Transport Infrastructure Ireland

Road Infrastructure Safety Management – TII Implementation of the RISM Directive

June 2026

CONTENTS

1	Introduction	1
2	Road Infrastructure Safety Management Directive	3
3	Road Safety Impact Assessment	5
4	Road Safety Audits	6
5	Road Safety Inspections	7
6	Network Safety Analysis	8
7	Network-wide Road Safety Assessment	9
8	Temporary Safety Measures Inspections	10
9	References	11

1 Introduction

1.1 General

This document outlines the requirements for the implementation of the Road Infrastructure Safety Management (RISM) Directive in the management of the Irish National Road infrastructure. It describes the roles and responsibilities of those engaged in the management of road safety and it outlines the approach to be followed to address the requirements of the EU Directive 2019/1936, which amended Directive 2008/96/EC on road infrastructure safety management, and its transposition into Irish Law under the European Communities (Road Infrastructure Safety Management) Regulations S.I 612 of 2021.

1.2 Scope

This document sets out the approach required to implement the RISM Directive on National Roads. The objective of this document is to ensure that the requirements of the RISM Directive are fully considered for implementation on National Roads.

1.3 Glossary of Terms

The Authority:

For National Roads, the Authority is Transport Infrastructure Ireland (TII).

Director:

TII Head of Road Safety.

High Collision Location:

A site on the network which exceeds two thresholds, based on collision frequency and collision rate.

Inspection Team:

An Inspection Team appointed by the Authority which consists of a minimum of two Inspection Team Members, one of whom is also approved as a Road Safety Audit Team Leader.

National Road:

A public road or a proposed public road which is classified as a national road under section 10 (amended by section 11 of the Act of 2007) of the Act of 1993 (Roads Act).

National Primary Road:

A road which is a major long-distance through route linking principal cities, large towns, ports and airport, which serves major geographical regions and a high percentage of the total population, prescribed by the Minister in regulations made under section 10(2)(a)(i) of the Act of 1993 (Roads Act).

Network Safety Analysis:

A means of classifying parts of the existing road network according to their potential for safety development.

Network-Wide Road Safety Assessment:

The evaluation of accident and impact severity risk, based on an analysis of high accident concentration sections and a visual examination of the in-built safety of the national road network.

RISM Directive:

Directive (EU) 2019/1936 of the European Parliament and of the Council of 23 October 2019, amending Directive 2008/96/EC on road infrastructure safety management.

Road Authority:

Means a road authority within the meaning of the Act of 1993 (Roads Act).

Road Operator

A company undertaking construction, maintenance or operation of a National Road under a contract agreement with the Authority, and in circumstances where direct responsibility for the construction, maintenance or operation of the section of road has been transferred to the company. A Road Operator may be appointed under a Public Private Partnership or other form of contract with the Authority.

Road Safety Impact Assessment:

A strategic comparative analysis of the impact of a new road or a substantial modification to the existing road network on the safety performance of the road network.

Road Safety Audit:

The evaluation of a road scheme during planning, design, construction and early operation, to identify potential safety hazards which may affect any type of road user, and to suggest measures to eliminate or mitigate those problems.

Road Safety Review Report:

A data collection and analysis process to collate, assess and record the current road safety conditions associated with a National Road project.

Targeted Road Safety Inspection:

A targeted investigation to identify hazardous conditions, defects and problems that increase the risk of accidents and injuries, based on a site visit of an existing road or section of road.

Temporary Safety Measure:

The temporary traffic management used at work sites on public roads to warn, instruct and guide road users in a safe progression through or around a work site.

TII Road Safety Engineering Team

A team within the Authority capable of assessing the problems identified in a Road Safety Inspection and capable of making and reviewing recommendations to the Authority in respect of remedial measures necessary to address the issues raised.

Trans-European Transport Network (TEN-T):

A European Union initiative to develop a unified, multimodal transport infrastructure network comprising railways, roads, ports, airports and inland waterways. It prioritises sustainability, cross-border connectivity and digitalization, with clear targets for completion.

