

CENTRAL ACCESS SCHEME FOR THE CITY OF KILKENNY

ENVIRONMENTAL IMPACT STATEMENT



VOLUME 1 - NON TECHNICAL SUMMARY
MAY 2008



PREFACE

THIS ENVIRONMENTAL IMPACT STATEMENT CONSISTS OF THE FOLLOWING FOUR DOCUMENTS:

**VOLUME 1
NON-TECHNICAL SUMMARY**

**VOLUME 2
MAIN REPORT**

**VOLUME 3
FIGURES**

**VOLUME 4
APPENDICES**

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1.0 INTRODUCTION

1.1 General

Malone O'Regan Scott Wilson (MORSW) has been commissioned by Kilkenny County Council to prepare an Environmental Impact Statement (EIS) in respect of the proposed Central Access Scheme for the City of Kilkenny, which is illustrated below on Figure 1.1. This document provides a summary of the information contained within the EIS.

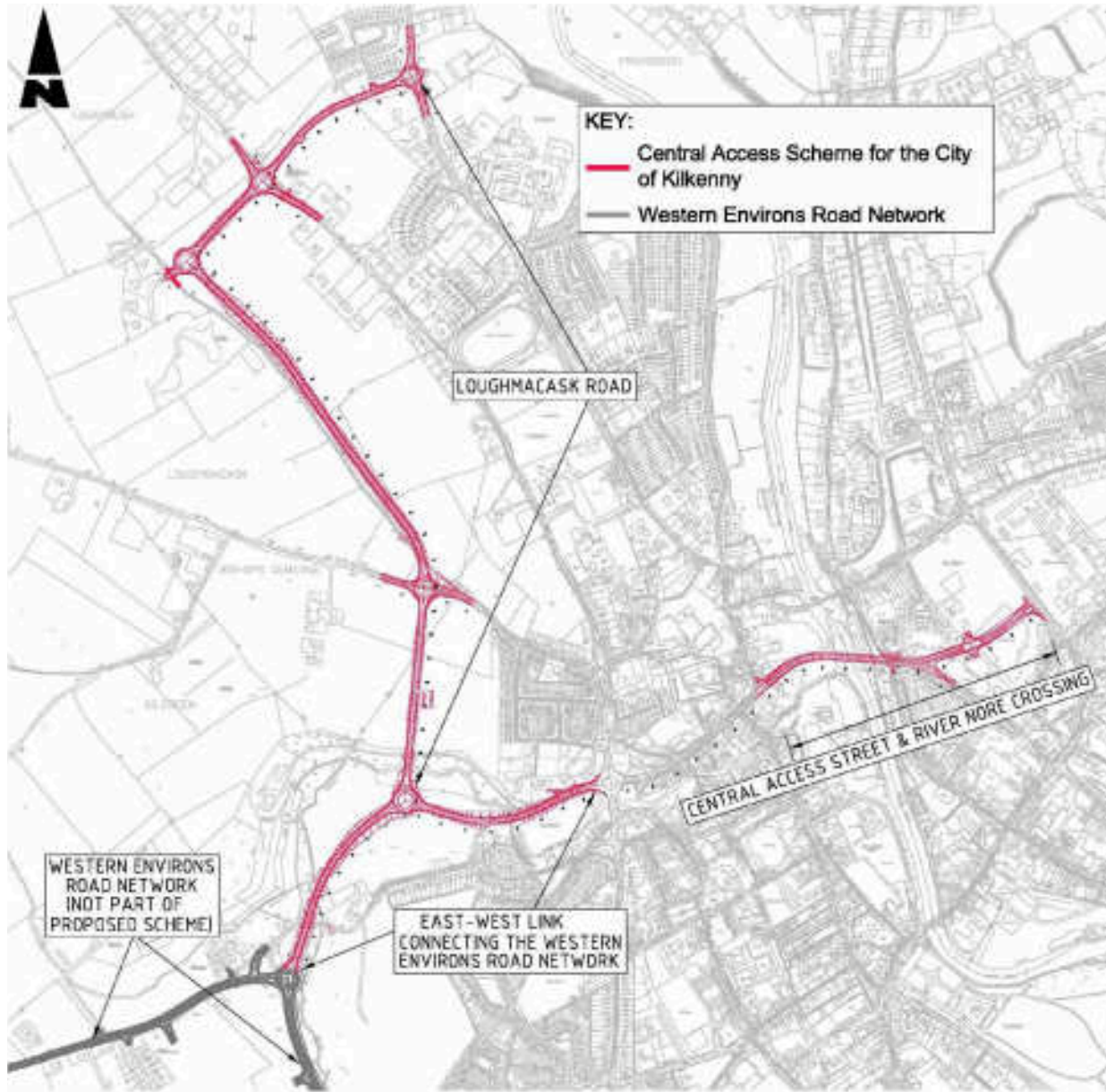


Figure 1.1 Layout of the Proposed Central Access Scheme for the City of Kilkenny

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1.2 Environmental Impact Assessment

The proposed scheme does not exceed the threshold stipulated in the legislation for the mandatory completion of an EIS. Therefore, in accordance with Section 50 (1) (c) of the Roads Act 1993 Kilkenny County Council requested written direction from An Bord Pleanála to prepare an EIS in respect of the proposed scheme. In response to this request, An Bord Pleanála issued a direction to Kilkenny County Council to prepare an EIS.

