

This project was constructed under a Public Private Partnership (PPP) arrangement, which is an integral funding mechanism under the National Development Plan (NDP) for the provision of major infrastructural projects, including national roads.

The contract was awarded in March, 2003 to EuroLink: comprising Siac Construction Ltd. and Cintra Concesiones de Infraestructuras de Transporte S.A. Construction started in June, 2003, with completion scheduled for October 2006. The project opened on 12th December 2005, approximately 10 months ahead of schedule.



**LOCAL AUTHORITIES**

The key teams involved in the project:  
Westmeath, Meath & Kildare County Councils  
NRDO Office Westmeath

**CLIENT**

National Roads Authority

**PPP COMPANY**

EuroLink Motorway Operation

**CONTRACTOR**

WestRoute Construction Joint Venture

**NRA SUPERVISING CONSULTING ENGINEERS**

RPS/Roughan O' Donovan JV

The Government funded element of the scheme includes site supervision, consultant's fees, land acquisition and a contribution towards construction and operation costs.

Initial Planning and design work was part funded by the European Regional Development Fund



NATIONAL DEVELOPMENT PLAN  
Your Plan - Your Future



European Union Structural Funds



National Roads Authority  
An tÚdarás um Bóithre Náisiúnta



WESTMEATH COUNTY COUNCIL



MEATH COUNTY COUNCIL



KILDARE COUNTY COUNCIL



**M4/M6 KILCOCK - KINNEGAD PPP MOTORWAY SCHEME**



WESTMEATH COUNTY COUNCIL



MEATH COUNTY COUNCIL



KILDARE COUNTY COUNCIL

OFFICIALLY OPENED ON 12TH DECEMBER 2005 BY  
**AN TAOISEACH, MR BERTIE AHERN, T.D.,**

IN THE PRESENCE OF

**MR MARTIN CULLEN, T.D., MINISTER FOR TRANSPORT**

AND

CLLR MARK NUGENT, CATHAOIRLEACH, WESTMEATH COUNTY COUNCIL

CLLR BRIAN FITZGERALD, CATHAOIRLEACH, MEATH COUNTY COUNCIL

CLLR JOHN MCGINLEY, MAYOR, KILDARE COUNTY COUNCIL



NATIONAL DEVELOPMENT PLAN  
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An tÚdarás um Bóithre Náisiúnta





# M4/M6 Kilcock-Kinnegad Motorway Scheme

– A Major Milestone in our National Road Network...

## Connecting Communities



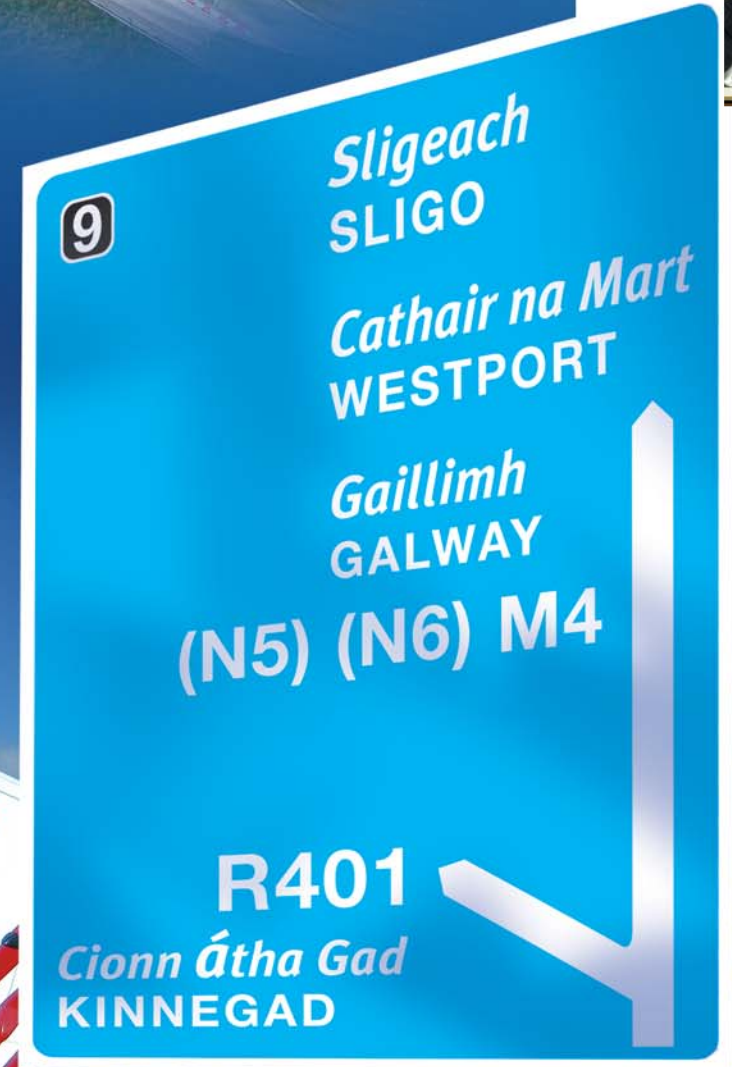
Mr. Martin Cullen, TD. Minister for Transport