2 Road Infrastructure Safety Management Directive

The Road Infrastructure Safety Management Directive (Directive 2008/96/EC, amended by Directive (EU) 2019/1936) is key European Union legislation aimed at reducing road fatalities and serious injuries by systematically managing the safety of road infrastructure on the TEN-T and National Primary Road network.

The directive includes requirements to embed safety considerations within the entire lifecycle of national road infrastructure, from planning (Road Safety Impact Assessment) and design (Road Safety Audit) to construction, operation, and maintenance (Road Safety Inspections, Network Safety Analysis Temporary, Safety Measures Inspections and Network-wide Road Safety Assessment).

Figure 2.1 TII Methodology for the Implementation of the RISM Directive

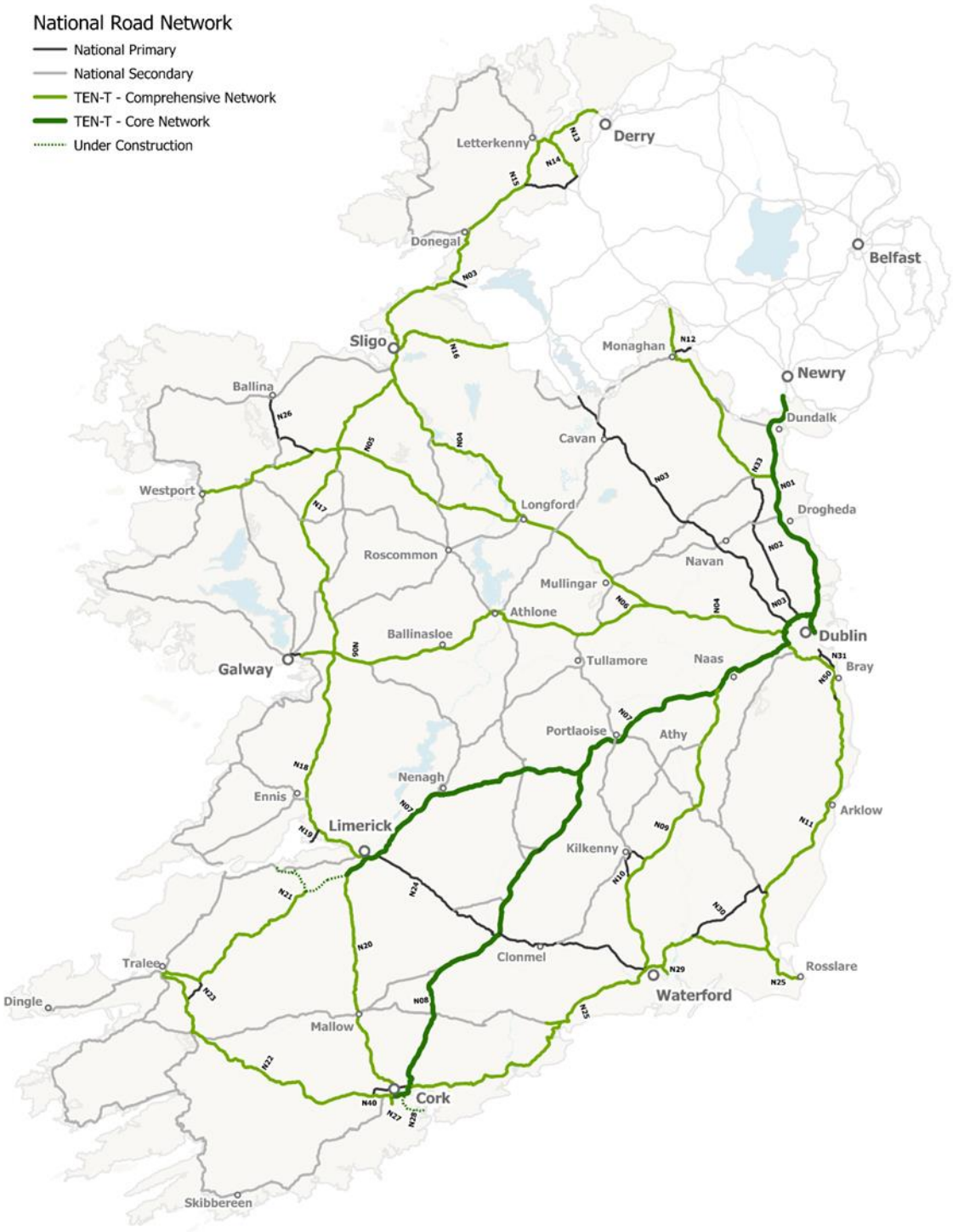

Figure 2.2 The Irish National Road Network

3 Road Safety Impact Assessment

A Road Safety Impact Assessment (RSIA) assesses the implications on road safety of different alternatives of a project and indicates the road safety considerations which contribute to the choice of the proposed solution.

3.1 Projects to be Assessed

A RSIA is required on projects which result in a substantial modification to the existing National Road network. These projects include:

- major projects, as defined in PE-PMG-02041 Project Management Guidelines (PMG),
- road schemes with multiple routes and/or junction options,
- active travel projects with multiple routes and/or junction options,
- a commercial or private development which exceeds the thresholds for a Traffic and Transport Assessment, as described in PE-PDV-02045 Traffic and Transport Assessment Guidelines.

3.2 RSIA Management

For projects affecting National Roads, the completion of the following shall constitute the completion of a RSIA:

- Road Safety Review Report (as required by TII Publication PE-PMG-02042),