This EIS has been prepared in accordance with Section 50 of the Roads Act 1993 (as amended by the European Communities (Environmental Impact Assessment) (Amendment) Regulations 1999 and Part V of the Road Regulations 1994 (S.I. No. 119 of 1994). The EIS has also been prepared in accordance with all relevant guidelines including the Environmental Protection Agency (EPA) publications entitled 'Guidelines on the Information to be Contained in an Environmental Impact Statement', 2002 and 'Advice Notes on Current Practice in the Preparation of Environmental Impact Statements', 2003; and the National Roads Authority (NRA) guidelines entitled 'Environmental Impact Assessment of National Road Schemes – A Practical Guide', 2005.

1.3 Consultation

Extensive consultation was conducted throughout the environmental impact assessment process. These consultations took the form of:

- Public consultation which involved public meetings, exhibitions, and meetings with landowners directly impacted by the proposed scheme.
- Issue of a Consultation Document to 24 stakeholders in June 2007, including An Taisce; The Department of the Environment Heritage and Local Government; the Southern Regional Fisheries Board; the Office of Public Works and the Heritage Council.
- Meetings with stakeholders were held where requested. Meetings were held with representatives of An Taisce, The Heritage Council, the Department of the Environment, Heritage and Local Government, and the Southern Regional Fisheries Board.

The feedback received from all consultations was taken into account throughout each stage of the scheme development and environmental impact assessment process. Feedback received during the consultation process resulted in the design of the proposed scheme being modified significantly. Details of the design modifications are outlined in more detail in Section 4 – Alternatives.

1.4 Existing Road Network

The Kilkenny City Centre road network is largely historic and as a result many of the streets are unsuitable for the volumes and types of traffic they currently carry. Carriageway and footway widths vary, and in the majority of City Centre streets, the carriageway widths are narrow and less than what would be considered suitable for roads carrying two-way through traffic. Streets within the City Centre which are adequate for two-way traffic include the Parade and Castle Road on the south side of the City Centre, Bateman's Quay, Dominic Street, Butts Green and Dean Street (which was widened in the late 1980s) to the north west of the City Centre, and the Castlecomer and Dublin Roads to the east of the City Centre.

The City Centre is bisected to the east and west by the River Nore, which is traversed by two existing bridges, Green's Bridge and John's Bridge. The main traffic flows into the City Centre converge at these bridges. Both bridges are narrow and are not suitable for the volume of traffic which currently utilises them, therefore they are heavily congested during peak times which

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results in frequent conflict between vehicular traffic and other road users such as pedestrians and cyclists.

Plates 1.1 to 1.6 below illustrate examples of the existing road network within Kilkenny City Centre, and the existing City Centre bridge crossings.



Plate 1.1 – New Road at Newpark roundabout looking west towards Green's Bridge



Plate 1.2 – Junction of New Road and Greensbridge St. looking west towards Green's Bridge



Plate 1.3 - John St. looking west over John's Bridge



Plate 1.4 – High St. looking north from junction with Rose Inn St.



Plate 1.5 – Dean St. looking east towards junction with Irishtown



Plate 1.6 – Dean St. looking west towards Waterbarrack roundabout

2.0 DESCRIPTION OF THE PROPOSED SCHEME

2.1 The Proposed Scheme

The proposed scheme will be 3.5km in length and will be single carriageway for its entire length, comprising generally of 3.65m wide lanes. The proposed scheme will comprise of sections of new road infrastructure, linked by existing roads and junctions, and a proposed new River Nore bridge crossing. All new sections of road infrastructure will have dedicated footways and cycleways. The proposed scheme will be illuminated and subject to a 50 kph speed limit.

As illustrated in Figure 1.1, the proposed scheme will comprise of three distinct sections which are described below:

- Central Access Street and River Nore bridge crossing - This section of the proposed scheme will be approximately 0.6km in length and will link St. Canice's Place on the west side of the River Nore to a new junction with the Castlecomer Road on the east side of the River Nore. This section of the proposed scheme will incorporate the proposed new River Nore bridge crossing, which will be a symmetrical, double pylon cable stayed structure with pylons each side of the river. The materials used in the bridge and abutments will, as appropriate, be reflective of indigenous building materials / stone traditionally used in Kilkenny. Figure 2.1, and Plate 2.1 below illustrate the design of the proposed River Nore bridge crossing.
- East-west Link Connecting the Western Environs Road Network to the Waterbarrack Roundabout - This section of the proposed scheme will be approximately 0.9km in length and will connect the western environs road network to the existing Waterbarrack roundabout. The Breagh River will be traversed at two locations by clear span bridge structures.
- Loughmacask Road - This section of the proposed scheme will be approximately 2km in length, and will act as a distributor road for planned residential development on the

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north-west side of the City. The Breaghagh River will be traversed once by a clear span bridge structure.