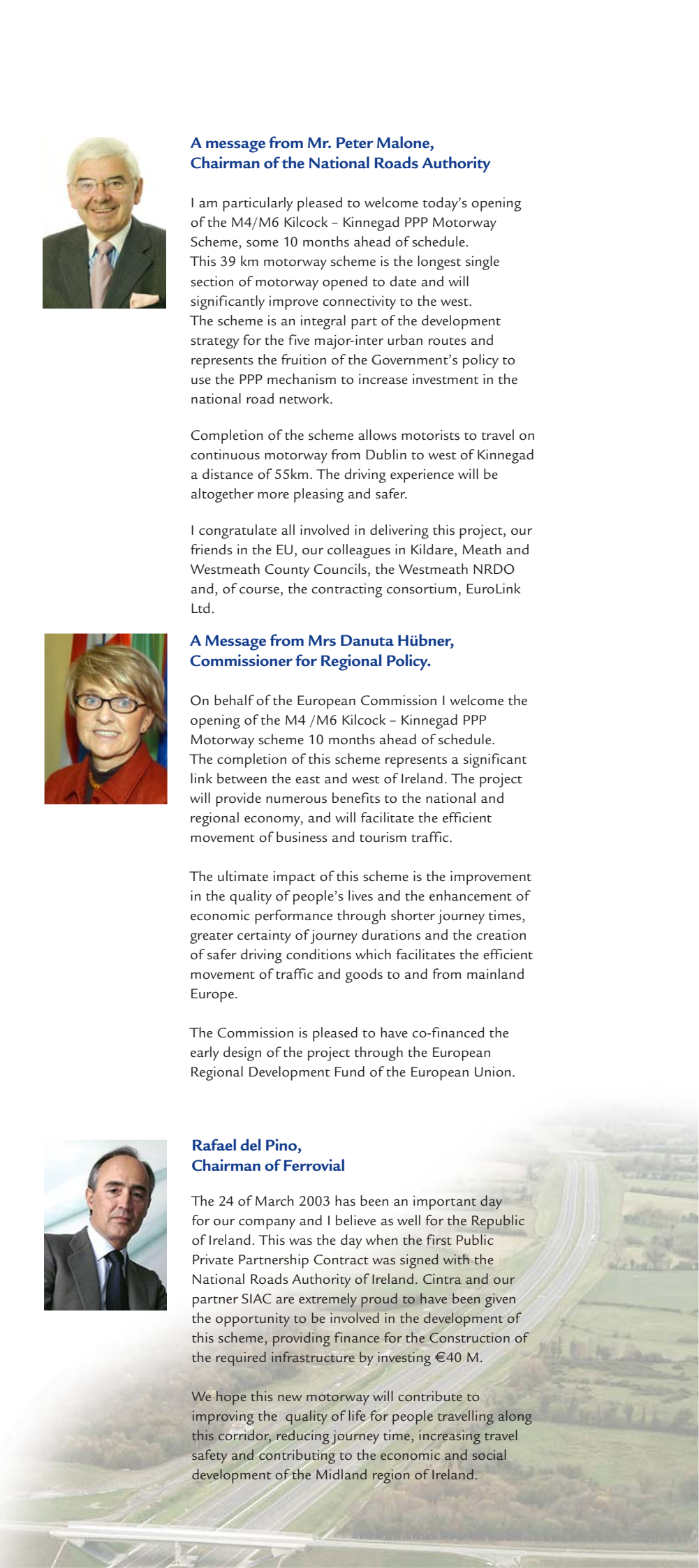
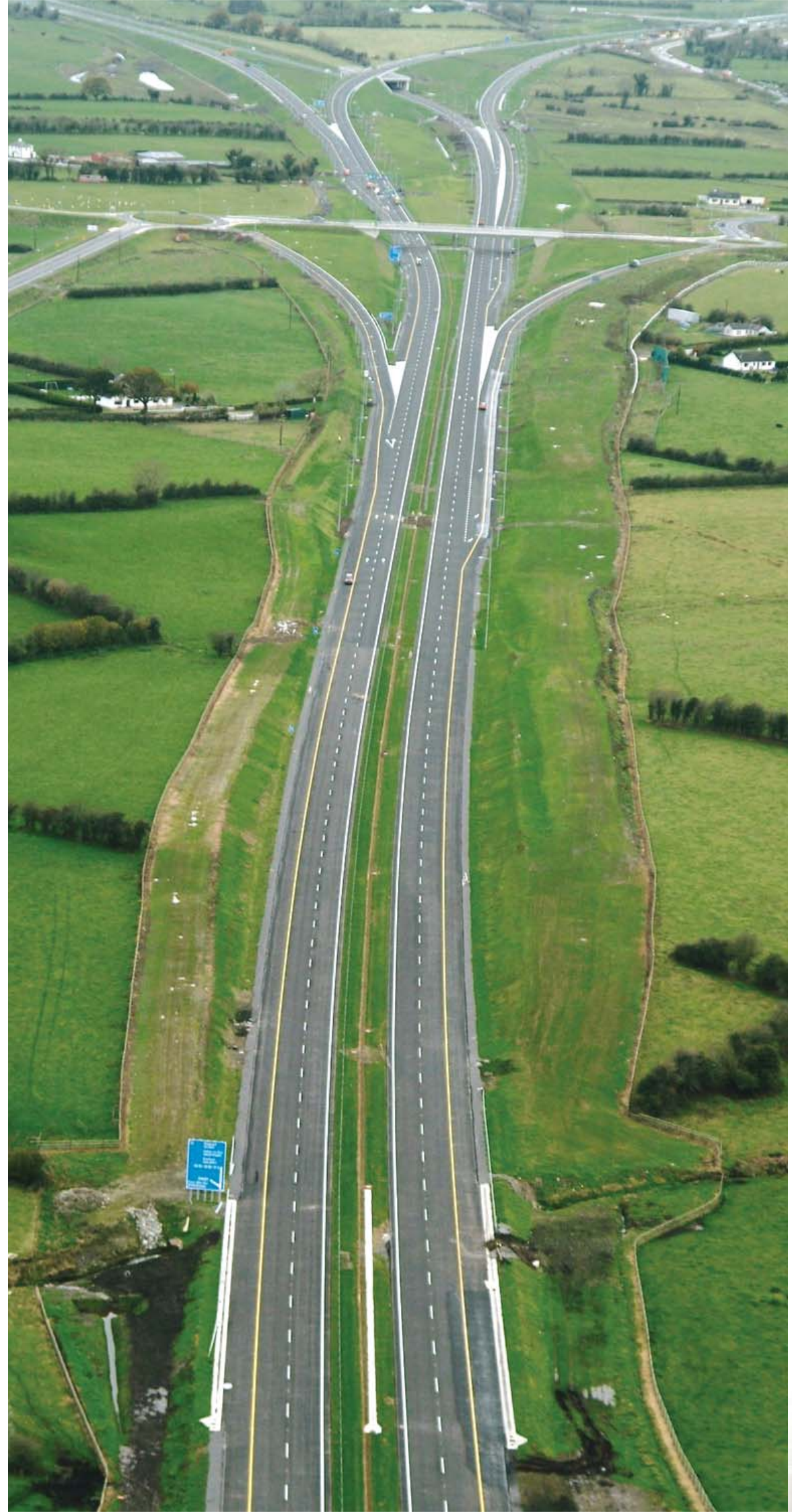
With the completion of the Kilcock-Enfield-Kinnegad motorway, this Government has reached another milestone in the implementation of upgrading the major inter-urban links to motorway standard, in the delivery of the most ambitious road programme in our history. The new road together with other projects on the N4 and the N6 will substantially improve access to the Midlands and West. It will support competitiveness, job creation and a better quality of life through reduced journey times and greater journey time certainty.

