



Comhairle Contae Thiobraid Árann
Tipperary County Council

N24 Knockagh Pavement Improvement Scheme

Part 8 Report

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An Roinn Iompair
Department of Transport



Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Contents

1. Introduction	3
2. Project Location	3
3. Background	4
4. Planning Policies	4
Local Policies	4
National Policies.....	5
5. Issues to be Addressed by the Proposed Development	6
Asset Maintenance	6
Collision Rating.....	6
Alignment Geometry.....	6
6. Nature and Extent of The Proposed Development.....	6
N24 Carriageway	6
L3167 – Loughlore Road.....	8
L3159 – Fethard Road	8
7. Environment.....	8
8. Utilities	11
9. Construction Stage.....	11
Noise and Vibration	11
Traffic Management	11
Reuse and Disposal of Materials.....	11

1. Introduction

This report is prepared in accordance with Article 80 of the Planning and Development Regulations, 2001, as amended. In accordance with those Regulations, a Local Authority proposing a prescribed class of development must prepare a document and drawings describing the nature and extent and principle features of the development and make it available for public inspection.

This report shall outline the nature and extent and principle features of the proposed N24 Knockagh Pavement and Road Safety Improvement Scheme. Drawings showing the proposed development are attached to this report.

The development will involve the reconstruction and strengthening of the road pavement, introduction of new footpaths and cycle paths, replacement of road markings, better definition and kerbing of junctions, reduction of carriageway widths and relocation of existing safety barriers, placement of new safety barriers, drainage works and landscaping.

The scheme will commence at the Knockagh Roundabout on the N24 and extend 1.185km east towards Clonmel.

Planning approval is required for this proposed development in accordance with Part 8 of the Planning and Development Regulations, 2001-2022, as amended (the Regulations). This part of the Regulations relates to Requirements In Respect Of Specified Development By, On Behalf Of, Or In Partnership With Local Authorities.

Article 80(1)(b)(ii) is the relevant sub-clause of the Regulations, which states:

80. (1) Subject to sub-article (2) and sub-section (6) of section 179 of the Act, the following classes of development, hereafter in this Part referred to as “proposed development”, are hereby prescribed for the purposes of section 179 of the Act —

(b) the construction of a new road or the widening or realignment of an existing road, where the length of the new road or of the widened or realigned portion of the existing road, as the case may be, would be—

- (i) in the case of a road in an urban area, 100 metres or more, or
- (ii) in the case of a road in any other area, 1 kilometre or more,

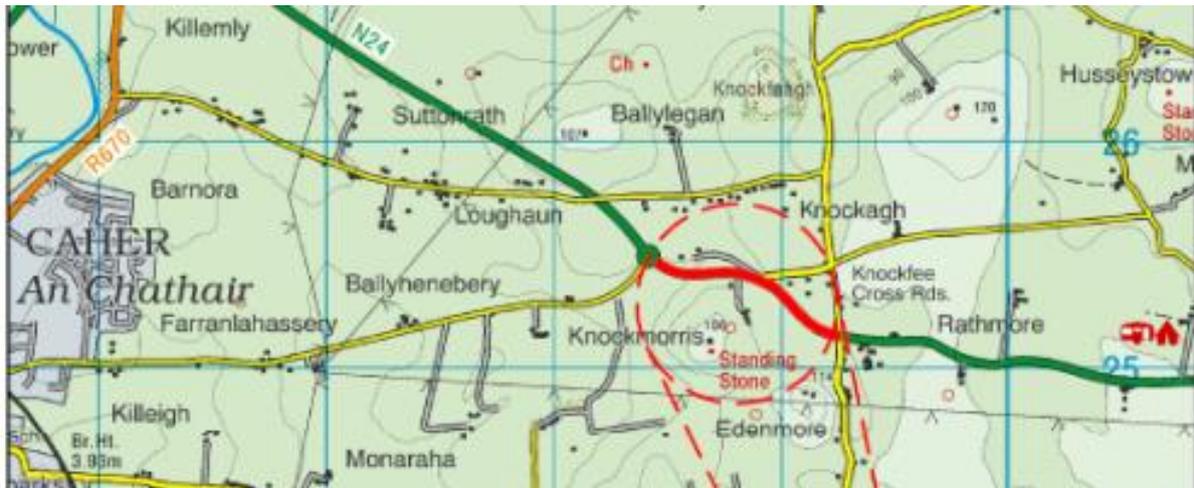
2. Project Location

The N24 is a National Primary Road between Waterford and Limerick passing through or close to the major towns of Carrick on Suir, Clonmel, Cahir and Tipperary.