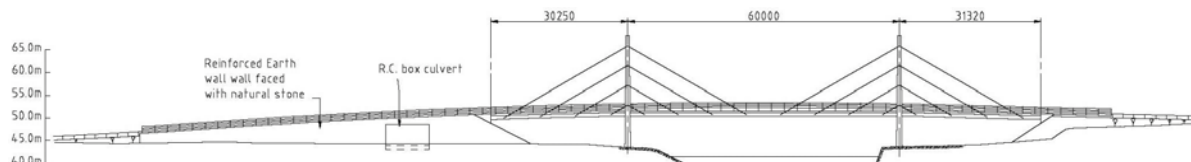


Figure 2.1 Proposed River Nore bridge - Southern Elevation



Plate 2.1 View of proposed River Nore bridge crossing from Green's Bridge looking south – Northern Elevation

2.2 Construction of the Proposed Scheme

It is intended that construction of the proposed scheme will commence in early 2010. Construction is expected to be phased in the following manner:

- Phase 1 - Central Access Street and River Nore bridge crossing.
- Phase 2 - East-West Link Connecting the Western Environs Road Network to the Waterbarrack Roundabout.
- Phase 3 - Loughmacask Road.

It is estimated that each phase of the proposed scheme would take between 1 and 2 years to complete.

The potential impacts which will arise as a result of the construction of the proposed scheme are described in Chapter 14 of Volume 2 of this EIS, and within the relevant specialist chapters of the EIS (Chapters 5 to 13).

All potential construction phase environmental impacts will be addressed through the implementation of a comprehensive Construction Environmental Management Plan (CEMP) in accordance with current best practice guidelines. This Plan will be prepared by the Contractor and agreed with Kilkenny County Council and statutory bodies prior to construction commencing. The plan will include procedures for monitoring the effectiveness of the environmental protection measures. Therefore, while it may not be possible to eliminate all the disruption that will occur during construction, the proposed scheme will be constructed in a manner which will minimise the impacts to local residents and road users.

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2.3 Associated Works

In association with the proposed scheme, the Kilkenny Local Authorities propose to undertake various traffic management measures in the City Centre including introducing charges for on-street parking, making John Street one-way and increasing the priority given to pedestrians on High Street. Traffic calming will also be introduced on a phased basis in the core City Centre streets. In addition to physical works, the Local Authorities will consider introducing special speed limits of 30kph in the City Centre.

It is also the intention of the Kilkenny Local Authorities to improve the streetscape treatment of Dean Street and St Canice's Place, and renovate Green's Bridge. They will also undertake to provide new public playing fields to replace and augment those playing fields west of Waterbarrack Roundabout that will be impacted by the proposed scheme.

The Kilkenny Local Authorities also propose the construction of two new City Centre pedestrian bridges over the River Nore, upstream and downstream of John's Bridge. On completion, both bridges will be important features in improving the pedestrian environment for the City.

These associated works have not been developed in detail at this stage, and they do not form part of this EIS.

3.0 BACKGROUND TO THE PROPOSED SCHEME

3.1 Policy Implementation

Kilkenny City & Environs Development Plan 2002

The Kilkenny City & Environs Development Plan 2002 provides the land use and planning policy framework that tries to ensure that Kilkenny City and County fully play their role in achieving the objectives and targets of policy documents such as the National Spatial Strategy (NSS) and the South East Regional Planning Guidelines (RPG). The NSS defines Kilkenny City as a 'Hub' town, and the Plan therefore responds to the potential of Kilkenny City's role as a Hub town within the national and regional economies. The designation of Kilkenny City as a Hub town provides the catalyst for the City and Environs to further enhance its importance at a national and regional level which will also benefit the population of the City and County.

The achievement of this objective requires a holistic approach and vision for the City and Environs and its future including:

- Expansion of Kilkenny City and Environs, such as the Loughmacask Area;
- Continuing improvement in the quality and quantum of its retail offer;
- Continuing improvement of its cultural, arts and tourism supporting infrastructure;
- Support sustainable development;
- Introduction and implementation of road programmes and traffic management initiatives;
- Environmental improvements;
- Heritage and interpretation strategies;
- Erect signage to improve vehicular and pedestrian linkages; and,
- Working in partnership with local groups.

The proposed scheme is a specific objective of the City and Environs Plan and it will facilitate the development of Kilkenny City and Environs in its role as a Hub town.

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Kilkenny City Centre Local Area Plan 2005

A coordinated City Centre Local Area Plan (LAP) was prepared in 2005 so that a holistic approach could be taken to the development of the City Centre. The LAP seeks to provide an integrated strategy for the future sustainable development of Kilkenny City Centre in order to ensure its continued vitality and viability, and to strike a balance between preserving its architectural and archaeological heritage and facilitating modern living as well as enhancing the quality of life for its existing and future residents.

Section 2.1 of the LAP, on Traffic Management and Linkage Strategy sets out a vision to provide: *'a practical level of accessibility for all, regardless of age, mobility or availability of mode choice and the [transport] network must pragmatically cater for all trips that have an origin or destination in the City Centre'*.