Under Transport 21, we are committed to the upgrading of the N6 to Galway to motorway standard by 2010, which I believe will bring direct benefits to the people and businesses of Enfield, Clonard and Kinnegad by removing large volumes of through traffic. It will support in particular the economic development of Kildare, Meath and Westmeath and develop the region as a location for investment and employment.

The opening of this road, on budget and almost a year ahead of schedule also highlights the vital importance of Public Private Partnerships in the delivery of our national road infrastructure.

I wish all who travel on this motorway a safe journey and I ask that all who drive on it treat other road users with courtesy.





**Cllr Mark Nugent, Cathaoirleach, Westmeath County Council**

This impressive new Motorway linking Kilcock to Kinnegad is a very welcome addition to County Westmeath. It will enhance the County's potential as a destination for tourists to visit and for businesses to locate in. It will also improve the quality of life for local people by providing quicker and safer journeys and an alternative road to the existing N4 which will stay open alongside the new motorway. I congratulate all those involved in the planning, design, construction and delivery of this motorway and I wish all who use it a safe journey.



**Cllr Brian Fitzgerald, Cathaoirleach, Meath County Council**

I congratulate all who have contributed to the delivery of this impressive 39km motorway, almost one year ahead of schedule. In particular I congratulate the National Roads Authority, Westroute, EuroLink and their various sub-contractors as well as Westmeath County Council, the lead local authority for this project. With the completion of the M4/M6 Kilcock to Kinnegad Motorway Scheme we are significantly closer to completing a high quality motorway joining the East to the West which will bring great benefits to tourism, industry and local people in County Meath, the Midlands and the West



**Cllr John McGinley, Mayor of County Kildare**

The new stretch of the M4/M6 Motorway is a good example of the public and private sectors working together to deliver quality infrastructure ahead of schedule and within budget. The improved road will bring great benefits to the people of North Kildare and to a wider area further west along its route. Thanks are due to the Department of Transport, the European Union, the National Roads Authority and EuroLink as well as the Members, County Managers and staff of Kildare, Westmeath and Meath County Councils for making this necessary part of the country's road infrastructure a reality.



