

Design renewel

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Design renewal

In The Netherlands we are starting the renewing of a set of design guidelines:

- design guidelines for motorways,
- road signing guidelines,
- shoulder safety guidelines and
- lighting guidelines
all on motorways.

Design renewal

'Old' method

- The National Road Authority (NRA) used to design themselves. Contracts were given for construction, building and maintaining.
- Our guidelines fitted to this line of operation.
- Experienced designers could make a design fitted to their parameters using our guidelines.

Construction firms could construct and build (and maintain) according to the presented design.

The NRA got exactly what they wanted.

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'New' method

The National Road Authority more and more give out contracts for **design**, construct, build and maintain.

The NRA still has an idea of what they want to get. However, our guidelines give possibilities to make designs different to their expectations and still fitting within the parameters.

If a construction firm decides to use all minimum values they still stay within the parameters but the design will be poor !!!

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Approach

- updating these guidelines,
- introduce **system engineering** into these guidelines to make them more suitable for the new way of contracting road design and construction in the Netherlands.
- Use functional specification

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Functional specification

- What are the **functions** of a road (safety, accessibility, fitting in surroundings, sustainability, etc.)
- What **aspects** (design speed, alignment, braking distances, etc.) should be met?
- Within these parameters **several designs** can be realised all fitting to the different design aspects and functions.
- No complete designs are presented.

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Approach

A construction firm can design a road fitting to the functions and aspects

Might be **different** from the expectation of the NRA

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Questions

We are looking for **experiences** with and discussion on these type of guidelines and

for **new design elements** we can incorporate.