- Stage F Part 1 Road Safety Audit (as required by TII Publication GE-STY-01024), and
- A Cost-benefit Analysis Report (regarding the safety benefits that shall accrue for each option).

A Road Safety Review is a data collection and analysis process at initial project development to collate, assess and record the current road safety conditions associated with a National Road project, or projects affecting National Roads, and is prepared in TII Project Phase 1 (Concept and Feasibility).

The RSRR should be included in the Stage F Road Safety Audit Brief and provided to the Independent Road Safety Audit (RSA) Team in TII Project Phase 2 (Options Selection), to comprehensively inform the RSA Team of the current road safety conditions of the project study area. The RSA Team will use the RSRR to understand the existing collision history, noting any patterns in the collisions. The design team should meet with the Stage F Road Safety Audit Team to review the findings of the RSRR and the Stage F Road Safety Audit (Part 1) before the completion of the Option Selection Safety Appraisal in TII Project Phase 2 (Options Selection). The Options Selection Safety Appraisal will summarise the findings of the documents listed above.

The Project Manager for the Road Authority shall submit, for review and comment, the draft Road Safety Impact Assessment to TII Road Safety via infosafety@tii.ie. TII Road Safety shall liaise with the Project Manger regarding the draft report.

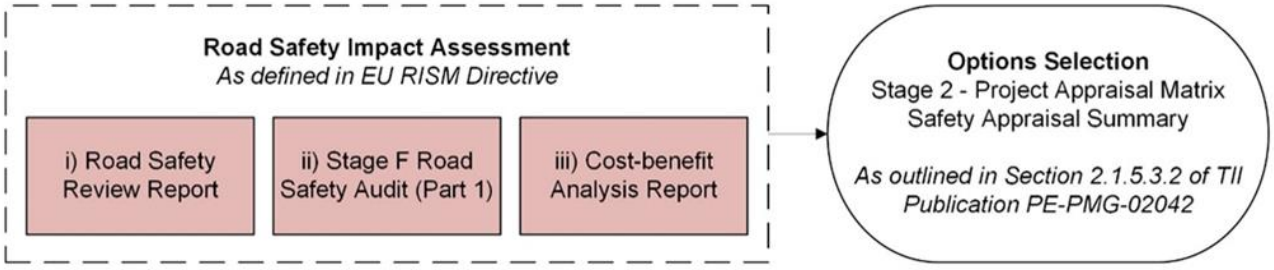

Figure 3.1 Road Safety Impact Assessment - Simplistic Model

4 Road Safety Audits

A Road Safety Audit is the evaluation of a road project during planning, design, construction and early operation, to identify potential safety hazards which may affect any type of road user, and to suggest measures to eliminate or mitigate those problems.

4.1 Projects to be Audited

A Road Safety Audit is required on any piece of road infrastructure which requires a design.