**A message from Mr. Peter Malone, Chairman of the National Roads Authority**

I am particularly pleased to welcome today's opening of the M4/M6 Kilcock - Kinnegad PPP Motorway Scheme, some 10 months ahead of schedule. This 39 km motorway scheme is the longest single section of motorway opened to date and will significantly improve connectivity to the west. The scheme is an integral part of the development strategy for the five major inter-urban routes and represents the fruition of the Government's policy to use the PPP mechanism to increase investment in the national road network.

Completion of the scheme allows motorists to travel on continuous motorway from Dublin to west of Kinnegad a distance of 55km. The driving experience will be altogether more pleasing and safer.

I congratulate all involved in delivering this project, our friends in the EU, our colleagues in Kildare, Meath and Westmeath County Councils, the Westmeath NRDO and, of course, the contracting consortium, EuroLink Ltd.



**A Message from Mrs Danuta Hübner, Commissioner for Regional Policy.**

On behalf of the European Commission I welcome the opening of the M4 /M6 Kilcock - Kinnegad PPP Motorway scheme 10 months ahead of schedule. The completion of this scheme represents a significant link between the east and west of Ireland. The project will provide numerous benefits to the national and regional economy, and will facilitate the efficient movement of business and tourism traffic.

The ultimate impact of this scheme is the improvement in the quality of people's lives and the enhancement of economic performance through shorter journey times, greater certainty of journey durations and the creation of safer driving conditions which facilitates the efficient movement of traffic and goods to and from mainland Europe.

The Commission is pleased to have co-financed the early design of the project through the European Regional Development Fund of the European Union.



**Rafael del Pino, Chairman of Ferrovial**

The 24 of March 2003 has been an important day for our company and I believe as well for the Republic of Ireland. This was the day when the first Public Private Partnership Contract was signed with the National Roads Authority of Ireland. Cintra and our partner SIAC are extremely proud to have been given the opportunity to be involved in the development of this scheme, providing finance for the Construction of the required infrastructure by investing €40 M.

We hope this new motorway will contribute to improving the quality of life for people travelling along this corridor, reducing journey time, increasing travel safety and contributing to the economic and social development of the Midland region of Ireland.

# Connecting Communities, Promoting Prosperity...

## Scheme Description - General Information

The M4/M6 Kilcock - Kinnegad Motorway scheme comprises of 39km of motorway/dual carriageway from the end of the M4 at Kilcock to Kinnegad. Forming bypasses of Enfield, Clonard, Moyvalley and Kinnegad, the scheme ties back into the N4 dual carriageway at Coralstown, west of Kinnegad. A free flow interchange is provided southwest of Kinnegad at the junction of the N4 and the N6. The project also includes 18 overbridges, 2 underbridges and grade separated junctions at Kilcock, Enfield and Kinnegad.

The M4/M6 Kilcock - Kinnegad Motorway contract was the first Public Private Partnership (PPP) road contract signed by the National Roads Authority (March 2003).

The Environmental Impact Statement/Motorway Scheme was published in March, 2001. An Bord Pleanála's Oral Hearing was held in July 2001 and the decision to approve the scheme was announced in November, 2001.

The National Roads Authority worked closely with Westmeath, Meath and Kildare County Councils to advance the project and tendered the contract for construction using the Public Private Partnership mechanism.

The Authority awarded the contract in March, 2003 to EuroLink: comprising Siac Construction Ltd. and Cintra Concesiones de Infraestructuras de Transporte S.A. Construction started in June, 2003, with completion scheduled for October 2006.

The project opened on 12th December 2005, approximately 10 months ahead of schedule.



The completion of this scheme will provide 55 km of motorway from Lucan, Co Dublin to Kinnegad, Co. Westmeath.



Central Median Safety Barrier  
A central median safety barrier has been erected and installed over the entire motorway scheme.