The proposed scheme is approximately 10km to the west of Clonmel and 3.5km east of the M8 Junction 10. The scheme commences at Knockagh Roundabout, the junction of the N24 with Regional Road R640, and extends 1,185m east towards Clonmel, ending at a point 300m east of Local Road L3167, Loughloher Road. The proposed scheme is contained within the townlands of Knockagh, Knockmorris and Rathmore.

Transport Infrastructure Ireland (TII) are the National body responsible for managing and improving the country’s National Roads. This project is being funded through the TII Pavement Asset Repair and Renewal programme which provides allocations to Local Authorities for such works. TII develop and

maintain the technical standards for the design of such schemes. As the Road Authority for County Tipperary this project is being developed by Tipperary County Council.



3. Background

Following surveys of the pavement condition, TII identified this section of the N24 as a section of road that requires pavement strengthening and surface rehabilitation.

In addition, the site was identified by TII as a High Collision Location 'N24TY_061.7 Knockagh' following a number of accidents over recent years.

Various safety treatment proposals were identified following an analysis of the collision data and the existing site conditions to reduce the frequency of all collision types.

Tipperary County Council have prepared a proposed preliminary design for this pavement scheme which includes adjustment to the existing road geometry without requiring the acquisition of private land.

It is proposed to combine the safety treatment proposals and the pavement strengthening as a single scheme.

The proposed improvements outlined at this location are being considered in the context of future proposals for the N24. The N24 Cahir to Waterford Major Scheme is currently being developed for this route with Route Options having been presented on public display in May of 2022. It is considered that this proposed scheme would be required in addition to the Major Scheme.

4. Planning Policies

Local Policies

Tipperary County Council have published its County Development Plan, 2022-2028 (CDP) which came into operation on 22nd August, 2022. The CDP notes the importance of the N24 National Route in providing inter regional connectivity. It is the strategic link connecting the Shannon Foynes Port with the Port of Waterford and Rosslare Europort. Whilst planning is currently underway for new Major Schemes, N24 Cahir to Limerick and N24 Waterford to Cahir, the CDP includes a key aim (Transport Policy 12-4) to protect the safety, capacity and efficiency of Tipperary's roads network, which would

include maintenance and safety improvement of the existing N24 where deficiencies have been identified.

The CDP also recognises the objective of providing safe facilities for vulnerable road users such as pedestrians and cyclists. Transport Planning Objective 12-G includes the goal to implement improvements to facilitate pedestrians and cyclists and to improve access for people with mobility needs. This is achieved by the Proposed Development through the provision of pedestrian and cycling facilities separated from vehicular traffic.

Transport Objective 12-K includes the aim to Work in partnership with Transport Infrastructure Ireland and the Department of Transport, to support the delivery of the Strategic Roads projects as outlined in the Plan, and to continue to support the Strategic Roads Projects in line with National, Regional and Local transport needs and priorities. The Proposed Development complies with this objective in providing safety measures to attempt to reduce the incidence and severity of outcome at a high accident location, and to maintain the National Road to the required standards.

National Policies

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of Ireland and forms part of Project Ireland 2040. Project Ireland 2040 seeks to achieve ten National Strategic Outcomes (NSO). Of these the following are most relevant to the Proposed Development:

- Enhanced Regional Accessibility;
- Strengthened Rural Economies and Communities;
- Sustainable Mobility.

NSO 2 of the NPF includes the objective to maintain the strategic capacity and safety of the national roads network. In addition, Chapter 7 'Enhanced Regional Accessibility' of the NDP sets out the key sectoral priority of maintaining Ireland's existing national road network to a robust and safe standard for users.

The above requirements are also reflected in the National Investment Framework for Transport in Ireland (NIFTI) and the National Sustainable Mobility Policy as well as existing Statutory Section 28 Ministerial Guidelines 'Spatial Planning and National Roads Guidelines for Planning Authorities' (DoECLG, 2012).

The Strategic Investment Framework for Land Transport (SIFLT), which was published by the Department of Transport, Tourism and Sport, outlines the key principles against which national and regional, comprehensive and single mode-based plans and programmes will be drawn up and assessed. The framework does not set out a list of projects to be prioritised, but rather identifies priorities in terms of capital investment. Priority 1 is to achieve steady state maintenance, which includes Asset Management, Network Rehabilitation and Network Operations. The objective of this priority is to maintain the asset value, reliability and functionality of the network. The Proposed Development is an example of how this is achieved for the existing network. This priority is achieved through the TII Pavement and Asset Repair and Renewal (PARR) programme.