Refer to TII Publications GE-STY-01024 Road Safety Audit and GE-STY-01027 Road Safety Audit Guidelines for further information in relation to road safety audit requirements on National Roads.

4.2 Road Safety Audit Stages

Road safety audits are completed at specific stages in the preparation of a scheme. These stages are:

- Stage F: Options selection - prior to route choice,
- Stage 1: Completion of preliminary design,
- Stage 2: Completion of detailed design - prior to tender of construction contract,
- Stage 1 & 2: Completion of detailed design, prior to tender of construction contract, for small schemes where drawings suitable for a Stage 2 audit are available,
- Stage 3: Completion of construction,
- Stage 4: Early operation at 2 to 4 months' post road opening with live traffic.

4.3 Audit Team

For National Road Schemes and schemes affecting National Roads, the client shall register the scheme and each audit on the TII Road Safety Audit Approvals System (RSAAS) at https://web.tii.ie/rsa. Before each audit is carried out the client shall receive approval of TII through the RSAAS of the audit team.

4.4 Audit Report

For each stage of audit, the audit team shall prepare a written report for the client, who shall copy the report to the designer. The client, in consultation with the designer, shall act on the recommendations contained in the report.

4.5 Audit Completion

The audit stage is completed when:

- the Feedback Form has been accepted and signed by all three parties, and
- completion of the audit stage has been accepted by TII on the RSAAS portal.

The client shall ensure that all agreed recommendations from the Road Safety Audit are implemented.

5 Road Safety Inspections

Road Safety Inspection (RSI) is a pro-active process that seeks to identify potential safety defects on the National Road network and enable countermeasures to be provided prior to a safety incident occurring.

5.1 Roads to be Inspected

Road Safety Inspections shall apply to all National Roads, excluding:

- road works which are inspected in accordance with TII Publication CC–STY–04002, Temporary Safety Measures Inspection,
- road tunnels. RSIs on sections of the National Road Network adjoining road tunnels of the Trans-European Road Network are completed by the relevant Road Operator at a maximum interval of 6 years in accordance with Directive 2004/54/EC.

5.2 Scope of the Road Safety Inspection

The primary purpose of a RSI is to identify issues relating to road safety, it is not a check of compliance with design standards. The RSI shall only consider those matters that have an adverse bearing on road safety under normal operating conditions.

5.3 Road Safety Inspection Management

The Authority is responsible for initiating the Road Safety Inspection, providing a brief to the Inspection Team and for ensuring that the RSI is repeated at a sufficient frequency to safeguard adequate safety levels for the road infrastructure in question. Regular RSIs are an essential tool to identify road safety issues in order to remove possible dangers and prevent collisions for all road users.

5.3.1 Inspection Team

The Authority shall appoint an Inspection Team, consisting of a Team Leader and at least one other Team Member.

The inspection is intended to be a fresh, independent look at the road. It is not recommended that the Inspection Team be accompanied by representatives of the Road Authority and/or Road Operator. In addition, individuals who have had a role in the design or maintenance of the route, within a five-year period prior to the inspection, are not eligible to participate.

5.3.2 Site Visits

A site visit, in both directions of travel, shall be carried out by all members of the Inspection Team together during both the hours of daylight and darkness. This shall include separate journeys for the route mainline intersecting roads and overbridges.

5.3.3 Inspection Data

The inspection data shall be issued to the Authority by the Inspection Team in the specified format.

5.3.4 Implementation Phase

Priority items for intervention are identified by the TII Road Safety Engineering Team and provided to the relevant Road Authority or Road Operator for further assessment and implementation. Additional items identified by Road Authorities may be considered as part of the implementation phase.

6 Network Safety Analysis

Network Safety Analysis (NSA) is used to identify reactive safety treatments for improving safety performance on the National Road network.

NSA is a means of classifying parts of the National Road network according to their potential for safety improvement. NSA uses collision data and vehicle kilometres travelled to assess safety and to identify High Collision Locations (HCLs) on the National Road network.