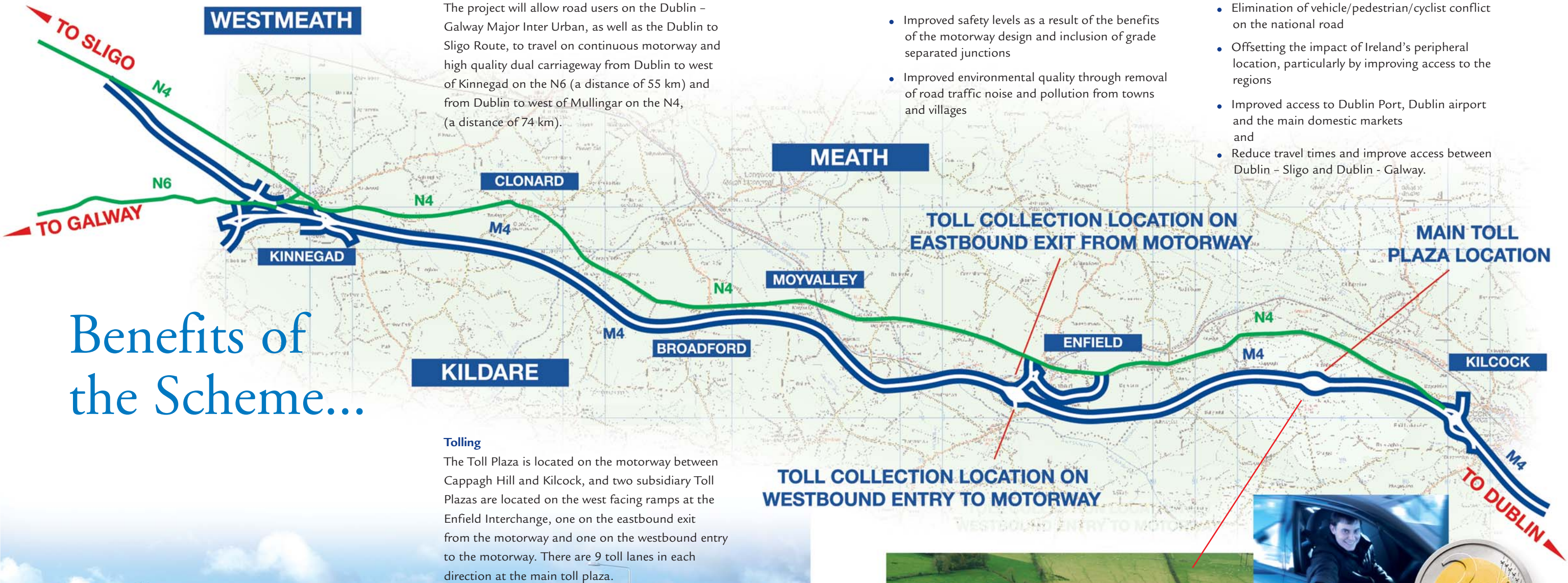


### BENEFITS OF THE SCHEME

The M4/M6 Motorway Scheme is an integral part of the development strategy for the Galway and Sligo to Dublin corridors. The new motorway includes full By-passes of Enfield and Kinnegad and will, for the first time, remove through traffic from Clonard and Moyvalley. Journey times will be reduced and safety will be improved as a result of the higher standard of the new road.

### THE CONSTRUCTION OF THIS SECTION OF THE M4/M6 MOTORWAY SCHEME WILL DELIVER THE FOLLOWING BENEFITS:

- The Motorway bypasses the villages of Enfield, Clonard, Moyvalley and Kinnegad, and will improve quality of life for local communities.
- Up to 20 minutes journey time saving during peak times
- Substantially improved East/West transport connection
- Improved safety levels as a result of the benefits of the motorway design and inclusion of grade separated junctions
- Improved environmental quality through removal of road traffic noise and pollution from towns and villages



## Benefits of the Scheme...

The project will allow road users on the Dublin – Galway Major Inter Urban, as well as the Dublin to Sligo Route, to travel on continuous motorway and high quality dual carriageway from Dublin to west of Kinnegad on the N6 (a distance of 55 km) and from Dublin to west of Mullingar on the N4, (a distance of 74 km).

- Elimination of vehicle/pedestrian/cyclist conflict on the national road
- Offsetting the impact of Ireland's peripheral location, particularly by improving access to the regions
- Improved access to Dublin Port, Dublin airport and the main domestic markets and
- Reduce travel times and improve access between Dublin – Sligo and Dublin - Galway.

### Tolling

The Toll Plaza is located on the motorway between Cappagh Hill and Killocock, and two subsidiary Toll Plazas are located on the west facing ramps at the Enfield Interchange, one on the eastbound exit from the motorway and one on the westbound entry to the motorway. There are 9 toll lanes in each direction at the main toll plaza.

### TOLL COLLECTION LOCATION ON WESTBOUND ENTRY TO MOTORWAY





# Public Private Partnership

A Public Private Partnership, or PPP, is an agreement between the public and private sectors. Its purpose is to deliver a project or service traditionally provided by the public sector. The Government's National Development Plan, or NDP, identifies PPPs as a necessary component in delivering the essential projects included in the Plan. In addition to our national roads, the NDP has identified a role for PPPs in public transport, water services and waste management.

Public Private Partnership's in various forms are being used successfully throughout the world in the areas of roads, water supply, waste management and provision of facilities as a means of providing vital public infrastructure.



## The benefits of the PPP approach include:

- Helps deliver better value for money as the private sector shares the risk
- Ensures that high quality roads are provided sooner, by adding private finance to Government funding
- Facilitates private sector innovation in areas of scheme design, construction and long term operations
- Enables a greater number of projects to be undertaken and promotes greater efficiencies
- Permits Government funding to be applied to the development of other important projects which do not have the capacity to attract significant private sector funding
- Ensures long-term operation and maintenance of new assets to a high standard

## The Motorway

The 39 km long 2 x 2 lane motorway links the N4 and N6 National Primary Routes west of Kinnegad to the existing M4 motorway at Kilcock.

