

# Non-Motorised User Audits

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# Definition

**A systematic process applied to highway schemes, by which the design team identifies scheme objectives for Non Motorised Users**

**DMRB HD42/05**

# Dual Objectives

It formally documents the design decisions affecting NMU's, **and** reviews designs and construction to assess how well objectives have been achieved.

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# Who Are NMU's?

NMU's are considered to be pedestrians, cyclists and equestrians. \*

The DMRB Standard requires particular consideration to be given to the needs of disabled people.

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\* Includes electrically assisted pedal cycles, scooters etc

# Practical Objectives

To encourage the Design Team to take all reasonable opportunities to improve the service offered to NMUs;

To prevent conditions for NMUs being worsened by the introduction of Highway Schemes;

To document design decisions that affect NMUs.

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## Must Do's

1.13 This Standard should be used forthwith for the planning and design of all new all-purpose trunk roads and Highway Schemes currently being prepared, provided that in the opinion of the Overseeing Organisation this would not result in unreasonable expense or delay to the progress of the scheme. If it is considered that this Standard should not be applied to schemes currently in preparation due to the unreasonable expense or delay that would result, approval for Departure from Standards should be obtained from the Overseeing Organisation.

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# Key Personnel

## NMU Audit Leader

Member of the Design Team

Appropriate training, skills and experience of NMU needs and scheme development, to be able to exercise judgment on the effects of design proposals on NMUs.

Responsible for overseeing the NMU Audit process and for liaison with the Project Sponsor and Design Team Leader.

Appointment of the NMU Audit Leader must be subject to the approval of the Project Sponsor.

# Responsibility

“The NMU Audit Leader must be responsible for ensuring that NMU Audit processes are carried out in accordance with this Standard.

The NMU Audit Leader and the Design Team Leader may be the same person.”

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# Practical Objectives



**Convenient Routes**

**Attractive Routes**

**Safe Routes**

**Consistent Routes**

**Accessible Routes**

# Practical Objectives

## Annex A

## Non-Motorised User Audits

## Guidance & Prompts

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Volume 5 Section 2  
Part 5 HD 42/05

Annex A  
Guidance and Prompts

### ANNEX A GUIDANCE AND PROMPTS

This Annex gives examples of some of the problems that can occur within scheme design that affect NMUs. It follows with prompts suitable for consideration during the application of NMu Audit. The prompts should not be considered exhaustive nor used as a checklist. They should be used to identify issues which should be documented within the NMu Audit report along with the design solutions determined by the Design Team.

#### Frequent Problems:

Examples of difficulties that may arise for NMUs within scheme design include:

#### A. Issues common to more than one group of NMUs:

1. Inadequate provision of separate routes/tracks
2. Lack of continuity of routes
3. Inadequate crossing facilities
4. Crossing facilities not sufficiently responsive
5. Inadequate crossing times
6. Fear of 'stranger danger'
7. Fear of motorised traffic danger
8. Inconsistent width of routes
9. Inconsistent width of routes through crossing facilities
10. Lack of segregation of different NMUs
11. Inadequate headroom
12. Inadequate width
13. Obstruction of routes by:
  - overgrown trees, hedges and low branches
  - insufficient headroom under signs, subways, structures etc.
  - motor vehicles parked/loading
14. Inadequate turning radius for cycles, pushchairs, wheelchair users
15. Designs that do not support effective maintenance, e.g. leading to poor cleaning, sunken gully grates, graffiti etc.
16. Trip and slip hazards, e.g. drain gullies, pot holes, slippery surfaces (when wet) including chamber and inspection covers
17. Dropped kerbs missing or insufficiently low
18. Gullies located in crossing areas
19. Water ponding in channels at crossing points
20. Routes and crossings away from desire lines
21. Schemes requiring additional NMu deviation from desire lines in comparison to existing routes
22. Poor access to public transport and poor design of bus stops
23. Poor lighting
24. Dazzle by vehicle headlights
25. Lack of NMu direction signs or maps, particularly at complex junctions
26. Poor signing (information, warning and regulatory) along routes
27. Inadequate inter-visibility with other users for personal safety
28. Scheme features or vegetation obscuring NMUs from general view or provide potential hiding places for assailants, giving rise to personal security concerns

February 2005

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# A Growing Discipline

## Transport for London

TfL report titled *'Review of the Procedures Associated with the Development and Delivery of Measures Designed to Improve Safety and Convenience for Cyclists'* was completed in January 2005.

The report recommended that a 'non-motorised user audit' (NMUA) standard be introduced by TfL for all new street schemes where applicable.

