dunshaughlin, Kilmessan, Navan Town Centre, and a terminus station at the north edge of Navan. Two route options were placed on display by Iarnród Eireann in January 2009 for members of the public to consider and provide feedback as to their preferred route alignment. The two options included an alignment largely in keeping with the historic Navan rail alignment, with minor alterations, and a second alignment which would be altered to run closer to Dunshaughlin.

The Planning Authorities consider that the provision of a heavy rail link to Dublin together with a central and northern rail station is critical for Navan to achieve its objective as a Large Growth Town in the Regional Planning Guidelines for the Greater Dublin Area 2004-2016. The Navan Integrated Development Framework Plan was developed on the premise of a rail based solution to complement the development of the M3 Motorway and local distributor road network. The

masterplan provides for more intensive redevelopment focused around a proposed new central rail station and public transportation interchange where that would be the focus of bus and rail transport in the town.

Navan is fortunate that it can develop a central rail station close to the town centre by the reinstatement of a disbanded rail line and the creation of a new central rail station surrounded by high density development to the south-west of the existing town centre. This will enable a substantial increase in town centre development to occur and enable an enlarged town centre to be developed to meet the future requirements of Navan. The new rail line with a central station will make Navan almost unique in Irish terms, that of having a rail station located in the heart of the town centre, with a direct link to Dublin City Centre, Dublin Port and Dublin Airport through an interchange with the proposed Metro West at Blanchardstown. A station is also purposed to the north of the town which will serve the large population catchments in this area.

The rail link will significantly strengthen the attractiveness of Navan as an investment and employment centre by allowing firms to benefit from the reduced costs of setting up in the town while still benefitting from the vast skills pool available in the Dublin City catchment. It will also provide a quality commuter service for those who choose to live in Navan and commute to Dublin. As Navan develops its own employment base and diversity of retailing and service facilities, the objective is for Navan to become more self-sufficient over time. The presence of a rail link to Dublin would see many commuters transfer from car to rail, as it will be faster and more reliable. Economic and retail leakage from the region will also be reduced.

Meath County Council recognises the enormous potential for the proposed railway to enhance connectivity between Navan and the remainder of the Greater Dublin Area, but equally recognise the need for the local population of Navan to have high a quality access to public transport. In planning for the delivery of the Navan Railway project, Meath County Council and Navan Town Council will assess the local bus, pedestrian and cycle network with a view to developing an integrated transport strategy that will cater for such needs. Such a strategy will be developed in consultation with Iarnród Éireann, Bus Éireann, Dublin Transportation Office and other licensed bus operators.

Policies

In terms of Public Transport, it is the policy of Navan Town Council and Meath County Council:

INF POL 21 To co-operate with relevant transport bodies and authorities to support and encourage the provision of safe and suitable locations for bus services including bus shelter provision at bus stops.

INF POL 22 To promote and facilitate developments designed to improve public transport services in Navan.

INF POL 23 To explore, in conjunction with Bus Éireann, DTO and private bus operators, the provision of additional Park and Ride facilities in Navan.

INF POL 24 To promote and secure, in conjunction with Bus Éireann, the development of a Central Bus Station within the lifetime of this Development Plan at the optimum location of the Central Bus & Rail Station in the Carriage Road Area;

INF POL 25 To extend, re-route and create new bus routes to meet travel demands and reduce trip times within the development boundary of Navan and Environs

INF POL 26 To promote the routing of all new bus services so that they serve the town centre in the interim and longer term, the proposed transportation hub at the train and bus stations and also proposed Park and Ride facilities.

INF POL 27 To facilitate the promotion and enhancement of the public bus service, and by

ensuring that the design and layout of the neighbourhoods facilitate the expansion of the bus service.

INF POL 28 To promote and give priority to environmentally sound modes of transport, such as bus, cycling, walking and in the longer term rail.

INF POL 29 To encourage initiatives to ensure that people with limited or no access to private transport in areas, including rural areas, with no usable public transport and people with reduced mobility, are able to access the full range of employment, retail, cultural and leisure activities.

Objectives

In terms of public transport it is an objective of Navan Town Council and Meath County Council

INF OBJ 22 To facilitate the provision of a heavy rail link between Navan and Dublin City

INF OBJ 23 To promote the redevelopment of the lands between the Trim Road, Carriage Road and the Dan Shaw Road as a major transportation node in County Meath, with a multi modal interchange, catering for rail, bus (local and regional), car parking and bicycle facilities.

INF OBJ 24 To promote and secure, in conjunction with Iarnród Éireann the development of a multi modal interchange, catering for rail, bus, car parking and bicycle facilities to the north of the town in the vicinity of the Ratholdren Road.