## Interchanges

Three grade separated interchanges provide access to and from the motorway to the local road network, towns and villages.

## Kinnegad Interchange

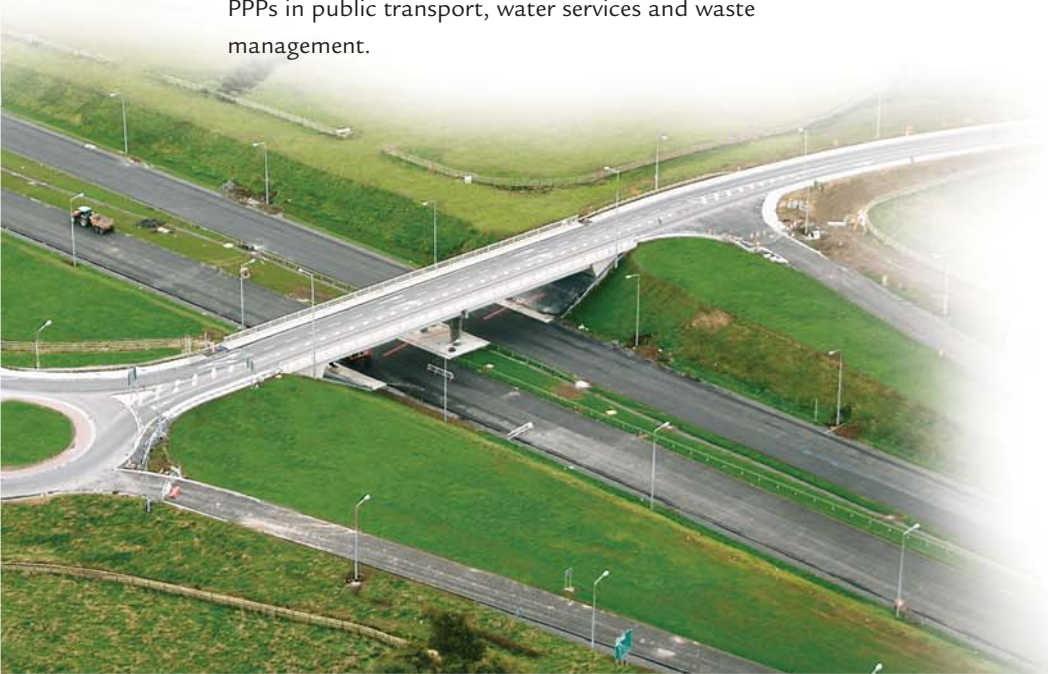
The Kinnegad Interchange consists of one full and two partial interchanges and provides for the free flow of traffic between the M4 Motorway and the N4 and N6 Links. The full interchange is located west of Kinnegad town between the Ballinabrackey Road and the N6 national primary route, and the partial interchanges is located near the existing N6 road and the realigned Edenderry Regional Road R401.

## Enfield Interchange

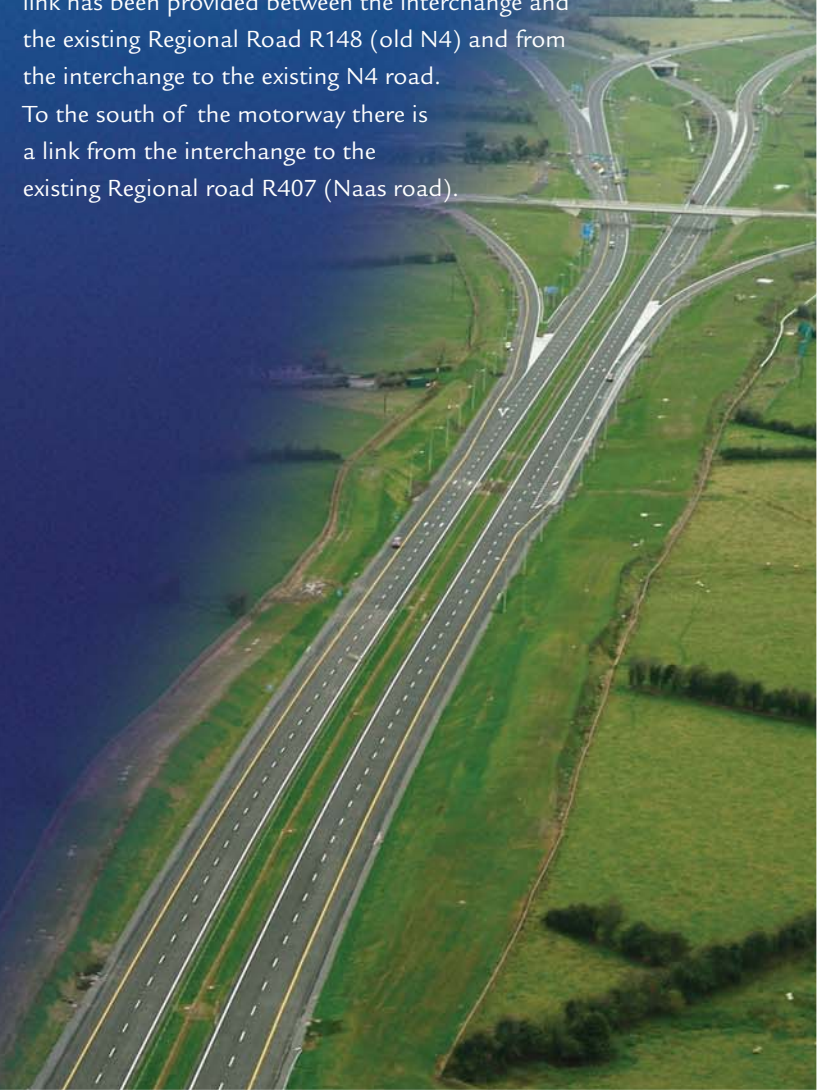
The Enfield Interchange is located immediately west of the existing Regional Road R402 (Edenderry Road). It provides for all traffic movements on or off the motorway. To the south of the motorway a link has been provided from the southern roundabout at the interchange to the Regional Road R402 (Edenderry Road) and to the north of the motorway there is a link road to the Enfield Relief Road from the northern roundabout.

