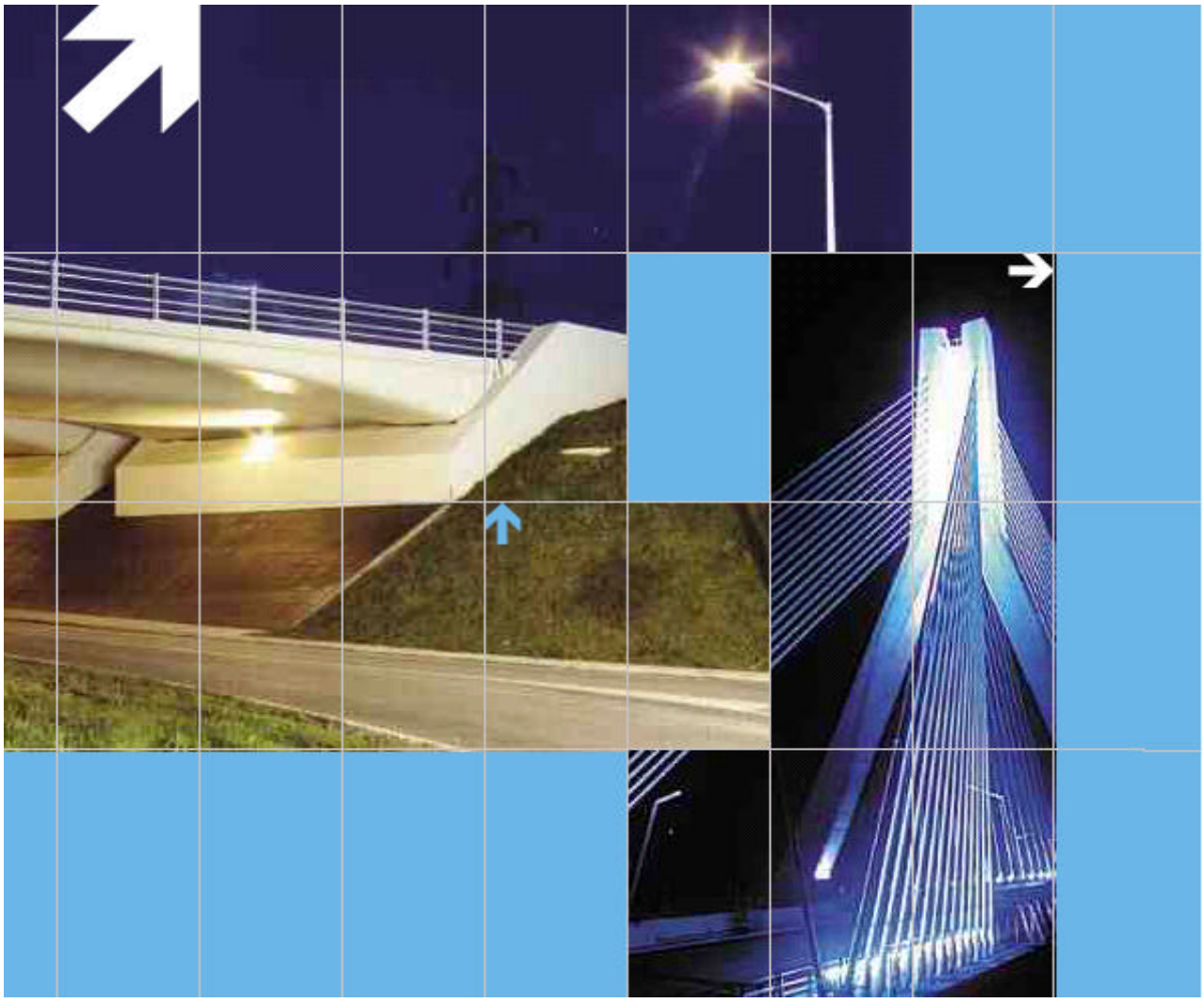
NRA
National Roads Authority
An tÚdarás um Bóithre Náisiúnta

NATIONAL ROADS AUTHORITY
ANNUAL REPORT & ACCOUNTS 2004



NATIONAL ROADS AUTHORITY
ANNUAL REPORT & ACCOUNTS 2004

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CHAIRMAN'S FOREWORD

FROM PETER MALONE

"Emancipation" Larkin's Cross, Barntown, Co. Wexford

A total of 10 major schemes were completed in 2004, including the M7 Heath-Mayfield (Monasterevin Bypass) motorway scheme, the N8 Cashel Bypass and the N11 Ashford/Rathnew Bypasses. As a consequence of the completion of the M7 Heath-Mayfield (Monasterevin Bypass) motorway scheme, which was opened to traffic almost one year ahead of schedule, road users can now travel on continuous motorway/high quality dual carriageway from Dundalk on the M1 to south of Portlaoise on the M7, a distance of 170km. Similarly on the N11 Dublin/Wexford Road, the opening of the Bypasses of Ashford and Rathnew means road users can travel on over 50km of motorway/high quality dual carriageway from Donnybrook in South Dublin to beyond Rathnew in Wicklow.

It can be said with conviction that the national roads programme has progressed to a higher, more effective plane. Past criticisms – that traffic congestion was being addressed in a piecemeal fashion, without an overall coherent strategy, and in a manner that simply moved the problem down the road to the next town – no longer apply. The progress made in 2004 builds on the work of recent years and is maximising the return on the investment involved through the completion of critical missing links in the network, thereby delivering long continuous lengths of high quality and much safer national roads.

Our new roads are being built to a standard that will cater for their intended transport function for many years into the future. The ultimate impact of the Authority's efforts 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. In this way, the national roads programme is helping to underpin Government policy in a range of areas, including road safety, regional economic development and national spatial strategy.

A welcome feature of 2004 was the extent to which infrastructure of this standard opens up the country to business and tourism alike. Projects are now opening to traffic significantly ahead of scheduled contract completion dates as a result of initiatives undertaken by the Authority in recent years to ensure value for money and efficiency of delivery as well as enhanced project management performance by contractors. The Authority is making extensive use of the 'Design-Build' form of contract, which it developed some time ago. This new format is achieving greater certainty of scheme outturn costs and completion times. In addition, the Authority is exploring the potential benefits under Early Contractor Involvement and target price arrangements. This form of contract is being piloted on the N1 Dundalk/Newry scheme in conjunction with the Northern Ireland Roads Service and on the N8 Cashel/Mitchelstown scheme. The initiative will facilitate contractor innovation and input as regards the buildability of road schemes and is expected to achieve cost efficiencies and better value for money.

"...Prospects for 2005 are very exciting with the unprecedented Exchequer allocation of €1.415b allowing substantial progress to continue..."

Crucial progress was made on the construction of the Dublin Port Tunnel in 2004. The Tunnel Boring Machine (TBM) excavating the second tube of the Port Tunnel broke through into the reception pit at Whitehall on the 18th August 2004. This major milestone in the project's construction was the culmination of over 2 years of continuous tunnelling works, which originally started in May 2002. It is now possible to travel underground from Coolock to the East Wall Road. The Port Tunnel attracted a lot of attention in relation to the adequacy of its operational height. In October 2004 the Minister for Transport confirmed that the proposed height of the Dublin Port Tunnel would not be changed.

This welcome decision, based fundamentally on safety grounds, brings an end to the uncertainty and debate concerning this issue. With an operational height of 4.65 metres the Dublin Port Tunnel is able to cater for all vehicles that the national road network and specifically its bridges, is designed to safely accommodate. The process for the reintroduction of legislation controlling maximum vehicle height has commenced and in this regard a consultative paper for public comment was published in December 2004. The entire scheme construction will be completed towards the end of 2005 and will be open to traffic early in 2006 following commissioning of the tunnel safety systems and safety trials. Currently almost two million trucks per year travel in and out of Dublin Port, all having to pass though the city centre or surrounding streets. Following completion of the tunnel it is anticipated that the vast proportion of these trucks will travel underground through the Dublin Port Tunnel. The removal of these trucks from the city streets will hugely benefit business activity and will also have a very positive impact on the environment in which Dublin people work and live.

N25 Youghal Bypass

The Institution of Engineers of Ireland (IEI) in a recent submission on the National Development Plan 2000-2006, stated that "the National Roads Authority has made substantial progress with its Public Private Partnership (PPP) Programme…" In 2004 the Authority continued to advance its PPP programme with the commencement of construction on the M1 Dundalk Western Bypass and the M8 Rathcormac/Fermoy Bypass projects.

The private investment associated with these schemes and PPP contracts previously awarded (M50 Second West-Link Bridge and M4 Kilcock/Kinnegad scheme) represents funding in excess of €480 million in the national roads programme. The Authority is progressing tendering for three other PPP schemes at present – M3 Clonee/Kells, N7 Limerick Southern Ring Road, Phase 2, and the N25 Waterford City Bypass as part of a broader strategy to attract significant private funding thereby accelerating progress on the development of an efficient and safe national network of motorways and main roads.

In June, 2004, the Comptroller and Auditor General (C&AG) published a 'Report on the National Roads Authority Primary Routes Improvement Programme'. This report focused on the 1999 National Development Plan provision of €5.6bn for national road investment and tracked the reason as to why the 2003 estimated cost of the roads programme was €16.4bn. The report identified a number of factors responsible for the higher cost (in today's prices) of the national roads programme – including inflation, changes in scope of schemes and a shortfall between the initial NDP allocation and the then estimated cost of completing the programme. The Authority met with the Public Accounts Committee on 15th July, 2004, to discuss the reports findings. A number of issues were highlighted by the Authority including the fact that most of the factors identified as contributing to increased costs relate to matters outside the control of the Authority, consistent with the conclusions of another report (Fitzpatrick Associates, April, 2002) which found that, "the NRA has a strong project management focus. Factors which are in the direct control of the NRA would appear to be well managed, and most difficulties have arisen from external factors and difficulties in managing these." The specific features of individual schemes can only be determined and more accurately costed after completion of the planning and design process taking account of any changes or environmental impact mitigation requirements imposed by An Bord Pleanála. The Authority's cost estimation function has been considerably strengthened since the commencement of the NDP, following the appointment of two cost estimation specialists and other initiatives concerning road design and construction standards. At the end of 2004, the fifth year of the National Development Plan 2000-2006, a total of 344.8km of new roadway had been completed, broken down as follows: 94.2km of Motorway, 90.5km of Dual Carriageway and 160.1km of Single Carriageway. On the ground this means that road users can now travel on continuous motorway/dual carriageway from Dublin to Dundalk, from Dublin to Portlaoise and from Dublin to Rathnew. The prospects for 2005 are very exciting with the unprecedented Exchequer allocation of €1.415b allowing substantial progress to continue on the implementation of the policy objectives of the National Development Plan. Coupled with the Government's decision to implement a multi-annual funding arrangement entailing a commitment to continued major investment in national roads over the next five years, this level of funding will enable the Authority to manage the programme more effectively and will bring greater certainty regarding the planning and scheduling of projects to the advantage of local authorities, contractors, consultants and affected property owners.

An historic event will occur this year when we will finally see the completion of the M50 C-Ring. The M50 South Eastern Motorway scheme, which links the N11 with the existing M50 motorway at Sandyford will open to traffic in the summer. The completion of this last link will substantially improve traffic movement in the greater Dublin area with the removal of long distance traffic from the city and environs.

Work will also continue on prominent schemes such as the M1 Dundalk Western Bypass, M4 Kilcock/Kinnegad scheme, N7 Naas Road widening upgrade, M8 Rathcormac/Fermoy Bypass, N15 Ballyshannon/Bundoran Bypass and N18 Ennis Bypass. This activity will be supplemented by the commencement of construction on 18 major schemes involving 154km of new road. The schemes concerned represent a good geographical spread between the Southern and Eastern Region and the Border, Midlands and Western Region.

This year will see the publication of the outstanding Compulsory Purchase Orders and Environmental Impact Statements for remaining sections of the major inter-urban routes, an important milestone as the Authority continues to strive to deliver the objectives of the NDP.

"...the Authority developed into a highly efficient organization capable of meeting the challenge of delivering on the biggest roads programme in the history of the State."

My colleagues within the Authority are working on many other projects in 2005 including:

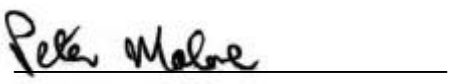
- The further advancement of pilot 2 plus 1 road type schemes,
- High Accident Remedial, Higher Cost Accident Remedial and Traffic Calming schemes as well as delineation and signage schemes,
- Progress the EuroRegional projects INSTANT and STREETWISE, and
- Develop a four-phase Strategy to facilitate further the integration of environmental issues into road scheme planning, construction and operation to support the Environmental Impact Assessment (EIA) legal framework and the NRPMG. Develop best practice guidelines to minimise construction impacts

Details of these important activities are included in the following Chapters – Chapter 4 Road Safety, Chapter 6 Transportation and Chapter 7 Environmental Protection. For their dedication and commitment I would like to thank them.

In 2004, 5 Board Members retired, namely Mr Jimmy Farrelly, Mr John Murphy, Mr Ted Murphy, Mr Niall Sweeney and Mr Risteard O'Lioniard. I would like to thank them for their commitment and expertise during their tenure. I would also like to welcome Mr David Holden and Mr John Newell who joined the Authority's Board in 2004.

Finally, two significant events took place in 2004. Mr. Seamus Brennan, T.D., who is now Minister for Community Social and Family Affairs moved on from the Department of Transport to his new Department as a result of a Cabinet reshuffle in September 2004. I would like to thank Minister Brennan for his commitment to securing the delivery of the national roads programme and in particular to his achievement in the securitisation of the multi annual funding arrangement with Government which will allow the Authority to bring greater certainty to the scale and pace of the delivery of the programme.

At the end of 2004 Mr. Michael Tobin, Chief Executive of the Authority retired after serving 11 years in that position. Under the stewardship of Michael, the Authority developed into a highly efficient organisation capable of meeting the challenge of delivering on the biggest roads programme in the history of the State. I would like to thank Michael for his invaluable assistance to me over the past number of years and I wish him well in his retirement.



Peter Malone,
Chairman, National Roads Authority

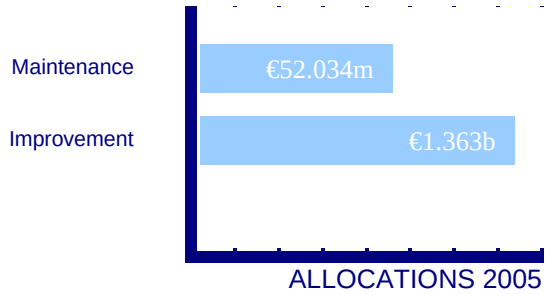
01 FINANCING ROAD INVESTMENT

The Government's decision to implement a Multi-Annual Funding arrangement entailing a commitment to major investment in national roads over a rolling five year period will enable the Authority to manage the programme more effectively and will bring greater certainty regarding the deliverability of the programme of improvement works.

Expenditure on national roads in 2004 totalled €1,241.403m, which was a slight increase on the 2003 expenditure. The outturn comprises €1,190.016m capital expenditure on improvement works and €51.387m capital expenditure in respect of road maintenance. Details of grants paid to local authorities in 2004 are contained in Appendix 3. Funding for this level of expenditure is mainly provided by the Irish Government under the National Development Plan (NDP), 2000-2006. The European Union continues to provide significant grant aid from a number of funding instruments including the European Regional Development Fund (ERDF), the Cohesion Fund, INTERREG IIIA and Ten-T. In addition, the Authority has made substantial progress towards the raising of €1.27b through the Public Private Partnership mechanism in line with the target set in the NDP.

The expenditure provision in 2004 saw record levels of road construction activity across the country, incorporating 30 major projects comprising 280km of high quality national road. Initiatives undertaken by the Authority in relation to innovative forms of contract are now delivering projects ahead of schedule and within budget, ensuring value for money for the Irish Taxpayer in relation to the substantial investment being made in the roads programme.

Expenditure in the Border, Midlands and Western Region (BMW) in 2004 totalled €280.809m, an increase of €101.171 or over 56% on the 2003 expenditure of €179.638m. This level of investment enabled construction work to commence on six major projects, including the M1 Dundalk Western Bypass.



Allocations 2005

The 2005 allocation of €1.415b is the highest ever expenditure provision assigned by Government to the development of the national roads network. With this record level of investment, it is expected that up to 18 major schemes will commence construction and 8 major schemes will be completed. In total, 2005 will see construction activity on over 330km of national road. Strategic projects to be completed this year include the M50 South Eastern Motorway, which will complete the C-Ring Dublin City Bypass. Construction work on the Dublin Port Tunnel will also be completed in 2005, although for operational and safety reasons it will not be opened to traffic until 2006.

"Financial assistance from the European Union for investment in national roads over the period of the National Development Plan, 2000-2006, is expected to total €804m..."

Road safety measures will continue to be accorded a high priority in 2005 with the provision of over €40m to fund a number of elements of the Government's Road Safety Strategy 2004-2006 that comes under the remit of the Authority. The provision will also fund road safety activities such as the Authority's lining and signage programme, and the ongoing retrofit of crash barriers on motorways and dual carriageways.

Sources of Capital Funding

- Exchequer (Irish Government under the National Development Plan, 2000-2006)
- European Regional Development Fund (ERDF) (one of four Structural Funds provided under the Economic and Social Infrastructure Operational Programme, 2000-2006) (ESIOP)
- Cohesion Fund (European Union funding instrument provided specifically for the development of the Trans European Road Network) (TERN)
- INTERREG IIIA supports cross border cooperation, social cohesion and economic development between Northern Ireland and the border counties in the Republic of Ireland
- Ten-T (European Union funding instrument provided specifically for the development of the Belfast/Dublin/Cork route which forms part of the trans-European transport network)
- Private Sector Investment Public Private Partnership Schemes (PPPs)

EU Assistance

Financial assistance from the European Union for investment in national roads over the period of the National Development Plan, 2000-2006, is expected to total €804m made up of €530m in aid from the European Regional Development Fund (ERDF), €231m from the Cohesion Fund, €40m from the TEN-T fund and approximately €3m from the INTERREG IIIA fund. Although this represents a decrease in EU aid in comparison with that available under the Operational Programme for Transport, 1994- 1999, (€1,131.34m), EU financial support continues to constitute a vital element of the overall planned investment in national roads.

M1 Northern Motorway

The Cohesion Fund

The Maastricht Treaty provides that Cohesion funding should be granted to Member States with a per capita GNP of less than 90% of the Community average to assist a national programme aimed at achieving economic convergence. The countries meeting this criterion when the Fund was created were Ireland, Spain, Greece and Portugal.
The Cohesion Fund finances two types of projects:

- Projects in the area of transport infrastructure, including national roads which are part of the Trans-European network identified by the European Union.

- Environmental projects contributing to Community environmental policy and, in particular, to the priorities of the European Union's Sixth Environment Action Programme - Environment 2010: Our Future, Our Choice.

Eligible projects are funded at a rate of 80-85% of the cost approved by the European Commission.

Four projects have been approved by the Commission to avail of Cohesion funding totalling €231m for national road projects in the period 2000-2003. These are :

- M1 Cloghran/Lissenhall Motorway
- M1 Lissenhall/Balbriggan Motorway
- N18 Ennis Bypass
- M50 South Eastern Motorway

Due to the strength of the Irish economy, the Cohesion Fund ceased to apply to Ireland from 31 December, 2003. However, aid will continue to be paid from the Fund for a further period in respect of national road projects approved for assistance before that date.

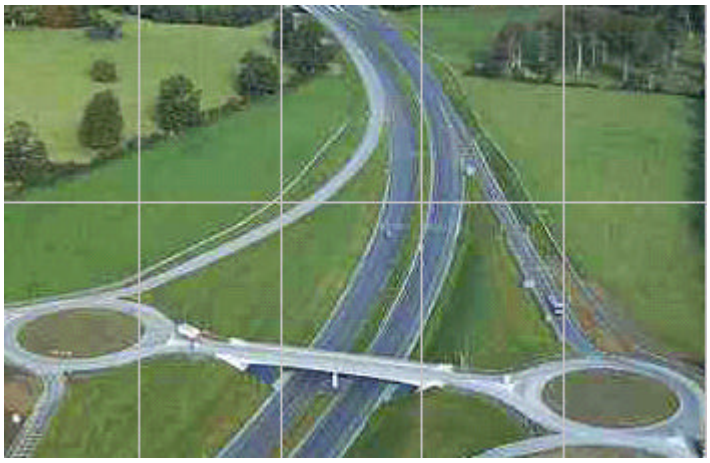
European Regional Development Fund (ERDF)

Ireland receives ERDF assistance through the Economic and Social Infrastructure Operational Programme, 2000-2006. Structural Fund expenditure is focused directly on measures that will facilitate existing and future economic development at regional level. Investment in roads is intended to help offset the impact of Ireland's peripheral location within the European Union and to improve the competitiveness of the Irish economy by reducing transport costs and offsetting the adverse effects of traffic congestion.

In order to facilitate balanced regional development, Ireland, for the purposes of ERDF funding, has been divided into two regions as follows:

Objective 1:
Border, Midlands and Western (BMW) Region in respect of which an aid rate of up to 75% is payable for national road projects.

Objective 1 (Transition):
Southern and Eastern (S&E) Region in respect of which an aid rate of up to 50% is payable for national road projects. Over 70 major national road schemes are expected to receive ERDF assistance totalling €530m under the current round of Structural Funds.



N11 Ashford/Rathnew Bypass

A total of €496.064m was paid to the Irish Exchequer from the ERDF Structural Fund between 2000 and 2004. The following four major projects were approved for ERDF assistance in 2003:

- N8 Watergrasshill Bypass;
- N11 Ashford/Rathnew Bypasses;
- N18 Hurler's Cross/N19 Shannon Access, and
- N22 Ballincollig Bypass.

TEN-T Funding

The TEN-T is a financial instrument established to facilitate the development of the Trans-European Network for Transport, which includes a number of national primary roads in Ireland. The instrument is intended to complement development of the network already assisted from other EU funding instruments such as the Cohesion Fund.

The planning and design of the following projects, which are located on the Ireland/United Kingdom/Benelux Link Road section of the Trans European Road Network (TERN) have been approved by the European Commission for TEN-T funding:

- N1 Dundalk to the Border with Northern Ireland;
- M1 Dundalk Western Bypass;
- N7 Naas Road Widening from Rathcoole to Kill/Johnstown;
- M8 Portlaoise/Cullahill/Cashel, and
- M8 Cashel/Mitchelstown/Fermoy Bypass.

The construction of the N8 Cashel Bypass was approved for Ten-T funding in 2004. The amount of TEN-T funding received in 2003 was €4m (claimed in 2004).

INTERREG IIIA Funding

The INTERREG IIIA programme is designed to support cross border cooperation between the regions of the European Union. The Ireland/Northern Ireland INTERREG IIIA programme covers all of Northern Ireland and the six border counties of Ireland i.e. Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo. The following projects will be co-financed by INTERREG IIIA:

- N54/N3 Realignment, County Monaghan
- N53 Ballynacarry Bridge Feasibility Study, County Monaghan
- Planning and Design of the N14/N15 Lifford/Strabane, County Donegal
- INSTANT, County Louth

The amount of aid received in 2004 was €0.197m.

Private Sector Investment

The Authority, as mandated by Government, is implementing a Public Private Partnership programme to secure at least €1.27b from the private sector towards the overall planned investment in the national roads improvement programme. Suitable schemes for this purpose have been identified by the Authority and the Authority will evaluate other schemes over the course of the 2000-2006 programme to determine their suitability to attract private funding. In 2004 the Authority continued to advance its PPP programme with the commencement of construction on the M1 Dundalk Western Bypass and the M8 Rathcormac/Fermoy Bypass projects. The private investment associated with these schemes and PPP contracts previously awarded (M50 Second West-Link Bridge and M4 Kilcock/Kinnegad scheme) represents funding in excess of €480 million in the national roads programme. (See also Chapter 5).

N8 Cashel Bypass

02 2004 KEY ACTIVITIES & DEVELOPMENTS

"The Authority, as mandated by Government, is implementing a Public Private Partnership programme to secure at least €1.27b from the private sector..."

The advancement of the roads programme continued at a rapid pace in 2004 with the completion of the largest section of continuous motorway/high quality dual carriageway between Dundalk on the M1 to Portlaoise on the M7, a distance of 170km.

The Authority made significant progress in 2004 in delivering on the policy objectives set out in the National Development Plan, 2000 - 2006, with the completion of 10 major schemes comprising almost 76km (mainline) of new high quality road infrastructure, incorporating 17km of motorway, 43km of high quality dual carriageway and 16km of single carriageway. The schemes concerned represent total investment of approximately €750 million and include the M7 Heath-Mayfield (Monasterevin Bypass) motorway scheme, which opened to traffic almost one year ahead of schedule. The completion of this scheme means road users can travel on continuous motorway/high quality dual carriageway from Dundalk on the M1 to south of Portlaoise on the M7, a distance of 170km. Similarly on the N11, the completion of the Bypasses of Ashford and Rathnew means road users can travel on over 50km of motorway/high quality dual carriageway from Donnybrook in South Dublin to beyond Rathnew in Wicklow.

A significant feature of the progress made in 2004 was the completion of a number of major projects substantially ahead of the scheduled contract completion date. These schemes included the M7 Heath-Mayfield (Monasterevin Bypass) motorway scheme, the N8 Cashel Bypass, the N11 Ashford/ Rathnew scheme and the N22 Ballincollig Bypass, Phase 1, scheme.

Construction activity during 2004 was boosted by the commencement of 13 major schemes, comprising 127km of new national road. Proposals to construct other major schemes were advanced significantly in 2004, with An Bord Pleanála's decisions to approve schemes such as the N6 Kinnegad/Athlone, M7/M8 Portlaoise/Cullahill/Castletown, N7 Limerick Southern Ring Road, Phase 2, N7 Nenagh/Limerick, N8 Cullahill/Cashel and N9 Kilcullen/Waterford (Northern Section, i.e. Kilcullen to Powerstown) schemes.

Please Note In The Tables Throughout This Document:

DC - Dual Carriageway
U - Upgrade
HQ - High Quality Dual Carriageway
SC - Single Carriageway
F - Footbridge
TPO - Two Plus One
M - Motorway
I - Interchange
STL - Standard Two Lane
WTL - Wide Two Lane


M1 Northern Motorway

Major Schemes Completed in 2004

Scheme	Road Type	Length Km	Region	Completion of Contract (Quarter/Yr)
N4 Rockingham to Cortober	SC	3.3	BMW	Q2 '04
N5 Scramoge to Cloonmore	SC	8.0	BMW	Q2 '04
M7 Heath/Mayfield (Monasterevin Bypass)	M	17.5	BMW/S&E	Q4 '04
N7 Limerick Southern Ring Road (Phase1)	DC	9.5	S&E	Q2 '04
N7 Parkway	DC	1.0	S&E	Q3 '04
N8 Cashel Bypass	DC	6.8	S&E	Q4 '04
N11 Ashford/Rathnew Bypass	DC	13.6	S&E	Q3 '04
N22 Ballincollig Bypass	DC	11.5	S&E	Q3 '04
N26 Ballina-Bohola (Phase 1)	SC	4.7	BMW	Q4 '04
M50 Wyattville Interchange	I	-	S&E	Q4 '04
Total		**75.9km**		

Major Schemes Commenced in 2004

Scheme	Road Type	Length Km	Region	Expected Completion of Contract (Quarter/Yr)
M1 Dundalk Western Bypass	M	11	BMW	Q1, 2006
N2 Ashbourne / M50 Junction	DC	17	S&E	Q3, 2006
N4 Sligo Inner Relief Road	DC	5	BMW	Q1, 2006
N6 Loughrea Bypass	SC	4	BMW	Q4, 2005
N7 Naas Road Widening	U	15	S&E	Q2, 2006
M8 Rathcormac/Fermoy Bypass (PPP)	M	18	S&E	Q3, 2007
N15 Ballyshannon / Bundoran Bypass	SC	11	BMW	Q3, 2006
N18 Ennis Bypass	DC	14	S&E	Q2, 2007
	SC	7		
N21 Castleisland / Abbeyfeale	SC	8	S&E	Q3, 2006
N22 Gortatlea / Farranfore	SC	4	S&E	Q1, 2006
N30 Enniscorthy / Clonroche	SC	5	S&E	Q2, 2006
N52 Mullingar Bypass	SC	5	BMW	Q3, 2006
N55 Cavan Bypass	SC	3	BMW	Q2, 2006
Total		**127km**		

"The Authority made significant progress in 2004 in delivering on the policy objectives set out in the National Development Plan, 2000 - 2006, with the completion of 10 major schemes.."