INF OBJ 25 To promote and secure, in conjunction with Bus Éireann, the development of a central Bus Station within the lifetime of this Development Plan at the optimum location of the Central Bus and Rail Station.

INF OBJ 26 The reservation free from development of the disused priority measures on major routes to the town centre (medium to long term objective)

INF OBJ 27 To explore, with Iarnród Éireann, the sharing of the existing Railway Viaduct over the River Boyne to accommodate local bus, pedestrians and cyclists as part of the public transport integrated network.

INF OBJ 28 To reserve the old Navan – Dublin Rail line free from development given it is a proposed alignment for the Phase 2 of the Navan railway line.

INF OBJ 29 To explore the provision of bus lanes and bus priority measures on major routes to the town centre.

INF OBJ 30 To encourage all major employers in Navan Town and Environs to prepare and implement Mobility Management Plans for their employees.

INF OBJ 31	To prepare in consultation with Iarnrod Eireann, a local bus strategy for Navan with particular emphasis on linkages to the proposed rail/bus stations and proposed Regional Hospital site.
INF OBJ 32	To prepare an integrated transportation strategy for Navan in conjunction with Iarnród Éireann, Bus Éireann, Dublin Transportation Office and other licensed bus operators which reviews the local bus, pedestrian and cycle network with a view to maximising local accessibility and connectivity to the proposed train and bus stations.

7.6 Park & Ride, Parking, Loading & Taxi Ranks



Pay & display car parking is available at a number of locations in Navan

The introduction of paid parking has increased car parking space availability in the town. Car parking and loading bay provision for new developments will be required in accordance with the standards outlined in Chapter Eight which are fully in accordance with the Meath County Development Plan 2007-2013. Extensive areas of surface car parking will be discouraged and alternative options will be encouraged including underground and multi-storey parking.

The existing town centre encounters significant car parking problems. The main shopping streets around the Shopping Centre are dominated by traffic flows to the detriment of pedestrian activity. Pressure for short term on street parking continues to exist along the streets in proximity to the town centre where parking is permitted, reflecting people's desires to park as close as possible to their intended location, this tendency toward convenience parking has an effect on traffic flow and adds to congestion within the town centre.

The Integrated Development Framework Plan set out in broad terms a parking management strategy which would complement the overall land use, urban design and transport strategy for Navan. The car parking strategy intends to enable proper accessibility to the Town Centre and avoid excessive traffic through it. The parking strategy for Navan consists of a three-tiered parking network, based on parking cells accessible from the Local Distributor Road network.

Therefore, three levels of car parking facilities should be in place as follows:

1. An element of car parking should be located within the town centre perimeter (e.g. Shopping Centre, Kennedy Road and Fair Green), enabling the necessary short-term trips into the centre. The

charge policy for these car parks should discourage medium and long-term stay. It is crucial to keep a balance between the 3 car parks, in what number of spaces and charges are concerned.

2. A number of car parks should be located in the immediate periphery of the Town Centre, at the end of each of the radial routes. The following locations are identified (some of which are existing):

- On the Inner Relief Road, north of the Blackwater
- At the new public Transport Interchange Station
- On Brews Hill / Commons Road (near GAA grounds)
- On Academy Street
- On Athlumney Road, east of the Boyne

Their location at an average of 500 meters from the town centre area allows proper accessibility to all areas within the centre. These facilities will cater for medium duration trips to the centre, and their cheaper charges should discourage trips into the heart of Navan. Each of the car parks will be accessible by a radial route off the Local Distributor Road.

The provision of dedicated park and ride facilities will also be encouraged in the town. Specifically it is intended to examine the possibility of developing park & ride facilities at Nevinstown, in the Carriage Road area adjacent to the proposed rail/bus stations and also at Knockumber and Balreask.

Policies

In terms of car parking, it is the policy of Navan Town Council and Meath County Council:

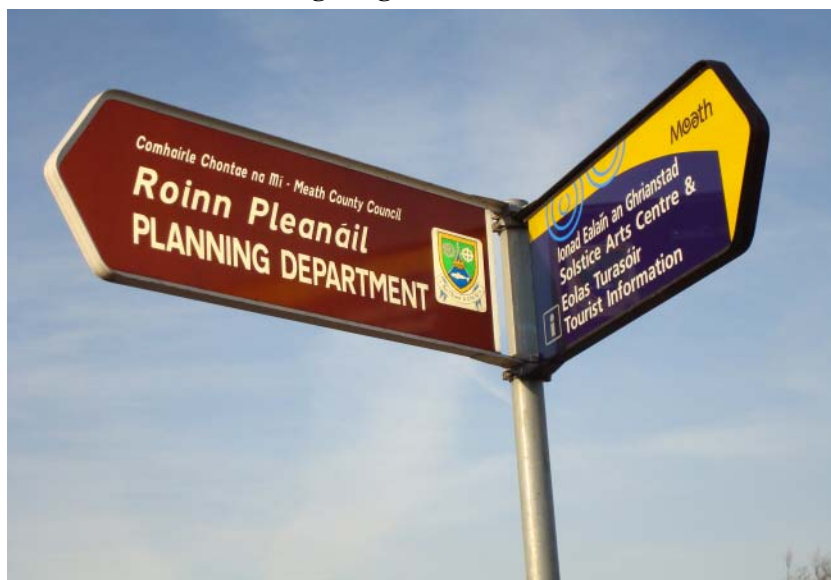
INF POL 30	To promote where feasible and appropriate alternative options to surface car parking.
INF POL 31	To apply the car parking standards as included in the Development Management Guidelines and Standards section of this Development Plan.
INF POL 32	To explore, in conjunction with the Dublin Transportation Office (or any office replacing it), Bus Eireann and private bus operators, the provision of Park & Ride facilities within the Development Plan envelope.
INF POL 33	To co-operate with relevant transport bodies and authorities and to support and encourage the provision of additional safe and suitable locations for bus and taxi services.

In terms of car parking, it an objective of Navan Town Council and Meath County Council:

INF OBJ 33	To further develop and implement the recommendations of the Car parking Strategy contained in the Navan Integrated Development Framework Plan.
INF OBJ 34	To implement the proposed recommendations of the Traffic Management Plan for Navan Town Centre.
INF OBJ 35	To discourage through traffic from penetrating the town centre, by adopting a circulation system that directs cars to the Local Distributor Road Network, providing car parks on the edge of the town centre, pedestrianising streets within the centre, restricting on street parking and undertaking environmental improvements.

INF OBJ 36	To adopt car parking management standards within the town centre that reduce on street car parking in favour of off-street car parking and a restriction on long term car parking facilities in favour of off-street car parking and a restriction on long term car parking facilities in favour of short term business, retail and leisure use.
INF OBJ 37	To encourage the provision of facilities for the parking of commercial trucks and vans and to identify a suitable site for the development of a commercial car park for the parking of such vehicles.
INF OBJ 38	To control the amount, pricing and location of parking.
INF OBJ 39	To support in conjunction with the Dublin Transportation Office (or any office replacing it), Bus Eireann and private bus operators, the provision of Park & Ride facilities at Knockumber, Nevinstown, Balreask, and the Carriage Road areas and other suitable locations.

7.7 Street Furniture & Lighting



Signage indicating the location of important Civic Buildings in Navan

Street Furniture includes refuse bins, seats, signage posts, bollards and telephone booths. Careful selection of street furniture, as part of any environmental improvements, is essential. That chosen should complement the existing built form of the town by means of an appropriate design style. Achieving this can enhance and add to the town's tourism potential and the urban environment in general. Adequate signage also can reduce traffic congestion and guide pedestrian to key trip generators in the town.

7.8 Keeping the Streets Clean

The Planning Authorities believe litter greatly reduces the appeal of a town and discourages people from making return trips there. If it is considered that a development may lead to the creation of litter, developers shall be obliged by condition to place or contribute towards the placement of public litter bins outside their premises, and any such litter bins shall be in keeping with the character of the area by means of appropriate design and styling to be agreed with the appropriate Planning Authority. It is noteworthy that significant progress has been made with respect to reducing litter in the town and this is reflected in the 2008 IBAL Anti Litter League results where Navan's was ranked in 21st place.

Policies

In terms of litter management, it is the policy of Navan Town Council and Meath County Council:

INF POL 34 To ensure that the people of Navan and its environs continue to enjoy a litter free environment through a partnership approach for the benefit of all who live, work in and visit Navan.

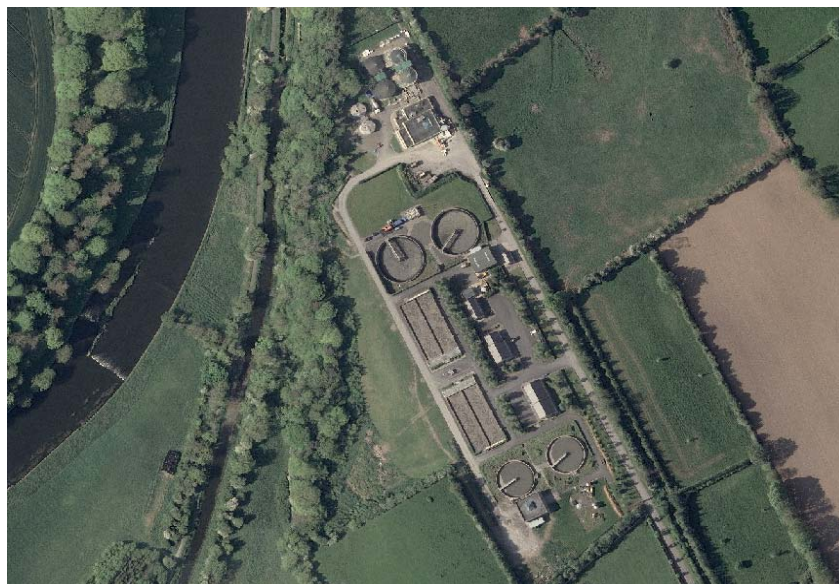
INF POL 35 To require the provision of public litter bins where there is a risk in the opinion of the Planning Authorities that a development would result in increased levels of litter on the public road or street.