## Kilcock Interchange

A grade separated interchange, has been constructed at Kilcock catering for all traffic movements on or off the motorway. To the north of the motorway a link has been provided between the interchange and the existing Regional Road R148 (old N4) and from the interchange to the existing N4 road. To the south of the motorway there is a link from the interchange to the existing Regional road R407 (Naas road).



*SOS Service  
50 SOS telephones linked to the motorway operations headquarters and emergency service have been installed for the safety of motorists along the route.*



# Protecting Our Environment...

## Badgers

Approximately 72Km of badger fencing has been erected along both sides of the carriageway to minimise the risk of badgers and otters getting onto the new road.

Over 40 mammal underpasses have been provided to enable badgers and otters to pass safely under the new road.

## Watercourses and Ponds

Approximately 1.5Km of river has been modified under the supervision of an ecologist and the Eastern Fisheries Board with the objective to maximise the potential for wildlife.

Over 250 Lamprey were captured and translocated to new habitat by a specialist aquatic ecology team.

*Ecology Lamprey*

Over 350 crayfish were captured and translocated to new habitat by a specialist aquatic ecology team under licence from the National Parks and Wildlife Service.

12 ponds and adjacent terrestrial habitat within and in close proximity to the route were surveyed for amphibians by a team of specialist ecologists.

## Bats

Extensive Bat surveys of trees and farm buildings were undertaken and measures to mitigate potential effects were implemented under licence from the National Parks and Wildlife Service.

As part of this strategy, 54 bat boxes have been installed by the bat specialist.

## Nesting Birds

Over 40km of hedgerow were inspected by a team of specialist ecologists during the site clearance work to ensure all nesting birds and the surrounding vegetation were protected until the chicks had left the nest.



*Badger sett*

The methodology for inspecting and recording nesting birds was agreed with the National Parks and Wildlife Service before site operations commenced.

## Other Work

10 hedgehog boxes were installed by a mammal specialist.



*Over 783,000 new saplings have been planted throughout the scheme*



*Farm access underpass*



*Watercourse regrade*



# Archaeology... Preserving Our Heritage



Archeological Excavations at Johnstown



Rotary grindstone

## Archaeological discoveries along the M4/M6 Motorway Scheme

Extensive archaeological works were undertaken in advance of the construction of the scheme. Archaeological Consultancy Services Ltd and Irish Archaeological Services Ltd. completed the on-site archaeological investigations and excavations in 2002 on behalf of Westmeath County Council and the National Roads Authority. A total of 31 archaeological sites were uncovered offering interesting insights into human activity in the area over the last 7,000 years.

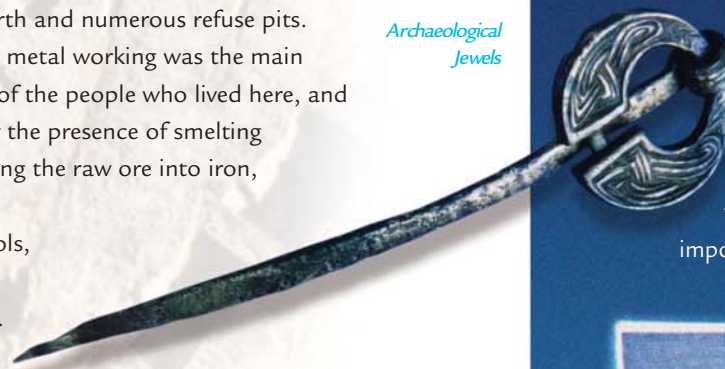
The majority of sites produced evidence of human activity, the most prevalent being the occurrence of isolated areas of burning mainly related to industrial processes dating to the prehistoric and medieval periods. Other sites included fulachta fiadh, kilns, a ring ditch, two post medieval buildings and a post medieval enclosure surrounding a pond.

