



WELCOME AND OVERVIEW OF RECENT DEVELOPMENTS

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National Roads Authority
Recent Developments in Standards and
Specifications for Road Schemes
April 2013

ARUP

NRA
An tÚdarás um Bóithre Náisiúnta
National Roads Authority

Presentation outline

- Welcome
- Overview of NRA Standards
- Recent updates
- Support Consultancy
- Outline of Areas of Work
- Topics for Today's Session

Standards - Objectives

"...promote quality and consistency of approach in relation to the design and construction of road and bridge projects;

...to achieve an appropriate balance of economy, safety, sustainability and durability on road schemes"

Standards - Drivers for Change

- Sustainability
- Developments in international standards
- Technical developments (materials, products, systems)
- Feedback from National Roads Projects
- Conclusions of research projects
- Developments with NRA policies
- Compliance with the EU regulations (eg CPR 2011)
- Representation from industry

Standards - Drivers for Change

- EU and National Legislation
 - Road Infrastructure Safety Management (RISM)
 - Occupational Health and Safety
 - Environmental Regulations
 - Construction Products Regulations (CPR)
 - ...etc

- European and National Standards
 - The Structural Eurocodes
 - Harmonised ENs
 - Other ENs
 - National Standards Development

Standards - Monitoring

- HA Website
 - UK DMRB and MCHW Developments
- EU Tris Website
 - Draft European Technical Standards & Regulations
- CEN TC 226
 - Draft Developments in ENs for Road Equipment
- Your Standards Your Say - NSAI Website
 - Draft Developing Irish National Standards

NRA Standards Website Homepage



Standards Home

Standards Documents

NRA DMRB Documents

NRA MCDRW Documents

Interim Advice Notes

Recent Changes

Subscribe for Alerts

Apply for Departure

NRA Publications

You Are Here : > Home

NRA Standards

NRA Design Standards and Manuals

Welcome to the National Roads Authority Standards website.

This website contains information relating to the design, construction and maintenance of national roads.

For Standards related queries, please contact:

infoDMRB@nra.ie

For Departures related queries and to submit NRA TA 85 Preliminary Design Reports, please contact:

infoDEPS@nra.ie

The navigation links provide access to the following:



NRA Standards Website Publications and updates

- Only controlled version of DMRB/MCDRW
- NRA DMRB Updates made to Standards Website
- Previous versions available
- Search tool



[NRA Standards](#) ▶ [NRA DMRB](#) ▶ [Volume 6: Road Geometry](#)

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NRA TD 9 - Road Link Design (incorporating TA 43, where applicable)



[Download Current Version](#)

DMRB Part	6.1.1
UK DMRB Reference Document:	N/A
NRA Addendum or Standard Dated	Feb 2012
Download Earlier Versions:	2000 (Incl TA 43) 2001 (Incl TA43) 2003 (Incl TA 43) 2004 2005 April 2007 Dec 2010 Nov 2011

NRA Departures Website

- Developed by NRA IT section
- All users must register
- Allows for efficient communication and control
- Allows for remote access to address issues
- Furthers NRA policy to embrace technology to make processes more efficient

Departure From Standards

National Roads Authority - An tÚdarás um Bóithre Náisiúnta

Home

New WorkList Recent Search

Welcome to the Departures From Standards Application System



This is a web-based applications for departures from standards system which will ensure ease of access at all times. Each user of the DFS has been assigned their own personalised username and password. These should not be used by anybody other than the person they have been assigned to. Should another person within your organisation wish to have access to the system they must register and then contact the NRA and access rights will be organised for them.

When submitting an application, files containing accompanying documentation may be attached. The size of these files is limited to approximately 3 megabytes in size. Files larger than this may be rejected and will not be attached to the submission.

Further information related to NRA standards and departures from them may be found on the [NRA Standards web site](#).

If you have any queries regarding this system please see the contact list below.