Objectives

In terms of litter management, it is an objective of Navan Town Council and Meath County Council:

INF OBJ 40 To implement the Meath County Council, Litter Management Plan 2006 – 2009.

7.9 Water Supply and Sewerage Treatment and Disposal



Navan Waste Water Treatment Plant at Ferganstown (2008)

Adequate water services provision is critical to ensure the ongoing protection of the environment, to facilitate development, and also in the interests of public health. Chapter Two of this Development Plan provides a detailed context in respect of water services in Navan. The legislative framework for the provision of water services underwent radical change during the period of the previous development plan and this culminated in the enactment of the Water Services Act 2007. The Act defines water services as “all services, including the provision of water intended for human consumption, which provide storage, treatment or distribution of surface water, groundwater or water supplied by a water services authority, or waste water collection, storage, treatment or disposal.”. The Act also states that any previous reference to a sanitary authority should now be read as reference to a “water services authority”. The Act also includes a new provision for the preparation of a “water services strategic plan”. It states a water services strategic plan shall contain such objectives as seem to the water services authority or water services authorities concerned to be reasonable and necessary—

- (a) to protect human health and the environment,
- (b) to facilitate the provision of sufficient water services for domestic and non-domestic requirements in the area to which the plan relates, and

(c) to support proper planning and sustainable development, including sustainable use of water resources,

The Act states the objectives included in the water services strategic plan shall be deemed to also be objectives of the development plan for the area for the purposes of planning. Importantly, any objective in a water services strategic plan shall override an objective contained in a development plan where a conflict exists. The Planning Authorities are obliged to have regard to the water services strategic plan for the area in the preparation of a development plan. However at the time of writing the relevant section of the Water Services Act 2007 had not been commenced and brought into operation and so there was no water services strategic plan applicable to Navan.

Over recent years Meath Local Authorities have invested heavily in upgrading and maintaining Navan's water services network. Much of the funding which facilitated this was secured from central government, and this has facilitated Navan in achieving its strategic role as a Large Growth Town. It is considered that subject to the planned works outlined in the Navan & Mid Meath Water Supply Scheme been delivered, in addition to the delivery of the projects contained in the DoEHLG water services investment programme, that adequate services will be available in terms of water supply and waste water disposal to cater for the projected level of residential and commercial / industrial development over the plan period.

Policies

In terms of water supply and waste water treatment, it is the policy of Navan Town Council and Meath County Council:	
INF POL 36	To continue the development and upgrading of the water supply system so as to ensure that an adequate, sustainable and economic supply of piped water of suitable quality is available for domestic, commercial, industrial, fire safety and other uses for the sustainable development of the town in accordance with the settlement structure identified in this Plan and as finances permit.
INF POL 37	To promote public awareness and involvement in water conservation measures by households, businesses and industries.
INF POL 38	To implement the Water Conservation Programme, in order to conserve valuable resources by reducing wastage.
INF POL 39	To utilise the existing water supply in an efficient and fair manner and in the best interests of the proper planning and sustainable development of the area.
INF POL 40	To ensure that all drinking water complies with the European Union Drinking Water Directive 98/83/EC and Directive 2000/60/EC as given effect in Irish law by the European Communities (Drinking Water) (No. 2) Regulations 2007, as may be amended.
INF POL 41	To protect groundwater resources having regard to the County Meath Groundwater Protection Plan.
INF POL 42	To develop groundwater protection schemes in line with the recommendations contained within the DoEHLG / GSI / EPA publication 'Groundwater Protection Schemes, 1999' or any revised or replacement publication.
INF POL 43	To maintain, improve and enhance the environmental and ecological quality of water by implementing the measures set out in the River Basin Management Plans and associated Programmes of measures that will emerge from the Eastern River Basin Districts Projects in co-operation with all organisations and major

	stakeholders for the protection of drinking, ground and surface waters as part of the implementation of the EU Water Framework Directive.
INF POL 44	To protect surface water and groundwater resources and their associated habitats and species including fisheries and in particular Annex II listed species.
INF POL 45	To require the submission of a Water Conservation and Management Plan for all major new developments in accordance with Meath County Council Water Bye-Laws 2007 Part 3 Water Conservation.
INF POL 46	To ensure that septic tanks and proprietary treatment systems, or other waste water treatment and storage systems, and associated percolation areas where required as part of a development, comply with the recommendations of the Environmental Protection Agency and that they are employed only where site conditions are appropriate.
INF POL 47	To require that all individual dwellings connect to the public wastewater treatment system where possible and where capacity is available in lieu of utilising septic tanks or waste water treatment systems.
INF POL 48	To continue the development and upgrading of the waste water system serving Navan to ensure that an adequate treatment capacity is available for the sustainable development of Navan as finances permit.