National Road Schemes Continuing Under Construction in 2004

Scheme	Road Type	Length Km	Region	Completion of Contract (Quarter/Yr)
N2 Carrickmacross Bypass	SC	9	BMW	Q1 2005
N4 McNeads Bridge/Kinnegad	DC	5	BMW	Q2 2005
N4 Kilcock/Kinnegad (PPP)	M	37	BMW	Q1 2006
N7 Kingswood Interchange*	I	-	S&E	Q1 2005
N21 Ballycarthy/Tralee	SC	3	S&E	Q1 2005
M50 South Eastern Motorway	M	9.5	S&E	Q2 2005
M50 Dublin Port Tunnel#	M	6	S&E	Q4 2005
Total		**69.5km**		

* NRA Contribution # Contract Completion

Schemes Completed in 2004

- **N4 Rockingham to Cortober**

The overall project, involved the improvement of an 11km section of the N4 between Boyle and Carrick-on-Shannon. The project was undertaken in separate phases. Phases 1 and 3 consisted of the widening and realignment of the Rockingham to Hughestown and Meera to Cortober sections of the N4 and were completed in 2001. Phase 2 comprised the construction of 3.3km of new route from Hughestown to Meera.

This section was officially opened on 10 May, 2004 by Mr. Seamus Brennan, T.D., Minister for Transport.

The scheme was financed by the Irish Government under the National Development Plan 2000-2006 and was also part financed by the European Regional Development Fund (ERDF).

- **N5 Scramoge to Cloonmore**

This project, costing €26.5 million, involved the construction of 8km of single carriageway between Strokestown and Longford. Other elements of the project included 2 river bridges over the Feorish and Scramoge rivers, a railway bridge, at-grade junctions with existing minor roads and piled embankments over soft ground areas.

The project was officially opened on 10 May, 2004 by Mr. Seamus Brennan, T.D., Minister for Transport.

The scheme was financed by the Irish Government under the National Development Plan 2000-2006 and was also co-financed by the European Regional Development Fund (ERDF).

"The planning and design of the M7 Heath/Mayfield (Monasterevin Bypass) Motorway was co-financed by the Ten-T Fund of the EU and the construction was funded by Irish Government.."

- **M7 Heath/Mayfield (Monasterevin Bypass) Motorway**

This project involved the construction of 17.5km of motorway linking the M7 Portlaoise Bypass at the Heath Interchange to the M7 Kildare Bypass at Mayfield. The scheme Bypasses Monasterevin, New Inn and Ballybrittas on the existing N7. A total of 3 interchanges and 10 bridges are incorporated into the scheme. The scheme, which was procured under the 'Design and Build' process was completed almost one year ahead of the contract due date at a cost of less than €140 million.

The project, was officially opened by Mr. Martin Cullen, T.D., Minister for Transport on 8 November, 2004.

The planning and design of the M7 Heath/Mayfield (Monasterevin Bypass) Motorway was co-financed by the Ten-T Fund of the EU and the construction was funded by Irish Government under the National Development Plan 2000-2006.

- **N7 Limerick Southern Ring Road (Phase 1)**

The scheme comprised the construction of 9.5km of mainline dual carriageway, 3.2km of national primary single carriageway, 12 bridges, 3 junctions and 4.2km of side road and Bypasses Limerick on the south and east sides, linking with the existing N20 Limerick/Patrickswell scheme. The line of the new dual carriageway commences at the new N20 junction at Rosbrien roundabout and extends eastwards to cross the realigned N24 at Ballysimon. The carriageway then extends in a north-easterly direction through Monaleen and Woodstown to merge with the existing N7 at Carrowkeel, east of Annacotty Village. The scheme was completed at a cost of €108 million.

The project was officially opened by Mr. Seamus Brennan, T.D., Minister for Transport on 31 May, 2004. The Southern Ring Road, Phase 1, project provides a Bypass of Limerick City for Dublin-Killarney/Tralee traffic. Phase 2 of the scheme extending the Ring Road to link with the N18 Limerick-Ennis Road and incorporating a tunnel under the Shannon Estuary is scheduled to commence construction in 2006.

The scheme was financed by the Irish Government under the National Development Plan 2000-2006.

- **N7 Parkway**

This project, completed at a cost of €5.8 million, involved the realignment of 1km of four lane road from the Parkway roundabout to Plassey Road roundabout, the reconstruction of two roundabouts and the construction of a new bridge upstream of the existing Groody Bridge together with tie in work at the two roundabouts. The scheme was officially opened in conjunction with the N7 Limerick Southern Ring Road, Phase 1, by Mr Seamus Brennan, T.D., Minister for Transport on 31 May, 2004.

The design of the N7 Parkway scheme was co-financed by the European Regional Development Fund (ERDF) and the construction was funded by Irish Government under the National Development Plan 2000-2006.

- **N8 Cashel Bypass**

This project involved the provision of a 6.8km dual carriageway Bypass of Cashel extending from Garryard on the north side of the town to Owen's and Bigg's Lot on the south side together with 3.6km of single carriageway link road connecting the N8 to the N74. A total of three junctions are incorporated into the scheme at the intersection of the Clonmel Road and Fethard Road, at Garryard and at Owen's and Bigg's Lot. The works als included three bridge structures. The scheme was completed 7 months ahead of schedule at a cost of €48.6 million.

The project was officially opened by Mr. Martin Cullen, T.D., Minister for Transport on 11 October, 2004.

The scheme was financed by the Irish Government under the National Development Plan 2000-2006 and was also co-financed by Ten-T.

- **N11 Ashford/Rathnew Bypass**

This project involved the construction of 13.6km of dual carriageway between Ballynabarny on the N11, south of Rathnew to Newtownmountkennedy, at the southern end of the existing Newtownmountkennedy Bypass, together with a further 12km of single carriageway and ramps. The route Bypasses the villages of Ashford and Rathnew. The project also includes the construction of five grade separated interchanges at Ballynabarny, Tighes Avenue, Killoughter, Cullenmore and Newcastle and 12 bridges including bridges over the Wicklow to Rathdrum railway and the Vartry River.

The project was officially opened by Mr. Seamus Brennan, T.D., Minister for Transport on 27 September, 2004. The scheme was provided at a cost of €182 million. The scheme was financed by the Irish Government under the National Development Plan 2000-2006 and was also co-financed by the European Regional Development Fund (ERDF).

- **N22 Ballincollig Bypass**

This project, costing €169.7 million, involved the provision of 11.5km of dual carriageway, 4.6km of new single carriageway link roads and nine bridge structures.

The project entailed the realignment of the N22 Cork to Killarney national primary route so as to Bypass Ballincollig to the south. The route commences at the existing roundabout at Ardarostig, which forms the junction of the N25 and N71 to the south of Bishopstown. It then follows a westerly direction crossing both the Waterfall and Curraheen Roads before passing immediately south of Cork City Football Stadium. The route continues westwards crossing the Clash, Maglin, Kilnaglory and Killumney roads and rejoins the existing N22 near the EMC factory at Barnagore, Ovens. In order to accommodate traffic using the Straight Road and Model Farm Road a dual carriageway link road to the Poulavone Roundabout was included. A single carriageway was constructed from the western end of Ballincollig at Coolroe to the Bypass to accommodate the traffic from the densely populated area of west Ballincollig.

The western section of the N22 Ballincollig Bypass was officially opened on 20 September, 2004 by Mr. Seamus Brennan, T.D., Minister for Transport. The remainder of the scheme opened to traffic in mid-December, 2004.

The scheme was financed by the Irish Government under the National Development Plan 2000-2006 and was also co-financed by the European Regional Development Fund (ERDF).

- **N26 Ballina – Bohola (Phase 1)**

This project, costing €16 million, involved the construction of 4.7km of new single carriageway to replace the sub-standard national primary road N26 in the area of Carrowntreila. The scheme extends from Tonybaun, south of Ballina, to Carrowntreila. The project also included the construction of seven at grade junctions.

The project was officially opened by Mr. Martin Cullen, T.D., Minister for Transport, on 13 December, 2004.

The scheme was financed by the Irish Government under the National Development Plan 2000-2006 and was also co-financed by the European Regional Development Fund (ERDF).

- **M50 Wyattville Interchange**

This project, costing €45 million, involved the grade-separation of the Cherrywood access, Wyattville dual carriageway and the N11 Dublin-Wexford Road dual carriageway, the upgrading of the existing N11 dual carriageway between Loughlinstown and the Cabinteely Bypass and the upgrading of the existing Wyattville dual carriageway. The project was completed in November, 2004.

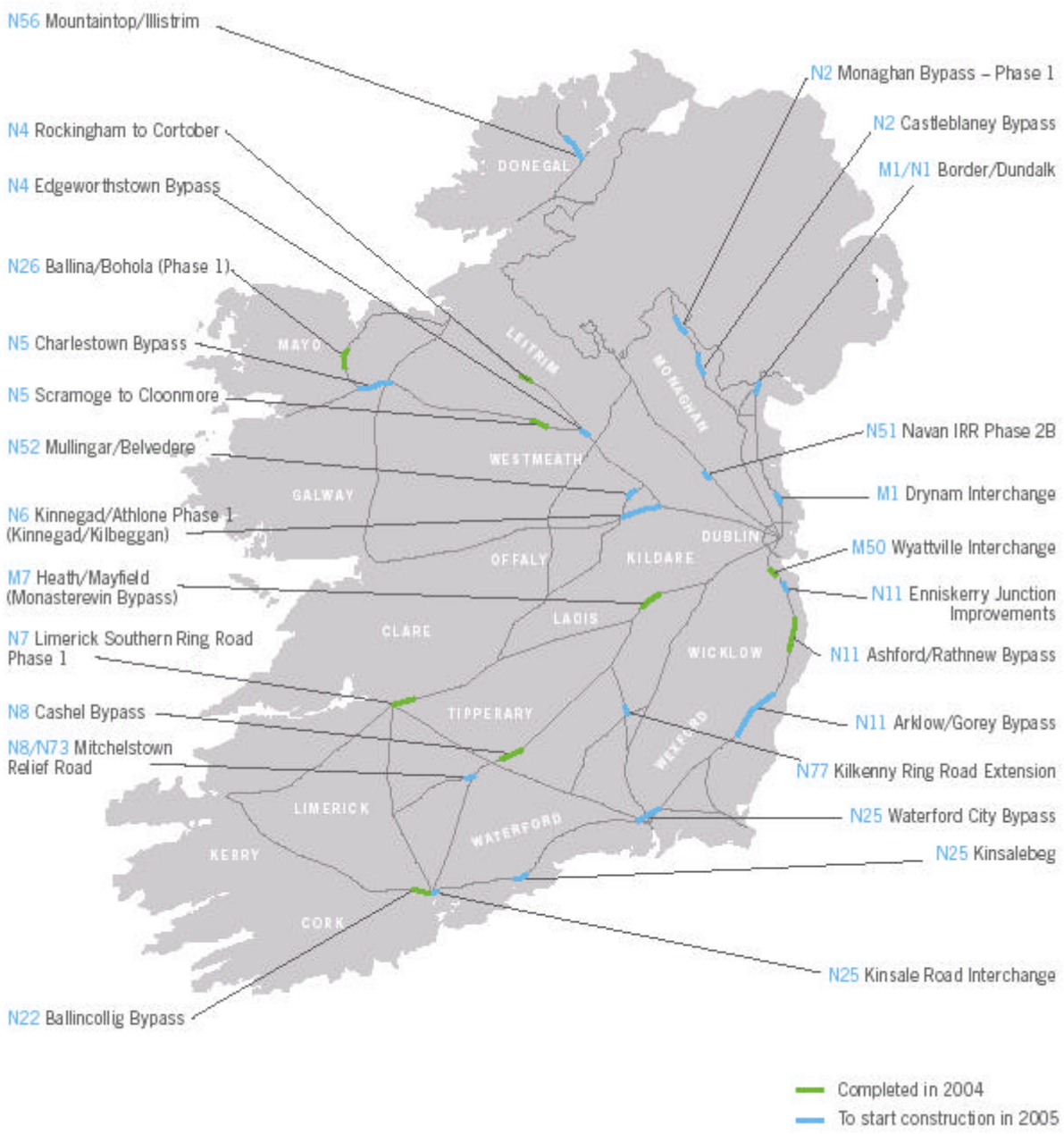
The scheme was financed by the Irish Government under the National Development Plan 2000-2006.

KILOMETRES OF NATIONAL ROADS COMPLETED 2000-2004

Schemes Completed	No. of Schemes	Carriageway Type KM			
		M	DC	SC	Total
2000	4	0	0	18.2	18.2
2001	14	25.7	17.9	77.2	120.8
2002	8	0	6.2	41.7	47.9
2003	11	51	24	7	82
2004	10	17.5	42.4	16	75.9
Total	**47**	**94.2**	**90.5**	**160.1**	**344.8**

“ - M50 Wyattville Interchange - This project, costing €45 million, involved the grade-separation of the Cherrywood access, Wyattville dual carriageway and the N11 Dublin-Wexford Road dual carriageway..”

Schemes Completed in 2004 & Schemes to Start in 2005



- **Border, Midlands and Western Region (BMW)**

Activity in the BMW Region continued to gain momentum with the commencement of 6 major projects in 2004 - the M1 Dundalk Western Bypass, N4 Sligo Inner Relief Road, N6 Loughrea Bypass, N15 Ballyshannon/Bundoran Bypass, N52 Mullingar Bypass and the N55 Cavan Bypass. Three major projects were also completed in the Region - the N4 Hughestown/Meera (i.e. Carrick-on-Shannon/Boyle), N5 Strokestown/Longford and N26 Ballina/Bohola, Phase 1, schemes.

Position on National Road Projects in BMW Region 2005

In Construction as at 1 January, 2005

Route	Project	Length Km	Open to Traffic
M1	Dundalk Western Bypass (PPP)	11	2006
N2	Carrickmacross Bypass	9	Open to traffic
M4	Kilcock/Kinnegad (PPP)	37	2006
N4	McNeads Bridge-Kinnegad	5	2005
N4	Sligo Inner Relief Road	5	2005
N6	Loughrea Bypass	4	2005
N15	Ballyshannon/Bundoran Bypass	11	2006
N52	Mullingar Bypass	5	2006
N55	Cavan Bypass	3	2006
Total	**9 Schemes**	**90kms**	

At Tender Stage for 2005 Start

Route	Project	Length Km	Start	Completion
N1	NI Border/Dundalk#	10	2005	2007
N2	Monaghan Bypass#	2	2005	2006
N2	Castleblaney Bypass	15	2005	2007
N4	Edgeworthstown Bypass	4	2005	2007
N5	Charlestown Bypass	18	2005	2007
N6	Kinnegad/Athlone Phase 1 (Kinnegad/Kilbeggan)	28	2005	2007
N52	Mullingar/Belvedere	4	2005	2007
N56	Mountain Top to Illistrim	5	2005	2008
Total	**8 Schemes**	**86kms**		

Contract Awarded

Through Statutory Approval Process

Route	Project	Length Km	Current Position
N6	Kinnegad/Athlone (Phase 2)	29	Start 2006
M7/M8	Portlaoise/Castletown/ Cullahill (PPP)	40	Start 2007
Total	**2 Schemes**	**69Km**	

Decisions Awaited

Route	Project	Length Km	Current Position
N4	Longford/Drumsna (Dromod Roosky Bypass)	11	2006 Start
N6	Ballinasloe Galway (PPP)	56	2007 Start
N52	Tullamore Bypass	15	2009 Start
Total	**3 Schemes**	**82Km**	

In Planning

Route	Project	Length Km	Current Position
N2	Ardee Bypass	9	CPO 2005
N3	Virginia Bypass	13	Preferred route identified
N3	Belturbet Bypass	7	CPO 2005
N4	Carrick-on-Shannon Bypass	6	Preferred route identified
N4	Cloonamahon/Castlebaldwin	12	Preferred route identified
N5	Longford Bypass	4	CPO 2005
N5	Westport/Castlebar	15	CPO docs completed. EIS being prepared
N5	Ballaghadreen Bypass	14	Preferred route identified
N5	Strokestown Bypass	4	Preliminary Design
N6	Galway Outer Bypass	21	CPO/EIS to be published 2005
N6	Athlone/Ballinasloe	17	CPO/EIS to be published 2005
N7	Castletown/Nenagh	34	CPO/EIS to be published 2005
N14	N13 Jn/Lifford	19	Preferred route identified
N15	Lifford/Stranorlar-Ballybofey	17	Preferred route identified
N15	Ballybofey/Stranorlar Bypass 2+1	16	CPO/EIS 2005
N17	Tuam Bypass 2+1	5	CPO 2005
N17	Mayo Co. Bdy to Milltown Bypass	10	Preferred route identified
N17	Galway/Tuam	22	Preferred route identified
N17	Tobercurry Bypass 2+1	10	CPO 2005
N17	Annaghmore/Achonry (Collooney/Charlestown Scheme)	11	2005 – 2009 Stand-by Scheme
N17	Rathscanlan/Curry of (Collooney/Charlestown Scheme)	4	2005 – 2009 Stand-by Scheme
N18	Oranmore-Gort	27	CPO/EIS to be published 2005
N18	Gort-Crusheen Bypass	22	CPO/EIS to be published 2005
N26	Ballina-Bohola, Phase 2	18	CPO/EIS being prepared
N80	Mountmellick Relief Road	1	CPO 2005
Total	**25 Schemes**	**338Km**	

Public Private Partnership (PPP)

Further progress was achieved during the year in the delivery of the Public Private Partnership programme with the commencement of construction on the M1 Dundalk Western Bypass and the M8 Rathcormac/Fermoy Bypass projects. (See also Chapter 5).

Comptroller and Auditor General Special Report – 'National Roads Authority Primary Routes Improvement Programme' and Meeting with the Public Accounts Committee.

The Comptroller and Auditor General (C&AG) published a 'Report on the National Roads Authority Primary Routes Improvement Programme' in June, 2004. The report focused on the 1999 National Development Plan provision of €5.6 bn. for national road investment and tracked the reasons as to why the 2003 estimated cost of the roads programme was €16.4 bn.

Specifically, the report identified the following factors as responsible for the higher cost (in today's prices) of the national roads programme when compared with the 1999 NDP provision:

a | a shortfall of 25% between the initial NDP allocation and the then estimated cost of completing the programme;

b | infl.ation accounted for a 40% cost increase between 1999 and 2003;

c | changes in the scope of projects due, for example, to the Government's decision to provide motorways/high quality dual carriageways between the major urban centres, as well as the addition of further schemes to the programme accounted for a 21% increase in costs;

d | non-standard schemes like Dublin Port Tunnel and the South Eastern Motorway accounted for an increase of 23%, and,

e | failure to fully cost certain scheme elements accounted for 16%.

The Authority met with the Public Accounts Committee on 15th July, 2004, to discuss the report's findings. The following issues were highlighted by the Authority at the meeting:

a | Most of the factors identified as contributing to increased costs relate to matters outside the control of the Authority, consistent with the conclusions of another report (Fitzpatrick Associates, April, 2002) which found that, "the NRA has a strong project management focus…… Factors which are in the direct control of the NRA would appear to be well managed, and most difficulties have arisen from external factors and difficulties in managing these."

b| Preliminary costings which were supplied by the Authority in advance of the publication of the NDP related to outline scheme specification and in most cases did not have the benefit of even initial planning work to assist in the cost estimation process.

c | The specific features of individual schemes can only be determined and more accurately costed after completion of the planning and design process taking account of any changes or environmental impact mitigation requirements imposed by An Bord Pleanála.

d | The Authority's cost estimation function has been considerably strengthened since the commencement of the NDP, following the appointment of two cost estimation specialists and other initiatives concerning road design and construction standards.

e | As a consequence of the changes in the scope and standard of road schemes and the addition of further schemes to the programme, the national roads programme of today is radically different to that envisaged by the Authority prior to finalisation of the NDP. Any comparison between the two would be akin to comparing apples and oranges.

f | Road construction, like almost every sector of the economy, is not immune from inflationary pressures, and the Authority has no direct control over such factors.

The Authority has been pro-active in seeking to devise new forms of contract that can achieve greater certainty of scheme construction outturn costs vis a vis the tendered price. To this end, the Authority has successfully introduced the Design and Build contract which transfers most areas of risk to the contractor and will pursue other initiatives to achieve cost certainty.


M4 Celbridge Interchange

"The Authority has been pro-active in seeking to devise new forms of contract that can achieve greater certainty of scheme construction outturn costs vis a vis the tendered price."

All-Party Oireachtas Committee on the Constitution

The Authority made a presentation on 23 September, 2003 to the All-Party Oireachtas Committee on the Constitution concerning issues which arise in the compulsory purchase of the land necessary to facilitate the construction of the National Roads Programme.

The core point in the Authority's submission was that current legislation, as applied, places too great an emphasis on individual property rights and does not give sufficient weight to the provisions of Article 43.2.1 of the Constitution which states that "the State recognises, however, that the exercise of the rights mentioned in the foregoing provisions of this article (private ownership or the general right to transfer, bequeath and inherit property) ought in civil society, to be regulated by the principles of social justice".

Accordingly the Authority expressed the view that the State should exercise the authority conveyed in Article 43.2.2 of the Constitution, which, in its current form, states that "the State, accordingly, may as occasion requires delimit by law the exercise of the said rights (private ownership, etc.) with a view to reconciling their exercise with the exigencies of the common good".

The All-Party Report was presented to the Government in 2004 and, if the recommendations contained in the report are implemented, the prospect of paying more reasonable prices for the land required for national road schemes and other public infrastructure is achievable.

Contract Initiatives

The Authority made extensive use in 2004 of the 'Design-Build' form of contract, which was initially developed and piloted by the Authority in 1998. The new contract is achieving greater certainty of scheme outturn costs and improved contract completion times. An example of the efficiency that this form of contract brings is the completion of the M7 Heath-Mayfield (Monasterevin Bypass) motorway scheme almost one year ahead of schedule and within budget. The Authority in 2004 started to explore the potential benefits under Early Contractor Involvement and target price arrangements. This form of contract is being piloted on the N1 Dundalk/Newry scheme in conjunction with the Northern Ireland Roads Service and on the N8 Cashel/Mitchelstown scheme. The initiative will facilitate contractor innovation and input as regards the buildability of road schemes and is expected to achieve cost efficiencies and better value for money.

National Secondary Roads

There was also increased activity during 2004 on national secondary road schemes, complementing the success of the Pavement (i.e. road surface) Restoration Programme introduced in 2002. Work is under way on the N52 Mullingar Bypass and on the N55 Cavan Bypass. The N77 Kilkenny Ring Road Extension is currently at tender stage.

Crash Barriers

The Authority announced during the year that all inter-urban motorways and dual carriageways would be fitted with crash barriers irrespective of the width of the central median. This decision was reached after taking account of a range of factors, including poor driver behaviour on motorways and the certainty that such behaviour could not be ruled out in the future. (See also Chapter 4).

Road Safety

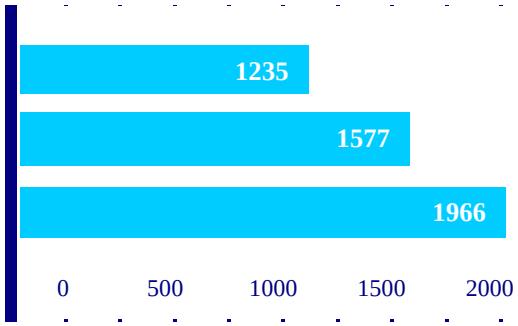
The Authority has been active in 2004 in relation to Road Safety with the completion of 123 High Accident Remedial schemes, 7 Higher Cost Accident Remedial schemes and 16 Traffic Calming schemes. (See also Chapter 4).

Pavement Rehabilitation Programme

In 2004 over €110 million was spent on National Primary and Secondary roads as part of a five year pavement restoration programme to widen and improve the pavement quality of the national road network. About 110 km of the Primary network was improved during the year with special emphasis being placed on routes that were identified as being deficient in the annual road condition surveys. In the case of one such route, the N5 Longford/Westport road, over 40 km of road was improved in 2004.

The 2004 road condition survey carried out on the National Secondary network using the ARAN (Automatic Road Analyser) machine showed that about 342 km of Secondary roads were improved since the 2001 survey. ARAN quantifies road evenness using the International Roughness Index (IRI). An IRI value less than 4 is considered to be an acceptable standard for National Secondary roads. The survey showed that many routes now have acceptable riding quality over much of their length.

The National Secondary routes on the west coast, because of the more difficult ground conditions over which the routes were built, are in a poorer condition than other Secondary routes. Consequently, the Authority will target more resources on these routes to bring them up to the same standard as other Secondary routes over the coming years.



LENGTH (KM) OF NATIONAL SECONDARY ROUTES WITH IRI>4

M50 South Eastern Motorway and Carrickmines

The High Court decision of 29 January 2004, overturned an approval issued by the Minister for Environment, Heritage and Local Government, given in July 2003, to a joint consent with Dun Laoghaire-Rathdown County Council for works to the national monument at Carrickmines Castle in order to facilitate the construction of the M50 South Eastern Motorway. The Court judgment was principally based on the changes brought about by Orders under the Ministers and Secretaries Act which had the effect of substituting two bodies where three previously were involved in issuing joint consents. The Court held that such a change would require primary legislation to be valid.

In July 2004, the Government enacted the National Monuments (Amendment) Act, 2004. The Act contained a specific provision in relation to the M50 and the works to be completed at the site of Carrickmines Castle. In order to remove any doubt in relation to Carrickmines, the Act deemed that no other licence or consent under the National Monuments Acts would be necessary for works to continue. The Minister would issue directions in relation to any works affecting the monument at Carrickmines. The Minister for the Environment, Heritage and Local Government subsequently issued directions for the works concerned under the provisions of the new legislation.

Following a High Court judgment on 7th September, 2004, rejecting claims that provisions of the National Monuments (Amendment) Act, 2004, relating to the Carrickmines site were unconstitutional, construction work resumed on the Carrickmines section of the South Eastern Motorway – the final link of the M50 'C-Ring' around Dublin.

In December, 2004, an Order was sought from the Supreme Court to halt further works on the Carrickmines castle site pending the hearing of an appeal against the High Court judgment. In a unanimous decision, the Supreme Court refused the application for an interlocutory injunction, thereby permitting works to continue on the project.

A 1.5km section of the motorway from the Ballinteer Interchange to the Sandyford Interchange was opened in November 2004, to alleviate traffic in the Sandyford area. The remainder of the scheme is expected to be completed by autumn, 2005 subject to the outcome of the Supreme Court appeal on the constitutionality of provisions of the National Monuments (Amendment) Act, 2004.

North-South Co-operation

Substantial progress has been made in the development of cross-border routes with total investment of €851.474m between 2000-2004 under the NDP. This substantial investment has seen the completion of the M1 motorway from Dublin to Dundalk in June 2003, providing 72km of continuous motorway. Construction of the Dundalk Western Bypass comprising 11km of new motorway will be complete by end 2005. Statutory approval has been received the M1/A1 Dundalk to Newry scheme and construction will commence in early 2005.

The strategy for the development of the North Donegal/Monaghan/Dublin route incorporates the provision of Bypasses for the towns of Monaghan, Castleblaney and Carrickmacross. The latter opened to traffic in January, 2005. Road users travelling south on the N2 will be encouraged, using a combination of advertising and signage, to use the existing N33 Link, just north of Ardee to the M1, the Dundalk to Dublin section of which is now in place, as the more time efficient and safer route to Dublin, rather than using the N2 route via Ardee and Slane.

Corporate Governance

Corporate Governance comprises the systems and procedures by which enterprises are directed and controlled. In the interest of transparency and accountability, it is important that the Authority operates to the highest standards of corporate governance best practice.

