

Safe intersections for cyclists

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Traffic in the Netherlands has changed dramatically in recent years and is reflected in the accident figures, both in terms of the number and type of accidents. This requires a new insight and analysis of road safety. CROSS gives a unique insight and makes investigation based on a large dataset possible that takes into account:

- the spread of accidents on a large, denser and more intensively used road network
- a different composition of traffic through the "mode shift" to more sustainable but vulnerable road transport modes, especially in favor of bicycles and certainly in urban environments
- the change in traffic flows due to increasing mobility, especially by elderly and partly due to the increased use of e-bike

CROSS uses a specially developed innovative traffic road network classification of the entire road network in the Netherlands, based on the Function, Design and Use of the roads and intersections. A classification that makes it possible to aggregate and combine data in a responsible manner.

SAFETY ROUNDABOUTS FOR CYCLISTS

Of the registered victims in the period from 2015 to 2018 in the Netherlands:

- 25% one (e-)cyclists
- 37% of victims at an intersection are (e-)cyclists
- 50% of the victims on a roundabout are (e-)cyclists

That is why this study focuses on the safety of intersections for (e-)cyclists, in particular the safety of roundabouts. The safety indicator method (kencijferlijn-methodiek) has been used to compare more than half a million intersection types. Through digital linking of different databases, a split-up of intersection types has become possible that provides a unique insight into the road safety position. For intersections, combinations have been made of the function (main, intermediate and area intersection), type (standard, roundabout and traffic lights), location within built-up areas and types of accidents.

CONCLUSION

The preliminary conclusion of the study is that roundabouts within urban areas occur in large numbers ($n > 5,585$) and unexpected score as the most unsafe intersection solution. Especially as (e-)cyclists are often involved as victims.