The LAP also states that a reduction in dependency on private car travel must be addressed in terms of:

- Improving, developing and prioritising pedestrian and cyclist access;
- Developing bus services within the City and Environs;
- Managing parking provision;
- Limiting car access to key road links; and,
- Developing a coherent directional and explanatory signage strategy.

A suite of traffic management objectives is proposed in the LAP to improve existing and vehicular and pedestrian linkages within the City Centre. The proposed scheme, and in particular the proposed Central Access Street and River Nore bridge crossing, is one of these measures. The proposed scheme will facilitate the improvement of commercial and tourist linkages and permeability throughout the City Centre. The proposed scheme will also facilitate the development of an integrated transport network for the City which will deliver a practical level of accessibility for all, as aspired to in the LAP.

By improving pedestrian, cycle and public transport links the proposed scheme will allow a reduction in dependency on private car travel within the Central Business District of the City contained by High Street, The Parade, John's Street, McDonagh Junction and the proposed redevelopment of the former Kilkenny Mart site. The proposed scheme will provide for strategic vehicular movement around the City Centre and will allow for traffic management measures that will minimise the volume of vehicular through traffic in the City Centre, such as increased priority for pedestrians on High Street and John's Street.

The traffic management planning and increased pedestrianisation and pedestrian priority measures recommended in the LAP cannot come forward without programmed strategic road infrastructure being completed. The proposed scheme is an essential element of this infrastructure, as are other schemes such as the recently completed Kilkenny Ring Road extension.

The LAP also refers to the proposed River Nore bridge crossing, and the design of the proposed bridge has taken into account all of the recommendations outlined within the LAP in terms of minimising the potential impact of the bridge on the walking and cycle links along the east and west bank of the river; providing adequate width for footways to cater for the safe passage of pedestrians; creating viewing opportunities; and incorporating considerations such as the clear span of the river to protect the integrity of Peace Park.

Other Relevant Plans

The proposed scheme is also a stated objective of the Loughmacask LAP, 2007-2013.

3.2 The Need for the Proposed Scheme

The need for the proposed scheme is explained below under a series of headings.

A Connected City and Environs

The River Nore dissects Kilkenny City roughly into equal parts along a north south axis. While the River Nore acts as a natural City Centre amenity it also creates a physical obstacle to balanced economic and commercial / retail development in the core Central Business District. This is manifested in that the majority of retail activity takes place on the west bank of the river in the High Street, Kieran Street and James Street areas.

Kilkenny City and Environs has grown to a level which requires the expansion of City Centre activity going forward. The planning strategy as identified in the 2002 Kilkenny City and Environs Development Plan as varied has been to identify key brownfield sites on the east bank of the river to facilitate the required expansion. Such sites include McDonagh Junction and the former Kilkenny Mart site. It is critical to the building of a sustainable City Centre that the existing core area, and the new expansion areas operate in a symbiotic manner. The enhancement and improvement of connectivity, which will be provided by the proposed scheme, is critical to this concept.

The existing bridges which connect the east of the City to the west, are both deficient in carrying capacity, and in particular Green's Bridge cannot function or cater for multi-modal transport i.e. pedestrians, cyclists, heavy goods vehicles, emergency service vehicles and private cars. The traffic congestion experienced on the two existing City Centre bridges at present acts as a barrier between the east and west sides of the City Centre. The proposed River Nore bridge crossing will provide connectivity between communities and businesses to the east and west of the River Nore, which will lead to a more vibrant City Centre, as well as achieving the objectives of increased connectivity as envisaged in the City Centre Local Area Plan.

In addition, the proposed scheme will enhance the connectivity of the City Centre and its Environs through the provision of the necessary infrastructure to service the planned residential and mixed-use development within the future development areas outlined in the Loughmacask and Western Environs Local Area Plans.

Measures to Facilitate a Modal Shift

The proposed scheme is needed to permit policies and objectives for Transport Management and Linkages as outlined in the City Centre LAP to be implemented, which will facilitate a modal shift, i.e. reduce the dependency on car-based travel.

The proposed new road infrastructure will have footways and cycleways along its entire length. These have been designed to interlink with the proposed footway and cycleway network for Kilkenny City, as outlined in the City Centre LAP. By improving access for pedestrians and cyclists, the proposed scheme will facilitate the reduction of car based traffic.

In addition to improving provision for pedestrians and cyclists, the proposed scheme will allow the achievement of a number of key urban design policies outlined within the City Centre LAP, which will serve to achieve a modal shift, as follows:

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- Facilitate a pedestrian core at the heart of the City Centre that prioritises pedestrian movement and reinforces the City Centre as a desirable destination.
- Increase east-west permeability from High Street.
- Allow for planning and delivery of sustainable transport in the City Centre such as an urban shuttle bus system and park-and-walk facilities.