The Code of Practice adopted by the Authority comprises of the following statements of policy:

- The Board of the National Roads Authority
- Briefing for New Members of the Board
- Matters Reserved for the Board
- Code of Business Ethics for Board Members
- Members Fees and Staff Remuneration
- Code of Business Ethics for staff members
- Statement on the System of Internal Financial Control
- Report and Accounts of the National Roads Authority
- Reporting Additional to Annual Report and Accounts
- Subsidiaries and Acquisitions
- Procurement
- Audit Committee Charter
- Code of Ethics for Internal Audit
- Internal Audit Charter
- Tax Compliance
- Protocol for Handling Confidential Information
- Appraisal and Management of Capital Expenditure Proposals
- Disposal of Fixed Assets
- Disclosure of Suspected Breaches of Rules or other Impropriety

“Substantial progress has been made in the development of cross-border routes with total investment of €851.474m between 2000-2004 under the NDP.”

The provisions of the Code of Practice for the governance of the National Roads Authority are supplementary to, and do not affect obligations imposed by the Roads Act, 1993, or any other relevant legislation, including Ethics in Public Office legislation.

Decentralisation

As part of the strategy announced by the Minister for Finance in December, 2003, the Authority was identified for relocation to Ballinasloe, County Galway, under the Government's decentralization plans.

In order to facilitate this process, the Authority has developed a decentralisation implementation plan which represents the initial attempt to outline the issues as they would impact on the Authority and the manner in which such issues would be dealt with. The plan is dynamic in nature and will require regular updating as additional information becomes available and issues are further clarified.

The plan does highlight certain areas that are of concern to the Authority under the proposed decentralisation strategy, particularly the potential for significant corporate memory loss with implications for the ability of the Authority to effectively manage and deliver the national roads programme.

Financial Controls

- Road Grant Payments and Procedures

The Authority provides road grants to local authorities for improvement and maintenance work on the network of national roads, and seeks to ensure that appropriate procedures and controls are operating in accounting for, and utilisation of, the significant sums involved. The Authority's annual accounts are audited by the Comptroller and Auditor General and are subject to review and clearance by the Public Accounts Committee of Dáil Éireann.

The Authority's financial control function is part of a broader system of procedures and controls applying to local authorities. Other bodies involved in this process include the Local Government Audit Service, local authority internal audit functions, the EU Commission and Court of Auditors, the Department of Transport's Internal and EU Audit Units and Department of Finance ERDF and Cohesion Fund Financial Control Unit.

The Authority's Memorandum on National Road Grants sets out the conditions governing the payment of grants to local authorities in respect of maintenance and improvement works on the national road network and the chargeability of expenditure incurred on such works.

Financial Control Reviews

During 2004, the Authority's Financial Control Unit finalised 14 control reviews, including maintenance audits in local authorities.

The reviews enable the Authority to satisfy itself that local authorities maintain their accounting records for grant aided projects appropriately, that grant claims relate only to eligible expenditure and that conditions concerning EU and Exchequer funding are complied with.

On completion of reviews, initial draft and subsequent final reports of findings were issued to the local authorities concerned. In all cases where breaches of procedures were found, or improvements in accounting/administration were deemed necessary, the situation was brought to the attention of the local authorities concerned for appropriate action and implementation of recommendations to ensure future compliance.

In addition, the Authority, where warranted, recovered payments incorrectly charged by local authorities against national road scheme grants, where these came to light in the course of control reviews.

Nature of reviews and findings
Local authorities were generally found to have been operating satisfactory accounting systems for claiming national road grants. However, a number of instances were found where there were:

- errors in grant claims;
- incorrect coding of expenditure and grant receipts;
- ineligible expenditure;
- failure to reduce grant claims to take account of cash receipts;
- compliance failures in regard to E.U. publicity regulations, and
- failures to have available the required documentation.

Reports were also issued in respect of 14 projects co-financed by the European Regional Development and Cohesion Funds.

The Financial Control Unit is responsible for the internal audit function within the Authority, and an audit programme for 2004 was prepared and completed on the basis of a risk analysis of the Authority's expenditure. Regular reports of work carried out and findings are made to the Audit Committee of the Board of the Authority.


M1 Boyne Valley Bridge

03 2005 ROADS PROGRAMME ACTIVITIES

The Exchequer allocation of €1.415b to the Authority for 2005 will allow substantial progress to continue on the implementation of the policy objectives of the National Development Plan. Coupled with the Government's decision to implement a multi-annual funding arrangement entailing a commitment to continued major investment in national roads over the next five years, this level of funding will enable the Authority to manage the programme more effectively and will bring greater certainty regarding the planning and scheduling of projects to the advantage of local authorities, contractors, consultants and affected property owners.

A high level of road construction activity will be achieved by the Authority in 2005. Work will continue on schemes such as the M1 Dundalk Western Bypass, M4 Kilcock/Kinnegad scheme, N7 Naas Road widening upgrade, M8 Rathcormac/Fermoy Bypass, N15 Ballyshannon/Bundoran Bypass and N18 Ennis Bypass. The M50 South Eastern Motorway will be completed by the autumn of 2005. This activity will be supplemented by the commencement of construction on up to 18 major schemes involving 154km of new road. The schemes concerned represent a good geographical spread between the Southern and Eastern Region (S&E) and the Border, Midlands and Western Region (BMW).

Key aspects of the national roads programme in 2005 include:

- 12 schemes under construction at 1 January, 2005.
- 18 schemes to start during the year, including 8 in the BMW Region.
- 8 schemes to be completed including the M50 South Eastern Motorway and Dublin Port Tunnel.

The latter to open to traffic early in 2006 following commissioning of the tunnel safety systems and safety trials.

- The further advancement of pilot 2 plus 1 road type schemes as part of the Authority's strategy to reduce road accident fatalities and injuries. 12 schemes with a combined length of 150 km will be progressed in 2005 in addition to the initial four pilot schemes (48 km) announced in 2004.
- Publication of Compulsory Purchase Orders and Environmental Impact Statements for all remaining sections of the major inter-urban routes.
- Investment of €104.2m in the national secondary road network including €52.5m for Road Pavement Restoration.
- The allocation of €131m for pavement and minor improvements.

- The allocation of €83.6m for scheme planning and design.
- The allocation of over €40m for road safety measures including elements of the Governments Road Safety Strategy 2004-2006, the Authority's road lining and signage programme and other safety measures.
- The allocation of €309.4m for land and property acquisition.
- The continuation of the crash barrier retrofit programme, including retrofit of the M50.

National Road Schemes to Start in 2005

Scheme		Road Type	Length Km	Region
N1	N.I. Border/Dundalk	DC	10	BMW
M1	Drynam Interchange*	I	-	S&E
N2	Monaghan Bypass, Phase 1	SC	2	BMW
N2	Castleblaney Bypass	SC	15	BMW
N4	Edgeworthstown Bypass	SC	4	BMW
N5	Charlestown Bypass	SC	18	BMW
N6	Kinnegad/Athlone, Phase 1 (Kinnegad/Kilbeggan)	DC	28	BMW
N8/N73	Mitchelstown Relief Road	SC	4	S&E
N11	Enniskerry Junction Improvements	F	1	S&E
N11	Arklow/Gorey Bypass	DC	23	S&E
N25	Waterford City Bypass (PPP)	DC	18	S&E
N25	Kinsalebeg	SC	3	S&E
N25	Kinsale Road Interchange	I	1	S&E
M50	Improvements (Phase 1)	M	5	S&E
N51	Navan Inner Relief Road Phase 2B	SC	1	S&E
N52	Mullingar/Belvedere	SC	4	BMW
N56	Mountain Top/Illistrim	SC	5	BMW
N77	Kilkenny Ring Road Extension	SC	12	S&E
T8otal Length			**154Km**	

*NRA contribution

Other National Road Schemes Through Statutory Approval Process at the End of 2004

Scheme		Road Type	Length Km	Region
N6	Kinnegad Athlone Phase 2	DC	29	BMW
N7	Limerick Southern Ring Road Phase 2 (PPP)	DC	10	S&E
M7/M8	Portlaoise/Castletown/Cullahill (PPP)	M	40	S&E
N7	Nenagh/Limerick	DC	38	S&E
N8	Cullahill/Cashel	DC	45	BMW/S&E
N9	Kilcullen/Waterford Northern Section	DC	46	S&E
N25	Cork Southern Ring Road Interchanges	-	-	S&E
Total Length			**208Km**	

National Road Schemes to be Completed in 2005

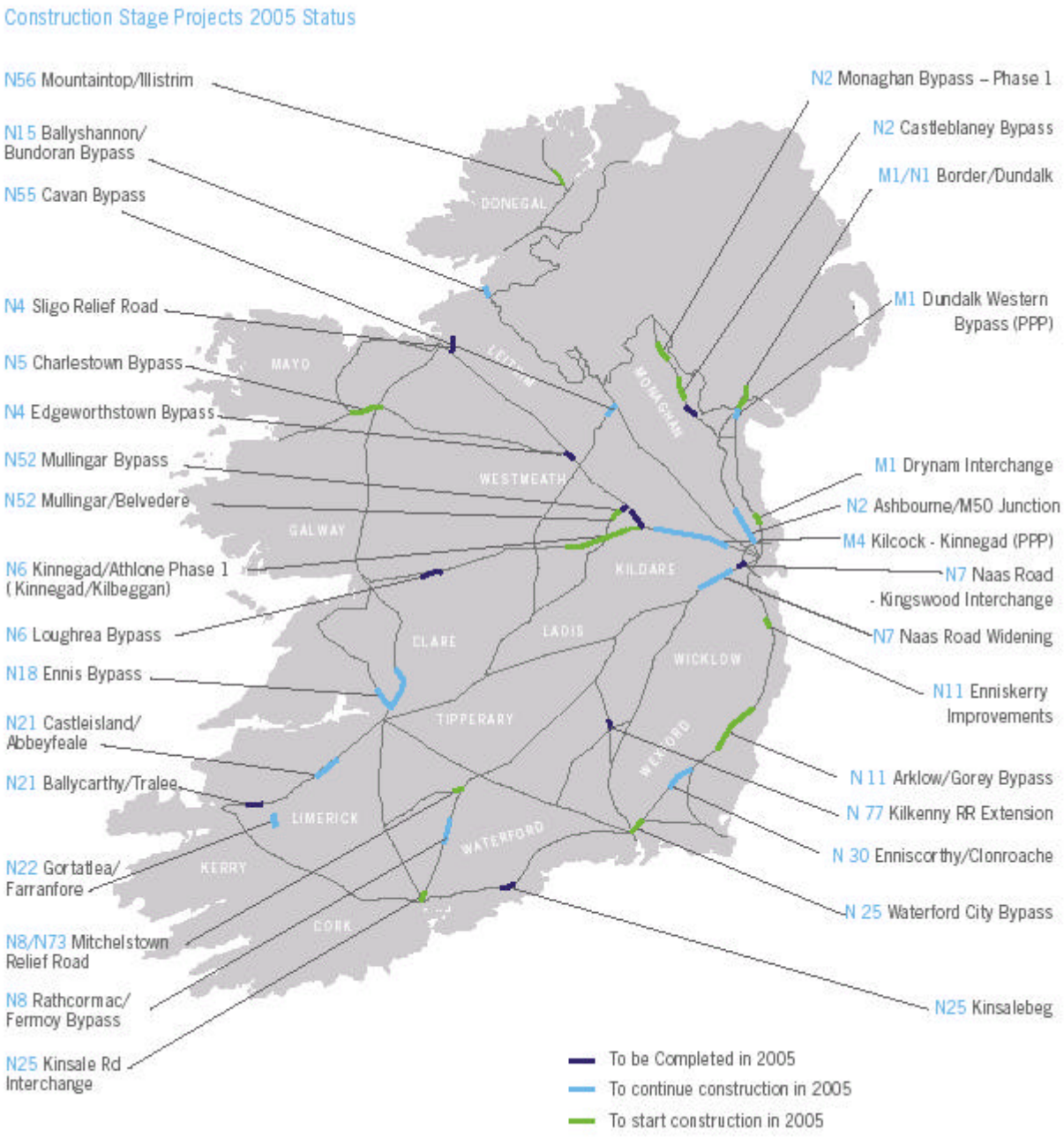
Scheme		Road Type	Length Km	Region	Expected Completion of Contract (Quarter/Yr)
N2	Carrickmacross Bypass	SC	9	BMW	Q1, 2005
N4	McNeads Bridge/Kinnegad	DC	5	BMW	Q2, 2005
N4	Sligo Relief Road	DC	5	BMW	Q4, 2005
N6	Loughrea Bypass	SC	4	BMW	Q4, 2005
N7	Naas Road-Kingswood Int*	I	1	S&E	Q1, 2005
N21	Ballycarthy/Tralee	SC	3	S&E	Q2, 2005
M50	South Eastern Motorway	M	9.5	S&E	Q3, 2005
M50	Dublin Port Tunnel#	M	6	S&E	Q4, 2005
Total Length			**42.5Km**		
* NRA contribution # Contract Completion					

Other Major Schemes Continuing Under Construction as at 1 January

Scheme		Road Type	Length Km	Region	Expected Completion of Contract (Quarter/Yr)
M1	Dundalk Western Bypass (PPP)	M	11	BMW	Q1, 2006
N2	Ashbourne/M50 Junction	DC	17	S&E	Q3, 2006
M4	Kilcock/Kinnegad (PPP)	M	37	BMW	Q1, 2006
N7	Naas Road Widening	U	15	S&E	Q2, 2006
M8	Rathcormac/Fermoy (PPP)	M	18	S&E	Q3, 2007
N15	Ballyshannon/Bundoran Bypass	SC	11	BMW	Q3, 2006
N18	Ennis Bypass	DC SC	14 7	S&E	Q2, 2007
N21	Castleisland/Abbeyfeale	SC	8	S&E	Q3, 2006
N22	Gortatlea/Farranfore	SC	4	S&E	Q1, 2006
N30	Enniscorthy/Clonroche	SC	5	S&E	Q2, 2006
N52	Mullingar Bypass	SC	5	BMW	Q3, 2006
N55	Cavan Bypass	SC	3	BMW	Q2, 2006
Total Length			**155Km**		

M1 Boyne Valley Bridge

Multi-Annual Programme 2005 - 2009



Update on Status of Major Inter-Urban Routes – Outstanding Sections

CPOs and EISs were published during 2004 for the major inter-urban (MIU) schemes, N6 Ballinasloe/Galway and N8 Cullahill/Cashel. The statutory documentation for outstanding sections of the MIUs willbe published during the first half of 2005 and submitted to An Bord Pleanála with a view to obtainingapprovals permitting the schemes concerned to go to construction.

- **M1 Dublin-Northern Ireland**

The Authority has overseen the completion of the M1 to motorway standard over the entire length between Dublin to south of Dundalk. Work commenced in 2004 on the Dundalk Western Bypass and this scheme is scheduled for completion early in 2006. The Dundalk/Newry scheme, which is being promoted jointly with the Northern Ireland Roads Service, is currently at tender stage and is expected to commence early in 2005.

The strategy for the development of the North Donegal/Monaghan/Dublin route involves the provision of Bypasses of the towns of Monaghan, Castleblayney and Carrickmacross. The Carrickmacross Bypass opened in January, 2005, the Monaghan Bypass commenced construction in February, 2005. Work is also expected to begin on the Castleblayney Bypass during 2005. Road users travelling south on the N2 towards Dublin may now use the existing N33 Link, from north of Ardee to the M1 Dublin-Dundalk Motorway which offers a more efficient and safer route to Dublin, rather than using the N2 route via Ardee and Slane.

- **M1 Dundalk Western Bypass (PPP) (See Chapter 5)**

- **NI Dundalk/Newry (Border/Dundalk)**

The scheme, which is being progressed in conjunction with the Northern Ireland Roads Service, is expected to commence construction in early 2005.

- **N4/N6 Dublin-Galway**

The route has been divided into a number of projects and the following details progress on them.

- **N4 - M50 (N4 Leixlip to M50 Junction)**

Work on the preparation of CPO and EIS is continuing and both are expected to be published in early 2005. The project will involve the provision of a third lane on each carriageway connecting to the M4 motorway east of Leixlip and construction of a grade separated interchange at the Newcastle Road, Lucan.

- **M4/M6 Kilcock/Kinnegad Motorway (PPP)**

The PPP contract was awarded to EuroLink (Cintra/Siac) on 24 March 2003. Excellent progress is being made on construction work. The project is scheduled for completion in late summer, 2006, but an earlier opening date is possible if current progress is maintained.

- **N6 Kinnegad/Athlone (ERDF assisted)**

An Bord Pleanála approved the CPO and EIS in April, 2004. The project is being advanced as a 'Design and Build' contract with a view to constructing the 57km scheme in two phases. Tenders for Phase 1, the Kinnegad to Kilbeggan section, are currently being evaluated. Construction of Phase 1 is programmed to commence in mid - 2005, while Phase 2 (Kilbeggan to Athlone) should come to construction in 2006.

- **N6 Athlone/Ballinasloe (ERDF assisted)**

A preferred route has been identified. Ecological studies are under way. Preliminary Design is under way while CPO and EIS documentation will be completed and published in early 2005.

- **N6 Ballinasloe/Galway (PPP)**
The project is being developed as a Public Private Partnership (PPP) project. The CPO and EIS were published in August, 2004 and the An Bord Pleanála hearing commenced on 23 November, 2004 and was concluded in early 2005. The Authority plans to commence the PPP tendering process with the publication in early 2005 of the OJEU notice seeking expressions of interest for pre-qualification to tender for the scheme.

- **N7 Dublin-Limerick**
As a consequence of the opening of the M7 Heath/Mayfield (Monasterevin Bypass) motorway scheme on 8 November, 2004, (almost one year ahead of the scheduled contract completion date) the route has now been completed to motorway/high quality dual carriageway standard from Dublin to south of Portlaoise, a distance of almost 80km.

- **N7 Naas Road Improvements**
Work is under way on the N7 Naas Road improvements scheme which involves the addition of a third lane on both carriageways of the existing N7 dual carriageway, between Rathcoole and the Naas Bypass motorway, as well as the provision of four grade separated junctions and elimination of the existing at grade signalised junctions at Kill and Johnstown.

- **N7 Castletown/Nenagh (ERDF assisted)**
It is anticipated that the CPO and EIS for the scheme will be published in early 2005.

- **N7 Nenagh/Limerick (ERDF assisted)**
An Bord Pleanála approved the CPO and EIS for the scheme on 30 July, 2004. The preparation of contract documentation is under way for this 'Design and Build' scheme.

- **N7 Limerick Southern Ring Road, Phase 2 (PPP)**
The CPO and EIS for the Limerick Southern Ring Road, Phase 2, scheme were approved by An Bord Pleanála on 29 July, 2004. Four consortia have been short-listed to tender for the scheme and this process got under way in December 2004. The scheme comprises 10km of dual carriageway, together with single carriageway link roads, and a tunnel under the Shannon Estuary. Work on the scheme is expected to commence in 2006. The scheme will extend from the Limerick Southern Ring Road, Phase 1, scheme which was completed in May, 2004, to link with the N18 Limerick-Ennis road.

- **N8 Dublin-Cork**
Traffic travelling between Cork and Dublin now has the benefit of travelling the Dublin to Portlaoise section (N7/M7) on continuous motorway/high quality dual carriageway.

- **M7/M8 Portlaoise/Castletown/Cullahill (PPP)**
The scheme was approved by An Bord Pleanála on 1 November, 2004 and it is anticipated that tendering will commence in early 2005 with the publication of OJEU notice seeking expressions of interest for pre-qualification to tender for the scheme.

- **N8 Cullahill/Cashel**
The CPO and EIS for the scheme were published on 7 April, 2004. The oral hearing was held in September, 2004 and An Bord Pleanala approved the scheme on 23 December, 2004.

- **N8 Cashel/Mitchelstown**

The documentation for the CPO and EIS is at an advanced stage of preparation and is expected to be published in early 2005. This project is being advanced as an Early Contractor Involvement (ECI) project and a contractor has been selected. This form of contract supplements earlier initiatives by the Authority in relation to Design and Build and PPP forms of contract and is expected to facilitate contractor input as regards the buildability of schemes leading to cost efficiencies and better value for money.

- **N8 Mitchelstown/Fermoy (incl N73 Mitchelstown Western Relief Road)**

The documentation for the CPO and EIS for the Mitchelstown/Fermoy scheme is at an advanced stage of preparation and is expected to be published by mid-2005. The CPO for the Western Relief Road section was made in late 2003 and An Bord Pleanala approved the project in June, 2004. Construction of the Western Relief Road element is scheduled to begin in early 2005.

- **M8 Rathcormac/Fermoy Bypass (PPP Project)**

The M8 Rathcormac/Fermoy Bypass contract was awarded to Direct Route (Fermoy) Ltd. in June, 2004. The consortium comprises Kellogg Brown & Root Ltd, Strabag AG, John Sisk & Son (Holdings) Ltd, Lagan Holdings Ltd, Roadbridge Ltd. and the First Irish Infrastructure Fund (a joint AIB/European Investment Bank fund established for the purpose of investing in PPP projects and private sector infrastructure developments in Ireland and across Europe). Subsequent to financial close, debt finance along with equity was syndicated to Halifax Bank of Scotland.

The M8 Rathcormac/Fermoy Bypass involves the construction of an 18 km stretch of road incorporating a Blackwater crossing viaduct with an approximate length of 450 metres. Construction is well underway and it is anticipated that the road will open to traffic in the summer of 2007.

- **N9/N10 Dublin-Waterford**

The development of the N9/N10 Waterford/Dublin road is being advanced in a number of stages. The CPO and EIS for the Northern Section i.e. Kilcullen to Powerstown South of Carlow, were published at the end of 2003 and following the oral hearing in February, 2004, An Bord Pleanala approved the project. The CPO and EIS for the Southern Section will be published in early 2005. The Authority plans to prioritise construction of the Carlow Bypass (to start in 2006) with the Waterford/Knocktopher section (to start in 2007 subject to An Bord Pleanala approval) while completing the entire Kilcullen/Waterford route by the end of 2010.

Dublin Area Schemes

- **M50 Upgrade**

The Authority is progressing major plans to upgrade the M50 motorway. The project involves the widening of approximately 32 km of the motorway from 2 to 3 lanes in each direction and the upgrade of 10 interchanges along this length. The primary objectives of the project are to provide for easier access onto and off the mainline motorway, restore a greater level of service on the motorway, maintain safety, facilitate the movement of heavy goods vehicles to and from Dublin Port, and to provide efficient vehicle access to and from Dublin Airport.

The planned upgrade will be delivered through a number of contracts principally a Design & Build contract and a PPP contract. The Motorway Scheme and EIS for the project were published in September, 2004, and the An Bord Pleanála oral hearing in respect of the planned upgrade works commenced in December and concluded in January, 2005.

- **M50 Dublin Port Tunnel**

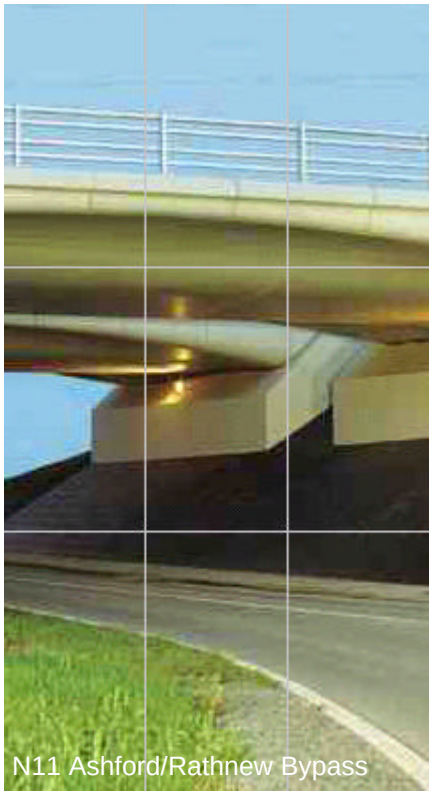
Construction work continued on the Dublin Port Tunnel during 2004 and a major milestone was reached on the 18 August, 2004, when the Tunnel Boring Machine broke through at Whitehall, marking the completion of bored tunnelling work on the project.

Construction work on the tunnel will continue throughout 2005 with commissioning of the tunnel safety systems and safety trials expected to occur early in 2006, following which the tunnel will be opened to traffic.

In October 2004 the Minister for Transport confirmed that the proposed height of the Dublin Port Tunnel would not be changed. This welcome decision, based fundamentally on safety grounds, brings an end to the uncertainty and debate concerning this issue. With an operational height of 4.65 metres the Dublin Port Tunnel is able to cater for all vehicles that the national road network and specifically its bridges, are designed to safely accommodate. The process for the reintroduction of legislation controlling maximum vehicle height has commenced and in this regard a consultative paper for public comment was published by the Department of Transport in December 2004.

- **M50 South Eastern Motorway**

A 1.5km section of the motorway from the Ballinteer Interchange to the Sandyford Interchange was opened in November, 2004, to alleviate traffic in the Sandyford area. The remainder of the scheme is expected to be completed by autumn, 2005 subject to the outcome of the Supreme Court appeal on the constitutionality of provisions of the National Monuments (Amendment) Act, 2004.



N11 Ashford/Rathnew Bypass

04 ROAD SAFETY

Road Safety Policy 2004-2006

A new Government road safety strategy has been published to cover the period 2004 to 2006. This is aimed towards achieving significant reductions in road fatalities and injuries. A number of the measures within the strategy relate directly to the Authority's work and these will be carried out over the period of the strategy.

The Irish Road Safety Strategy has been prepared in the context of the current EU Road Safety Action Programme that covers the period 2000-2010. The EU target is to reduce the number of fatalities within the EU by 50% over the 10 year period of the strategy. This would save 20,000 lives in EU member states.

In terms of road safety, Ireland lies 7th out of the original 15 EU countries in terms of road accident fatality rates:

Country	Per billion kms	Per 100,000 population
Best		
UK	7.5	6.1
Sweden	8.3	6.2
Netherlands	8.9	6.2
Ireland	**10.9**	**10.7**
Worst		
Greece	26.7	19.3
Portugal	-	21.0

Road Deaths per 100,000 population and per billion vehicle-kilometers (2001):

In Ireland, 33% of all fatal and injury accidents in 2002 occurred on national roads. The national road network forms 6% of the road network and carries approximately 43% of all traffic.

A recent study of fatal and injury accidents carried out by UCC, in consultation with the National Roads Authority, concluded the following:

- Motorways and dual carriageways with grade separated junctions are the safest roads (fatal and injury accidents);
- Undivided single carriageways have an accident rate/km **6 times** that of motorways, and
- Dual-carriageways with at-grade junctions only (no fly-overs or merging/diverging) have an accident rate/km **3 times** that of motorways.

Road Safety Work 2004:

The main focus of the Authority's activities in relation to road safety during 2004 concerned the following areas:

- **New schemes**

A significant safety dividend will be achieved as a direct result of the planned completion of 900km of motorways and high-quality dual carriageways in line with the policy objectives for national roads contained in the National Development Plan 2000-2006. The risk of head-on collisions and traffic movement confiicts associated with junctions and right-turning manoeuvres will largely be removed on roads of this standard. The better safety record of these types of roads will result in a saving of over 50 lives annually once they have been completed. To maximise the increased safety benefit, road safety audits are carried out on all new schemes on national roads.

- **Road Safety Audits**

The Authority incorporated road safety audit procedures into the Design Manual for Roads and Bridges which became the design standard for National Roads in early 2001. Road safety audit involves the evaluation of new road schemes during design and construction to identify potential hazards to road users, and the determination of appropriate measures to eliminate or mitigate any such hazards. All works that involve a permanent change to the existing layout of a national road require a road safety audit. The Authority is responsible for approving the members of road safety audit teams. A review process of the quality of road safety audits has been put in place to ensure the effectiveness of the process.

- **Existing Road Network**

Accident Remedial Schemes:

Since 1994 the Authority has operated a programme whereby, for limited financial outlay, deficiencies at high risk accident locations can be identified and remedied. The works concerned are intended to enhance the safety of the roads system through changes in road layout, junction control and improvements in signage and road markings. 123 such schemes were completed in 2004. An evaluation of the works carried out in 1996 and 1997 has been undertaken. A report on their effectiveness will be published in early 2005. Until recently, the Accident Remedial Measures Programme has concentrated on schemes entailing limited financial outlay. A parallel programme was initiated in 2004 for higher cost accident remedial measures schemes at locations that have a history of crashes. Seven such schemes were completed in 2004:

Route	Location
52	Ardee to Dundalk
55	Drumbannow to Bellananagh
21	Newcastle West to Castlematrix jcn (E of NC West)
2	Collon to Ardee
24	Pallasgreen to Limerick
69	Foynes to Kildimo W
69	Tralee to Six Crosses

"The development of the N9/N10 Waterford/Dublin road is being advanced in a number of stages. The CPO and EIS for the Northern Section."