HCLs are identified by benchmarking sites against threshold levels established for each specific reference population. Each high collision location is reviewed, collision patterns identified and suitable countermeasures identified to improve the safety performance of the location.

6.1 Roads to be Analysed

Network Safety Analysis shall be completed on all National Roads, excluding:

- sections of the National Road network in operation for less than three years, and
- road tunnels.

6.2 Scope of the Network Safety Analysis

The primary purpose of carrying out NSA is to identify sections of the National Road network which have a high collision frequency and a high collision rate within their respective reference population. The initial desktop study of identifying HCL sites is based on a spatial analysis of all reported injury collision data, exposure data, typically in the form of vehicle kilometres travelled, and road geometry data. Subsequently, collision rates are calculated, and thresholds applied.

The Authority is responsible for initiating the review of the National Road network and for ensuring that the NSA review is repeated at an appropriate time interval.

6.3 Network Safety Analysis Management

Following the identification of sites, each HCL is then reviewed by the TII Road Safety Engineering Team to ensure that all data used in identifying the location during the initial desktop review is correct. The review itself includes an examination of the collisions that were used to establish the site as a HCL. The collisions are assessed to help establish if any particular collision pattern is present. These patterns may help establish any deficiencies within the road environment that may be counteracted by engineering measures.

When the review has been undertaken, the review team may decide that a site visit is required. The review team document any safety issues and specify any counter measures that may help mitigate the occurrence of future collisions (or at least reduce the severity of any future collisions) at the site.

6.3.1 Implementation Phase

Following completion of the desktop analysis, priority locations for intervention are selected by the TII Road Safety Engineering Team and provided to the relevant Road Authority or Road Operator for further assessment and implementation of remedial measures.

7 Network-wide Road Safety Assessment

The purpose of Network-wide Road Safety Assessment (NWA) is to classify the road network into safety levels. Those sections with low safety ratings are prioritised for targeted road safety inspections and, where necessary, suitable interventions.

7.1 Roads to be Assessed

The Network-wide Road Safety Assessment shall be completed on all National Primary Roads every 5 years.

7.2 Network-wide Road Safety Assessment Management

The TII NWA methodology complements existing safety management procedures and builds on TII's established practices for network safety analysis and road safety inspections, integrating both historical collisions and infrastructure-based risk indicators.

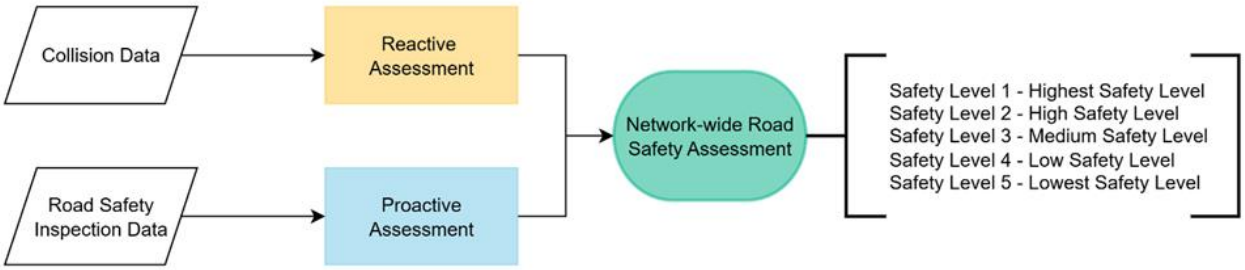

Figure 7.1 Network-wide Road Safety Assessment Simplistic Model

The NWA is organised around four components that together enable a systematic classification of safety levels across the rural sections of the National Primary Road network:

- Linear Reference System (LRS) - Provides a spatial structure to the NWA, ensuring that reactive and proactive data are mapped to specific locations on the network,
- Reactive Methodology - Evaluates safety performance based on historical collision data. The reactive approach reflects the actual outcomes and highlights sections with recorded safety concerns,
- Proactive Methodology – Complements the reactive analysis by assessing potential safety issues based on infrastructure conditions. It utilises Road Safety Inspections (RSIs) and captures latent safety issues that might not yet be reflected in collision statistics, and
- Integrated Methodology – Combining both the reactive and proactive components into a unified safety score for each segment of the network. The scores are used to classify the network into five safety levels, ranging from Level 1 (highest safety level) to Level 5 (lowest safety level).