Public Realm

Urban design principles intended to protect the integrity of Kilkenny's historic core and to integrate proposed urban extensions and interventions are set out in detail in the City Centre LAP. The urban design frameworks set out in the LAP also aim to integrate issues of land use, access and built form. Linked to the transport management and linkages strategy of the LAP are improvements to the public realm which can be implemented in association with the proposed scheme and in conjunction with the overall traffic management approach to the City Centre. These include enhancements to High Street and John's Street in association with increased pedestrian priority, and traffic management schemes such as Nuncio Road, Walkin Street, Upper Patrick Street and Michael Street.

Further projects which will be enhanced and facilitated by the proposed scheme are the redevelopment of Bateman Quay, the former Kilkenny Mart site, County Hall, and improvements to The Parade. Within the LAP, the redevelopment of these sites has been assessed in the context of transport and land use and the proposed scheme is central to these redevelopments taking place.

Alleviate Traffic Congestion

As Kilkenny City and Environs is identified as a Hub town in the National Spatial Strategy with a target population of over 30,000 to be achieved by 2020, significant traffic growth will occur over the intervening period. Traffic forecasting has indicated that by 2014, traffic in the peak hour (pm peak) will increase by up to 66%, and by 2020 it will increase by up to 85%, which is unsustainable on the existing road network. The proposed scheme is needed to help cater for this additional traffic.

Detailed traffic modelling was undertaken for a number of different scenarios both with and without each element of the proposed scheme in place, in order to clearly demonstrate the need for the proposed scheme. Modelling was undertaken for two future years – 2014 (when the proposed scheme will be fully complete) and 2020. The traffic modelling concluded that the implementation of the proposed scheme will significantly reduce the level of City Centre congestion, and that an additional City Centre bridge crossing will be essential to carry the traffic volumes predicted for both 2014 and 2020. However, the proposed scheme will not be sufficient on its own to alleviate traffic, and in due course, the Kilkenny Ring Road will need to be extended to provide another bridge over the River Nore to the north of the City.

3.3 Functions of the Proposed Scheme

Overall, the functions of the proposed scheme can be summarised as follows:

- It will improve connectivity between the east and west side of the City Centre for pedestrians, cyclists, and users of public and private transport;
- It will provide a route through the City Centre that is suitable for regular use by emergency service vehicles, buses and goods vehicles;
- It will help to ensure the continued viability of the City Centre by providing additional capacity for the traffic associated with planned future development;

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- It will relieve existing roads in the west of the City which will otherwise be adversely impacted by traffic generated by the development of the Kilkenny Western Environs; and,
- It will facilitate the future development of the Loughmacask LAP Area.

4.0 ALTERNATIVES

The concept of the proposed scheme, and a notional alignment for the River Nore bridge crossing have been in the public arena for a number of years. The assessment of alternatives was not constrained to this notional scheme alignment, however the Constraints and Options Report, completed in December 2006, confirmed it as the preferred route.

The preferred route identified in the Constraints and Options Report was further developed during the scheme development process which involved the following:

- Environmental impact assessment of potential impacts on all environmental aspects including - cultural heritage, ecology, landscape and visual, air and noise.
- Engineering considerations of the following: geometric characteristics, drainage, structures, services and impact on property.
- Traffic – Extensive traffic modelling to ascertain the capacity of routes and key junctions and the impact of alternatives on existing and predicted traffic flows within Kilkenny City.
- Economics - Value for money and absolute cost.
- Consultation – This was an integral part of the environmental impact assessment process, and numerous consultations took place with stakeholders and the public.

During scheme development, and following the completion of extensive consultation with stakeholders, significant changes to the proposed scheme alignment have occurred which are as follows:

- Refinement of the alignment and junctions;
- Selection of the form of the River Nore bridge structure, taking into account the sensitivity of its surroundings;
- Avoidance of Garrison House (a building of regional architectural heritage importance) at John's Green;
- Avoidance of Wolfe Tone Street;
- Consideration and subsequent elimination of a proposed link to the rear of Irishtown, avoiding direct impacts on the Bull Inn, and a portion of the Historic City Walls;
- Consideration and subsequent elimination of the proposed roundabout at St. Canice's Place;
- Avoidance of impacts to a number of dwellings on Vicar Street; and,
- Measures to ensure that the proposed Central Access Street and River Nore bridge crossing fits into the existing urban fabric.

5.0 HUMAN BEINGS

The proposed scheme will have a positive local impact in terms of facilitating the future development of Kilkenny City and Environs, in line with its role as a 'Hub' town within the National Development Plan and the National Spatial Strategy, and also at a local level by addressing issues such as alleviating traffic congestion, improving connectivity, facilitating future development, and facilitating alternatives to private car transport within the City Centre.

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The proposed scheme will not lead to community severance, as pedestrian crossings will be incorporated at all key locations, including the construction of a raised table at the existing Irishtown junction, in order to highlight the priority given to pedestrians at this location. Furthermore, the proposed scheme will provide for the transfer of traffic away from a number of heavily populated roads in Kilkenny City and Environs, which will result in an overall positive impact in terms of the reduction of the severance which currently occurs at these locations as a result of heavy traffic volumes.