- **Traffic Calming**

The traffic calming schemes funded by the Authority aim to improve the road safety of national roads where they pass through towns and villages. It has been found that the posting of speed limits alone on national routes passing through such areas, without any physical speed reducing measures, does not induce drivers to slow down sufficiently. Traffic calming aims to reduce vehicle speeds by self-enforcing traffic engineering methods. Slower speeds result in fewer accidents.

The speed reductions are achieved by altering the appearance of the road on the approach to the town/village through the use of "gateways". Sixteen new traffic calming schemes were completed in towns/villages on national roads in 2004.

- **Road Safety Research**

The Authority is responsible for undertaking research in relation to road safety. Ongoing projects include:

- Speed and Seat-belt Wearing Rates Surveys;
- **S**ocial **A**ttitudes towards **R**oad **T**raffic **R**isk in **E**urope (SARTRE);
- CARE;
- SAFETYNET, and
- **E**uropean **R**oad **A**ssessment **P**rogramme (EuroRAP).

Cow Sculpture at Limerick

- **Speed and Seat-belt Wearing Surveys**

The Authority carried out extensive seat-belt wearing and speed surveys throughout mid-late 2003, the results of which were published as the '2003 Survey of Free Speeds (Urban and Rural) and Seatbelt Wearing Rates'. The report shows that while compliance with speed limits on some categories of road has improved, significant scope still exists for greater observance by drivers. The Authority's findings also identify higher rates of seat belt wearing in the front seats of cars. However, wearing rates in the rear of cars remain worryingly low.

Good progress has been made in relation to seat belt wearing rates in front seats – with driver wearing rates up from 55% in 1999 and 71% in 2002 to 85% in 2003. However, only approximately 46% of adults were shown to have worn belts in rear seats.

A survey of the seat belt wearing habits of school-goers indicated that approximately 68% of those attending primary school and 62% of those attending secondary schools buckled-up when using the front passenger seat, while the wearing rates for rear seats were 48% and 44% respectively.

The results from the seat belt surveys, conducted over the period June-December 2003, were undoubtedly influenced by the introduction of Penalty Points for non-wearing offences on 25th August, 2003.

The speed surveys conducted by the Authority recorded significant reductions in the proportion of cars breaking speed limits on dual carriageways, single carriageway national primary, urban residential and urban arterial roads (in both the 30 mph and 40 mph zones) over the period 2002-2003. The number of drivers exceeding the speed limit on dual carriageways fell from 43% in 2002 to 29% in 2003, and those exceeding the speed limit on rural national primary roads fell from 44% to 30% over the same time period. There was also a dramatic improvement in the observance of the 30 mph limit in urban residential areas – 64% in 2003 compared with 39% in 2002. Improved compliance was also recorded in the case of goods vehicles on certain categories of road. However, there continues to be significant scope for further improvement in compliance rates by cars and, in particular, goods vehicles.

Further speed and seat-belt surveys are due to be carried out in 2005.

- **Social Attitudes towards Road Traffic Risk in Europe (SARTRE 3)**

The Authority is a member of the EU-sponsored SARTRE 3 research project. The main purposes of the project are:

- to describe driver attitudes and reported behaviour throughout the continent with regard to road traffic risk;
- to evaluate the levels of approval or opposition to various regulations and countermeasures;
- to search for underlying social or cultural factors leading to various behaviours in terms of risk, and
- to recommend actions to be taken into consideration when improving road safety policies.

The results of the SARTRE 3 project were launched at a seminar in Paris in November 2004. A report highlighting the important findings for Ireland has been commissioned and should be available by mid-2005.

CARE

An EU Council decision of 30 November 1993 on the creation of a Community database on road accidents (93/704/EC) provided for the creation of an EU road accident database, called the CARE database. The Authority represents Ireland on the CARE expert working group and provides the national road accident datafile to the CARE system on an annual basis. This database contains valuable information on road accidents in EU countries and facilitates the carrying out of international comparisons.

SAFETYNET

The SAFETYNET project is designed to be the precursor to an EU road safety observatory. The Authority provides the national expert delegate to several work packages of the SAFETYNET project. The project is a cooperative effort between Member States and the Commission that promotes comprehensive analysis of: accident data, data on research and development, road safety performance indicators, risk exposure variables, investigation of accident causes and trauma data.

"A survey of the seat belt wearing habits of school-goers indicated that approximately 68% of those attending primary school...buckled-up when using the front passenger seat..."

EuroRAP

EuroRAP (European Road Assessment Programme) is an EU roads research programme which aims to provide a safety rating for roads across Europe. This will generate consumer information for the public and give road engineers and planners vital benchmarking information to show them how well their roads are performing compared with others, both in their own and other countries. Accident risk maps for Ireland, showing the road accident risk across various lengths of the network are currently being prepared, and will be published by AA Ireland and the National Roads Authority in early 2005.

Crash Barriers

Recent fatal accidents where vehicles crossed the central median of a motorway and collided with oncoming traffic have focused attention on policy in relation to the provision of crash barriers on central medians. The provision of crash barriers on motorway central medians has long been a controversial topic. The major pros and cons associated with the use of barriers on central medians are outlined below:

- **Pros**

The provision of crash barriers on the central median should prevent most crossover accidents – typically where out-of-control vehicles travel across the central median and enter the opposite carriageway with a risk of colliding with oncoming traffic. The casualty rate from such accidents (on average, 3.8 casualties per injury accident) is higher than for accidents where the vehicle enters and stays within the central median (2.0) and for accidents where the vehicle entered the median but returned from the side from which it came.

- **Cons**

Experience shows that approximately 85% of vehicles that stray onto central medians (of 9 meters or more) recover and return from the median to the side from which they came. Providing crash barriers in central medians would result in a large percentage of these vehicles colliding with the crash barriers. Despite improvements in crash barrier technology, such collisions could have potentially fatal consequences for the driver/passengers of the out of control vehicle, as well as for other road users.

The Authority, which as a matter of practice keeps safety issues under constant review, has decided that all future inter-urban motorways and dual carriageways will be fitted with crash barriers irrespective of the width of the central median. The decision was reached after taking account of a range of factors, including poor driver behaviour on motorways and the certainty that such behaviour could not be ruled out in the future.

A retrofit programme is already underway providing median crash barriers where the width of the central median on existing inter-urban motorways and dual carriageways is 15 metres or less. This programme will now be extended to all such motorways and dual carriageways, regardless of the median width involved.

The crash barrier retrofit programme includes the erection of crash barriers on the M50 median, with the aim of having the work substantially complete or under way on all sections of the motorway by the end of 2005. Every effort will be made to minimise disruption to traffic during barrier installation and towards this end night-time working will be availed on sections of the M50 where feasible. Such traffic considerations will entail a cost premium. The Authority anticipates that the total cost of the proposed work will be in the order of €5m. The approach determined by the Authority will achieve installation of crash barriers on the M50 at an earlier date then previously anticipated. However, the barriers concerned will have to be removed over extensive sections of the motorway to facilitate the planned construction of a third lane on each carriageway within the central median when the M50 upgrade contracts are undertaken. This work will include installation of crash barriers which will remain in place for the long term.


N4 Enfield Bypass

2 Plus 1 Road Type

The Authority is currently piloting a new road type (2 Plus 1) in a bid to radically reduce head on collisions. The 2 plus 1 road type consists of two lanes in one direction of travel and one in the opposite direction. The two-lane section, which provides a safe overtaking zone, alternates with a one-lane section at intervals of 2km approximately. The respective traffic flows will be separated by a crash barrier thereby significantly reducing the number of head on collisions with the potential to halve the death toll on these roads compared to fatality rates on traditional two-lane roads.

The main advantage of 2 plus 1 roads is enhanced safety. The separation of opposing traffic streams on 2 plus 1 roads greatly reduces the risk of cross over accidents including head-on collisions. In Sweden, it has been estimated that the use of the 2 plus 1 road type with a safety barrier led to an overall reduction of 50% in fatal accidents when compared to single carriageway roads. This was achieved largely by the elimination of head on collisions and by a transfer of accidents from the fatal category to the minor injury category.

The provision of overtaking sections approximately every 2km reduces driver frustration and the provision of a central safety barrier eliminates imprudent overtaking contributing to the better safety record of the new road type.

These projects will allow for the traffic, operational and safety assessments of the 2 plus 1 road type under Irish conditions. Driver behaviour and attitudes will be monitored, as will accident characteristics. The first project is a retrofit project on an existing 9km section of the N20 Rathduff to Mallow road. Work has commenced on the project and it is programmed to be completed in spring of 2005. The other projects will be implemented over the next few years and will be monitored for a number of years after opening. A further 150kms of 2+1 pilot schemes are being progressed in 2005.

"In Sweden, it has been estimated that the use of the 2 plus 1 road type with a safety barrier led to an overall reduction of 50% in fatal accidents..."

- **2 plus 1 Pilot Road Type Schemes to be progressed in 2005**

Scheme		Type	Length Km	Region
N4	North of Curlews to Ck-on-Shannon	Retro-fit	20	BMW
N4	Mullingar BP West (Stage 1)	Retro-fit	2.5	BMW
N4	Mullingar BP to Co. bdy west (Stage 2)	Retro-fit	10	BMW
N20	Rathduff to Blarney	Retro-fit	16	S&E
N22	Killarney to Co. Bounds	Retro-fit	20	S&E
N24	Piltown – Fiddown	Retro-fit	8	S&E
N3	Kells to South of Virginia	Green field	15	BMW/S&E
N17	Tuam Bypass	Green field	4.5	BMW
N17	Tobercorry Bypass	Green field	12	BMW
N21	Adare Bypass	Green field	7	S&E
N22	Farranfore to Killarney	Green field	27	S&E
N52	Tullamore to Kilbeggan	Green field	8	BMW
Total			**150km**	

In addition to the foregoing schemes the 4 pilot projects initially announced are being progressed and are all ongoing. The schemes covered are:

Scheme		Type	Length Km	Region
N20	Mallow to Rathduff	Retro-fit	9	S&E
N2	Clontibret to Castlebalyney	Green field	15	BMW
N4	Dromod to Rooskey	Green field	8	BMW
N15	Ballybofey/Stranorlar	Green field	16	BMW
Total			**48km**	

Safe Winter Driving

The Authority in conjunction with local authorities is responsible for over 5000km of national roads. A key aim is to keep these roads safe and as free as possible from wintry hazards. It is estimated that for every euro spent on the road winter maintenance service, approximately 8 euro is saved in reduced accidents, traffic delay, etc. A brochure has been published and widely distributed by the Authority describing the winter maintenance service and giving "Safe Driving Tips" for wintry conditions as part of the on-going effort to promote road safety and improved driver behaviour.

05 PUBLIC PRIVATE PARTNERSHIPS

Introduction

Further significant progress was made in 2004 in implementing the Authority's PPP programme with the commencement of construction on the M1 Dundalk Western Bypass and the M8 Rathcormac/Fermoy Bypass schemes. A notable feature has been the value for money secured in the deals closed to date. The Authority's PPP Unit is actively managing the construction phase of these contracts as well as the M4/M6 Kilcock-Kinnegad contract (awarded in March 2003) and, in the case of the M1 Dundalk Western Bypass contract, is also managing the operation and maintenance of 43 kilometres of motorway and toll collection facilities. Tender competitions are currently under way on a further four schemes.

The contracts awarded have seen a spread of foreign and domestic investors and the European Investment Bank has been involved in all the deals to date. An encouraging aspect of each of the PPP tender competitions has been the extremely high quality consortia which have participated in the bidding process.

The Authority's PPP programme has been underpinned by the decision of Government in the 2003 Budget to implement a multi-annual funding arrangement, as compared to the long standing practice of an annual budgetary allocation process. This arrangement commits to continued substantial investment in national roads over the next five years involving Exchequer funding of approximately €7.17 billion over the period 2005-2009, which will be supplemented by overall private sector investment of €1.36 billion bringing total anticipated expenditure in the national roads programme to €8.53 billion over the five year period.

PPP Contracts Awarded in 2004

Two further PPP contracts were awarded during 2004.

- **M1 Dundalk Western Bypass**

Celtic Roads Group (Dundalk) Ltd, was awarded the M1 Dundalk Western Bypass contract in February, 2004. The consortium comprises Dragados Concesiones de Infraestructuras SA (a major Spanish firm), Edmund Nuttall Ltd (UK), HBG Ascon Ltd (Irl), and NTR plc (Irl).

Under the terms of the tender competition for this scheme, CRG took over the operation of the Drogheda Bypass toll facility as well as all operation and maintenance responsibilities for the existing 43km of motorway from the Gormanston Interchange (immediately north of the Balbriggan Bypass) to the end of the M1 motorway south of Dundalk. In addition, CRG is also responsible for constructing the 11km Dundalk Western Bypass which is planned to be completed by early 2006.

"...private sector funding complements the significant Exchequer funding being provided for national road improvements as part of the Government's National Development Plan..."

- **M8 Rathcormac/Fermoy Bypass**

The M8 Rathcormac/Fermoy Bypass contract was awarded to Direct Route (Fermoy) Ltd. in June, 2004. The consortium comprises Kellogg Brown & Root Ltd, Strabag AG, John Sisk & Son (Holdings) Ltd, Lagan Holdings Ltd, Roadbridge Ltd. and the First Irish Infrastructure Fund (a joint AIB/European Investment Bank fund established for the purpose of investing in PPP projects and private sector infrastructure developments in Ireland and across Europe). Subsequent to financial close, debt finance along with equity was syndicated to Bank of Scotland. The M8 Rathcormac/Fermoy Bypass is planned to be completed by mid 2007.

Private Finance Raised to end 2004

From these PPP contracts awarded by the Authority in 2004 along with the M4/M6 Kilcock-Kinnegad contract which was awarded in March, 2003 almost €500m of private finance has been introduced for the development of the national road network. This private sector funding complements the significant Exchequer funding being provided for national road improvements as part of the Government's National Development Plan.

- **M4/M6 Kilcock-Kinnegad Refinancing (pictured on the right)**

At financial close of the M4/M6 Kilcock-Kinnegad contract, the European Investment Bank had committed to funding €78m of debt. In November, 2004, that bank agreed to a further injection of €25m in the scheme in place of commercial bank debt. Refinancing gains are shared on 50:50 basis between the Authority and the PPP Concessionaire, Eurolink.

PPP Contracts in Tender Phase

- **N25 Waterford City Bypass**

The N25 Waterford Bypass was in the final stages of tendering in Summer 2004 when the tender process was suspended on foot of a decision by the Department of Environment, Heritage & Local Government (DOEHLG), to review the archaeological mitigation requirements at an archaeological site known as the "Woodstown Site". This review arose following the discovery of significant archaeological finds.

The Woodstown Site was discovered during the course of pre-contract archaeological testing undertaken by the Authority/Waterford City Council on the scheme. The archaeological findings to date at Woodstown appear to indicate that the site is multi phase comprising initially of occupation in the Early Christian period, including a settlement enclosed by a substantial ditch and later reoccupied in the early Viking period by early settlers/raiders/traders. The nature of the archaeological artifacts indicate a high status trading settlement where occupation appears to abruptly end in the early-mid 10th century. This site is of major national and possibly international significance.

The Minister for the Environment, Heritage & Local Government has been provided with additional reports in relation to an area of marsh adjacent to the Woodstown site which, in view of its proximity to the site already identified, is considered to have archaeological potential. These reports will inform the Minister in making a decision as to the required archaeological treatment of the Woodstown Site and enable the issuing of directions in accordance with the National Monuments (Amendment) Act, 2004. The tender process will recommence once the Minister has issued directions in relation to the archaeology requirements at Woodstown.

- **M3 Clonee-Kells**

The existing Clonee to Kells road cannot cater satisfactorily for the current traffic volumes on the route. The road is designed to cope with 11,600 vehicles per day but present traffic volumes far exceed this number and are increasing (it is estimated that, by 2024, up to 54,000 vehicles will use the road daily). The M3 Clonee to Kells scheme will improve this vital section of the national road network and will provide a modern route to the Northwest of the country. This will promote economic development in the areas it will serve, notably counties Meath and Cavan, and will also improve access to Fermanagh/Northern Ireland and South Donegal.

The scheme will involve the construction of a 59km of motorway/dual carriageway. The project also involves construction of a further 24km of link roads and the widening/realignment of other roads. The tender documents for the scheme were issued in August 2004, with the tender return date set for February 2005.

The M3 Clonee-Kells scheme has attracted significant media coverage of archaeological issues. The Authority is satisfied that the M3 route has been selected after a comprehensive examination of all possible route options and in accordance with proper planning procedures. Great effort was made to thread the route through both the developed areas and the un-developed landscape with particular focus on archaeology and the visual landscape of the Tara Valley. The design of the scheme sought to minimise the physical and visual impact on the landscape around Tara by choosing a route to the east rather than the west of Tara. The road will be set low in the valley between Tara and Skreen and appropriate landscaping will be used to further screen the route. In addition, An Bord Pleanála made it a condition of their approval that advance planting of landscaped areas should be undertaken where possible in order to mitigate the visual impacts of the development.

During 2004, the scheme was subject to extensive archaeological test trenching for the purpose of:

- investigating both known and possible sites of archaeological interest along the route of the approved road scheme, including the features identified by earlier geophysical survey, and

- investigating the remainder of the route to establish, through test excavation, the presence or absence of archaeological sites and features and their nature and extent.

"The M3 Clonee-Kells scheme sought to minimise the physical and visual impact on the landscape around Tara by choosing a route to the east rather than the west of Tara..."

Testing generally involved excavating a 2m wide test trench along the centre line of the route and excavating perpendicular offset trenches out to the edge of the landtake every 20m. Mechanical excavators equipped with two-metre wide toothless grading buckets were used to remove topsoil to expose any archaeological features present and all such features were assessed by hand excavation. This testing resulted in approximately 10% coverage of the route, significantly greater than occurs in the UK and other countries. Detailed reports on these results were submitted to the Department of the Environment, Heritage and Local Government and the National Museum of Ireland.

It is a matter for the Minister for the Environment, Heritage & Local Government to issue directions, in accordance with the National Monuments (Amendment) Act, 2004, on the archaeological treatment of the sites which have been established from the test trenching.

- **N7 Limerick Tunnel Scheme**

The contract notice was placed for the Limerick Tunnel Scheme in April, 2004, and four consortia have been shortlisted to proceed to the tender phase which commenced in December. The project will comprise approximately 10km of standard dual carriageway together with single carriageway link roads and will incorporate a tunnel under the River Shannon.

The Authority published the Draft Toll Scheme and Explanatory Statement for the Limerick Tunnel Scheme in March 2004.

- **M50 Upgrade PPP Scheme**

The overall proposed upgrade of the M50 Motorway (M50) involves the widening of approximately 32km of the motorway from 2 to 3 lanes in each direction and the upgrade of 10 junctions along this length. The M50 Motorway Upgrade will be delivered through a number of contracts - a D&B contract and a PPP contract - together with a negotiated variation to the West-Link concession.

The M50 Upgrade PPP Contract is intended to comprise the design, construction, operation, maintenance and financing of the upgrade of approximately 24km of the existing two lane carriageway to three lane standard, the provision of auxiliary lanes between the M1 and N3 junction and between the N7 and Scholarstown junctions, the major upgrade of the junctions at the M1, N2 and N3 from their current grade separated junction type to partially free/free flow interchanges; and upgrade works to the junctions at Ballymun, Ballymount, the N81, Scholarstown and Sandyford. The EIS for the overall M50 Upgrade Project was published in September, 2004 and the An Bord Pleanála Oral Hearing commenced in December and closed on the 14th of January 2005.

Following the publication of the contract notice for the M50 Upgrade PPP Contract, two consortia have been approved for the tender stage which, subject to An Bord Pleanala's approval of the proposed scheme, is planned to commence in early 2005.

- **Dublin Port Tunnel**

The Authority has advertised for a service provider to manage and operate the tunnel and the toll facility for the Dublin Port Tunnel.

The Authority has appointed a contractor to provide for the installation of the toll collection facilities and the associated infrastructure.

Electronic Toll Collection

There has been significant development at EU level in plans for Electronic Toll Collection (ETC) throughout Europe. In April, 2004 the European Parliament adopted a Directive on the interoperability of electronic road toll systems in the Community. The Directive, among other things, notes that:

- **Development of Authority's ETC Strategy**

In the early PPP tender competitions, at the initial tender stages in 2001, the Authority sought indicative prices for ETC in order to examine the potential costs and assess the value for money of mandating ETC. This market testing showed that ETC could be incorporated at reasonable price from the outset in the PPP schemes. Following on from this, the Authority mandated ETC across all lanes for all toll plazas. Also, all new toll plazas will have one dedicated express ETC lane in each direction for cars and light vehicles, increasing to two lanes in each direction should traffic volumes require it.

In the case of rural schemes the high level of service required at toll plazas can be met through a combination of ETC and non-ETC toll payment options and through the dedicated express ETC lanes.

For the M50, however, in order to cater for the expected high traffic volumes that will arise when the scheme is upgraded, the Authority's required solution for the West-Link toll facility is to move it on a phased basis to free flow tolling. The EIS for the upgrade scheme provides for this move on a phased basis to open road electronic tolling. The transition from the current toll collection arrangements to a non-stop barrier-free electronic toll collection facility will be implemented over a number of stages. These stages will involve a phased reduction in the cashier/coin basket lanes with a corresponding increase in electronic toll payments with the objective that the free-flow arrangements will be in place to coincide with the completion of the upgrade works. The M50 has similar characteristics of an urban setting combined with high traffic volumes to other successfully operated open road free flow toll schemes around the world, such as the 407 Highway in Toronto and the Melbourne City Link.

As a fundamental part of its ETC policy, the Authority identified the need for commercial toll interoperability across the Irish network. For the road user this will mean that an electronic account opened with one operator and the use of their on-board unit will be satisfactory for travel on other toll roads operated by different operators – in essence a one account arrangement. To satisfy this need the Authority is currently procuring the establishment of an Information Exchange Agent. This will essentially comprise a central clearing house to facilitate the settlement of electronic toll transactions across different toll facilities. The objective of establishing a central clearing house is to facilitate interoperability between the toll operators operating toll roads in Ireland by setting up a non-mandatory Information Exchange Agent. This Information Exchange Agent will facilitate interoperability and road users will be able to discharge the toll fee with a single on-board unit at every connected toll plaza in the Republic of Ireland by using the ETC facilities. It is intended that this facility will collect, process and distribute data between those toll operators who decide to sign up to the Information Exchange Service.

"Electronic toll systems contribute significantly to reducing the risk of accidents, thus increasing road safety, to reducing the number of cash transactions and to reducing congestion at toll plazas, especially on busy days. They also reduce the negative environmental impact of waiting and restarting vehicles and congestion, as well as the environmental impact related to the installation of new toll gates or expansion of existing toll stations."

The Information Exchange Agent will be responsible for the implementation, support and maintenance of the required information systems and the operation of the information exchange services. It is anticipated that the services to be provided by the Agent will include the collation and distribution of customer and charging information relating to ETC operations provided by all subscribing operators and the preparation of monthly statements for the settlement of interoperable revenue between operators, as well as the provision of a help-desk for toll operators in relation to such services.

The contract notice for this competition was placed in July, 2004, and following evaluation of the submissions received seven companies/consortia were shortlisted to proceed to the tender stage which was initiated in December.

Plans for 2005

Looking forward to 2005 the Authority expects that, pursuant to the issue of directions by the Minister for the Environment, Heritage and Local Government on the archaeology requirements, the N25 Waterford Bypass tender process will be reactivated and the contract awarded by summer.

In addition, the first stage tender process will be concluded for the M3 Clonee-Kells Scheme with the tender process continuing in the case of the M50 PPP Upgrade Scheme and the N7 Limerick Tunnel PPP Scheme and commencing in the case of the M7/M8 Portlaoise/Castletown/Cullahill Motorway and the N6 Galway-Ballinasloe PPP schemes.

The Authority plans to hold oral hearings into the proposed Toll Scheme for both the N7 Limerick Tunnel Scheme and the M3 Clonee-Kells scheme while Draft Toll Schemes will be published for both the M7/M8 Portlaoise/Castletown/Cullahil and N6 Galway-Ballinasloe schemes.

The ongoing management of the construction stage of the PPP contracts awarded to date as well as the operations phase of the M1 Dundalk Western Bypass will continue through 2005. A further key contract to be overseen in 2005 will be the installation and commissioning of the toll facilities contract for the Dublin Port Tunnel which is expected to open to traffic in early 2006.

West-Link Toll Road Agreement

In November, 2004, the Authority appeared before the Joint Oireachtas Committee on Transport in relation to the West-Link Toll Road Agreement. The facts in relation to this agreement are as follows:

The West-Link Toll Bridge Agreement was concluded between the then Dublin County Council and West-Link Toll Bridge Limited in 1987, and was subject to the approval of the Department of the Environment in accordance with the legislation applicable at the time. Under section 66 of the Roads Act, 1993, the National Roads Authority took over all the functions, rights and liabilities of the former Dublin County Council in relation to the Toll Agreement, as part of revised statutory arrangements relating to toll roads.

The West-Link Toll Road Agreement provided for the construction, maintenance and operation of 3.2 kilometres of motorway on the M50 between the N3 (Navan Road) and the N4 (Galway Road) interchanges, as well as the West-Link Bridge spanning 385m over the Liffey valley. The project, which was one of the first sections of the M50 Dublin C-Ring to be completed, opened to traffic in 1990.

The Toll Agreement provides that the Toll Company (NTR plc.) has, until the expiry of the agreement in the year 2020, the exclusive right to toll traffic travelling on the M50 between the N4 and the N3.

Toll Charge Indexation Arrangements

The West-Link Toll Agreement provides that the tolls can be increased in line with inflation. The maximum toll that can be charged for the various vehicle classes at West-Link are updated each year by reference to the consumer price index. More specifically, in the case of the year 2005, the maximum toll that may be charged is calculated as the aggregate of:

a | the Base Tolls (as set out in the Toll Scheme Bye-Laws) multiplied by the Consumer Price Index for August 2004 divided by the Opening Index (as set out in the Bye-Laws), and

b | VAT at the prevailing rate on the amount derived pursuant to sub paragraph (a)

and the resulting amount is rounded to the nearest 10 cent. The mechanism followed to determine annual maximum toll charges is as stipulated in the Toll Bridge Agreement concluded in 1987 which has legal status and effect. As a consequence, the Authority, as party to the Agreement, is not in a position to impose charges lower than the maximum permissible under the Agreement.

However, it is open to NTR to apply lower toll charges should it so decide for commercial, or other reasons, as has been done by the company in the case of heavy goods vehicles.

Exchequer Share Arrangements

The West-Link Toll Agreement provides for an Exchequer Share of the Toll Revenue on annual average daily traffic (AADT) volumes in excess of 27,000. As part of the Second West-Link Agreement, a fourth Exchequer Sharing band was agreed. Under circumstances where the fourth band applies, the

State's revenue share will increase to 80% of toll revenues compared with the maximum share of 50% that applied under the original Toll Agreement concluded in 1987. The Exchequer Share traffic bands and the percentage of revenue payable by band are detailed in the Table below.

"A further key contract to be overseen in 2005 will be the installation and commissioning of the toll facilities contract for the Dublin Port Tunnel..."

Exchequer Share of Toll Revenue – Bands

Band	Average Daily Traffic Limit	Percentage of Toll Revenue Payable to Minister for Transport
1	First 8,000 over 27,000	30%
2	Next 10,000 over 35,000	40%
3	From 45,000 to the Band 4 figure for the relevant year	50%
4	Over the Band 4 figure for the relevant year (see table overleaf)	80%

Exchequer Share of Toll Revenue – Band 4

Year	Band 4
2001	79,000
2002	83,000
2003	86,000
2004	88,000
2005	92,000
2006	96,000
2007	99,000
2008	103,000
2009	106,000
2010	109,000
2011	111,000
2012	113,000
2013	115,000
2014	117,000
2015	118,000
2016	120,000
2017	122,000
2018	123,000
2019	125,000
2020	126,000


Toll Plaza on Drogheda Bypass

The Exchequer Share first became payable in 1997, the first year when traffic volumes exceeded 27,000 AADT. By the end of 2004, toll revenues amounting to approximately €310m (excl. VAT) will have been collected at West-Link since it first commenced operations in 1990. Over the same time period, the Exchequer Share payments arising from the West-Link Toll Road Agreement will have reached approximately €65m (includes an estimated €15m payable in April, 2005 in respect of 2004 toll revenues). The Exchequer Share is payable to the Minister for Transport for the benefit of the Exchequer.