Following the classification of the National Primary Road network under the NWA Integrated Score, segments assigned to the lowest Safety Level (Safety Level 5) are prioritised for further action. These sections undergo targeted road safety inspections (TRSI) to identify engineering interventions or remedial measures that can address the underlying safety issues.

7.2.1 Implementation Phase

Following completion of the TRSI, priority locations for intervention are selected by the TII Road Safety Engineering Team and provided to the relevant Road Authority or Road Operator for further assessment and implementation.

8 Temporary Safety Measures Inspections

A Temporary Safety Measure (TSM) is the temporary traffic management used at work sites on public roads to warn, instruct and guide road users in a safe progression through or around a work site.

8.1 Roads to be Inspected

Temporary Safety Measures Inspections (TSMI) shall apply to all roadworks on National Roads, excluding road tunnels.

Refer to TII Publication CC-STY-04002 Temporary Safety Measures Inspection for further information in relation to TSMI requirements on National Roads.

8.2 Scope of the Temporary Safety Measures Inspection

The primary purpose of a TSMI is to ensure that the requirements applying to TSM at roadworks are properly applied and to record possible impacts of roadworks on the safety of traffic flow.

Refer to the following documents for requirements and guidance in relation to the completion of TSMI and the design of TSM measures:

- Chapter 8 – Traffic Signs Manual, Temporary Traffic Measures and Signs for Roadworks,
- Temporary Traffic Management Guidance Handbook for Traffic Signs Related Works,
- Temporary Traffic Management Guidance Handbook for Road Marking Related Works.

8.3 Temporary Safety Measures Inspection Management

Temporary Safety Measures Inspections shall be undertaken by the relevant bodies as follows:

- The Authority will undertake inspections of TSM on projects procured by the Authority and may also undertake inspections on works approved by the Authority,
- Local authority will undertake inspections of TSM on projects procured by the local authority and may also undertake inspections on works sanctioned by the local authority.
- Road Operator will undertake inspections of Temporary Safety Measures on projects under their management.

The TSMI should inspect the sections of roadworks that impact upon road users.

The relevant body shall ensure that TSMIs are undertaken on National Roads and shall give direction to the temporary safety measures inspector on the inspection requirements within an inspection brief.

A record of TSMI shall be maintained by the relevant body responsible for undertaking the inspections.

9 References

9.1 TII Publications (Standards)

Transport Infrastructure Ireland. GE-STY-01024 Road Safety Audit.

Transport Infrastructure Ireland. GE-STY-01025 Road Safety Audit – Audit Team Qualifications.

Transport Infrastructure Ireland. GE-STY-01027 Road Safety Audit Guidelines.

Transport Infrastructure Ireland. CC-STY-04002 Temporary Safety Measures Inspection.

Transport Infrastructure Ireland. PE-PDV-02045 Traffic and Transport Assessment Guidelines.

Transport Infrastructure Ireland. PE-PMG-02041 Project Managers Guidelines.

Transport Infrastructure Ireland. PE-PMG-02042 Project Managers Manual for National Road Projects.

9.2 Other Documents

Department of Transport. Chapter 8 – Traffic Signs Manual, Temporary Traffic Measures and Signs for Roadworks.

Directive 2004/54/EC of the European Parliament and of the Council of 29 April 2004 on minimum safety requirements for tunnels in the Trans-European Network,

Directive (EU) 2019/1936 of the European Parliament and of the Council of 23 October 2019 amending Directive 2008/96/EC on road infrastructure safety management.

European Communities (Road Infrastructure Safety Management) Regulations S.I 612 of 2021.

Transport Infrastructure Ireland. RTS-ADW-0014 Road Safety Review Report Guidelines.

Transport Infrastructure Ireland. Temporary Traffic Management Guidance Handbook for Traffic Signs Related Works.

Transport Infrastructure Ireland. Temporary Traffic Management Guidance Handbook for Road Marking Related Works.