Objectives

In terms of Water Supply and Waste Water Treatment, it is an objective of Navan Town Council and Meath County Council:

INF OBJ 41	To implement the Water Services Investment Programme 2007-2009.
INF OBJ 42	To continue the upgrading and rehabilitation of water main networks.
INF OBJ 43	To reduce leakage and wastage from the water supply system wherever possible in the interest of achieving efficiency and sustainability.
INF OBJ 44	To apply Water Pricing to the existing and future non-domestic development in accordance with the Polluter Pays Principle.
INF OBJ 45	To replace the cast iron water mains in Navan.
INF OBJ 46	To prepare plans for increasing the capacity of the Navan Waste Water Treatment Plant to cater for the growth in demand from the residential, commercial and industrial sectors over the lifetime of the plan.

7.10 Flooding



River Boyne having burst its banks at Kilcarn, Navan (Source: OPW)

The First Schedule of the Planning and Development Act, 2000 indicates that development plans can include objectives regulating, restricting or controlling development in areas at risk of flooding (whether inland or coastal), erosion and other natural hazards. The OPW is charged at a national/central government level to monitor and address situations pertaining to flooding. The Planning Authorities shall control development to minimize the risk of flooding, taking into account any relevant guidance from the Department of the Environment, Heritage and Local Government (DoEHLG) or the Office of Public Works (OPW) such as the Flood Risk Management Planning Guidelines.

Meath County Council & Navan Town Council will consider the impacts of climate change in relation to likely increase of flooding. The issue of climate change should be taken into account in flood risk assessments and surface water management.

In terms of flood control, it is the policy of Navan Town Council and Meath County Council:

INF POL 49 To control development in the natural flood plain of rivers and to take into account any guidelines regarding flooding issued by the DoEHLG or OPW.

INF POL 50 To require all significant developments impacting on flood risk areas to provide a Flood Impact Assessment, to identify potential loss of flood plain storage and how it would be offset in order to minimize impact on the river flood regime.

In terms of flood control, it is an objective of Navan Town Council and Meath County Council:

INF OBJ 47 All development proposals in this area (i.e. LAP 3 & FP7) shall demonstrate full compliance with the guidance and recommendations of the completed Flood Risk Assessment Management Study (FRAMS) i.e. 'Swan River Flood Risk Assessment, March 2008.

INF OBJ 48 To ensure that existing wetland habitats are adequately protected, managed and where appropriate enhanced where flood protection/management measures are necessary.

7.11 Sustainable Urban Drainage Systems

Rainfall on a greenfield site is either absorbed into the ground or runs off slowly to the nearest watercourse. With development, much of the area becomes impermeable with runoff being piped to the nearest watercourse or storm drain. Thus both the volume and rate of runoff can dramatically increase, which may lead to flooding or increased overflows from combined sewers, neither of which is acceptable. It is the policy of the Planning Authorities to prevent flooding caused by poorly drained runoff. In order to do this, Sustainable Urban Drainage Systems (SUDS) will be incorporated into developments in order to reduce and ultimately prevent flooding. The Draft (2008) DoEHLG Planning Guidelines on Flood Risk Management encourage greater use of Sustainable Drainage Systems (SuDS) generally including the use of permeable paving techniques and porous surfacing.

Policies

INF POL 51 To ensure that all new developments have satisfactory drainage systems in the interest of public health and to avoid the pollution of ground and surface waters.

INF POL 52 To require all new large scale developments to provide 'Sustainable Urban Drainage Systems' (SuDS) as part of their development proposals.

7.12 Telecommunications

Satellite dishes and telecommunications apparatus, if badly sited, can be visually obtrusive and affect the character and appearance of historic buildings and townscapes. Therefore, it is important in the interests of the townscape to ensure that further telecommunication and related development does not have a detrimental impact on the appearance or character of the town. The erection of domestic antennae and satellite dishes is restricted by the Planning and Development Regulations 2001-2008.