Second West-Link Bridge Agreement

In November, 1999 the Authority, as the tolling authority for national roads, concluded a draft agreement with NTR to provide for the construction of the Second West-Link Toll Bridge. The deal provided for NTR to be recouped the cost of providing the Second Bridge through an increase in the car toll rate.

In July 2000, the European Court of Justice ruled that VAT must be applied to tolls and the Finance Act, 2001 provided that this ruling be implemented as of September 2001.

Against the background of these pending increases in the car toll charge and conscious of the disruption to traffic arising from construction work on the Second Bridge, the Authority, with the Department of Environment and Local Government's approval, agreed a revised interim toll increase structure with NTR. In summary, the Second West-Link Agreement resulted in the following car toll profile:

- the car toll charge was fixed at €1.30, inclusive of VAT for the two year period from 1st January, 2002 to 31st December, 2003, although the maximum allowable in these years was €1.60 and €1.70 respectively;

- the car toll was fixed at €1.50, inclusive of VAT, for 2004, although the maximum allowable was €1.70, and

- from 1st January, 2005, the standard provisions for the determination of the maximum allowable car toll to again apply as contained in the 1987 West Link Agreement.

This reduced car toll charge profile was made possible by the Minister for the Environment and Local Government agreeing to moderating the increase in the car toll by means of a 'supplementary payment' per car deducted from the licence fee (i.e., a proportion of the fee would be retained by NTR) so as to redress NTR's toll revenue shortfall arising from the freezing of the motor car toll charge. The supplementary payment amounted to €2.9m and €3.5m in 2002 and 2003 respectively.

In summary, the West-Link car toll has been maintained below the maximum allowable toll charge for the years 2002, 2003 and 2004 through NTR being compensated by the Government foregoing part of their entitlement to the revenue share payable under the West Link Toll Agreement.

Web-Site

The Authority's web-site www.nra.ie contains comprehensive information on all of the Authority's PPP schemes.

06 TRANSPORTATION

The focus of activities during 2004 was in the following areas:

- Economic Evaluation of national road schemes;
- Service Areas
- Intelligent Transport Systems, including the Euro Regional project STREETWISE;
- Journey Time Estimation on national routes;
- Traffic Data Collection and Analysis, and
- Other Annual Activities

Economic Evaluation Of National Road Schemes

In February 2004 the National Roads Authority published new guidelines for the economic evaluation of national road projects, entitled "Guidelines for Cost Benefit Analysis". The purpose of the guidelines is to assist local authorities, National Road Regional Design Offices and engineering consultants in completing a standard cost benefit analysis which is required for national road projects. The guidelines provide a set of national default parameter values for use, and give advice on the methodology recommended by the Authority. It is intended that they will be used in conjunction with the United Kingdom computer program COBA11 and Volume 13 of the U.K. Design Manual for Roads and Bridges (DMRB).

In conjunction with the publication of the guidelines, the Authority updated and issued new traffic growth forecasts for the period 2002 to 2040. The new forecasts are contained in the report entitled "Future Traffic Forecasts 2002 – 2040", which provides growth factors for all national roads by vehicle category. These growth factors supersede those contained in the National Road Needs Study, which was published in 1998.

These two publications will assist the Authority in the area of project appraisal by providing a standard set of parameter values and methodology for the economic assessment of national road scheme proposals. As of February 1st 2004, all major roads projects are subject to appraisal at three key phases [route selection, preliminary design and final account/closeout] in order to ensure that schemes being progressed represent value for money, and are prioritised accordingly in the overall programme.

Under the guidelines, the Transportation Section of the Authority now plays an enhanced role in the evaluation of road schemes, effectively overseeing the entire process and, by auditing Cost Benefit Analyses received, providing an effective quality control service. In addition to this, the Section provides on-going assistance and advice to consultants relating to technical aspects of project appraisal.

The Department of Transport has concluded a review of the national parameter values and application rules for economic evaluation purposes. As a result of this, the Authority's Cost Benefit Analysis guidelines need to be revised. This work has recently commenced and it is hoped that this revision will be complete by mid 2005.

Service Areas

To date the Authority has adopted a non-interventionist policy in relation to the provision of service areas. Given the relatively short lengths of continuous motorway/dual carriageway network that have existed up until recently, the need for dedicated service areas has not been a significant issue. Instead service type areas have developed adjacent to the existing network through private sector initiative. These areas have been complemented by retail services available in the many towns and villages along the existing routes.

In relation to newly improved sections of the network, Authority policy has been to raise objections to any proposals that have been made for the provision of on-line service areas. These objections have been on the basis that such facilities are available to road users off-line in the towns and villages being Bypassed and also that the transportation corridor needs to be protected from general online development. The Authority has not objected to the development of off-line service areas at interchanges subject to it being demonstrated that the development will not reduce the capacity of the interchange.

The Authority has recently reviewed its policy in relation to the provision of service areas and, following careful consideration, the Board has decided that the Authority should not become directly involved in the provision of service areas but rather should facilitate appropriate commercial developments by means of signage, and information brochures/maps for road users. In relation to motorway/dual carriageway sections of the network, the Authority's policy will continue to be to raise objections to any proposals that are made for the provision of on-line service areas. The Authority will not object to the development of off-line service areas at interchanges subject to it being demonstrated that such developments will not reduce the capacity of the interchange.

The Authority proposes to develop a signage policy, for the benefit of road users, in relation to service areas and other facilities available off-line but adjacent to the national road network.

Intelligent Transport Systems (ITS)

Progress continued during 2004 primarily through the EuroRegional projects INSTANT and STREETWISE.

- INSTANT

The INSTANT (Information and Management System for Multimodal Transport in the Republic of Ireland and Northern Ireland) project will enter the implementation phase in 2005.

The National Roads Authority in the Republic of Ireland, together with the Department for Regional Development's Roads Service in Northern Ireland have been examining the potential for providing Intelligent Transport Systems on the Dublin-Belfast corridor, culminating with a Design Study report in November 2003. The vision for the INSTANT project is to develop an ITS infrastructure along the corridor using the best appropriate technologies.

The main objective of the Design Study was to develop a 10 year ITS Implementation Plan for the Dublin-Belfast corridor. This plan defined short-term (0-3 years), medium term (4-7 years) and long term (8-10 years) programmes, with appropriate cost estimates.

During 2004 the project team completed work in the domain of travel information, specifically in the area of location references and data communications. In addition, the team prepared an application for funding through the cross-border EU funding stream INTERREG III-A. An economic appraisal was carried out by an independent assessor in December, 2004.

The programme for 2005 will include:

- Deployment of traffic monitoring infrastructure (inductive loops) at 5km intervals along the entire corridor;
- Deployment of CCTV at strategic locations along the corridor to provide high-level monitoring;
- Deployment of roadside Variable Message Signs at strategic locations for the provision of real-time traffic and travel information to the road-user;
- Deployment of an Automatic Number Plate Recognition (ANPR) system to calculate real-time sectional interurban travel times along the corridor, and
- Provision for relevant traffic and travel information exchange between the Dublin and Belfast Traffic Control Centres.

- **STREETWISE**

STREETWISE is an EU-funded project and is one of 7 European projects administered under the EU's Trans European Intelligent Transport SysteM PrOject (TEMPO) programme.

STREETWISE aims to promote a Seamless TRavel Environment for Efficient Transport in the Western ISles of Europe.

Through STREETWISE the Authority works in partnership with the Department for Transport (UK), Highways Agency (England), Scottish Executive, Welsh Assembly Government and the Northern Ireland Roads Service. The project commenced in 2001 and is scheduled to run until 2006.

STREETWISE has facilitated the funding of a number of ITS projects during 2004.

"The National Roads Authority in the Republic of Ireland, together with the Department for Regional Development's Roads Service in Northern Ireland have been examining the potential for providing Intelligent Transport Systems..."

- N7 Rathcoole–M50 Travel Time Pilot Scheme

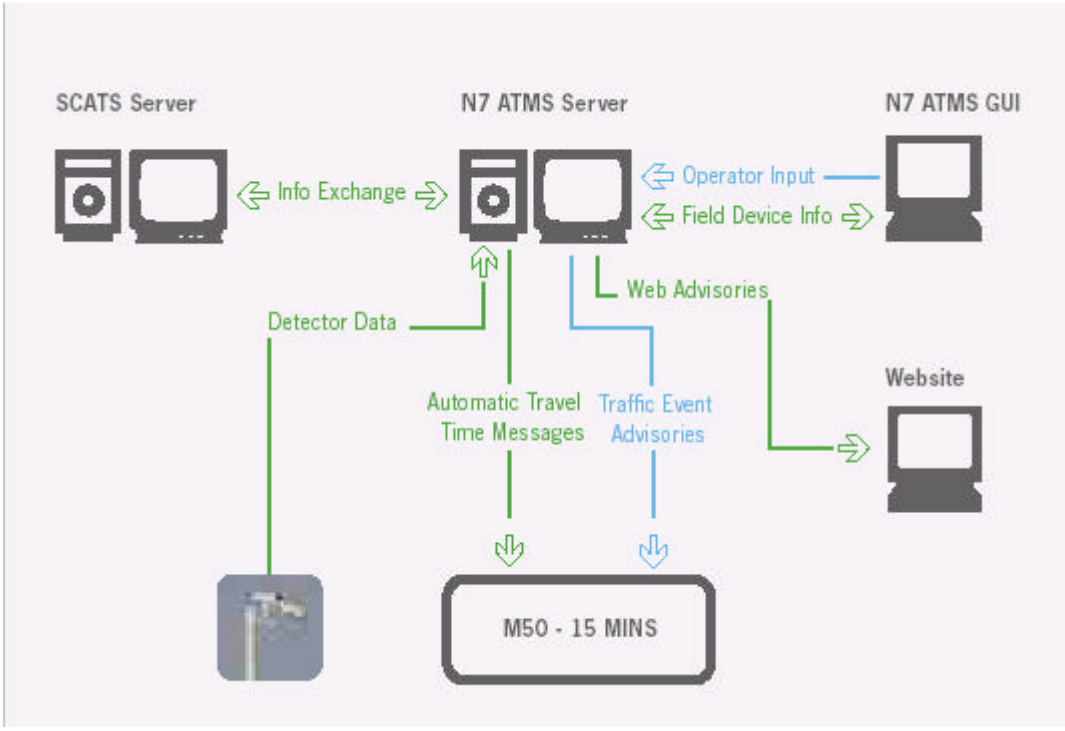
This pilot scheme is an innovative project utilising "side-fired" radar vehicle detection units to measure and disseminate real-time travel time information to road users travelling between Rathcoole and the M50 on the city-bound section of the N7.

This major project, started in late 2003, was introduced as part of the Authority's commitment to provide high-quality traffic monitoring to priority sections of the national road network. It is intended that this will be the first step towards the development of an operational traffic monitoring and management system in the Greater Dublin Area.

The pilot system was installed, commissioned and tested in 2004, and utilises 17 strategically positioned MVDs (Microwave Vehicle Detectors) every 500m along the 8km stretch between Rathcoole and the M50. These detectors measure live traffic flow at each point and calculate travel times along, either part or the whole of that road section. The system will transmit data early in 2005.

"M50 Travel Time Pilot Scheme...is intended that this will be the first step towards the development of an operational traffic monitoring and management system..."

Figure 1: N7 Travel Time Pilot Architecture
The real-time information will be imparted to the road-user predominantly through two roadside VMS (Variable Message Signs).



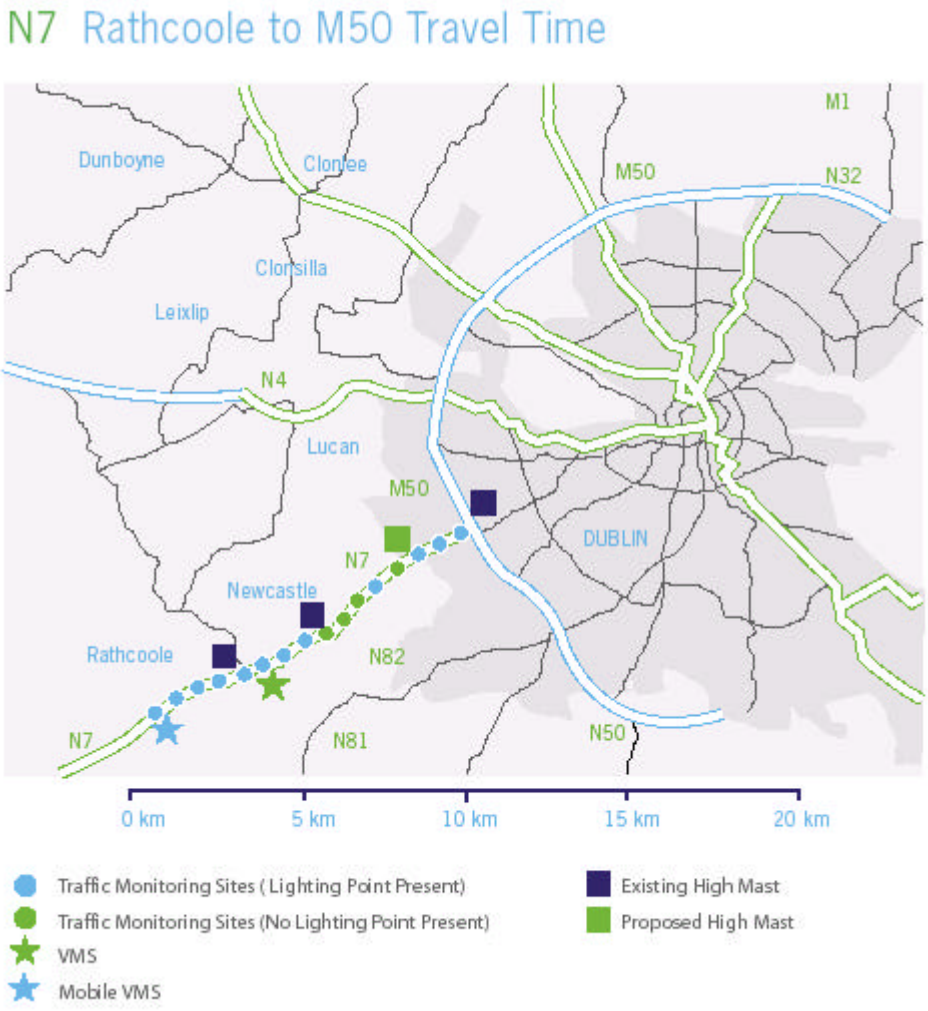


Figure 2 N7 Travel Time Pilot Map

For pre-trip information users can subscribe through the Authority's website to an e-mail/ SMS service giving road users advanced notice of traffic conditions along that section. The associated website is an integral part of the system's interface with the public.

Figure 3 Example Web Page for N7 Travel Time Pilot

Figure 4 Example VMS Travel Time Message on N7

"During 2004, the Authority actively participated in a multiregional project to explore the possibility of sharing travel information across and throughout well-travelled corridors...."

- **M1 ITS Deployment (INSTANT/STREETWISE)**

As a continuation of the Authority's High Quality Traffic Monitoring objective and Travel Information services, similar monitoring and VMS infrastructure will be deployed on the M1 motorway between Balbriggan and the approaches to the Dublin Port Tunnel. This project commenced in 2004, and will continue into 2005.

This system will operate in a similar manner to the N7 Travel Time system. Traffic data will be collected and processed from roadside detection units and will be disseminated to the public by means of Variable Message Signs, Web media, Email and SMS service.

The roadside infrastructure will include the following equipment:

- 29 Microwave Vehicle Detection (MVD) units at varying locations along the motorway section;
- 4 roadside Variable Message Signs (VMS) on the southbound carriageway to provide real-time travel information to the road-user, and
- 2 CCTV units at the Airport and Lissenhall interchanges.

Both the N7 and M1 systems will share the same web site and utilise the same resources, thus providing an appropriate template for future deployments.

- **Long Distance Corridor**

During 2004, the Authority actively participated in a multi-regional project to explore the possibility of sharing travel information across and throughout well-travelled corridors. In this instance, the Ireland- UK-France-Netherlands-Germany-Austria-Italy corridor has been chosen to test possible initiatives, particularly using Intelligent Transport Systems

The results of this preliminary study will be available in 2005

- **International Cooperation**

The Authority continues to participate in seminars and conferences at both local and European level and is an active member of the WERD/DERD subgroup (now known as CEDR) on ITS. This group consists of delegates from the national road authorities in Europe. Its function is to develop and agree a common view of the role and position of national road authorities on ITS.

The subgroup has produced position papers in the following areas:

- The Big Shift, i.e. the changing role of national road authorities from road construction to network operational management;

- Interoperability, including case studies of major projects in Europe. The group has also carried out a risk assessment on the new draft EU Directive on Electronic Fee Collection as it impacts on national road authorities;

- ITS and Enforcement, and

- The Human Machine Interface, including Intelligent Speed Adaptation. The main objective of the group is to improve road traffic safety, with the primary emphasis on road-side infrastructure.

The group is also participating in the e-Safety Forum being promoted by the European Commission.

- **Journey Time Estimation**

A new software system "TURAS" that computes road trip journey times was completed in 2004. This software has been developed in-house and involved an innovative new approach to the task of converting large datasets of individual vehicle GPS position records into road link journey times. The Authority now has a detailed insight into the journey time performance of the network for all periods of the day, week and year, based on the initial data sampled. The work to date has largely involved the analysis of historical data records, but work has begun to extend the application of "TURAS" to computing real-time road trip journey times.

A network model has also been developed in-house that allows the Authority to monitor the performance of the existing road network and predict the performance of an upgraded road network in the years ahead. This model is based on a node-link topological representation of the road network and is calibrated with link lengths, road types, traffic volumes and trip journey times. An important feature of the model is that future road links can also be defined. By estimating future attributes such as link transit times the Authority can combine real records of journey times on existing links with predicted journey times on future links to generate an accurate picture of the future performance of the network. The model has demonstrated that by the end of 2006 the Authority will have delivered 66% of the total Major Inter Urban route time-savings that the NDP will provide.

- **Traffic Data Collection and Analysis**

The software commissioned from the Transport Research Laboratory, EIRVOL, was again used to process traffic data from visual and automatic counts for 2003. Between automatic and visual counts, approximately 8700 records were processed to produce the AADT estimates. These results are used to publish the Authority's "National Roads and Traffic Flow" report, which is also available from the web site.

The Authority has expanded the traffic "free speed" monitoring programme where surveys are carried out using Automatic Traffic Counters (ATCs) of the speeds of vehicles driving in un-congested conditions. This increased level and frequency of monitoring allows the Authority generate very detailed information about speed trends on national roads. For example, in 2004, the ATC surveys have indicated that approximately 27% of cars, 66% of rigid trucks and articulated trucks were travelling at speeds exceeding their applicable speed limit on single carriageway sections of road. The information resulting from quarterly surveys is furnished to the Garda Síochána.

The number of road weather monitoring stations increased to 54 in 2004 and the live weather information that is displayed on the Authority's website (http://www.nra.ie/RoadWeatherInformation) has proved very popular with users since its launch in 2003. The Authority has also developed and implemented new software to archive all road weather data records to facilitate historical analysis of road weather conditions. This allows the Authority to monitor the effectiveness of the winter maintenance programme.

The traffic information website at http://www.nra.ie/Transportation/TrafficDataCollection/TrafficCounterData addresses the historical road traffic information requirements of road engineers, business interests, local authorities and the general public, and in 2005 it is hoped to increase the number of traffic monitoring stations.

- **Other Activities**

Part of the work of the Transportation Section involves the preparation of various reports on the status of the national road network. As the national road network is constantly changing, one of the key reports is that of the "National Route Lengths", which details the lengths of roads throughout the country by local authority area and by carriageway type. The report is available on the Authority's web site.

The European Road User Survey (ERUS) 2004 was completed in September. The survey was conducted between Dublin Port/Holyhead and Dun Laoghaoire/Holyhead. Road Authorities throughout Europe participated in the survey with initial findings published in January, 2005.

Work also began in 2004 on an evaluation of the Geographical Information Systems (GIS) functionality within the Authority to determine the most appropriate future direction to take in relation to GIS strategy. Initial work sought to outline areas where GIS functionality currently existed in the Authority and to assess how its usage could be optimised. This work is ongoing and is likely to lead to significant enhancements to the Authority's GIS platform.

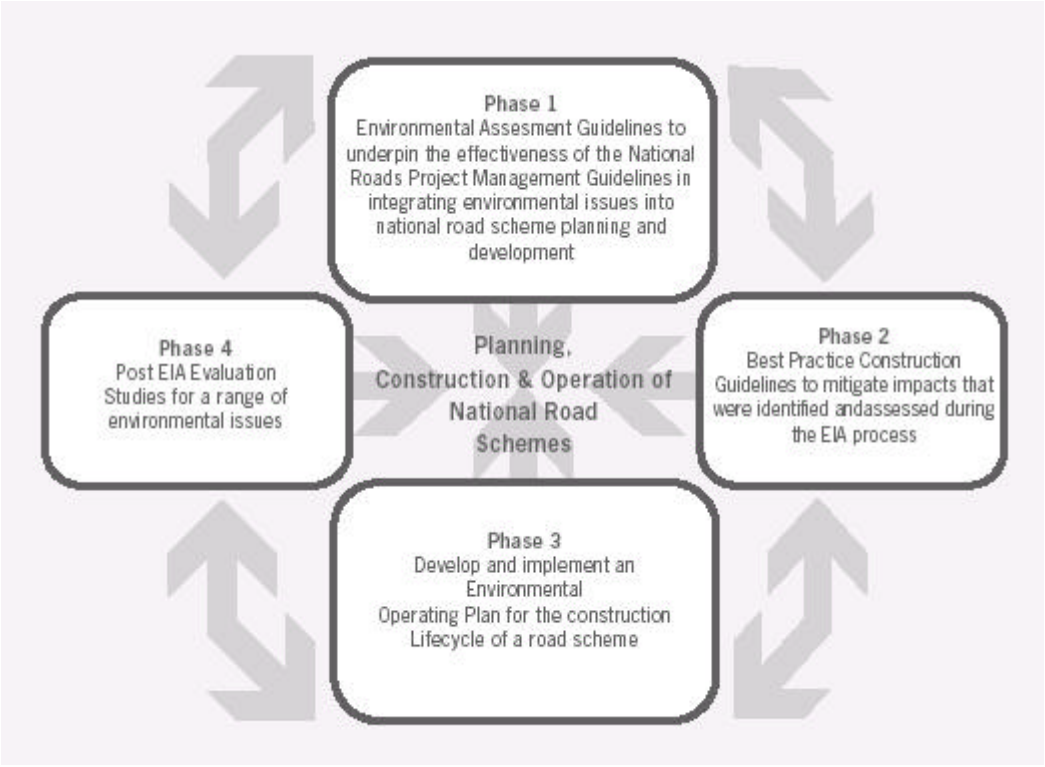
The outlook for 2005 indicates that there will be substantial work involved in the GIS enhancement upgrade. Any enhancement will lead to a much improved data model for the road network introducing greater efficiencies in the maintenance of the Roads Database.

"The Authority has expanded the traffic "free speed" monitoring programme where surveys are carried out using Automatic Traffic Counters (ATCs) of the speeds of vehicles..."

07 ENVIRONMENTAL PROTECTION

The challenge facing the Authority is to deliver a safe and efficient network of national roads within the framework of sustainable development. The concept of sustainable development as adopted and applied by the Authority requires that "economic growth supports social progress while respecting the environment; that social policy underpins economic performance and that environmental policy is cost effective". The Authority is conscious of the potential environmental impacts that can arise on individual road projects and through the delivery of the national roads programme in general. It is committed to implementing the programme in co-operation with local authorities and other relevant stakeholders in a manner that avoids or mitigates adverse effects on the environment taking account of relevant statutory requirements.

The procedures followed by the Authority and local authorities in the planning, design and implementation of road schemes are specified in the Roads Act, 1993, as amended by the Planning and Development Act, 2000, and in the National Roads Project Management Guidelines (NRPMG) which were issued in 2000. A key objective of the NRPMG Guidelines is to ensure the efficient delivery of the national roads programme in a manner that minimises adverse environmental effects and respects all applicable legislation. The Guidelines place an emphasis on the identification and avoidance of environmental impacts in the early stages of project planning and design prior to taking the project through the statutory procedures, including, where appropriate, the preparation of the Environmental Impact Statement. In addition, the Guidelines also make extensive provision for public consultation.



To support the Environmental Impact Assessment (EIA) legal framework and the NRPMG, the Authority has put in place the above four-phase Strategy to facilitate further the integration of environmental issues into road scheme planning, construction and operation.

- Phase 1

Environmental Assessment Guidelines to underpin the effectiveness of the National Roads Project Management Guidelines in integrating environmental issues into road scheme planning and development.

A series of best practice assessment guidance documents covering a range of environmental issues will be developed in order to underpin the effectiveness of the National Roads Project Management Guidelines in national road scheme planning and development. Examples of such documents include those dealing with Ecology, Noise and Vibration, Air Quality, Archaeology and Architecture.

- Phase 2

Development of best practice guidelines to minimise construction impacts.

These guidelines will provide a best practice approach to addressing environmental impacts that are identified and assessed during the EIA process. Best practice approaches for the treatment of Badgers, Bats, Trees and Watercourse Crossings on national road schemes are typical examples of important issues currently addressed by the Authority.

- Phase 3

Develop and implement an Environmental Operating Plan.

The environmental operating plan will be designed to ensure the implementation of the mitigating measures identified in the approved Environmental Impact Statement (EIS) and compliance with other environmental obligations specified in the EIS for the construction phase of national road schemes. The Plan will also address impacts that potentially may arise during the construction phase and mitigation will be devised to address issues such as construction noise, water runoff, dust and waste arisings.

- Phase 4

Post-EIA Evaluation Studies.

The Authority proposes to undertake post-EIA evaluation studies to assess actual impacts of national road schemes on different ecosystems and to validate and revise prediction methodologies used in the EIS to further reduce such impacts. The research will also assess the effectiveness of mitigation measures adopted to minimise significant environmental impacts identified due to road scheme development. The initial phase will entail compiling and assessing EIS data predicted for various environmental issues and studies focusing on recently completed road schemes to establish the relationship between the predicted and actual data. Initial studies will address the noise and ecological components of the EIA process.

"Environmental Impact Assessment is required for projects that, by reason of their nature, extent or location, are likely to have significant effects on the environment..."

The four-phase Strategy incorporates all legislative requirements and, where feasible, national and international policy. Implementation of the Strategy requires the development of best practice technical guidance documents that are supported by research and adoption of best international practice to ensure that a harmonised approach is embraced for the assessment and mitigation of environmental issues in the development of the national road network. The core elements of the Strategy are dynamic and will run simultaneously with relevant stakeholder consultations forming part of the development of the strategy initiatives. While the objective of the Strategy is to ensure that best practice is adopted for the integration of environmental issues into national road scheme development, the mitigation measures employed to ameliorate significant environmental impacts on individual road schemes should be technically and economically feasible and deliverable so as to achieve the Strategy's key objectives.

Planning and Construction Guidelines

- **Environmental Impact Assessment for National Road Schemes**

Certain public and private projects that are likely to have significant effects on the environment are subject to EIA requirements derived from EU Directive 85/337/EC (as amended by Directive 97/11/EC). The Directive is implemented in Ireland through amendments to legislation governing existing development consent systems, including the Roads Act, 1993. These amendments are contained in the European Communities (Environmental Impact Assessment) Regulations, 1989-2001. Environmental Impact Assessment (EIA) is defined as *'the process of examining the environmental effects of the development – from consideration of the environmental aspects at design stage, through to the preparation of an Environmental Impact Statement, evaluation of the EIS by a competent authority and the subsequent decision as to whether the development should be permitted to proceed, also encompassing public response to that decision.' The Environmental Impact Statement (EIS) is defined as 'a statement of the effects, if any, which the proposed development, if carried out, would have on the environment'.*

In relation to roads, requirements for EIA are set out in Part IV of the Roads Act, 1993 and Part V of the Roads Regulations, 1994 (S.I.119 of 1994). In particular, sections 50 and 51 of the Act deal with EIA. These sections have been subject to significant amendment through the 1999 European Communities (EIA) (Amendment) Regulations and the Planning and Development Act, 2000.