6.0 FLORA AND FAUNA

Sites of Ecological Importance

The River Nore is within the River Barrow and River Nore candidate Special Area of Conservation (cSAC) (code 002162). The River Nore cSAC is an important river corridor for upstream and downstream migration of salmon and lamprey, both of which are protected species. The Breaghagh River, while not a designated site, is a significant salmonid nursery stream for the River Nore. Loughmacask, located approximately 50m to the west of the proposed scheme, is a proposed Natural Heritage Area (pNHA) (code 01914) which shows some characteristics of a turlough.

Habitats

The majority of the habitats impacted by the proposed scheme (approximately 95%) is improved grassland, arable land and built ground. The loss of such habitats is not considered to be of significance and the impact can be described as neutral. The impact of the removal of hedgerows, treelines, parkland trees and stone walls is rated as neutral to minor negative. New habitats will be created along the road margins through the planting of trees and shrubs or grassland as part of the landscaping scheme. New linear habitats will be created that will be used by local wildlife which has the potential to result in a minor positive residual impact.

The proposed scheme will have no direct impacts on habitats within the Loughmacask pNHA. The road will be elevated on embankment in the vicinity of Loughmacask, which will be designed so as not to impede on the existing drainage regime.

Mammals

One badger sett will require to be closed down and removed by experts under licence prior to construction of the proposed scheme. Measures will be put in place along the proposed River Nore and Breaghagh River crossing points to ensure mammals can move freely along the river bank at all times. Wildlife fencing will be put in place at the Breaghagh River crossing points. All bat species identified on site are expected to remain within the study area and the overall impact of the proposed scheme in relation to bats is considered to be minor negative.

Removal of a small portion of wetland to the east of Loughmacask (but not included within the pNHA) will result in the loss of a frog breeding ground and a potential smooth newt breeding ground. However, as additional breeding grounds will be provided, the residual impacts on these species will be potentially positive.

Overall, there are not expected to be long-term significant residual impacts on mammal species.

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Aquatic Flora and Fauna

Although the proposed scheme will involve a bridge crossing of the River Nore and three bridge crossings of the Breaghagh River, the bridges have been designed to span the rivers to ensure that there will be no permanent impacts on these watercourses. There will also be no works in the rivers during the construction of the bridges.

Appropriate pollution control measures will be put in place at all drainage out-fall points which will protect both the water quality and the aquatic habitats. The residual impact on aquatic flora and fauna as a result of the proposed scheme can therefore be described as not significant.

7.0 SOILS, GEOLOGY AND GROUNDWATER

No rock excavation is anticipated during construction of the proposed scheme, therefore no construction or operational impacts on the solid geology of the study area are anticipated.

Soils will be excavated and either re-used or taken off site, and suitable material will be imported for use in embankments. However, there will be no significant impact on soils.

Mitigation of any significant impacts to local groundwater quality and flow patterns will be achieved by providing measures to prevent polluted run-off from the road percolating into the groundwater, and where lateral flow could be impeded by earthworks, the installation of a suitable drainage layer. The specific locations for sub-drainage layers will be determined at the detailed design phase following completion of more detailed geotechnical and hydrogeological investigations.

Following the implementation of suitable mitigation measures, the residual impact of the proposed scheme on soils, geology and groundwater resources is considered to be not significant.

8.0 SURFACE WATER

Sustainable drainage solutions will be employed to reduce the rate of run-off arising as a result of the proposed scheme and to improve the quality of the run-off before it is discharged to receiving watercourses. Attenuation ponds and other related drainage features will provide flow control and will be integrated into the local landscape. In the urban locations sealed tanks will provide a similar attenuation function. The attenuation and flow control will ensure that no significant increase in peak stream/river flows is caused by the proposed scheme. Appropriate pollution control measures will also be put in place at all drainage outfall points. Therefore it is considered that the proposed scheme will not have any significant residual impact on surface water resources.

9.0 AIR QUALITY AND CLIMATE

Air Quality

The air quality impact assessment was undertaken in accordance with the methodology outlined within the NRA document entitled 'Guidelines for the Treatment of Air Quality during the Planning and Construction of National Road Schemes', and the DMRB. The assessment ascertained the predicted changes in concentrations of traffic related pollutants along the existing road network when the proposed scheme is in place. The proposed scheme will increase ambient concentrations for some traffic derived pollutants in future years, however the

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levels will not exceed the ambient air quality standards, and overall the predicted impacts range from neutral to moderate. Furthermore, the proposed scheme will provide for the transfer of traffic and therefore traffic related pollutants away from a number of heavily populated roads in Kilkenny City and Environs, which will result in an overall positive impact in terms of air quality at these locations.

Climate

In terms of climate, CO₂ will be emitted as a result of the combustion of fuel from vehicles travelling on the proposed scheme. However, total traffic-generated greenhouse gas emissions as a result of the proposed scheme in 2029 will amount to just 2,519 tonnes, which represents just 0.00004% of Ireland's total greenhouse gas emissions allowed under the Kyoto Protocol.