Objective

In terms of telecommunications, it is an objective of Navan Town Council and Meath County Council:

INF OBJ 49 To have regard to the following in considering proposals for the development of telecommunications masts, antennae and ancillary equipment:

- a) The visual impact of the proposed equipment on the natural, architectural and historic environment.
- b) The removal or modification of features of architectural importance.
- c) The impact any such development may have on protected structures or their setting.
- d) The potential for co-location of equipment on existing masts.
- e) The Department of the Environment "Telecommunications Antennae and Support Structures, Guidelines for Planning Authorities" (July 1996).

7.13 Broadband

High speed broadband is an important asset in order to attract inward investment into Ireland. As the private sector was failing to invest at the level necessary to keep pace with the demand for broadband, the Department of Communications, Energy and Natural Resources regional broadband programme was put in place. One element of the programme is addressing the telecommunications infrastructure deficit by building high speed, open access broadband networks, in association with the local and regional authorities, in major towns and cities.

A Metropolitan Area Network (MAN) broadband system to serve Navan was commissioned in 2007. The Metropolitan Area Networks (MANs) enable telecommunications companies to provide

cheap ‘always-on’ high-speed access to the Internet, a vital tool for industry and business to be efficient and competitive. It is also invaluable for educational institutes, health and research bodies and private consumers. The MANs will facilitate new entrants, new services and more competition for broadband throughout Ireland.

The MANs are publicly owned, while allowing all telecommunication operators open access to the networks. They are fibre-based and technology neutral resilient networks, which will ensure adequate capacity for generations to come.

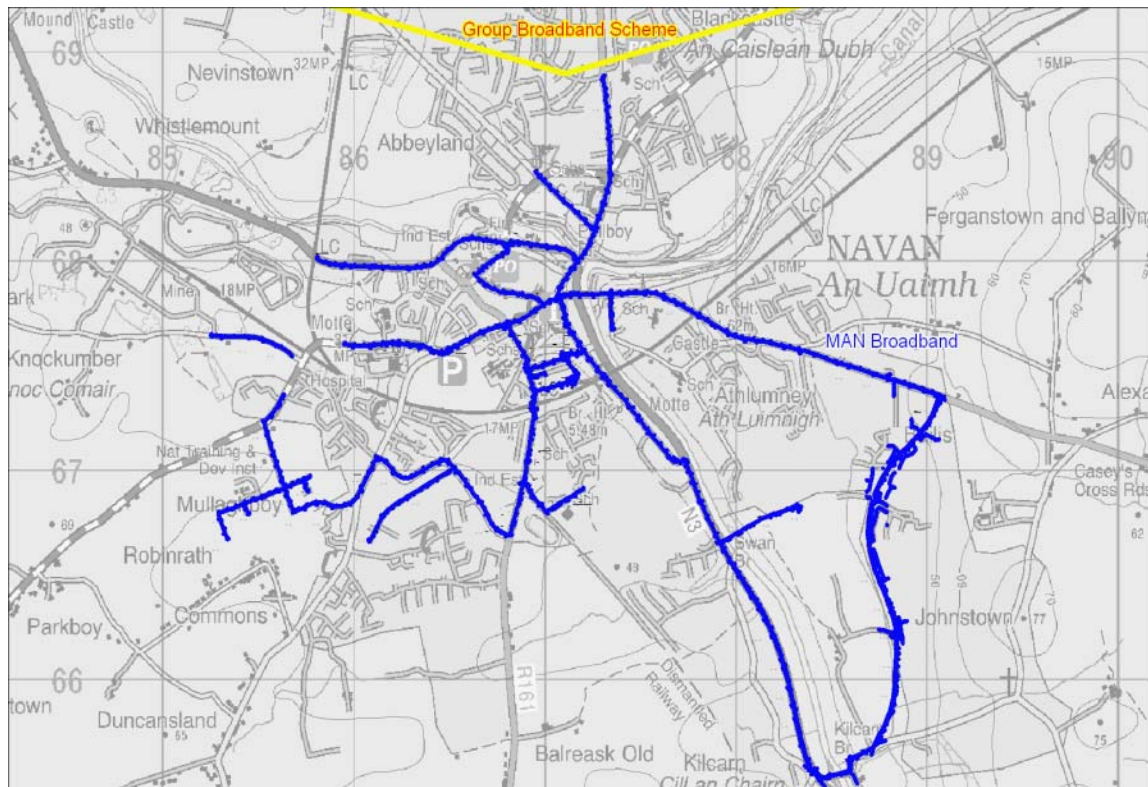


Figure 6; Navan Broadband Metropolitan Area Network

Objective

In terms of broadband provision, it is an objective of Navan Town Council and Meath County Council:

- | | |
|------------|---|
| INF OBJ 50 | To implement the broadband strategy for Meath County Council as it relates to Navan by supporting the roll out of broadband infrastructure in Navan to serve the needs of business and residents. |
|------------|---|

7.14 Solid Waste Collection and Disposal



Navan Recycling Centre, Mullaghboy Industrial Estate

Development will generate demand for domestic and commercial waste disposal and collection services. The construction phases of developments will also produce significant volumes of waste. Section 26 of the Protection of the Environment Act 2003 states that in performing their functions under the Planning and Development Acts, planning authorities and An Bord Pleanála “shall ensure that such measures as are reasonably necessary are taken to secure appropriate provision for the management of waste (and, in particular, recyclable materials) within developments, including the provision of facilities for the storage, separation and collection of such waste (and, in particular, such materials) and the preparation by the appropriate persons of suitable plans for the operation of such facilities.”