The EU Directive on Road Infrastructure Safety Management (EU RISM) was transposed into Irish Law through S.I No. 472 of 2011. EU RISM provides a system for managing the safety of national road networks. This legislation is implemented in Ireland through TII's Network Safety Analysis to identify sections of routes or specific locations on the National Road network that have a high concentration of collisions. Once identified, schemes are developed in accordance with TII technical standards and approvals processes to mitigate safety issues.

5. Issues to be Addressed by the Proposed Development

Asset Maintenance

The condition of the existing road is deteriorating. This section of road is demonstrating signs of structural failure of the pavement surface through potholing, cracking and loss of surface texture. Testing of the road pavement has confirmed the visual assessment. If these issues are not addressed then the deterioration will accelerate resulting in more costly repairs and maintenance. The Proposed Development will provide a pavement structure that will be durable over the next twenty years. The surface texture may need maintenance treatment over that period to maintain skid resistance.

Collision Rating

The Collision Rate is the ratio between the number of collisions for a length of road and frequency of vehicles that travel over that same road length. Collision Rates are calculated using all fatal, serious and minor injury collisions. This section of the N24 has a collision rating of twice above the average rate. Specifically, the section on approach to the roundabout at Knockagh has been identified as a High Collision Location, that is it has had three or more collisions over three years. The Proposed Development will introduce a more defined carriageway, junctions, property entrances and will reduce existing hazards.

Alignment Geometry

The existing road crossfall is inadequate for the existing curve radii. The crossfall, or superelevation, is required to prevent a vehicle travelling at, or below, the Design Speed from experiencing excessive sideways force to enable it to remain on the road. The Proposed Development will provide superelevation for a vehicle travelling at the appropriate speed.

6. Nature and Extent of the Proposed Development

N24 Carriageway

The Proposed Development is approximately 1.2km in length. It commences at the Knockagh Roundabout situated at the junction of the N24 with the R640, extending 1.2km east towards Clonmel, ending at a point 300m east of Local Road L3167, Loughloher Road. The proposed scheme is contained within the townlands of Knockagh, Knockmorris and Rathmore. The Proposed Development is shown on the following drawings that accompany this Report:

Drawing Title	Drawing Number
General Arrangement – Sheet 1 and 2	N24-Knockagh -GA1 & GA2
Project Location Plan	N24-Knockagh-000-001
Scheme Layout	N24 – Knockagh – 000-002
Plan and Profile - Sheet 1 and 2	N24-Knockagh-100-001 & 102
Drainage – Sheet 1 and 2	N24 – Knockagh – 500- 001 & 002
Cross Sections	N24-Knockagh - Sections
Safety Barrier and Fencing – Sheet 1 and 2	N24-Knockagh-400-001 &002
Timber Post and Tension Mesh Fence	CC-SCD-00321

In summary the proposed works include:

- Reconstruction of the road pavement,
- Introduction of new footpaths and cycle paths,

- Replacement of road markings,
- Better definition and kerbing of junctions,
- Reduction of carriageway widths and relocation of existing safety barriers,
- Placement of new safety barriers,
- Associated drainage Works,
- Landscaping.

These Works are described further below.

The existing carriageway from Knockagh Roundabout to Local Road L-3159 consists of a single carriageway with two 3.65m wide traffic lanes, 2.5m wide hard shoulders on each side and verges of varying width. From the eastern side of the L-3109 junction the N24 carriageway reduces abruptly to a narrow single carriageway comprising 3.25m traffic lane widths, with 0.3m wide hard shoulders on each side and narrow or no verges. The horizontal alignment is made up of substandard radii resulting in reduced sight distances. In addition, there is insufficient superelevation (crossfall) on the bends for the operational speed of the road.

This section of road is recorded as carrying an average annual daily traffic flow (AADT) of 11,000 vehicles, of which 8% are Heavy Goods Vehicles. There are limited overtaking opportunities due to the proximity of the roundabout and the curve radii. The posted speed limit is 100kph.

Analysis of the collision data identified clusters at 3 locations: on Knockagh Roundabout, on the first bend east of the roundabout and at the bend between Local Roads L-3109 and L-3117.

The scheme involves planing out sections of the existing legacy N24 mainline and replacing it with new bituminous surfacing. There will also be reprofiling of the carriageway cross section to improve areas of sub-standard superelevation (crossfall). Some minor realignment will also be introduced to improve the substandard radii. The realignment will remain within the existing road boundaries.