10.0 NOISE AND VIBRATION

Traffic Noise

The noise impact assessment was undertaken in accordance with the methodology outlined within the NRA document entitled 'Guidelines for the Treatment of Noise and Vibration in National Road Schemes'. As predictions of the noise levels arising during the operational phase of the proposed scheme could not be made at each dwelling in close proximity to the proposed scheme, in order to assess a worst case scenario, the receptors in closest proximity to the proposed scheme were chosen. Predictions were made for a total of 110 representative noise sensitive receptors (dwellings). The results of the noise impact assessment at these representative receptors prior to mitigation can be summarised as follows:

- 27 representative receptors will experience a reduction in noise levels as a result of the proposed scheme, i.e. they will experience a positive impact.
- 39 representative receptors will experience a neutral impact, i.e. the increase in noise levels is barely perceptible.
- 22 representative receptors will experience a minor negative impact, i.e. the increase in noise levels at each receptor will be perceptible.
- 22 representative receptors will experience a moderate negative impact, i.e. the noise levels experienced will increase by up to double.

In order to mitigate against negative noise impacts at sensitive receptors, a low noise surface will be used throughout the proposed scheme which will give a 3dB noise reduction in comparison with a hot rolled asphalt wearing course, and will benefit all receptors along the length of the proposed scheme. In addition, a total of 6 noise barriers will be provided at different locations along the length of the proposed scheme.

Short Term Construction Vibration

Construction vibration levels will be controlled in accordance with the criteria outlined in the NRA Guidelines. Where activities such as piling take place in the vicinity of dwellings or sensitive, historic buildings, vibration monitoring will be carried out to ensure the levels are maintained within the recommended levels.

11.0 LANDSCAPE AND VISUAL

The proposed scheme will traverse two distinct landscape character areas. The Loughmacask Road and the East-West Link connecting the Western Environs road network traverse lands which are principally rural in nature, while the Central Access Street and River Nore bridge crossing traverses lands of an urban nature.

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The landscape and visual impacts of the Loughmacask Road and the Link to the Western Environs road network are limited as the area is typical of rural edge and expanding suburban landscape. However, within the townland of Kilcreen, the proposed scheme will traverse the Breaghagh River valley and the grounds of Kilcreen lodge where there will be direct impacts on existing planting. These impacts will be short term in nature and will be successfully mitigated through the implementation of a comprehensive landscape plan. Furthermore, given the City-edge context, this portion of the proposed scheme will be gradually absorbed into the expanding City development which will further reduce the landscape and visual impact in the long term.

The proposed Central Access Street follows the existing alignment of Dean Street and Vicar Street and will therefore avoid significant landscape and visual impact on this area. The proposed scheme will alter the existing narrow curving character of Vicar Street/ St. Canice's Place, opening up a new street corridor and vista leading towards the River Nore. The design of the Central Access Street will be in keeping with what is likely to develop in the future as a town centre street. In the medium and longer-term the new street has the potential to provide for new urban development, greater pedestrian connection, and an increased relationship between the City and the River Nore.

The proposed River Nore bridge crossing is a modern, symmetrical, double pylon cable stayed design. The bridge is contemporary and lightweight in design, contrasting dramatically with the visually solid stone-arched design of the historic Green's Bridge and John's Bridge. It is considered that the proposed bridge will be a landmark structure for Kilkenny City. As illustrated in Plates 11.1 to 11.4 below, the lightweight structure of the proposed bridge avoids impact on background skyline features of historic interest, the height of the pylons sit comfortably within the skyline of the historic core of the City Centre, and the cables allow a visual permeability upstream and downstream of the crossing point. The bridge has been designed to take into account the sensitivity of its surroundings, and it will ensure that key views to the north and south, and east and west of the proposed crossing point will not be obstructed. Furthermore, the bridge will also open up new views along the river, south towards John's Bridge and the Castle, north towards Green's Bridge and west towards St. Canice's Cathedral and Round Tower.



Plate 11.1 View of the proposed River Nore bridge crossing upstream of Green's Bridge looking south from the east bank of the river

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Plate 11.2 View of the proposed River Nore bridge crossing looking north from the high grounds of Kilkenny Castle



Plate 11.3 View of the proposed River Nore bridge crossing looking north from John's Bridge



Plate 11.4 View of the proposed River Nore bridge crossing looking north from Bateman Quay

12.0 CULTURAL HERITAGE

A number of zones of architectural and archaeological potential have been identified by Kilkenny County Council in and around Kilkenny City. Two of these, the St. Canice's and Michael Street Conservation Areas, will be directly impacted by the proposed scheme. In addition, the Kilkenny City and Environs Development Plan 2002 outlines an Area of Archaeological Potential which closely follows the Record of Monuments and Places outline of the Historic City, RMP KK019-026. All development proposals within Zones of Archaeological Potential must be referred to the Department of the Environment Heritage and Local Government for their perusal and recommendation.

Given the historical importance of the City Centre, and the conservation designations outlined above, all efforts have been made throughout the preliminary design of the proposed scheme, and the environmental impact assessment process to avoid direct impacts on sites of cultural heritage importance. Therefore, it is considered that the proposed scheme represents the best possible alignment in terms of minimising the direct impact on sites of archaeological importance, as well as achieving the required objectives of the proposed scheme.