Developers may be obliged to submit a construction and waste management plan prior to the commencement of proposed construction activities. All waste material generated during both the construction and operational phases of development must only be collected by appropriately licensed waste contractors and disposed of in licensed waste facilities. The Planning Authorities may also impose conditions on developers to provide for the separation and collection of waste, in particular recyclable materials, in a development.

Policies

In terms of solid waste collection and disposal, it is the policy of Navan Town Council and Meath County Council:

INF POL 53 To promote education and awareness on all issues associated with waste management, both at industry and community level. This will include the promotion of waste reduction by encouraging the minimization, re-use, recycling and recovery of waste within the county.

INF POL 54 To implement the policies and objectives of the Waste Management Plan for the North East Region.

INF POL 55 To require the provision of bring banks, bottle banks or other appropriate recycling facilities as part of the overall development in the case of new or extended shopping centre developments and commercial neighbourhood centres, educational, sports, and recreational facilities. The sites shall be made available to the Local Authority at the developer's own expense and will be maintained by the local authority or its agents.

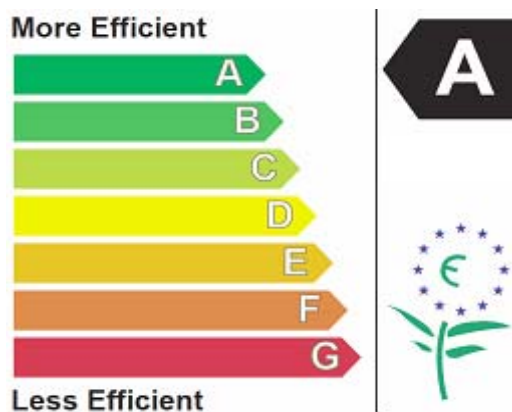
INF POL 56 To promote and encourage the recycling of construction and demolition waste in accordance with approved construction and demolition waste management plans.

INF POL 57 To ensure such measures as are reasonably necessary are taken to secure appropriate provision for the management of waste (and, in particular, recyclable materials) within developments, including the provision of facilities for the storage, separation and collection of waste.

In terms of solid waste collection and disposal, it is an objective of Navan Town Council and Meath County Council:

INF OBJ 51 To require the submission of a waste management plan for developments which meet the threshold for such plans as set out in the 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' (DoEHLG 2006) or its replacement.

7.15 Energy



The Planning Authorities support national and international initiatives for limiting emissions of greenhouse gases and encouraging the development of renewable energy sources. New technologies have enabled the development of sustainable energy sources. These include, wind, biomass and waste, solar, hydro, combined heat and power, geothermal heat transfer, etc.

The Planning and Development Regulations 2001-2008 exempt a range of micro renewable technologies from the need to apply for planning permission. On top of this the Planning Authorities will seek to promote all appropriate technologies through the development management process. Developments should strive to attain high standards of energy efficiency and environmental sustainability, including bioclimatic site design, water conservation, ventilation, energy efficient strategies for housing design, daylight analysis, and high insulation standards. This is particularly important given the necessity for Building Energy Rating certificates as part of the conveyancing process.

Meath County Council & Navan Town Council is committed to improving energy efficiency through the promotion of the rational uses of energy, renewable energies and waste reduction. At macro level this plan seeks to ensure sustainable land use planning, inclusive of transport connections and a reduction in car trip generation. At a micro level and in particular in relation to building design, this plan seeks to facilitate development which provides high energy efficiency, reduced CO₂ emissions and water conservation measures. In line with other Planning Authorities in the GDA, Meath County Council seeks to significantly improve the energy and associated environmental performance relevant to prevailing practices.