It is proposed to introduce a Shared Footway/Cycleway facility for vulnerable road users on both the north and south sides of the carriageway from the L3159 Fethard Road to the Knockagh Roundabout, approximately 450m on either side. A crossing will also be facilitated at the eastern island of the Knockagh Roundabout which will be widened to provide refuge for pedestrians and cyclists. A safety assessment carried out by the Regional Road Safety Engineer has recommended the removal of the existing wide hard shoulders at this location to reduce collisions and to allow construction of a shared footway/cycleway within the newly widened verges.

The proposed removal of the hard shoulder will require modification of the entrances of two properties on the north carriageway of the N24. The installation of kerbing and grass verges will result in a defined entrance to these properties providing them with off road parking.

The existing road markings at the junctions of local roads will be replaced on the new road surface.

The main surface water collection will be provided by the existing drainage systems of predominantly over the edge with short sections of filter drains and kerb and gully which will discharge at suitable outfall locations.

It is proposed to outfall road drainage to the existing N24 drainage network. There is an existing attenuation pond to the south west of the scheme which was constructed as part of the M8 Motorway works. There are no streams or rivers within the area. There will be no material change to the amount of existing water runoff from the proposed development to the outfall.

New safety barriers are to be provided along the scheme, east of Knockagh Roundabout. The requirement for safety barriers has been determined in accordance with the requirements of Transport Infrastructure Ireland (TII) Standards.

The Safety Barrier Assessment undertaken has identified the requirement for new vehicle restraint systems at:

- Ch 600m – Ch 950m, westbound, due to level difference between the N24 and the adjacent field and large tree in hedgerow, curve radius 314m, no hard shoulder present currently.
- Ch 1+000m – CH 1+100m, westbound, due to level difference between the N24 and the adjacent field and large tree in hedgerow, curve radius 314m, no hard shoulder present currently.

The first location is where vehicles have been observed to cross the hedgerow and enter the adjacent field which is at a lower level than the road.

The existing safety barrier located on the eastern exit of the Knockagh Roundabout will be relocated in line with the modified carriageway edge.

[L3167– Loughloherly Road](#)

Due to the introduction of superelevation on the N24 at the junction with the L3167 Loughloherly Road at Chainage 960m, there will be some regrading of the latter. This will take place over a distance of approximately 100m. Along this length there are accesses to a number of properties. These will require minor regrading of the entrance to tie into the modified L3117. This regrading to the entrances will be minor and will not encroach into the properties themselves.

[L3159 – Fethard Road](#)

The hardshoulder will be removed from the N24 in the location of the N24/L3159 junction. This is as recommended by the Regional Road Safety Engineer to address the high frequency of accidents at this location. The junction will be defined through the use of new kerbing and grassed areas. Provision is made for off road parking at the property fronting onto the N24 at Chainage 550m

[7. Environment](#)

The scheme was subject of screening to ascertain whether an Appropriate Assessment (AA) or an Environmental Impact Assessment Report (EIAR) was required under the relevant Legislation. An Appropriate Assessment is an assessment of the potential adverse effects of a plan or project (in combination with other plans or projects) on Special Areas of Conservation and Special Protection Areas. These sites are protected by National and European Law.

An Environmental Impact Assessment Report is a report of the effects, if any, which the proposed project, if carried out, would have on the environment. It is prepared by the developer to inform the EIA process.

The site is located approximately 2.5km from the Lower River Suir Special Area of Conservation (SAC), Site reference 2137. This is shown in figure 1 obtained from the National Parks and Wildlife Service online mapping system:

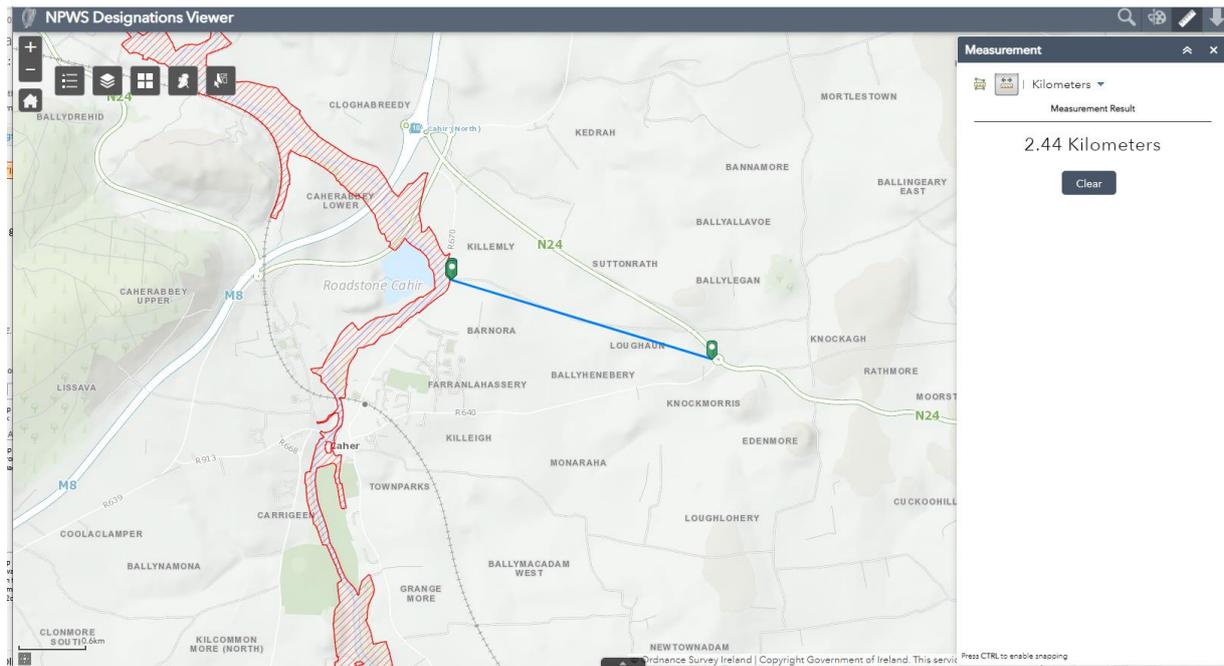


Figure 1: Lower River Suir SAC (Site Code 2137)

(<https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=8f7060450de3485fa1c1085536d477ba>.)

Following a screening process carried out by qualified ecologists, it was determined that this scheme would not have any potential adverse effects on the SAC and therefore neither an AA or EIAR was required to be prepared. Copies of these screening reports are included in the Appendices to this Report.

Any person may make an application to An Bord Pleanála to determine whether or not development proposed by a local authority requires the carrying out of appropriate assessment. Where a member of the public wishes to appeal the findings of the AA Screening Report they may make an application under Part XAB of the Planning and Development Act to An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902.

Two proposed Natural Heritage Areas (pNHA) are located to the West and to the South West of the scheme, both comprising woodland habitats. There is no connectivity between the proposed development and these sites. These sites are indicated in Figure 2 below.

the construction of culverts underneath the N24 taking flood waters to an attenuation pond located adjacent to the R640. Storm drainage and a wide drain was constructed along the northern verge of the N24 to take water to the culvert. There is no recent record of flooding in this area since those works were put in place. The proposed works do not change this drainage system which will continue to operate.

8. Utilities

Utility companies were contacted to identify existing or proposed apparatus within the footprint of the Proposed development. Existing utilities identified at this location include watermains, overhead power lines and overhead and underground telecom lines. It is proposed to provide ducting to underground cables and allow the removal of a number of poles currently located at the roadside.

A 250mm diameter water main is located in the verge of the N24. This watermain crosses the existing N24. This watermain was located by excavating trial pits to confirm it's depth of 1.2m below existing ground. At this depth the watermain will not be interfered with by the proposed scheme.

An 80mm water main is located on the Loughlore Road and crosses the N24. This passes through the lands opposite on the route of an extinguished public road. This main will not be affected by the proposed scheme.

9. Construction Stage

Noise and Vibration

During the construction stage the Contractor will be required to submit a Construction Environmental Management Plan (CEMP). This will require them to ensure environmental impacts from noise and vibration from construction operations are kept within contractual limits. It will also include measures for the management and disposal of waste arising from the construction stage.

Traffic Management

Temporary Traffic Management measures will be required during the construction stage of the Proposed Development. A detailed Temporary Traffic Management Plan (TTMP) will be prepared by the appointed Contractor for submission and approval by Tipperary County Council and An Garda Síochana. Whilst it is intended to maintain traffic flows on the N24 during the construction stage there may be operations that require short term road closures. In that event any proposed closure will be subject to a Statutory Process of public notification and submission. These will be advertised as required under the Road Regulations. These closures, if required, will be kept to a minimum and will only be allowed if there is no alternative and on the basis of safety of the public and of workers.

Reuse and Disposal of Materials

In order to promote sustainable waste management and the 'Circular Economy', it is proposed that site won material will be reused or recycled, in accordance with the relevant regulations and technical specifications, to reduce the creation of waste and use of natural resources. Suitable materials from arisings on other road construction sites developed or maintained by Tipperary County Council may also be used subject to compliance with relevant regulations.

Where material is unsuitable for reuse or is surplus to the requirements of the construction Works, it will be disposed of to licensed sites by licensed hauliers in compliance with contractual obligations.

APPENDIX 1

ENVIRONMENTAL SCREENING REPORTS