The 1999 amendments introduced a clearer emphasis on the consideration of significant environmental impacts by virtue of a project's location in relation to sensitive environmental sites, rather than focusing on the scale of the project. EIA is required for projects that, by reason of their *nature, extent or location,* are likely to have significant effects on the environment.

The Authority is committed to engaging with all stakeholders as early as possible in the design and planning phases for road schemes. This commitment is demonstrated and set out in the National Roads Project Management Guidelines. Here environmental concerns are integrated with other issues, not least, engineering at the earliest stage in the planning and road design process. At the latter stages of this work, the EIA process starts and provides a further systematic examination of the environmental impact of a road development. As part of this exercise, specialist studies and professional evaluations anticipate potential impacts and appropriate mitigation measures are proposed.

The EIA methodology is a practical and dynamic process of environmental protection that allows significant impacts to be avoided or mitigated throughout the entire planning and design process. Road planning and design is an *iterative process* where the planning and design evolve in response to environmental and other considerations. This ensures that environmental considerations become an integral part of the overall route corridor selection and road scheme planning and design process.

The number and scale of national road schemes have increased in recent years leading to a significant increase in the number of EIAs for road schemes. Increasingly, road scheme EISs are required to address complex environmental interactions.

While the EPA *Guidelines on the information to be Contained in an Environmental Impact Statement* address many of the issues associated with the preparation of an EIS, the Authority deemed that the preparation of specific guidelines for road scheme EISs was warranted since the planning of national road schemes differs fundamentally from that of other types of development, viz:

- Road projects occur over long distances that typically cross through a number of different environmental conditions.

- Identification and avoidance of environmental impacts is principally achieved through the constraints and route selection stages.

- An EIS for a road scheme needs to allow sufficient scope to cater for procurement methods that sometimes provide for some design input by the contractor after development consent.

The objective of the Authority's guidelines is to ensure that the EIA process for road schemes continues to follow correct statutory procedures while at the same time achieving quality and consistency in the assessment and mitigation of environmental impacts. The guidelines comprehensively address a range of issues, including:

- screening of road projects so as to determine whether or not an EIA is required,

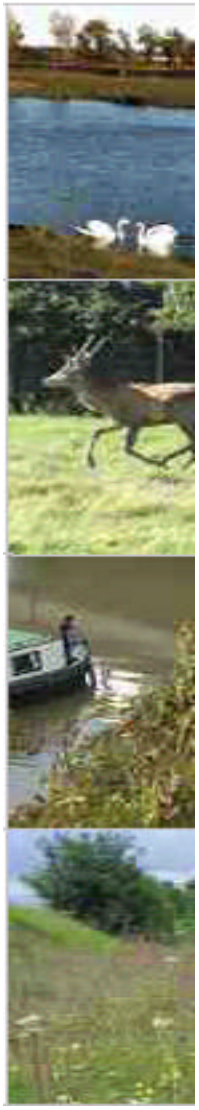
- information requirements for a road scheme EIS and the scoping process,

- preparing an actual road scheme EIS in terms of how information is presented on the core issues of project description, the existing environment, environmental impacts and environmental mitigation measures,

- notification and dissemination of the EIS, and,

- common issues encountered in road scheme EISs derived from experiences gained through consultation and from practical difficulties encountered in undertaking the EIA process for major national road schemes.

The approach taken throughout the guidelines is to describe the regulatory requirements for each stage of the EIA process and for each part of the EIS and to identify common issues in a road scheme EIS. This is supplemented by a number of case studies and relevant references to other documents that are highlighted through a series of text boxes and which draw attention to examples of good practice from actual road scheme EISs.



The guidelines do not attempt to reproduce the work of the statutory EPA Guidelines and so should be read in conjunction with the EPA document. In addition, the guidelines are not intended to provide advice on specialist studies. A number of publications exist providing such specialist advice including the NRA's specialist guidelines on various environmental issues such as ecology, noise and landscaping.

It is anticipated that the adoption of an harmonized approach as provided for in the Authority's EIA guidelines will improve the protection of the environment during road scheme planning and construction and throughout the existence of road projects.

An EIS is prepared as part of the application for development consent. It provides environmental information that is used by An Bord Pleanála to determine whether or not to grant consent.

The obligations and requirements arising under the EIA Directive relate only to individual projects. Many road projects are delivered in accordance with official plans, strategies and policies, which have previously been decided upon by a higher authority (such as a national plan e.g. National Development Plan or regional programme for infrastructure or a spatial plan - e.g. National Spatial Strategy, the National Climate Change Strategy, etc.).

From July, 2004, the potential environmental effects of certain new plans and programmes are subject to the provisions of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004). The regulations provide for high level evaluation of environmental effects prior to the adoption of such plans or programmes.

The Treatment of Noise and Vibrations in National Roads Schemes

During 2004, the Authority adopted and published *Guidelines for the Treatment of Noise and Vibration on National Road Schemes*. Observance of the guidelines, while not mandatory, is recommended to achieve appropriate consistency with respect to the treatment of noise and vibration during the Constraints, Route Corridor Selection, Environmental Impact Assessment and construction phases of road scheme planning and development undertaken in accordance with the Authority's NRPMG.

The European Union Directive (2002/49/EC) relating to the assessment and management of environmental noise will be transposed into Irish legislation through the proposed Environmental Noise Regulations. These Regulations will deal principally with strategic noise mapping and noise management action plans and will make reference to noise indicators and prediction methodologies.

The noise level associated with a stream of traffic is not constant but varies from moment to moment. In order to assess the overall noise level produced by traffic, a statistical single-figure index designated L10(18hour) has been employed in the UK and Ireland to date. The established prediction and measurement techniques for this parameter are well developed and are contained in the UK publication *'Calculation of Road Traffic Noise'* (CRTN).

Up until recently, best practice in Ireland involved a design goal of 68dB(A) $L_{10\ (18hour)}$ based on UK guidance. During 2004, the Authority established a design goal considered appropriate for Irish conditions having regard to EU Directive 2002/49/EC and the scale of the current road building programme. The design goal concerned, 60dB L_{den} (free field residential façade criterion) applies to all new national road schemes. The unit L_{den} represents the composite noise indicator of day-eveningnight and is the noise indicator for overall annoyance. The L_{den} value incorporates weightings of +5dB and +10dB for evening and night-time noise levels respectively.

Validation studies for Irish road conditions have shown that the 60 L_{den} design goal represents a significantly more onerous limit value than the 68dB(A) $L_{10\ (18hour)}$ value previously employed in Ireland. The Authority's adoption of the new unit of noise L_{den} for the design of new road schemes places Ireland among the pioneers in implementing EU Directive 2002/49/EC.

Under the proposed Environmental Noise Regulations, the Authority was identified as the component Authority for undertaking the mapping of road traffic noise on all major roads carrying annual average daily traffic of 17,000 outside the agglomeration of Dublin before June, 2007.

In anticipation of the Regulations, the Authority co-funded a research project on the prediction of road traffic noise and subsequent production of noise maps by Trinity College Dublin in March, 2004. All noise mapping will have to be completed by 2007 and action plans to manage environmental noise will have to be drawn up by 2008 in order to meet the requirements specified in the proposed Regulations.

Landscape Mitigation and Ecology

The national road network covers over 7,500 hectares of which landscape or soft areas account for over 3,000 hectares. The potential landscape area, which would be associated with the planned 900 km development of motorways and dual carriageways, could account for as much as a further 2,000 hectares.

The Authority has prepared the guideline document *Landscape Treatments for National Road Schemes in Ireland*. This document was prompted by the publication by the Department of Arts, Heritage, Gaeltacht and the Islands of the National Biodiversity Plan and outlines innovative procedures that will improve the sustainability of national road landscape design and management.

The guidelines promote an 'Ecological Landscape Design' approach in the selection of appropriate landscape treatments for national road schemes. The approach has an integrated understanding of the various cultural, social and ecological aspects of landscape design where selected treatments utilise and enhance the positive aspects of 'Road Ecosystems' such as the extent of area of roadside verge afforded by the design of the modern road ecosystem.

The document identifies various landscape functions and treatments and it promotes a better synergy between the professions of ecology and landscape design to maximise the promotion of natural biodiversity in landscape treatments. The treatment functions include landscape integration, visual screening, nature conservation and biodiversity, landscape and visual amenity, built amenity and cultural and heritage amenity.

"The noise level associated with a stream of traffic is not constant but varies from moment to moment..."

In particular, the guidelines promote the use of native species in an environmentally sustainable and cost-effective approach to landscape treatments which is underpinned by resource management.

A core objective of the guidelines is to promote the use of native plants derived from indigenous seed stands. This use of native species is an objective of national and international policy including the National Biodiversity Plan (2002) and the UN Convention on Biological Diversity (1992) and contributes to Ireland's commitments under the EU Habitats Directive, 92/43/EEC.

The Treatment Of Bats During The Development And Construction Of NationalRoad Schemes

All bat species in Ireland are legally protected under the Wildlife Act, 1976, the Wildlife (Amendment) Act, 2000, and under Annex IV of the Habitats Directive (92/43/EEC). There is additional protection under Annex II of the Habitats Directive for lesser horseshoe bats.

The Habitats Directive is transposed into Irish law in the European Communities (Natural Habitats) Regulations, 1997 (S.I. 94 of 1997).

The Habitats Directive provides protection for the habitats and roosts of all bat species, as well as the bats themselves. Under Annex II of the Directive, all roost sites of the lesser horseshoe bat are designated as Special Areas of Conservation (SACs) and the bats are specially protected throughout the species' range. By increasing the level of protection for vulnerable species (those listed in Annex II), it is hoped to maintain their international populations at viable levels. However, in exceptional circumstances, exemptions are made where there is no alternative to the destruction of the roost.

Bats in Ireland and sites of importance for bats are also protected by international agreements. The Irish Government is a signatory of the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)) and Bern Convention, 1982 (The Convention on the Conservation of European Wildlife and Natural Habitats) and have a commitment to the "Eurobats" Agreement (Agreement on the Conservation of Bats in Europe, 1991).

The Authority recognises the importance of protecting all bat species in Ireland and is preparing guidance documents for the protection of bats during planning and construction stages of national road schemes. These documents focus on best international practices for identifying and surveying bat habitats during the planning phase as well as addressing procedures for surveying trees, old building etc., prior to the construction of a road scheme.

"The Authority recognises the importance of protecting all bat species in Ireland and is preparing guidance documents for the protection of bats during planning of national road schemes..."

Architectural Heritage and National Road Schemes

The Authority recognises that the architectural heritage is an important consideration during the road scheme route selection process and the subsequent design of the scheme. Ireland's architectural heritage is quite varied in form, from a single house, to a group or cluster of houses, to a linear layout (e.g. disused railway), to a much larger area (e.g. demesne landscape). It is a non-renewable resource and its depletion should be avoided, wherever possible. However, the stock of architectural heritage is geographically widespread and avoidance is not always possible. In the development of roads it is inevitable that some impacts will occur and, in such cases, it should be possible to minimise the loss and propose appropriate mitigation measures. This may often mean making choices between buildings, structures, features and areas which are deemed to be culturally significant, to ensure that the net loss of cultural significance is minimised along any single route.

These decisions arise during all stages of road project planning, i.e. the constraints study, route selection process and environmental impact assessment. It is also important that opportunities to enhance the architectural heritage are identified at these stages.

The Authority is currently developing guidelines to provide a consistent approach to assessing the impacts of road schemes on the architectural heritage at the route selection and EIA stages of project planning, and to designing, implementing and managing mitigation proposals in a sustainable manner. The Authority is conscious that the adopted methodology should embrace local characteristics rather than standardised solutions.

Guidelines to Mitigate Construction Impacts

The Authority is committed to countering habitat fragmentation to the extent feasible due to road construction. However, it must be recognised that it is extremely difficult to avoid all habitats during the final route selection stage. In situations where habitat loss or fragmentation does arise, the Authority seeks to use best practice to mitigate such loss or fragmentation. Where fragmentation cannot be avoided, mitigation measures, such as mammal underpasses, are incorporated into road scheme designs. In circumstances where mitigation is not considered sufficient, the Authority advises examining possibilities for compensating measures. The approach here is the creation of new habitat to achieve "no net loss" as compensation for the unavoidable damage or degradation due to the road scheme. An example of such a measure was the relocation of a marsh and wetland habitat as part of the N11 Glen of the Downs road scheme.

The Authority is currently preparing a series of guidance documents to provide a step by step approach to minimising impacts on badgers, bats and watercourse crossings during the construction phase of national road schemes. The guidance documents on badgers and bats describe surveying techniques, as well as exclusion methodologies and desirable mitigation measures. The watercourse crossing document outlines measures relating to the conservation of fish and riparian and aquatic habitats and includes general proposals to cater for the passage of mammals under bridges and culverts on roadways.

08 ARCHAEOLOGY

Seminar

The Authority hosted a seminar on recent archaeological discoveries on national road schemes on 9 September, 2004. The seminar was organised as part of National Heritage Week and was aimed at increasing the public's awareness of some of the significant archaeological discoveries that have been made as a result of the extensive investigations and excavations that are being carried out in respect of planned road developments under the National Development Plan. The seminar set these discoveries against the staged process of planning, consultation and excavation that accompanies any major national road project.

N2 Carrickmacross Bypass

The seminar was open to individual members of the general public as well as other interested parties and there was a large turn out on the day. Visual displays of the Authority's archaeological work were also present at the seminar.

The seminar consisted of short explanatory presentations on a number of sites and schemes and it is planned to publish these in a monograph in 2005. Among the topics addressed where the results of archaeological excavations on the N4 Sligo Inner Relief Road and the M1 Dundalk Western Bypass, Neolithic houses, a saddle quern and the Viking site of Woodstown on the N25 Waterford City Bypass, excavations at Laughanstown on the M50 South Eastern Motorway, evidence from skeletons uncovered on the M4 Kilcock-Enfield-Kinnegad Motorway, a 17th century coin hoard from the N8 Glanmire-Watergrasshill scheme, a moated site uncovered on the N30 Moneytucker-Jamestown (County Wexford) scheme and the archaeology of the M3 Clonee to Kells Motorway.

M50 and Carrickmines

The High Court decision of 29 January 2004, overturned an approval issued by the Minister for Environment, Heritage and Local Government, given in July 2003, to a joint consent with Dun Laoghaire-Rathdown County Council for works to the national monument at Carrickmines Castle in order to facilitate the construction of the M50 South Eastern Motorway (SEM). The Court judgment was principally based on the changes brought about by Orders under the Ministers and Secretaries Act which had the effect of substituting two bodies where three previously were involved in issuing joint consents. The Court held that such a change requires primary legislation in order to be valid.

In July 2004, the Government enacted the National Monuments (Amendment) Act, 2004. The Act contained a specific provision in relation to the M50 and the works to be completed at the site of Carrickmines Castle. In order to remove any doubt in relation to Carrickmines, the Act deemed that no other licence or consent under the National Monuments Acts would be necessary for works to continue.

The Minister would issue directions in relation to any works affecting the monument at Carrickmines. The Minister for the Environment, Heritage and Local Government subsequently issued directions for the works concerned under the provisions of the new legislation.

In August 2004, the National Monuments (Amendment) Act 2004 was the subject of a High Court challenge and a lengthy legal hearing before Justice Laffoy who upheld the legality of the Act's provisions concerning Carrickmines and the SEM.

Archaeological work then resumed on the Carrickmines site. The revetted fosse has been dismantled under careful archaeological supervision following directions issued by the Minister. This removal process was fully documented and recorded. Outstanding work is being progressed to archaeologically resolve other areas of the site and to preserve some features in-situ in compliance with the requirements of the Minister's direction.

A 1.5km section of the motorway from the Ballinteer Interchange to the Sandyford Interchange was opened in November, 2004, to alleviate traffic in the Sandyford area. The remainder of the scheme is expected to be completed by autumn, 2005 subject to the outcome of the Supreme Court hearing on the constitutionality of provisions of the National Monuments (Amendment) Act, 2004.

The M3 Clonee-Kells road scheme, Co Meath

The M3 Clonee to Kells scheme is a major road construction project consisting of 59km motorway/dual carriageway. The scheme has been, and continues to be, the subject of considerable public discussion and debate, particularly in relation to the archaeological sites that have been found along the approved route.

The existing Clonee to Kells road cannot cater satisfactorily for the current traffic volumes on the route. The road is designed to cope with 11,600 vehicles per day but present traffic volumes far exceed this number and are increasing (it is estimated that, by 2024, up to 54,000 vehicles will use the road daily). The M3 Clonee to Kells scheme will improve this vital section of the national road network and will provide a modern route to the Northwest of the country. This will promote economic development in the areas it will serve, notably counties Meath and Cavan, and will also improve access to Fermanagh/Northern Ireland and South Donegal.

"The general methodology consisted of mechanically excavating 2m wide trenches (using a machine equipped with a smooth edged bucket) along the approximate centreline of the road...."

The route which was chosen for the scheme was selected following a period of more than three years planning and design work, during which the Authority and Meath County Council engaged in extensive public consultation before presenting the proposed scheme to An Bord Pleanala for approval. In fact,no less than ten route options were examined and assessed along the Dunshaughlin/Navan sectionof the M3 during the development of the scheme. Clearly, no single route offered the perfect solution – each had negative and adverse consequences associated with them. The route which was selected, and which was subsequently approved by An Bord Pleanala following a 28 day oral hearing which addressed route selection and environmental implications in detail, represents the optimum solution because it gives archaeological protection a high priority in balance with the myriad of other needs which have to be considered such as to:

- Avoid house demolition to the extent possible.
- Avoid placing the motorway too close to houses.
- Limit fracturing of residential communities.
- Minimise splitting and disruption of farms.
- Minimise visual, noise and air quality impacts.
- Ensure that the route fulfils its transportation purposes.

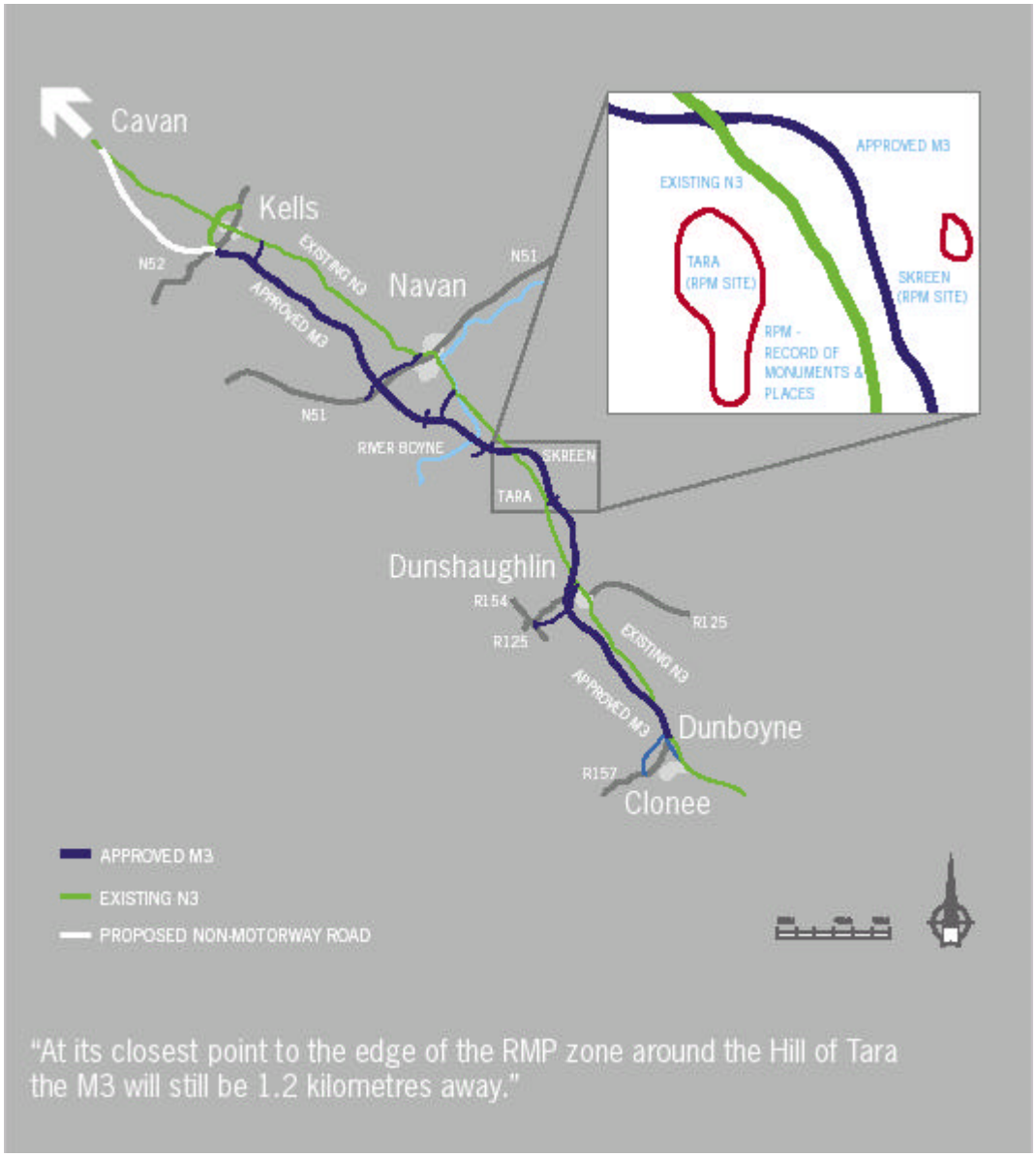
Every effort was, therefore, made to achieve a route that had minimal impact on archaeology but which, at the same time, fulfilled the basic traffic function of the road and avoided major adverse impacts on the living community of the area. In reaching its decision to approve the scheme, An Bord Pleanala considered the report of the Inspector appointed to conduct the oral hearing who concluded in his report:

"...archaeological investigations carried out in 2003...prior to the construction of national road schemes verified the discovery of a large archaeological site...dating from the Early Medieval Period..."

Archaeologists at work

"Having regard to all the evidence given at the Hearing and the cross-examination on the archaeology impacts in the Tara/Skreen area presented at the Hearing and to the details set out the EIS, I am satisfied that the route as proposed would not have a significant impact on the archaeological landscape associated with the Hill of Tara, as indicated by the area designated as the core zone on the RMP Map SK 500. I also consider that the route proposed will not impact significantly on the archaeological (sic) landscape associated with the Hill of Skreen".

The new road is considerably further away from the Hill of Tara than the existing road. From the top of the Hill, the road will be, at its nearest point, almost 2.5 kilometres away, which is nearly twice as far from the Hill of Tara as the existing N3 Dublin to Navan road.



Note: RMP relates to Record of Monuments and Places

A commitment was given by Meath County Council at the Bord Pleanala oral hearing that sufficient time and resources would be made available to ensure that any archaeology impacted upon would be excavated in advance of construction. An undertaking was also given that all results would be made publicly available, in accordance with NRA policy.

Archaeological investigation continued on the scheme in 2004 with test excavation of all sites, possible sites and areas of archaeological potential identified in the EIS and geophysical surveys, and test trenching of the whole of the remainder of the route. Work commenced on site in February at the southern end of the scheme and finished in December at the northern end, with reporting ongoing as investigation of each section of the route was completed.

The general methodology consisted of mechanically excavating 2m wide trenches (using a machine equipped with a smooth edged bucket) along the approximate centreline of the road with perpendicular offsets every 20m across the whole width of the landtake. This quantity of trenching achieved between 10-15% coverage of the land area through which the scheme will pass. Agriculturally disturbed topsoil was removed by machine to uncover archaeological features or natural undisturbed subsoil under the supervision of an archaeological director operating under licence issued by the Department of the Environment, Heritage and Local Government (DOEHLG) in consultation with the National Museum of Ireland. A team of archaeologists cleaned, investigated and recorded any features uncovered and carried out a limited hand excavation in order to attempt to identify the nature and extent of the sites uncovered. Following recording, the sites were re-covered with topsoil.

Approximately 140 archaeological sites along the entire road scheme route, i.e. 59km, were confirmed or identified by the testing, including 14 sites in the Tara/Skreen valley. Three of the sites had originally been identified as definite archaeological sites by the geophysical survey work carried out during the road planning and route selection process. Some of the remaining sites had been identified as possible sites by earlier field survey and geophysical surveys, but the majority were new, previously unknown, sites. In terms of site numbers, site type, size, complexity and date, the results are broadly similar to those on other road schemes around the country. The four largest sites on the route, Roestown, Dowdstown, Baronstown and Boyerstown, all currently appear to be Early Medieval farmsteads although the latter two also appear to have prehistoric activity, in particular Boyerstown. The remainder are a mixture of prehistoric, early medieval, medieval and modern sites, including small settlement sites, burial sites, *fulachta fiadh* (so-called ancient cooking places), industrial sites such as kilns and the remains of 19th century buildings. Full technical reports are available at www.nra.ie.

As reporting has been completed on each section of the scheme detailed proposals to commence full archaeological excavation of the sites uncovered by the investigations have been submitted to the DOEHLG. It is a matter for the Minister for the Environment, Heritage & Local Government to issue directions, in accordance with the National Monuments (Amendment) Act, 2004, on the archaeological treatment of the sites which have been identified from the test trenching. It is estimated that excavation of the sites, should it be required, will take a little over one year to complete.

N25 Waterford City-Bypass

The N25 Waterford Bypass route crosses the River Suir from County Kilkenny at the townland of Gracedieu and travels along the southern bank of the river until ending west of Kilmeaden village in County Waterford. The site of Woodstown is located approximately 6km southwest of Waterford City, lying on the southern bank of the River. Only one Record of Monuments and Places (RMP) site is recorded at Woodstown, a townland of 430 acres.

The archaeological investigations carried out in 2003 as part of standard practice prior to the construction of national road schemes verified the discovery of a large archaeological site enclosed by a bank and ditch representing a defended riverside settlement dating from the Early Medieval Period. The site's importance lies in the fact that it is an early medieval native Irish defended settlement which was subsequently occupied by the Vikings. Initial investigations and the limited excavations carried out on the site have revealed nearly 5,000 artefacts dating from the Early Medieval Period.

Following these investigations it was decided, in consultation with the DOEHLG, to preserve the site in-situ under the proposed road. This proposal involved culverting two streams on site and an archaeological excavation of the areas concerned took place between March and June 2004. This work commenced with the full hand excavation of Culvert 1, an area measuring circa 60m x 20m, under licence issued by the DOEHLG in consultation with the National Museum of Ireland. At the same time, all the original test trenches along the route of the Bypass were backfilled and the topsoil scanned using metal detectors. The National Museum advised on the correct method of metal detection to be employed. Further work on wet and dry-sieving the soils took place between June and October, 2004.

On foot of the emerging information from the archaeological investigations, it was determined that preservation in-situ of the archaeological site under the road was no longer the preferred option. To determine the full extent of the archaeological site a number of further studies were carried out.

In association with the DOEHLG, the Authority commissioned a geophysical survey of the surrounding fields in July, 2004 which revealed further potential archaeological features, including a new 30m_roughly square-shaped enclosure of unknown date.

In relation to the wetland area to the west of Woodstown, the Authority commissioned an interdisciplinary research study between August and October, 2004. The combination of further archaeological testing, geophysical surveys and palaeoenvironmental coring in the wetland, has shown that in the Mesolithic Period, circa 5000 BC, Woodstown was a dense woodland environment. By the Late NeolithicPeri circa 2350 BC, the woodland still existed but cereal cultivation had begun; by Middle Bronze Age Period, circa 1500 BC, the woodland was further altered with an increase in cereal cultivation. The final man-made use of the wetland occurred in the Iron Age, circa 800 BC, indicating the inhabitants of Woodstown utilised the wetland for such activities as grass/reed gathering.

Woodstown: A Native Irish Site

The Culvert 1 excavations centred on the eastern end of the site. This work uncovered the site defensive ditch and a cobbled gap representing a likely entranceway. The ditch would have formed a large defensive barrier and measured 2.5m in width and 2.5m deep with an internal supporting clay bank. Radiocarbon analysis from the base of the ditch indicated it was first dug during the fifth century AD.