In total, 10 sites of archaeological potential have been identified as being impacted by the proposed scheme, 6 of these impacts are direct, and 4 are indirect. Four of the sites which are directly impacted are within rural areas, and the overall impact on these sites is considered to be moderate to slight in nature. The remaining two sites are within Kilkenny City Centre, and while the extent of the potential impact on sub-surface archaeological deposits prior to investigation is unquantifiable, it is considered that the potential impacts on these sites is moderate given the amount of ground disturbance which has already taken place in these areas, which is likely to have erased all but deeply buried archaeological remains.

In total, 9 sites of architectural heritage have been identified within the study area, 5 of these sites are directly impacted, 4 are indirectly impacted. Two of the sites which are directly impacted are boundary walls along Wolfe Tone St. The remaining sites which will be directly impacted are three dwellings, No. 20-22 Vicar Street. The findings of a detailed building inspection by a specialist architectural historian concluded that it is likely that the houses were built in the late 18th century or early 19th century, and the investigation found no evidence that these houses predate the 18th century.

Two sites of industrial archaeology have been identified. One site will be directly impacted, IA1, a Smithy site located on Wolfe Tone Street/ Greensbridge Street on mapping but which has been paved over, and one site will be indirectly affected, IA2, a ruined factory on the west bank of the River Nore.

The impacts on archaeological or architectural sites will be monitored and mitigated through the use of pre-construction archaeological investigative excavation in the form of test trenching; geophysical survey; topographical survey; architectural survey and photographic recording. Rivers traversed by the proposed scheme will be subject to bankside inspection (no instream works will be conducted therefore no underwater archaeology surveys are deemed necessary).

During the construction of the proposed scheme, archaeological monitoring will be undertaken during all groundworks and demolition works. In the event of archaeological features or material being uncovered during the construction phase, full archaeological excavation and recording of such will be carried out.

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The Kilkenny Local Authorities are committed, where possible, to retain and reuse architectural elements salvaged during the construction phase of the proposed scheme in new boundary walls and other suitable locations along the length of the proposed scheme.

13.0 MATERIAL ASSETS

The proposed scheme has been designed as far as possible to avoid direct impact on buildings and property. Standard procedures will be applied by Kilkenny County Council for compensating direct impacts to all impacted properties. Compensation payments for loss of land will be discussed with the impacted property owners. Where part of the property or land surrounding a property is to be acquired, discussion will take place with the owner of the property on the type of mitigation/ treatment that is to be provided. Where access to a property is impacted, an alternative access will be provided. In default of agreement, compensation will be determined by the property arbitrator under the statutory code.

14.0 INTERACTION OF ENVIRONMENTAL IMPACTS

The cumulative impact of the above interactions has been addressed in the specific specialist chapters of Volume 2 of this EIS. The following interactions of environmental impacts have been considered:

- Human Beings: Noise, Air, Surface Water, Landscape and Visual, Material Assets.
- Terrestrial Ecology: Aquatic Ecology, Landscape and Visual, Surface Water.
- Aquatic Ecology: Terrestrial Ecology, Surface Water.
- Soils, Geology and Groundwater: Ecology, Surface Water, Noise and Vibration, Landscape and Visual.
- Surface water: Terrestrial and Aquatic Ecology, Groundwater.
- Air Quality and Climate: Traffic, Human beings.
- Noise and Vibration: Human Beings, Landscape and Visual, Cultural heritage.
- Landscape and Visual: Terrestrial Ecology, Noise, Cultural Heritage.
- Cultural Heritage: Noise and Vibration, Landscape and Visual.
- Material Assets: Human Beings.

15.0 FURTHER INFORMATION

The Environmental Impact Statement will be available for inspection and purchase at the following locations:

1. Kilkenny County Council – County Hall, John’s Street, Kilkenny.
2. Kilkenny County Council – Road Design Office, Dean St., Kilkenny.

The EIS will be uploaded on the Kilkenny County Council website www.kilkennycoco.ie.

A hard copy of the Environmental Impact Statement may also be purchased from Kilkenny County Council for the fees listed below:

- Non-Technical Summary (Volume 1) – €10.00.
- Complete EIS (Volumes 1 to 4) – €300.00.

Written submissions in relation to the likely impacts on the environment of the proposed scheme may be made to An Bord Pleanála (Strategic Infrastructure Division), 64 Marlborough Street, Dublin 1, prior to the date specified in the newspaper notices to be published.

16.0 WHAT HAPPENS NEXT

Before making its decision on the proposed scheme, the planning authority, An Bord Pleanála, will consider all matters relating to the scheme including objections made to it. The Board may decide to hold an oral hearing in relation to the scheme, whereby evidence in relation to any aspect of the proposed scheme may be heard.

The construction of the proposed scheme is subject to receipt of the necessary statutory approval from An Bord Pleanála. The decision of An Bord Pleanála will be published in one or more newspapers circulating in the area; including where appropriate particulars of any modifications to the proposed scheme.