Residential Development

Meath County Council & Navan Town Council will seek a collective average reduction of at least 60% in CO₂ emissions deriving from energy usage for space and water heating within the housing development, relative to a baseline of prevailing regulatory and design practice. This initial baseline of comparison is to be represented by the provisions of Technical Guidance Document L (TGD L) to the Building Regulations, 2002 using a conventional gas fired heating boiler with an assumed seasonal efficiency of 75%. The calculation is to be carried out using the Heat Energy Rating Method in TGD L, pending adoption of the official national methodology for determining energy performance of housing for the purposes of the EU Energy Performance of Buildings Directive (EPBD). In meeting this CO₂ performance target, the development shall include:

- A collective average reduction of at least 60% in energy consumption for space and water heating, relative to the baseline of existing regulatory and design practice and using the methodology outlined above; and
- A contribution of 30% by renewable energy supply systems to meet the collective space and water heating requirements within the housing development.

Non-residential Development

A collective reduction of at least 60% in CO₂ emissions deriving from total energy usage (space heating, water heating, lighting, other) arising from all services within the development, relative to a baseline of existing regulatory and design practice. This initial baseline of comparison is to be represented by the provisions of TGD L to the Building Regulations, 2006. In the absence of an official national methodology for determining the energy performance of non-domestic buildings, this calculation is to be carried out using a method compliant with the draft European Standard prEN 13790. In meeting this CO₂ performance target, the development shall include:

- A collective average reduction of at least 60% in energy consumption for all services, relative to the baseline of existing regulatory and design practice and using a methodology as outlined above; and
- A contribution of 30% by renewable energy supply systems to meet the collective energy requirements within the development.

To illustrate the above, using the Heat Energy Rating methodology, the baseline energy performance of new housing is typically 125 kWh/m²/year for space and water heating when constructed to the minimum requirements of Building Regulations, 2002, and using a boiler with a seasonal efficiency of 75%. This translates into a CO₂ performance of 23.7 kg/m²/year using a gas fired heating system. Meath County Council requires that new housing developments should achieve a 60% reduction in CO₂ emissions associated with space and water heating (i.e. to below 9.5 kg/m²/year), which must include a reduction in energy use for this purpose (i.e. to below 50 kWh/m²/year) and a contribution of at least 30% by renewable energy systems to meet the collective space and water heating requirements within the development.

In pursuit of these targets, a menu of design and specification options will include the following:

- Site layout and associated bio-climatic/ passive solar design measures;
- Enhanced levels of insulation in walls, roofs, floors, glazing and doors;
- Reduced uncontrolled air infiltration losses;
- Use of healthy and controllable ventilation systems;
- Heat recovery systems;
- Use of daylight;
- Water conservation measures;
- More sustainable building materials;
- Improved heat generation appliance efficiency, e.g. condensing boilers;
- Intelligent heating system configuration and time/temperature/ zone/ function controls;
- Efficient provision of domestic hot water;
- Fuel switching to low or zero CO₂ emitting fuels;
- Energy efficient lighting systems;
- Incorporation of renewable energy systems, e.g. active solar, heat pumps, biomass;

- Provision of appropriate group or district heating systems.

In the case of non-domestic buildings, additional options include:

- Heating, ventilation and air conditioning systems and controls;
- Electrical energy use including motive power;
- Efficient lighting systems and controls;
- Building Energy Management Systems;
- Occupancy controls;
- Monitoring and Targeting systems;
- Combined Heat and Power (CHP).

Other measures which can contribute to the energy efficiency and renewable energy targets can also be considered. This menu approach enables designers and developers to adopt approaches which are responsive to site and client circumstances and constraints, and offers the flexibility to explore and employ different mixes of options on a case by case basis, to maximise technical and economic feasibility.

Policies

In terms of energy, it is the policy of Navan Town Council and Meath County Council:

INF POL 58 To promote energy efficient solutions to fulfill the energy requirements of development. In deciding applications for medium to large scale residential, commercial and industrial development the Planning Authorities will require that all micro-renewable energy technologies are explored towards the achievement of increased sustainable energy use.

INF POL 59 To support and facilitate the development of enhanced electricity supplies, and associated networks, to serve the existing and projected residential, commercial, industrial and social needs of Navan.

INF POL 60 To locate service cables, wires, piping, including electricity, telephone and TV underground, where possible, and that existing overhead cables and associated equipment should progressively be located underground with future capacity considered and appropriate ducting put in place.

INF POL 61 To ensure high standards of energy efficiency in all housing developments and encouraging developers, owners, and tenants to improve the environmental performance of the building stock, including the deployment of renewable energy.

In terms of energy, it is an objective of Navan Town Council and Meath County Council:

INF OBJ 52 To seek a collective average reduction of at least 60% in energy consumption for space and water heating in dwellings, relative to the baseline of existing regulatory and design practice and a contribution of 30% by renewable energy supply systems to meet the collective space and water heating requirements within the housing development.

INF OBJ 53 To seek a collective average reduction of at least 60% in energy consumption for all services, relative to the baseline of existing regulatory and design practice in non residential development and a contribution of 30% by renewable energy supply systems to meet the collective energy requirements within the development.