The discovery of Irish metal-working in an enclosure ditch is paralleled on a number of other Irish sites. The metal-working phases were in use for some time, as the slag built up into a number of successive layers. A large amount of waste metals was recovered, as was a small crucible used to hold molten metal. Radiocarbon analysis indicated the metalworking phases occurred between AD 600-690.

The ditch originally extended further out toward the River Suir but the construction of the local railway destroyed that section of it. The ditch continued southwest-ward in a roughly D-shape outside the landtake for the road scheme. However, the geophysical survey suggested the ditch extended as far as the wetland margins, a distance of circa 500m, and measured between 50m-150m in width. Further native finds included a variety of items made from iron, lead, copper, stone, bone, glass, wood and amber. The radiocarbon analysis was further supported by the recent C14 Dates from the wetland which were identical to dates from within the enclosure.

Woodstown: A Viking Site

Documentary sources refer to a number of Viking ships on the River Suir in the 9th century. The Viking evidence relating to the Woodstown site comes from the discovery of many Scandinavian-type artefacts from the topsoil, and a single Viking warrior grave found outside the enclosure. The grave goods suggest a burial of moderately high status and although no skeleton was found due to the high acidity of the surrounding soils, all of the warrior's weapons were recovered. These included a broken sword, a shield boss, a spearhead and a battle-axe together with a copper alloy ring pin and a perforated hone stone. The soils within the grave were completely hand sieved and all the iron shield rivets, and two tiny fragments of bone, probably animal, were found. The soils have been saved for phosphate analysis which may add further information as to burial practices. The weaponry is dated stylistically between AD 850 to 1050.

Evidence for a number of Viking re-uses of the defensive ditch was found. It appears that the ditch was associated with an internal earthen bank defended by a wooden palisade. Over 120 post and stakeholes were found within the earthen bank, indicating the extensive nature of that portion of the defensive structure. Analysis of the finds discovered indicates that there was a tradingbased economy at Woodstown. The Woodstown assemblage is the largest such rural collection from Ireland.

Almost 40 pieces of silver, most of them hacked ingots, were found from the topsoil. Other Viking type objects found include iron clench nails and roves (possibly for joining ship timbers), and a fragment of a silver Arabic coin reflective of the wider trading contacts normally associated with Vikings. The Woodstown artefacts, circa 5,308 in number, were recovered after 6 months continuous research and analysis.

The discovery at Woodstown has huge implications for our understanding of rural Viking settlement throughout Ireland and suggests that similar site types may perhaps have been present on waterways around the country.

The preliminary 2004 excavation results suggest that a native Irish site existed at Woodstown from the fifth to the ninth century AD. This site was defined by an enclosing ditch and bank. The Vikings occupied the site about AD 850, re-fortified it and remained there until sometime in the mid-11th century AD. Their primary occupation appeared as domestic, with a particular emphasis on defence, and trade, both local and international. The site remained unoccupied through out the later Medieval Period and remained unknown until its discovery in 2003 as a result of advance archaeological works carried out by the Authority/Waterford City Council.

"The Woodstown artefacts, circa 5,308 in number, were recovered after 6 months continuous research and analysis..."

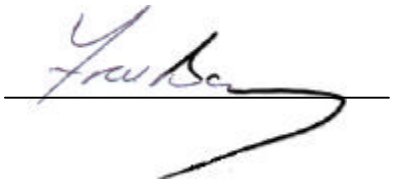
Prompt Payments of Accounts Act, 1997

Under Ministerial order of 4 June 1997 the Prompt Payment of Accounts Act came into operation on 2 January 1998. The National Roads Authority comes under the remit of the Act. The following is a report on the payment practices of the Authority for the year ended 31 December 2004 in accordance with the requirements as set out in Section 12 of the Act

It is the policy of the National Roads Authority to ensure that all invoices are paid promptly. Specific systems and procedures have been put in place to enable all invoices to be tracked and to ensure that payments are made before their due date. Invoices are logged on a daily basis, and followed up systematically to ensure that they are certified and forwarded for payment without delay. Payments are made as required to ensure prompt payment.

These controls are designed to provide reasonable, and not absolute, assurance against material non-compliance with the Act.

During the year under review all the accounts of the Authority were paid on time, that is, within the time limits specified in the Act, and accordingly no interest was paid.



Chief Executive Officer

Date : 5 October 2005

FINANCIAL STATEMENTS

YEAR ENDED 31 DECEMBER 2004

Report of the Comptroller and Auditor General for presentation to the Houses of the Oireachtas

I have audited the financial statements on pages 85 to 100 under the Roads Act, 1993.

Respective Responsibilities of the Members of the Authority and the Comptroller and Auditor General

The accounting responsibilities of the Members of the Authority are set out on page 83. It is my responsibility, based on my audit, to form and independent opinion on the financial statements presented to me and to report on them.

I review whether the statement on the system of internal financial control on page 81 reflects the Authority's compliance with applicable guidance on corporate governance and report any material instance where it does not do so, or if the statement is misleading or inconsistent with other information of which I am aware from my audit of the financial statements.

Basis of Audit Opinion

In the exercise of my function as Comptroller and Auditor General, I conducted my audit of the financial statements in accordance with auditing standards issued by the Auditing Practices Board and by reference to the special considerations which attach to State bodies in relation to their management and operation.

An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made in the preparation of the financial statements, and of whether the accounting policies are appropriate to the Authority's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations that I considered necessary to provide me with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement whether caused by fraud or other irregularity or error. In forming my opinion I also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In my opinion, proper books of account have been kept by the Authority and the financial statements, which are in agreement with them, give a true and fair view of the state of affairs of the National Roads Authority at 31 December 2004 and if its income and expenditure and cash flow for the year then ended.

John Purcell
Comptroller and Auditor General
25th October 2005

Statement on the System of Internal Financial Control

Responsibility for System of Internal Financial Control

On behalf of the Board of the National Roads Authority (NRA), I acknowledge our responsibility for ensuring that an effective system of internal financial control is maintained and operated.

The system can only provide reasonable, and not absolute, assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or would be detected in a timely period.

Key Control Procedures

The Board has taken steps to ensure an appropriate control environment is in place by :

- adopting a Code of Practice for the Governance of the National Roads Authority ;
- ensuring compliance with the Ethics in Public Office Acts requirements and Section 40 of the Roads Act 1993, relating to the Declaration of Interests ;
- holding regular Board meetings ;
- establishing various committees to monitor the activities of the organisation, and
- establishing procedures for reporting significant control failures and ensuring appropriate corrective action.

A formal risk assessment was undertaken by the Authority, with a view to identifying the main business risks facing the organisation. A corporate risk register has been prepared, along with an action plan to mitigate the impact of key controllable risks. A risk management policy has been approved by the NRA Board.

The system of internal financial control is based on a framework of regular management information, administrative procedures including segregation of duties, and a system of delegation and accountability. In particular it includes:

- a comprehensive budgeting system with an annual budget which is reviewed and agreed by the Board ;
- regular reviews by the Board of periodic and annual financial reports which indicate financial performance against budgets ;
- restricting authority for authorising all disbursement of NRA monies to authorised signatories;
- computerised financial systems including accounting, payroll, expenses claim and fixed asset register ;
- clearly defined procedures for the appraisal and management of capital expenditure, and
- clearly defined policy on procurement.

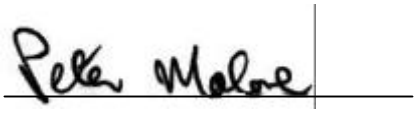
The NRA has an Internal Audit function, which operates in accordance with the Framework Code of Best Practice set out in the Code of Practice on the Governance of State Bodies. The work of Internal Audit is informed by analysis of the risk to which the body is exposed, and the annual audit plan is based on this analysis. The analysis of risk and the internal audit plans are endorsed by the Audit Committee and approved by the Board of the NRA. Assessment of controls in place in 2004 in relation to taxation and Transfare (electronic travel and subsistence claims system) were undertaken, through internal audits of these activities.

The Board's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of Internal Audit, the Audit Committee which oversees the work of Internal Audit, the Executive Team within the NRA who have responsibility for the development and maintenance of the financial control framework, and comments made by the Comptroller and Auditor General in his management letter or other reports.

Annual Review of Controls

A formal review by the Board of the internal financial control systems did not take place for 2004. A review by the Board of the internal financial control systems will be undertaken in 2005.

Signed on behalf of the Board



Chairman

Date : 5 October 2005

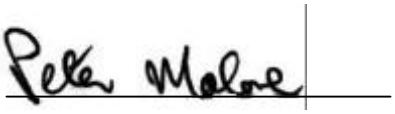
STATEMENT OF RESPONSIBILITIES OF THE AUTHORITY

Paragraph 5(2) of the Third Schedule of the Roads Act, 1993, requires the Authority to prepare financial statements in such form as may be approved by the Minister for Transport with the consent of the Minister for Finance. In preparing those financial statements, the Authority is required to:

- select suitable accounting policies and then apply them consistently
- ensure that any judgements and estimates that are made are reasonable and prudent
- state whether applicable accounting standards have been followed, subject to any material departures, disclosed and explained in the financial statements.
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Authority will continue in operation.

The Authority is responsible for keeping proper books of account which disclose with reasonable accuracy at any time the financial position of the Authority and which enable it to ensure that the financial statements comply with Paragraph 5 of the Third Schedule of the Act. The Authority is also responsible for safeguarding its assets and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

On behalf of the Authority :



Chairman

Chief Executive

Date : 5 October 2005

ACCOUNTING POLICIES

1 General

The National Roads Authority was formally established as an independent statutory body under the Roads Act, 1993, with effect from 1 January, 1994. The Authority's primary function, under section 17 of the Roads Act, is to secure the provision of a safe and efficient network of national roads.

2 Basis of Accounting

The financial statements are prepared on an accruals basis except as stated below, under the historical cost convention, and in accordance with generally accepted accounting practice. Financial Reporting Standards recommended by the recognised accountancy bodies are adopted as they become applicable. The financial statements are in the format approved by the Minister for Transport with the consent of the Minister for Finance.

3 Income Recognition

State Grants reflect the amounts received from the Department of Transport in the year.

4 M1 Motorway Toll Income

MI Motorway Toll Income represents cash receivable, net of operating fees and VAT, in respect of the operation of toll plazas on the MI.

5 Road Grants

The figures shown are the actual grants paid in the year.

6 Public Private Partnership

The Authority has entered into a number of Public Private Partnership contracts under which it makes contributions to road construction and operation and under which it may become entitled to a share of the revenue earned by the road operator. Contributions are treated as expenditure in the years in which they fall due. Revenue shares are accounted for in the years in which they are earned.

7 Fixed Assets and Depreciation

Fixed assets are stated at cost less accumulated depreciation. Depreciation is provided on a straight line basis at the rates stated below which are estimated to reduce the assets to their realisable values at the end of their expected working lives:

Furniture and Fittings	**10%**
Equipment	**15%**
Computer Equipment	**25%**
Motor Vehicles	**20%**

8 Stocks

All consumables are written off in the year of purchase.

9 Superannuation

Section 36 of the Roads Act, 1993 provides for the establishment of superannuation schemes by the Authority. The Authority has established, with the approval of the Minister for Transport with the consent of the Minister for Finance, a non-contributory superannuation scheme and a contributory spouses' and children's pension scheme.

10 Capital Account

The Capital Account represents the unamortised amount of income used to purchase fixed assets.

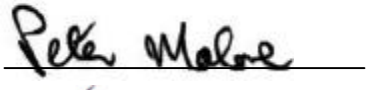
ROAD DEVELOPMENT AND MAINTENANCE INCOME AND EXPENDITURE ACCOUNT

YEAR ENDED 31 DECEMBER 2004

		2004	2003
Income			
	Notes	**€**	**€**
State Grants:			
Construction and Improvement of National Roads	1	1,178,959,000	1,169,145,458
Maintenance/Management of National Roads		51,328,000	53,396,000
Grant Refunds	2	1,673,896	2,033,017
MI Motorway Toll Income		9,925,536	4,731,627
Sundry Receipts	3	114,461	27,307
		1,242,000,893	1,229,333,409
Transfer from Capital Account	4	3,949	15,663
		1,242,004,842	1,229,349,072
Expenditure			
Road Construction and Improvement Grants		1,070,799,544	1,117,089,151
Road Maintenance/Management Grants		51,387,437	53,479,796
Public Private Partnership	16	114,193,804	56,403,296
Low Cost Safety Improvement Measures		5,097,373	2,358,043
Depreciation	10	3,949	15,663
		1,241,482,107	1,229,345,949
Surplus for Year		522,735	3,123
(Deficit) at Beginning of Year		(963)	(4,086)
Surplus / (Deficit) at End of Year		521,772	(963)

All losses and gains are recognised in the Income and Expenditure Account.
The Accounting Policies, Cash Flow Statement and Notes 1-17 form part of these Financial Statements.

On behalf of the Authority :



Chairman

Chief Executive

Date : 5 October 2005

ADMINISTRATION INCOME AND EXPENDITURE ACCOUNT

YEAR ENDED 31 DECEMBER 2004

		2004	2003
Income			
	Notes	**€**	**€**
State Grant	1	8,452,000	7,589,000
Sundry Receipts	3	317,018	324,071
		8,769,018	7,913,071
Transfer from Capital Account	4	109,132	282,285
		8,878,150	8,195,356
Expenditure			
Salaries and PRSI	5	5,148,785	4,684,091
Superannuation	6	695,128	502,012
Travel	7	503,239	474,034
Laboratory and Field Expenses		31	1,246
Other Administration Costs	8	796,075	694,496
Accommodation Costs	9	1,394,987	1,363,876
Depreciation	10	239,468	371,588
Directors' Fees and Expenses		105,873	98,454
Deficit on Trade-in of Equipment		489	4,549
		8,884,075	8,194,346
(Deficit) / Surplus for Year		(5,925)	1,010
Surplus at Beginning of Year		61,866	60,856
Surplus at End of Year		55,941	61,866

All losses and gains are recognised in the Income and Expenditure Account.
The Accounting Policies, Cash Flow Statements and Notes 1-17 form part of these Financial Statements.

On behalf of the Authority :

Chairman

Chief Executive

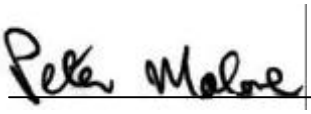
Date : 5 October 2005

BALANCE SHEET
AS AT 31 DECEMBER 2004

	Notes	2004 €	2004 €	2003 €	2003 €
Fixed Assets					
Tangible Assets	10		385,828		498,909
Current Assets					
Debtors and Prepayments	11	396,267		476,268	
Cash on Hand and at Bank		540,405		8,944	
		936,672		485,212	
Less Current Liabilities					
Creditors:					
Amounts falling due within one year	12	(358,959)		(424,309)	
Net Current Assets			577,713		60,903
Total Assets Less Current Liabilities			963,541		559,812
Represented by:					
Capital Account	4		385,828		498,909
Income and Expenditure Accounts:					
Administration		55,941		61,866	
Road Development and Maintenance		521,772		(963)	
			577,713		60,903
			963,541		559,812

The Accounting Policies, Cash Flow Statement and Notes 1-17 form part of these Financial Statements.

On behalf of the Authority :



Chairman

Chief Executive

Date : 5 October 2005

CASH FLOW STATEMENT

FOR THE YEAR ENDED 31 DECEMBER 2004

Reconciliation of Net Operating Surplus to Net Cash Inflow from Operating Activities

	Notes	2004 €	2004 €	2003 €	2003 €
Surplus on Income and Expenditure Account – Road Development & Maintenance			522,735		3,123
Transfer (from) Capital Account - Road Development & Maintenance	4		(3,949)		(15,663)
(Deficit) / Surplus on Income and Expenditure Account – Administration			(5,925)		1,010
Transfer (from) Capital Account – Administration	4		(109,132)		(282,285)
Depreciation Charge	10		243,417		387,251
Decrease / (Increase) in Debtors	11		80,001		(105,492)
(Decrease) / Increase in Creditors	12		(65,350)		94,524
Deficit on Sale of Fixed Assets			489		4,549
Net Cash Inflow from Operating Activities			662,286		87,017

Cash Flow Statement

Net Cash Inflow from Operating Activities			662,286		87,017
Capital Expenditure:					
Acquisitions	10	(130,825)		(109,972)	
Disposals		0	(130,825)	16,120	(93,852)
Increase \ (Decrease) in Cash			531,461		(6,835)

Reconciliation of Net Cash Flow to movement in Net Funds

Movement in Net Funds	531,461	(6,835)
Net Funds at 1 January 2004	8,944	15,779
Net Funds at 31 December 2004	540,405	8,944

The Accounting Policies and Notes 1-17 form part of these Financial Statements.

On behalf of the Authority :

Chairman

Chief Executive

Date : 5 October 2005

Notes to the Financial Statements
YEAR ENDED 31 DECEMBER 2004

1 State Grants

State grants voted by Dáil Eireann are part funded by certain EU funds. Of the total road development and maintenance programme of the Authority under the Economic and Social Infrastructure Operational Programme 2000 - 2006, the following elements are co-financed:

Source of Assistance:	**€ million**
National Primary	
Expenditure co-financed by Regional Fund and national funds	869
Expenditure co-financed by Cohesion Fund and national funds	272
Expenditure co-financed by Trans European Network Transport Fund and national funds	165
Total	1,306

2 Grant Refunds

	2004	**2003**
	€	**€**
Construction and Improvement of National Roads	1,605,235	1,946,588
Maintenance/Management of National Roads	68,661	86,429
	1,673,896	2,033,017

3 Sundry Receipts

	2004	**2003**
	€	**€**
Road Development and Maintenance :		
Traffic Counters	0	27,307
Deposit Interest	101,991	0
Sundry Income	12,470	0
	114,461	27,307
Administration :		
Deposit Interest	0	8,091
Commissioned Studies and Laboratory Tests	177,619	212,975
Sale of Publications	30,086	30,241
Sundry Income	109,313	72,764
	317,018	324,071

4 Capital Account

	€	€
At 1 January 2004		498,909
Income used to purchase Fixed Assets - Road Development and Maintenance	0	
Amortisation in line with asset depreciation	(3,949)	(3,949)
Income used to purchase Fixed Assets - Administration	130,825	
Amount released on disposal of Fixed Assets	(489)	
Amortisation in line with asset depreciation	(239,468)	
		(109,132)
At 31 December 2004		385,828

5 Salaries and PRSI

	2004	2003
	€	€
Salaries	4,857,526	4,432,630
Employer's PRSI	291,259	251,461
	5,148,785	4,684,091

The Authority had 90 employees on 31 December 2004 (90 on 31 December 2003).

6 Superannuation

	2004	2003
	€	€
Superannuation	560,109	451,652
Superannuation Lump Sums	321,457	192,654
Superannuation Contributions Received	(186,438)	(142,294)
	695,128	502,012

The Authority operates a defined benefit superannuation scheme for its employees. Superannuation entitlements arising under the scheme are paid out of current income and are charged to the Income and Expenditure Account in the year in which they become payable. No provision is made in the financial statements in respect of future benefits. Salaries and Wages are charged in the financial statements net of employee superannuation contributions.

FRS 17 Retirement Benefits

For accounting periods ending on or after 1 January 2005, Financial Reporting Standard 17 (FRS 17) will require financial statements to reflect at fair value the assets and liabilities arising from an employer's superannuation obligations and any related funding and to recognise the costs of providing superannuation benefits in the accounting periods in which they are earned by employees. As a transitional measure for accounting periods ending on or after 22 June 2001, the Standard requires that the present value of scheme liabilities be disclosed as a note to the accounts.

The valuation of defined benefit schemes used for the purpose of FRS17 disclosure has been carried out by an independent actuary in order to assess the liabilities at the balance sheet date.

The financial assumptions used to calculate the retirement liabilities and components of the defined benefit cost for the year ended 31 December 2004 under FRS 17 were as follows :

Valuation method : Projected Unit Method

	2004	**2003**
Discount Rate	4.50%	5.25%
Inflation Rate	2.25%	2.50%
Salary Increases	3.50%	3.50%
Pension Increases	3.50%	3.50%

Analysis of the amount which would be charged to operating profit is as follows :	**2004 €**	**2003 €**
Current Service Cost	(481,000)	(589,000)

Analysis of the amount which would be credited to other finance income is as follows :

Interest on pension scheme liabilities	(1,113,000)	(1,111,000)

Analysis of the amount which would be recognised in the statement of total recognised gains and losses (STRGL) is as follows :

Experience gains and losses arising on the Scheme liabilities	(2,498,000)	(685,000)
Changes in assumptions	(5,606,000)	(131,000)
Actuarial loss which would be recognised in the STRGL	**(8,104,000)**	**(816,000)**

Analysis of the movement in deficit during the year is as follows :

Unfunded Accrued Liabilities at beginning of the year	(22,199,000)	(20,198,000)
Current service cost	(481,000)	(589,000)
Employer Contributions	735,000	515,000
Other finance income	(1,113,000)	(1,111,000)
Actuarial loss	(8,104,000)	(816,000)
Unfunded Accrued Liabilities at end of the year	(31,162,000)	(22,199,000)

The above calculations are included for information only. FRS 17 requires full recognition of pension scheme assets / liabilities in the financial statement for periods ending on or after 1 January 2005.

7 Travel Expenses

	2004 €	**2003 €**
Travel and Subsistence	486,220	458,563
Motor Vehicle Expenses	17,019	15,471
	503,239	474,034

8 Other Administration Costs

	2004	2003
	€	€
Telephone and Postage	93,728	110,457
Printing and Stationery	95,480	84,203
Computer and Data Processing Charges	143,390	235,587
Audit Fees	12,000	13,400
Staff Appointment Costs	95,987	7,785
Books and Periodicals	35,558	31,934
Insurances	36,319	32,420
Consultants	0	2,541
Repairs and Maintenance - Equipment	17,002	14,027
Advertising	28,310	17,899
Sundries	98,564	49,871
Staff Development / Courses	50,198	46,904
Grants	13,697	12,697
Public Relations	75,842	34,771
	796,075	694,496

9 Accommodation Costs

	2004	2003
	€	€
Rent, Rates and Services	1,317,109	1,286,656
Power, Light and Heat, Cleaning	68,504	66,560
Repairs, Maintenance and Security	9,374	10,660
	1,394,987	1,363,876

10 Fixed Assets

	Total	Furniture, Fixtures and Fittings	Equipment	Motor Vehicles
COST	€	€	€	€
At 1 January 2004	2,831,337	1,008,364	1,796,507	26,466
Additions	130,825	3,380	127,445	0
Disposals	(70,262)	0	(70,262)	0
At 31 December 2004	2,891,900	1,011,744	1,853,690	26,466
Depreciation				
At 1 January 2004	2,332,428	819,004	1,486,958	26,466
Provided	243,417	69,028	174,389	0
Disposals	(69,773)	0	(69,773)	0
At 31 December 2004	2,506,072	888,032	1,591,574	26,466
Net Book Value at 31 December 2004	385,828	123,712	262,116	0
Net Book Value at 31 December 2003	498,909	189,360	309,549	0

11 Debtors and Prepayments

	2004	2003
	€	€
Debtors	11,854	155,526
Prepayments	384,413	320,742
	396,267	476,268

All debtors fall due within one year. The amount shown for Debtors is net of provision for doubtful debts.

12 Creditors and Accruals

	2004	2003
	€	€
Salaries	56,500	134,595
Trade and Other Expenses	302,459	289,714
	358,959	424,309

All creditors fall due within one-year.

13 Taxation

Section 32 of the Finance Act, 1994 exempts the Authority from further taxation on its interest and rental income in excess of that deducted at source. No further tax liability arose in the year.

14 Commitments

a) Financial Commitments

a. The Authority entered into a twenty-year lease from 1 January 1996 in respect of accommodation at Saint Martin's House, Waterloo Road, Dublin 4, subject to five year rent reviews. The rent due from 1st January 2001 is €1,053,883 per annum.

b. The Authority entered into a twenty-year lease from 1 March 2004 with Donegal County Council in respect of accommodation for Donegal Regional Design Office. The rent is €226,648 per annum.

c. The Authority entered into a four year and nine month lease from 24 July 2003 with Roscommon County Council in respect of accommodation for Roscommon Regional Design Office. The rent is €63,500 per annum.

d. The Authority is committed to a fixed contribution of €183,200 to Cork County Council for a period of ten years from 1 January 2003 in respect of accommodation for Cork Regional Design Office.

e. The Authority entered into a seven year lease from 1 July 2002 with Westmeath County Council in respect of accommodation for Westmeath Regional Design Office. The rent is €114,276 per annum.

f. The Authority is committed to a fixed contribution of €64,380 to Kilkenny County Council in respect of accommodation provided during the lifetime of specific national road projects.

g. The Authority is committed to a ten year agreement from 11 May 2001 with Mayo County Council in respect of accommodation for Mayo Regional Design Office. The rent is €82,800 per annum with a five year rent review.

h. The Authority is committed to a fixed contribution of €69,835 to Waterford County Council for a period of eight years from 1 January 1999 in respect of accommodation for Waterford Regional Design Office.

b) Forward Commitments

The Department of Finance require that the aggregate value of agreed commitments will not exceed 85% of the 2004 allocation of €1,227m for 2005 except where specifically approved by the Department of Finance. The Authority has analysed forward commitments from 2004 allocations and these are as follows :

Year	Commitment € million	Actual% (of 2004 Alloc)	Available % (of 2004 Alloc)
2005	630	51%	85%
2006	393	32%	75%
2007	133	11%	60%
2008	7	1%	45%

15 Board Members – Declaration of Interests

The Authority maintains, as is required under Section 40 of the Roads Act, 1993, a register of interests containing particulars of declarations of interests provided by Board Members to the Authority.

16 Public Private Partnership

		2004	2003
		€	€
Ancillary costs	(a)	9,604,001	11,403,296
Construction payments	(b)	104,589,803	45,000,000
		114,193,804	56,403,296

a) The Authority is developing a number of major road schemes under the Public Private Partnership initiative. Costs incurred relate to planning, toll scheme statutory procedures, toll scheme facilities, construction supervision, financial, legal and engineering advice received.

b) Payments in 2004 relate to construction payments on the Kilcock / Kinnegad and Rathcormac / Fermoy PPP Projects.

Kilcock / Kinnegad PPP Project

The contract was awarded to the Eurolink consortium which comprises SIAC Construction Ltd (Irl) and Cintra – Concesiones de Infrastructuras de Transporte S.A. (Spain). The contract was signed on the 24 March 2003 and will extend for 30 years from that date.

The consortium is required to design, build, maintain, operate, re-invest and finance the contract.

The Authority's payments to the Eurolink consortium are fixed and consist of payments of €160m over the period of the construction, released on satisfactory completion of key construction elements, and €7m in total in the period of operation. Eurolink will pay a share to the Authority, dependent on the level of traffic on the road, of the toll revenues collected.

Rathcormac / Fermoy PPP Project

The contract was awarded to Direct Route (Fermoy) Ltd. consortium which comprises Kellogg Brown & Root Ltd, Strabag AG, John Sisk & Son (Holdings) Ltd, Lagan Holdings Ltd, Roadbridge Ltd. and the First Irish Infrastructure Fund (a joint AIB/European Investment Bank fund established for the purpose of investing in PPP projects and private sector infrastructure developments in Ireland and across Europe). The contract was signed on the 11 June 2004 and will extend for 30 years from that date.

The consortium is required to design, build, maintain, operate, re-invest and finance the contract.

Dundalk Western Bypass

Celtic Roads Group (Dundalk) Ltd, (CRG) was awarded this contract on the 5 February 2004; the contract will extend for 30 years from that date. The CRG consortium comprises Dragados Concesiones de Infraestructuras SA (Spain), Edmund Nuttall Ltd (UK), HBG Ascon Ltd (Irl), and NTR plc (Irl).

The terms of the contract provide that the consortium will design, construct, finance, operate and maintain, a new 11 km section of motorway along with approximately 7 km of new link roads, 12 over / underbridges and a major railway overbridge. In addition, the consortium will take over the operation and maintenance of 43 km of existing motorway (including the recently constructed Boyne Bridge and an adjacent toll plaza) for a 30 year period. The consortium will also take over the operation of the toll plazas adjacent to Drogheda within 3 months of award of contract and will upgrade the plazas with electronic toll collection together with dedicated electronic lanes at the mainline plaza.