# A Growing Discipline

## Transport for London NMU Audits

TfL's NMUA process has been designed to be as user friendly as possible.

Designed for use in London, it incorporates a web based interface to assist navigation around the audit and enable quick information retrieval through hyper-link sources.

The TfL NMUA is undertaken at 4 stages:

- 1) Preliminary Design
- 2) Detailed Design
- 3) Pre-Opening
- 4) Post-Opening

# A Growing Discipline

## Nottinghamshire NMRU Audits

Instituted NMRU Audit in January 2006

A scheme audit is always required at the detailed design stage.

For larger schemes a preliminary design audit is also required.

A brief post opening NMRU Audit may also be carried out approximately 3 to 6 months after opening.

A night-time photograph of a street with yellow streetlights and a snow-covered ground. The scene is dimly lit, with the primary light source being the streetlights, which create a warm, yellow glow. The ground is covered in a layer of snow, and the background shows some trees and a building. The overall atmosphere is quiet and somewhat somber.

# Process

NMU Audits are a **systematic process** applied to highway schemes, by which the design team identifies scheme objectives for Non Motorised Users

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A night-time photograph of a residential street. The ground is covered in snow, and the street is illuminated by several streetlights, creating a warm, yellowish glow. In the background, there are houses and bare trees. The overall scene is quiet and serene.

# Process

**Systematic process dependent upon organisation and project.**

**Six-step process advocated by HD42**

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# Stages for NMU's

## **Preliminary Design Stage A**

During the preliminary design, prior to public consultation and the publication of draft orders.

## **Detailed Design Stage B**

During development of the detailed design.

## **Completion of Construction Stage C**

Prior to, or shortly after, scheme opening.

*On small schemes where design stages are combined, NMU Audit should be applied to the combined stage.*

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# Practical Techniques

Acknowledged best practice comprises;

- Desktop appraisal
- Site-based investigations
- Stakeholder Consultation

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## Must Do's

An NMU Audit at Completion of Construction **must, as a minimum,** include site visits during daylight and after dark.”

The NMU Audit **must summarise** all relevant information on existing and potential activity by NMU's, within the design life of the scheme.

The NMU Reports **must identify** opportunities and objectives to improve conditions for NMU's.



# Reports

## NMU Audit consists of two elements:

- the collation of background information of relevance to NMUs, and the presentation of that information in an **NMU Context Report**, leading to agreement on the design stages for which an NMU Audit Report is required;
- consideration of NMUs within the design process and following construction. This consideration is to be documented with an **NMU Audit Report** for each design stage that has been specified by the Project Sponsor.

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A night-time photograph of a residential street. The ground is covered in snow, and the streetlights are on, casting a warm glow. The background shows houses and trees.

## General

One purpose of NMU Audits is to **document decisions** that affect NMU's on all new highway schemes.

**Good quality reports required**

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# Context Report

**MUST** provide a summary of all available information relevant to existing and potential patterns of use by NMUs within the design life of the scheme.

**MUST** also set out the opportunities and objectives to improve conditions for NMUs.

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# NMU Report

NMU Audit should promote a continuous **assessment of NMU needs** at all appropriate stages of the design process.

**Decisions recorded** in an NMU Audit Report at each specified design stage.

Must **describe the issues** for NMU's considered during the design and the **actions taken** to resolve them.

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# NMU Report

**MUST** note any material changes to the information in the NMU Context Report since its publication.

**MUST** confirm scheme objectives for NMUs set out in the NMU Context Report and design objectives specific to the stage being Audited.

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## NMU Report

**MUST** include a statement of how design objectives have been satisfied.

Reasons for failure to achieve objectives **MUST** be explained.

There **MUST** also be a list of issues identified and actions taken to resolve them.

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# NMU Report

**MUST** be produced at the conclusion of each design stage specified by the Project Sponsor.

It **MUST** be submitted by the NMU Audit Leader to the Project Sponsor for approval.

The project **MUST NOT** proceed to Road Safety Audit and the next design stage until the Project Sponsor has accepted the NMU Audit Report for the current stage.

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# NMU Report

**MUST** be signed off by  
NMU Audit Leader &  
Design Team Leader

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Annex C  
Example of NMU Audit Report

## ANNEX C EXAMPLE OF NMU AUDIT REPORT

NMU AUDIT REPORT

A999 Anytown BY-PASS

PRELIMINARY DESIGN STAGE NMU AUDIT

February 2005

C/1



# Skills & Competence

Road safety experts ?

Walking, cycling or equestrian experts ?

Engineering design skills

Able to assess & evaluate for CASCA

Combined with RSA ?

**Thank you !**

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