The largest sites were at Killickaweeny, County Kildare, where a major settlement site was found dating to the Early Medieval period and Johnstown, County Meath, where activity from the late Iron Age through to Early Modern Period was recorded.

## Killickaweeny, Co. Kildare - Early Medieval enclosure

Killickaweeny has been dated to the early medieval period, from the 8th to 10th centuries AD. The site consisted of a large heart shaped enclosure, which produced evidence of a small self-sufficient community of farmers, weavers and metal workers. There was evidence for at least one house, with a hearth and numerous refuse pits. It is probable that metal working was the main industrial activity of the people who lived here, and this is reflected by the presence of smelting furnaces, for turning the raw ore into iron, smithing hearths for making the tools, such as knives, awls and punches. Three structures were also associated with this metalworking and interpreted as a smith's workshop or shelter. A range of artefacts was recovered such as iron ring pins, iron knives, glass beads, bone and antler objects.

Archaeological Jewels



## Johnstown Co. Meath - Multi period enclosure and burials

Approximately five miles to the west of Killickaweeny, excavations revealed an Iron Age/ Early Medieval burial, settlement and industrial site.

The earliest burials were located in a small burial mound covering a charnel pit that contained the disarticulated remains of at least three individuals. Following the construction of the mound, successive enclosing ditches were constructed. In total 368 individuals were buried at this site from the early medieval period to the post medieval period.

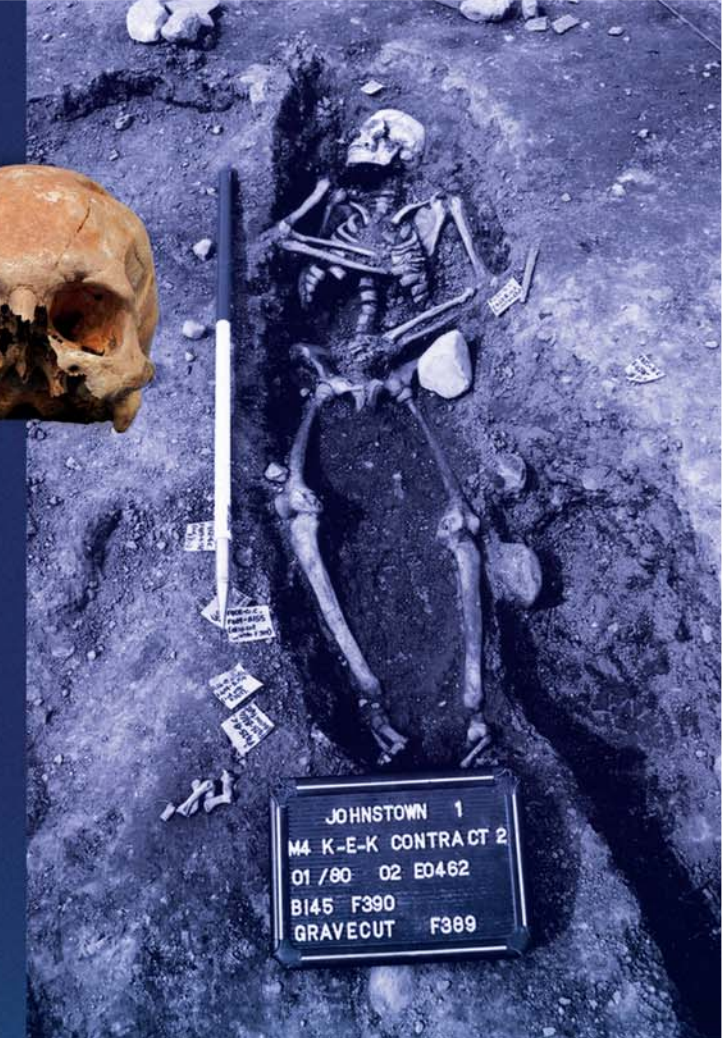
# Our Heritage

Settlement and industrial activity was conducted alongside this burial activity. Settlement evidence was identified in the form of refuse pits, animal bone and small finds. Kilns, hearths and waste iron slag are indicative of the industry taking place here. In addition, the foundations for a wheelhouse, which would have been part of a vertical watermill, was found in the base of one of the ditches.

From the 17th century to the beginning of the 20th century this site was reused as a cillín burial ground where 61 infants were buried, along with two adults. Such burial grounds were common throughout Ireland, and primarily used for the burial of unbaptised children.

It is clear from the excavation that while the Johnstown site was initially established as a cemetery, it was used for centuries as a place where a community lived, worked, and buried their dead. When the enclosures were eventually backfilled and site reverted to farmland, it is clear that the site still retained its importance to the local community as a place of burial.

Head fatal weapon injury



Burial Johnstown



Archeological Features