17 Approval of Financial Statements

These financial statements were approved by the Board of Directors on 13 September 2005.

APPENDIX 1

The National Roads Authority

The National Roads Authority was formally established as an independent statutory body under the Roads Act, 1993 with effect from 1 January, 1994. The Authority's road development programme forms part of the Government's overall strategy for the improvement of national infrastructure, which is contained in the National Development Plan (NDP), 2000-2006.

Responsibilities of Authority

The Authority's primary function is "to secure the provision of a safe and efficient network of national roads". It has overall responsibility for the planning and supervision of construction and maintenance of national roads.

In addition, the Authority has a number of specific functions under the Act, including:

- preparing, or arranging for the preparation of road designs, maintenance programmes and schemes for the provision of traffic signs on national roads;

- securing the carrying out of construction, improvement and maintenance works on national roads;

- allocating and paying grants for national roads, and

- training, research or testing activities in relation to any of its functions.

Historically, the Authority has discharged these functions through the relevant local road authorities. However, it is empowered (where it considers it would be more convenient, expeditious, effective or economical to do so) to carry out such functions directly.

The Authority has a general power to direct the road authority to "do any other thing which arises out of or is consequential on or is necessary or expedient for the purposes of or would facilitate the construction or maintenance of a national road".

The Authority may give specific directions to local road authorities relating to a number of matters, including making a motorway scheme; application for a bridge order; acquiring land by compulsory purchaser order; preparing an Environmental Impact Statement (EIS), and entering into contracts for and/or undertaking specified construction or maintenance works.

Section 57 of the 1993 Act, as amended by the Planning and Development Act, 2000, allows the Authority to prepare a scheme for the establishment of a system of tolls in respect of the use of a national road. The Authority may also enter into an agreement with another person whereby that person agrees, inter alia, to pay some or all of the costs of the construction and/or maintenance of the road and/or to upgrade and manage the road. Toll charges may be used to repay all or part of the private funding involved.

Financing

Funding of the Authority is primarily in the form of grants from the Minister for Transport for the improvement and maintenance of national roads and a grant to cover administrative expenses. Under longstanding practice, the level of funding was determined in each financial year, having regard to the scale of the roads programme, the NDP strategy for national roads determined by Government and the overall Exchequer budgetary situation. The Government, in 2003, introduced a multi-annual (5 year) funding arrangement for the National Roads Programme to further facilitate efficient scheme planning and programme implementation.

The Authority has been set the target of securing investment of €1.27b. for Public Private Partnership projects over the period 2000-2006 to boost the funding available from the Exchequer and accelerate the pace at which national roads are improved.

The Authority has statutory power to borrow money (not to exceed €635m), subject to the consent of the Minister for Finance and the Minister for Transport.

Structure of Authority

The Authority board may comprise up to fourteen members - thirteen ordinary members and a chairperson - appointed by the Minister for Transport. Members are appointed on the basis of their experience in relation to roads, transport, industrial, commercial, financial, or environmental matters, local government, and the organisation of workers or administration. They are directly responsible for the exercise of the Authority's functions under the Act, but can delegate these functions to committees. The Chief Executive is the statutory officer with responsibility for the day to day administration and management of the business of the Authority.

National Development Plan, 2000-2006

The objectives established by Government for the improvement of the network of national roads are set out in the National Development Plan, 2000-2006. In summary, these objectives are:

- to improve reliability by removing bottlenecks, remedying capacity deficiencies and reducing journey times;
- to improve internal road transport infrastructure between and within regions;
- to facilitate better access to ports and airports;
- contribute to sustainable transport policies, and
- help to achieve the targets of the Government's Road to Safety Strategy regarding significant reductions in road accident fatalities and injuries.

Customer Service

The Authority is committed to providing quality service to its customers and is actively implementing its Customer Action Plan in this regard. The Charter of Service Standards states:

The National Roads Authority is committed to providing a quality service to external and internal customers.

We value our customers and co-workers and are committed to:

- Providing a service that is accessible, courteous, responsive, timely, equitable, and is given in the spirit of professionalism.

- Fostering an environment that is open, co-operative, supportive, and encourages teamwork, innovation, recognition, mutual respect, and values public participation.

Equality
The Authority operates a policy of equal opportunity and equality regarding recruitment, selection, promotion, training and treatment of staff. We operate a policy of equality in relation to the treatment of our customers.

Diversity
The Authority operates a policy of diversity in relation to gender, marital status, sexual orientation, religious belief and membership of the traveller community.

Access
The Authority provides clean and accessible (including access for people with disability) offices. A review of the reception area has been undertaken and improvements have been carried out.

Health and Safety
The Authority's Health and Safety policy is monitored on an ongoing basis to ensure staff and clients health and safety and to reflect circumstances.

Information
The Authority provides current and accurate information and our Information Technology (I.T) systems are reviewed and upgraded as necessary on an ongoing basis.

Timeliness and Courtesy
The Authority deals with enquiries in a professional, timely and courteous manner.

Service by Telephone
Training is provided for staff in relation to the provision of a profession and corporate approach to telephone queries.

Correspondence
An Electronic Document Management System (EDMS) has been installed to monitor and track all correspondence.

Complaints
A formal complaints procedure was published in May 2004.

Choice
The Authority is committed to proving choice in the delivery of our business, such as the development of our e-service.

Service through Irish

The Authority has engaged the services of a translation company in order to provide publications and service generally through Irish.

Better Co-ordination

A review of the Communications Strategy has been completed by consultants. The review's objective was to devise a strategy which will meet the communications demands placed upon the Authority in an ever changing environment. A working plan prioritising key targets will be prepared setting a benchmark from which progress can be monitored.

Internal Customer

In relation to staff training a questionnaire was prepared and circulated to managers and key personnel within the Authority, the purpose of which was to identify deficiencies in procedures and information requirements in order to target specific development needs. The results of the questionnaire have proved useful in this regard.

APPENDIX 2

The status of road projects at the end of 2004 was as follows:

Major Inter-Urban Routes

		Road Type	Length Km	Status
Dublin-Border				
M1	Cloghran/Lissenhall	M	6.52	Completed June 2003
M1	Lissenhall/Balbriggan	M	9.86	Completed June 2003
M1	Balbriggan Bypass	M	13	Completed in 1998
M1	Drogheda Bypass	M	21.5	Completed June 2003
M1	Dunleer Bypass	M	6.5	Completed in 1993
M1	Dunleer/Dundalk (inc. Ardee Link)	M	16	Completed in 2001
M1	Dundalk Western Bypass (PPP)	M	11	Under construction
M1	Dundalk - Newry	M	10	2005 Start

		Road Type	Length Km	Status
Dublin-Galway				
N4	M50 Junction-Leixlip	Widening	8	CPO/EIS to be published in 2005
M4	Celbridge Interchange		-	Completed Feb 2003
M4	Lucan – Kilcock	M	17.6	Completed in 1994
M4	Kilcock/Kinnegad (PPP)	M	37	Under Construction
N6	Kinnegad/Athlone Phase 1 (Kinnegad - Kilbeggan)	HQ DC	28	2005 Start
N6	Kinnegad/Athlone Phase 2 (Kilbeggan - Athlone)	HQ DC	29	Tender process to commence 2005
N6	Athlone Bypass	DC	9	Completed in 1991
N6	Athlone/Ballinasloe	HQ DC	17	CPO/EIS to be published in 2005
N6	Ballinasloe/Galway (PPP)	HQ DC	56	Tender process to commence 2005
N6	Loughrea Bypass	SC	4	2005 Completion
N6	Oranmore/Merlin Park	DC SC	3 1.1	Completed in 1991
N6	Terryland/Ballybane	DC	2.5	Completed in 1990
N6	Galway Eastern Approach Road (Merlin Park/Ballybane)	DC	3.5	Completed in 1996
N6	Galway Outer Bypass	HQ DC SC	16 5	CPO/EIS to be published in 2005

Major Inter-Urban Routes

Dublin-Limerick		Road Type	Length Km	Status
N7	Newlands Cross to Rathcoole	Extra lane both ways	5	Completed in 1998
N7	Rathcoole Interchange	-	-	Completed in 1998
N7	Naas Road Widening	Extra lane both ways	15	Under construction
M7	Naas Bypass	M	7	Completed in 1983
N7	Newbridge Bypass	M	14	Completed in 1993
M7	Kildare Bypass	M	12	Completed in 2003
M7	Monasterevin Bypass	M	17	Completed in 2004
M7	Portlaoise Bypass	M	12.5	Completed in 1997
N7	Roscrea Bypass	SC	2.2	Completed in 1996
N7	Castletown/Nenagh	HQ DC	34	CPO/EIS to bepublished in 2005
N7	Nenagh Bypass	SC	10	Completed in 2000
N7	Nenagh/Limerick	HQ DC	38	CPO/EIS approved in 2004 Tender process under way
N7	Limerick Southern Ring	DC	10	Completed in 2004 Phase 1
N7	Limerick Southern Ring	DC	10	CPO/EIS approved in Phase 2 (PPP) 2004. Tender process under way
N7	Limerick Northern Relief Road	SC	3.6	Completed in 1999
N7	Parkway	DC	1	Completed in 2004

Major Inter-Urban Routes

Dublin-Cork		Road Type	Length Km	Status
M7/M8	Portlaoise/Cullahill (PPP)	M	40	MO/EIS approved in 2004 Tender process to commence 2005
N8	Cullahill/Cashel	HQ DC	45	CPO/EIS approved in 2004
N8	Cashel Bypass	HQ DC	7	Completed in 2004
N8	Cahir Bypass	SC	6	Completed in 1991
N8	Cashel/Mitchelstown	HQ DC	32	CPO/EIS to be published in 2005
N8	Mitchelstown/Fermoy	HQ DC	22	CPO/EIS to be published in 2005
N8/N73	Mitchelstown Western Relief Road	SC	4.1	2005 Start
M8	Rathcormac/Fermoy Bypass (PPP)	M	18	Under construction
N8	Watergrasshill Bypass	DC	10	Completed in 2003
N8	Glanmire Bypass	DC	7.5	Completed in 1992
N8	Cork Southern Ring Road	DC	8	Completed in 1996
N25	Jack Lynch Tunnel	DC	1.8	Completed in 1999

Major Inter-Urban Routes

Dublin-Waterford		Road Type	Length Km	Status
N9	Kilcullen/Waterford (Northern Section) Ph 1	HQ DC	19	CPO/EIS approved
N9	Kilcullen/Waterford (Northern Section) Ph 2	HQ DC	27	CPO/EIS confirmed
N9	N9 Kilcullen/Waterford (Southern Section) Ph 1	HQ DC	24	CPO/EIS 2005
N9	Kilcullen/Waterford (Southern Section) Ph 2	HQ DC	40	CPO/EIS 2005
N9	Moone/Timolin/Ballitore	SC	6	Completed in 2000
N9	Bolton Hill	SC	4	N9 SC 4 Completed

Major Inter-Urban Routes

M50 Dublin Ring Road		Road Type	Length Km	Status
M50	Dublin Port Tunnel	M	6	Under construction
M50	Northern Cross Route	M	11	Completed in 1996
M50	Northern Cross Route Extension	SC	3	Completed in 1997
M50	2nd West Link Bridge (PPP)	Bridge	-	Completed in 2003
M50	Western Parkway	M	8.9	Completed in 1990
M50	Free Flow Slips	-	-	Completed in 2000
M50	Southern Cross Route	M	9	Completed in 2001
M50	Ballinteer/Wyckham	SC	4	Completed in 2001
M50	South Eastern Motorway	M	9.5	2005 completion
M50	Improvements Phase 1	M - extra lane both ways & Interchanges	5	2005 start subject to An Bord Pleanala approval
M50	Improvements - Phase 2	M - extra lane both ways & Interchanges	24	2006 start subject to (PPP) An Bord Pleanala approval

Other National Primary Roads

Routes to the Border / North-West:
N2 (Dublin/Monaghan/Omagh/Derry), N3 (Dublin/Belturbet/Enniskillen/Derry), N4 (Kinnegad to Sligo), N5 (Westport/Longford), N13, N14 and N15 (Sligo/Donegal/Lifford/Letterkenny/Derry), N16 (Sligo/Blacklion/Enniskillen/Dungannon/Larne), and N26 (Ballina/Foxford).

Schemes on the N2		Road Type	Length Km	Status
N2	Ashbourne Bypass/M50 Junc.	DC	17	Under construction
N2	Slane Bypass	STL	9	CPO/EIS to be published in 2005
N2	Ardee Bypass (N2/N52)	STL	9	CPO to be published in 2005
N2	Carrickmacross Bypass	STL	9	2005 completion
N2	Castleblaney Bypass	TPO	15	2005 Start
N2	Monaghan Town Bypass Phase 1	STL	2	2005 Start

Schemes on the M3/N3		Road Type	Length Km	Status
M3	Clonee/Kells (PPP)	M TPO	50 11	2006 Start
N3	Belturbet Bypass	STL	7	CPO/EIS to be published in 2005

Schemes on the N4		Road Type	Length Km	Status
N4	McNeads Bridge/ Kinnegad	DC	5	2005 completion
N4	McNeads Bridge - Mullingar	DC	5	Completed in 2001
N4	Mullingar - Rathowen	WTL	6	Completed in 2001
N4	Edgeworthstown Bypass	STL	4	2005 Start
N4	Longford-Drumsna (Dromod/Roosky)	Pilot TPO	11	CPO/EIS published in 2004
N4	Carrick-on-Shannon Bypass	STL	6	Preferred route identified
N4	Boyle/Carrick-on-Shannon (Rockingham to Cortober)	STL	3.3	Completed in 2004
N4	Curlew Mountains Road	SC	16.5	Completed in 1999
N4	Sligo Relief Road	DC	5	2005 completion

Schemes on the N5		Road Type	Length Km	Status
N5	Longford Bypass	STL	3.5	CPO to be published in 2005
N5	Scramoge to Cloonmore	STL	8	Completed in 2004
N5	Ballaghadereen Bypass	STL	14	CPO documentation under
N5	Charlestown Bypass	STL	18	2005 start
N5	Westport-Castlebar	WTL	15	EIS under preparation

Schemes on the N13/N14/N15		Road Type	Length Km	Status
N13	Bridgend - NI Border	WTL	3	Completed in 2002
N14/N13	Jn (Manorcunningham) /Lifford	STL	18.5	Preliminary Design Stage
N15	Ballyshannon/Bundoran	WTL	11	Under construction
N15	Clar/Barnesmore	STL	9	Completed in 2001
N15	Ballybofey/Stranorlar Bypass	TPO	16	CPO/EIS to be published in 2005
N15	Bunduff/Drowes River Co. Leitrim	STL	5.5	Completed in 2002
N15	Lifford/Stranorlar/Ballybofey	STL	17	Preferred route identified

Schemes on the N16		Road Type	Length Km	Status
N16	Manorhamilton Bypass	STL	8	Preferred route identified

Schemes on the N26		Road Type	Length Km	Status
N26	Ballina/Bohola (Phase 1)	STL	4.75	Completed in 2004
N26	Ballina/Bohola (Phase 2)	STL	18	CPO/EIS under preparation

The Western Corridor: Sligo/Limerick/Rosslare
N17 (Sligo-Claremorris-Tuam-Claregalway), N18 (Claregalway-Gort-Ennis -Limerick), N19 (Shannon), N24 (Limerick-Tipperary-Clonmel-Waterford) and N25 (Waterford-New Ross-Wexford).

Schemes on the N17		Road Type	Length Km	Status
N17	Collooney/Charlestown (split into three projects)			
N17	Annaghmore - Achonry	TPO	11	Preferred route identified
N17	Tobercurry Bypass	TPO	10	CPO/EIS to be published in 2005
N17	Rathscanlon - Curry	TPO	4	Preferred route identified
N17	Mayo Co. Boundary Milltown Bypass	WTL	10	Preferred route identified
N17	Tuam Bypass	TPO	5	CPO to be published 2005
N17	Charlestown Bypass	STL	5	Preferred route identified
N17	Knock/Claremorris Phase 1	STL	5.8	Completed in 2002
N17	Knock/Claremorris Phase 2	STL	10.3	Completed in 2002
N17	Galway - Tuam	DC	22	CPO/EIS to be published in 2005

Schemes on the N18/N19		Road Type	Length Km	Status
N18	Oranmore/Gort	DC	27	CPO/EIS to be published in 2005
N18	Gort/Crusheen Bypass	DC	22	CPO/EIS to be published in 2005
N18	Ennis Bypass	DC SC	14 7	Under construction
N18	Newmarket-on-Fergus BP	DC	6	Completed in 2002
N18	Hurlers Cross/N19 Shannon Access	DC SC	9 3	Completed in 2003

Schemes on the N24		Road Type	Length Km	Status
N24	Mooncoin Bypass	WTL	10	Preferred route Identified
N24	Piltown - Fiddown	Two Plus One retrofit	8	2005 start
N24	Carrick-on-Suir B/P	STL	17	Preliminary Design
N24	Clonmel/Cahir B/P	WTL	12	Preferred route identified
N24	Cahir/Bansha	STL	14	Preliminary Design
N24	Bansha/Tipperary/Oola	STL	20	Preliminary Design
N24	Bearys Cross	STL	3	Completed in 2001

Schemes on the N25		Road Type	Length Km	Status
N25	Rosslare Harbour Access Road	WTL	10	Preferred route identified
N25	Camaross	STL	8	Completed in 2002
N25	New Ross Bypass	STL	16	Preferred route identified
N25	Waterford City Bypass	HQ DC	18	2005 Start

Other Roads in the South & East
N11 (Wexford/Dublin), N20 (Limerick/Cork), N21 (Tralee/Limerick), N22 (Tralee/Killarney/Cork), N28 (Cork/Ringaskiddy), N30 (Enniscorthy/New Ross)

Schemes on the N11		Road Type	Length Km	Status
N11	Wyattville Interchange	DC	1	Completed in 2004
N11	Enniskerry Junction Improvements	Footbridge & Junction Improvements	1	2005 Start
N11	Glen of the Downs	DC	5	Completed in 2003
N11	Junction Improvements (Kilpeddar/Delgany)	I	1	Design Stage
N11	Rathnew/Ashford Bypass (NTM;Kennedy	DC	14	Completed in 2004
N11	Arklow Rathnew	DC	14	Awaiting An Bord Pleanala approval
N11	Arklow/Gorey Bypass	DC	23	2005 start
N11	Enniscorthy Bypass	WTL	21	Preferred route identified

Schemes on the N20		Road Type	Length Km	Status
N20	Blackpool Bypass	DC	2	Completed in 2001
N20	Mallow/Charleville/ Croom	DC	37	Preferred route identified
N20	Croom Bypass	WTL	6	Completed in 2001
N20	Patrickswell/Limerick	DC	11	Completed in 2001
N20	Mallow - Rathduff	TPO	9	2005 start
N20	Rathduff - Blarney	TPO	16	Tender process to commence in 2005

Schemes on the N21		Road Type	Length Km	Status
N21	Ballycarthy/Tralee	WTL	3	2005 completion
N2	Castleisland/Ballycarthy	WTL	10	Completed in 2001
N2	Castleisland Bypass	WTL	6	Preferred route determined
N2	Castleisland/Abbeyfeale	WTL	8	Under construction
N2	Abbeyfeale/Rathkeale	WTL	33	Preliminary Planning & Design
N2	Adare Bypass	WTL (possibility of TPO being investigated)	6	Preferred route to be announced in 2005

Schemes on the N22		Road Type	Length Km	Status
N22	Bealgreallagh/Gortatlea	WTL	4	Completed in 2002
N22	Tralee Bypass/Tralee/ Bealgreallagh	WTL	11	EIS/CPO to be published in 2005
N22	Gortatlea/Farranfore (I'veema)	WTL	4	Under construction
N22	Farranfore/Killarney	WTL	21	Preliminary Planning & Design
N22	Ballyvourney/Macroom (excluding Ballincollig Bypass)	WTL	30	CPO/EIS for Macroom Bypass section (17km) to be published in 2005
N22	Ballincollig Bypass	DC	12	Completed in 2004
N22	Cork Northern Ring Road	DC	14	Route corridor options displayed in 2004

Schemes on the N25 (see also the Western Corridor)		Road Type	Length Km	Status
N25	Kilmacthomas Bypass	WTL	9	Completed in 2001
N25	Dungarvan Outer Bypass	WTL	13	Preliminary Planning & Design
N25	Kinsalebeg	STL	3	2005 start
N25	Youghal Bypass	STL	6.2	Completed in 2003
N25	Cork Southern Ring Road Interchanges (Bandon Rd & Sarsfield Rd)	Junction Upgrade & widening	2	CPO/EIS approved in 2004
N25	Kinsale Road Interchange	Grade Separated	1	2005 start

Schemes on the N28		Road Type	Length Km	Status
N28	Ringaskiddy/Cork	DC	13	Preferred Route identified

Schemes on the N30		Road Type	Length Km	Status
N30	Enniscorthy/Clonroche	STL	5	Under construction
N30	Templescoby/New Ross	STL	15	Preliminary Planning & Design

APPENDIX 3

Grant Payments To Local Authorities - Improvements And Maintenance 2000-2004

Local Authority	Improvements	Maintenance	Improvements	Maintenance	Improvements	Maintenance	Improvements	Maintenance	Improvements	Maintenance
	2000		2001		2002		2003		2004	
	€	€	€	€	€	€	€	€	€	€
Carlow CC	8,044,520	438,882	4,532,286	583,796	2,689,571	700,487	2,053,108	590,324	2,218,399	601,892
Cavan CC	8,740,241	790,821	6,016,083	1,240,534	5,621,597	1,282,382	6,576,714	1,171,200	7,918,619	1,036,301
Clare CC	19,225,639	1,297,708	51,590,389	1,914,095	57,045,174	1,846,367	40,868,528	1,730,115	34,206,237	2,010,998
Cork City C	38,645,748	1,479,245	17,912,195	1,602,409	11,171,106	1,790,000	6,288,958	1,892,750	18,038,479	2,117,451
Cork CC	16,972,925	2,597,492	52,445,048	4,206,140	119,817,849	4,098,239	110,849,644	3,695,312	104,287,760	3,844,904
Donegal CC	19,876,328	1,847,259	17,490,670	2,294,932	9,054,269	3,285,770	9,054,269	3,285,770	25,135,062	2,448,331
Dublin CityC	3,027,949	853,264	94,592,879	1,022,076	139,495,032	858,444	197,785,623	1,040,000	124,827,649	1,145,000
DL Rathdown CC	101,405,128	243,790	136,323,429	410,125	110,122,982	456,146	155,270,141	515,641	131,470,272	530,638
Fingal CC	15,906,311	620,902	61,599,485	1,119,592	76,345,291	1,074,224	69,787,218	1,686,000	8,542,140	1,442,600
Galway CityC	1,472,019	220,768	1,800,193	272,994	0	339,446	683,920	353,300	960,262	374,954
Galway CC	10,852,379	2,435,973	13,601,709	3,045,879	16,069,886	3,706,942	13,911,089	3,115,376	15,089,286	3,390,361
Kerry CC	15,123,761	1,980,543	23,670,657	3,127,872	18,073,658	3,091,166	14,134,727	2,916,170	19,575,198	3,021,725
Kildare CC	22,517,058	1,309,054	38,654,780	1,762,117	86,818,729	1,794,768	102,483,970	1,730,000	120,277,949	1,823,100
Kilkenny CC	12,355,758	969,241	19,886,555	1,668,718	12,788,899	2,081,174	17,547,977	1,944,613	13,254,109	1,716,097
Laois CC	4,951,067	1,073,454	7,042,540	1,601,428	8,361,335	1,960,837	8,751,848	1,482,607	12,460,904	1,269,561
Leitrim CC	3,789,858	351,554	5,377,932	469,121	5,863,409	352,519	2,862,665	457,321	4,449,139	490,891
Limerick CityC	932,764	219,328	1,682,419	336,752	3,263,018	340,000	1,953,418	430,104	453,500	472,647
Limerick CC	51,832,792	1,181,121	53,178,196	1,424,369	53,580,698	1,518,000	33,537,964	1,284,933	28,654,065	1,687,560
Longford CC	1,662,608	676,911	2,063,921	961,227	3,164,947	736,755	5,017,809	622,912	4,965,515	665,544
Louth CC	51,655,528	962,746	18,856,032	1,449,255	11,854,382	1,381,608	9,540,307	1,236,349	7,323,715	1,218,916
Mayo CC	16,773,462	2,111,082	28,919,090	3,673,293	26,253,754	3,340,909	16,026,625	3,659,683	25,272,252	3,062,282
Meath CC	54,100,288	1,153,054	90,932,138	1,815,936	107,029,818	1,761,495	52,485,011	1,508,303	91,713,171	1,728,281
Monaghan CC	3,275,708	703,435	10,062,933	903,441	4,559,067	764,636	11,920,262	798,689	32,489,846	850,403
North Tipperary CC	15,275,694	842,405	15,807,171	1,181,613	6,512,469	1,273,368	4,827,279	1,209,099	3,500,619	1,381,325
Offaly CC	1,911,645	713,859	3,268,623	1,025,547	2,351,961	862,231	3,027,267	886,053	3,123,072	1,069,092
Roscommon CC	15,078,138	1,484,324	12,296,992	2,609,310	16,475,680	2,552,661	15,422,987	2,149,823	17,789,017	1,963,444
Sligo CC	6,044,358	937,166	9,187,600	1,343,135	11,941,190	1,178,000	13,205,970	1,312,609	25,943,552	1,349,441
South Dublin CC	9,511,565	542,178	1,960,427	901,971	3,427,093	999,500	6,670,641	1,213,748	9,037,208	1,112,210
South Tipperary CC	5,735,905	962,995	11,109,999	1,295,372	7,324,568	1,681,598	28,663,772	2,425,802	24,228,241	1,278,758
Waterford CityC	6,984,952	156,178	6,414,840	158,716	9,385,209	171,000	17,595,356	299,100	20,651,613	353,448
Waterford CC	14,312,488	558,431	12,696,746	957,002	3,402,971	625,793	1,658,825	456,222	2,190,872	1,072,192
Westmeath CC	21,862,030	1,081,356	16,191,492	1,781,985	37,772,950	1,755,636	27,307,294	1,507,300	35,085,444	1,445,755
Wexford CC	8,934,414	943,276	16,110,857	1,352,439	11,673,717	1,081,932	8,109,033	1,258,869	7,897,903	1,358,132
Wicklow CC	19,338,546	667,108	24,218,580	983,828	59,288,421	820,335	92,946,064	838,248	75,661,074	1,053,628

CC - County Council CityC - City Council DL - Dun Laoghaire

2005 Allocations - Local Authority Totals

Local Authority	Improvements	Maintenance
	€	€
Carlow CC	2,195,000	609,984
Cavan CC	11,753,985	1,053,421
Clare CC	62,216,000	1,943,476
Cork City C	29,204,500	2,383,000
Cork CC	65,576,000	4,257,826
Donegal CC	46,754,000	2,481,743
Dublin CityC	151,138,750	1,165,000
DL Rathdown CC	35,250,000	574,400
Fingal CC	8,560,000	1,464,988
Galway CityC	775,000	516,000
Galway CC	34,176,800	3,282,311
Kerry CC	31,995,000	3,066,254
Kildare CC	122,885,000	2,146,219
Kilkenny CC	26,145,000	1,811,832
Laois CC	53,699,000	1,697,285
Leitrim CC	4,165,000	498,530
Limerick CityC	550,000	538,000
Limerick CC	37,592,500	1,844,042
Longford CC	11,030,000	798,076
Louth CC	35,222,764	814,132
Mayo CC	13,574,000	3,036,220
Meath CC	89,176,321	1,608,839
Monaghan CC	27,979,000	863,439
North Tipperary CC	4,283,000	1,342,438
Offaly CC	2,258,000	1,005,192
Roscommon CC	7,546,000	1,981,259
Sligo CC	22,695,000	1,380,268
South Dublin CC	23,783,750	1,227,560
South Tipperary CC	23,083,000	1,350,896
Waterford CityC	15,853,000	331,000
Waterford CC	6,793,000	787,741
Westmeath CC	110,193,000	1,591,080
Wexford CC	28,848,000	1,469,286
Wicklow CC	29,449,000	1,112,760