NRA Contacts

nta

NRA Standards & Departures Contacts for Queries

- **General** NRA DMRB and MCDRW queries:
 - To be sent to **infoDMRB@nra.ie**
 - Query assessed by **NRA Standards**
 - TQ raised if technical response required
..... may lead to a more comprehensive review

- Specific Departures queries:
 - To be sent to **infoDEPS@nra.ie**
 - Assessed by **Departures Team**
 - Feedback to **NRA Standards** as required

NRA Standards - Updates

March 2013

- **NRA DMRB:**

- As-Built Records (NRA GD 101) - New
- Services Areas (NRA TA 70) - Update
- Introduction (NRA GD 1) and Departures (NRA GD 100) - Update
- NRA TA 85, NRA TD 19 and NRA BD 52

- **NRA MCDRW:**

- Introduction (NG Series 000)
- Preliminaries (NG Series 100 – Table NG 1/1)
- Series 400, 600, 800, 1000 and 2200

- **Technical Bulletins:**

- Five Technical Bulletins (NRA TB 1 to 5) - New

NRA Standards - Updates Previous Publications

- **June 2012 Update:**
 - New standards and advice notes on the EU Road Infrastructure Safety Directive (*Forbes Vigors will discuss later!*)
- **February 2012 Update:**
 - Lighting (TD 34) and Road Link Design (NRA TD 9)
 - IAN 02/11 - Use of Eurocodes (Update)
 - NRA MCDRW Introduction and Volume Contents
- **November 2011 Update:**
 - Regional and Local Road Geometry (incl RCDs)
 - Surfacing materials and Skid Resistance

NRA Standards - Support

NRA Out-sourced Consultancy
(Since 2001)

Various Service Providers
(Currently Arup – Full-time Co-ordinator)

Commission **objectives** are to provide:

- World-class technical advice
- High quality deliverables
- Effective management
- Clear communications
- Clear and documented decision-making

ARUP



Work Packages (technical)

On-going and Completed Work Packages:

- Structures
- Road Geometry
- Geotechnics
- Traffic Signs and Lines
- Road Infrastructure Safety Management (RISM)
- Pavement
- Drainage
- Traffic Controls and Communications
- Rural Cycling Design Standard
- Miscellaneous

Work Packages

Pavements - Overlay Guide

- Update of existing DTTAS document (dated 1999) on *“Guidelines on the Depth of Overlay to be used on Rural Regional and Local Roads”*
- Objectives of the update include:
 - Guidelines to reflect current NRA DMRB
 - Retain simple approaches, which remain relevant
 - References and other dated text to be updated

Work Packages

Pavements - Recycled Asphalt



- Update of Clause 902 in NRA MCDRW Series 900
- Effort to try and incentivise industry to use recycled materials
- Key issues to be considered:
 - Compliance with IS EN 13108-8
 - Source and properties of RAP to be used
 - Consistency and classification of RAP
 - %age additions of RAP to new mixture
 - Design Vs Recipe mixes
 - Sampling and testing, including frequency

Work Packages

Pavement - PRM



- Permanent Repair Materials (PRM)
- Currently no specification exists for
 - Permanent repair materials
 - Localised surface repair systems
- Many proprietary products are available (at a cost)
- CPR: cannot have an “approved” list
- Need a performance specification
 - Initial Material Requirements
 - Installation Requirements
 - In-situ Monitoring Requirements
- Specification to be included in 900 Series, PRM System in an NRA Standard and a Monitoring Procedure

Work Packages

Drainage

- Split into 3 separate Work Packages, including
 - Initial scoping – Background Review
 - Major Schemes – SUDS Principles
 - Minor Schemes – Low costs solutions
- SUDS principles
 - International Best Practice on Sustainability
 - Minimise impact on natural flow conditions
- Low cost solutions
 - Address minor improvement issues
 - Advice on simplified approaches



Topics for today

- Road Safety Improvement Schemes (NRA HD 15, etc)
Forbes Vigors
- Safety Barrier Risk Assessment Procedures (NRA TD 19)
Zita Langenbach
- Safety Barriers – Watch-its (Series 400 and NRA TD 19)
Alastair de Beer
- Bridge Parapets (NRA BD 52 and Series 400)
Richard Bowen
- Design of minor improvement schemes (NRA TA 85)
Eddie Murphy, Bryan Kennedy
- Road Safety Temporary Safety Measures (NRA HD 16)
Alastair de Beer



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Go raibh míle maith aguibh