

# Contraflow cycling in Belgium and the Brussels Region

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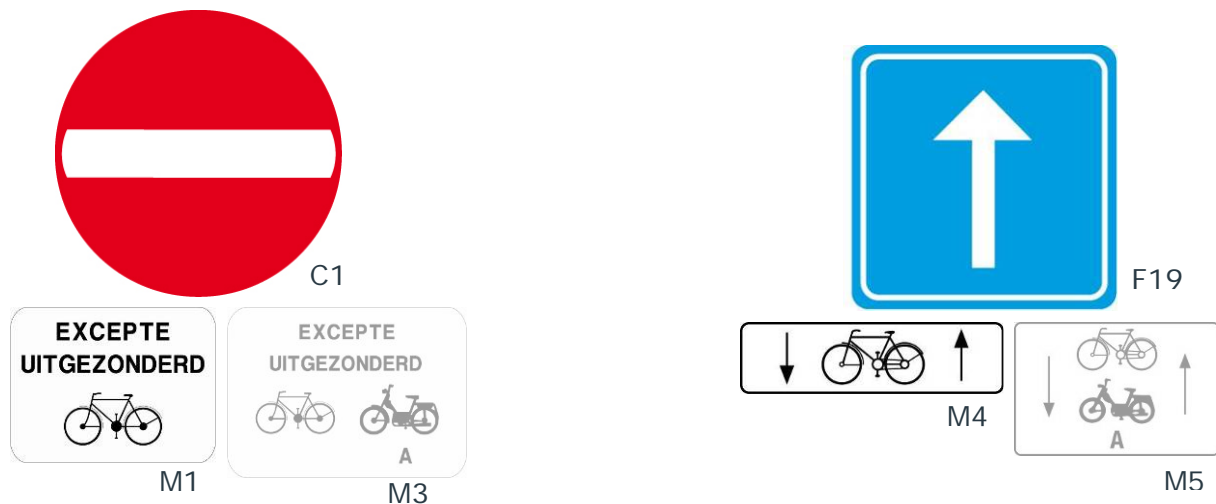
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## Contraflow cycling in one-way streets and the Highway Code

Since 1991, the Belgian Highway Code allows road managers to authorize contraflow cycling in one-way streets. The Highway Code calls them "limited" one-way streets, because the one-way signal only applies to the motor vehicles and not to bicyclists (and possibly also to mopeds). At that time, the legislator wanted to: allow cyclists to take the shortest way, avoid them from taking big roads or dangerous junctions, and to encourage cycling and improve road safety for cyclists.

A few cities took the opportunity and implemented the measure. So in 1998, after a first positive assessment, the Minister of Transport sent a Circular Letter to promote the limited one-way streets.

In front of the hesitancy of most municipalities, the Minister of Transport and Mobility decides in 2003 to generalize the contraflow cycling in one-way streets from July 1 2004. From that moment on, all road signs indicating a one-way street must be combined with signs authorizing contraflow traffic for cyclists (and possibly mopeds), except if specific local circumstances form a legitimate counter-indication against this measure.



The limited one-way streets are therefore mandatory if one-way streets, with possible exceptions, depending on the road width and on a possible decision of the municipal council.

Road width		
<2,6 m	2,6 – 3 m	< 3 m
Contraflow cycling street <b>forbidden</b>	contraflow cycling street <b>allowed</b>	contraflow cycling street <b>mandatory</b>

Note however that no sanction was planned for municipalities that would not implement the measure. Five years since the "generalization", most municipalities are in rule with the Highway Code, but some are still reluctant.

## Added road markings in Brussels Region

Only signalization is necessary to implement a limited one-way street. But the Brussels Region decides to add road markings in order to:

- catch the attention of the drivers (markings are better detected than signalization);
- encourage motor drivers and cyclists to take the right position (keep right, in particular at crossroads and when turning);
- indicate the right direction with V-shaped stripes;
- Remind crossing pedestrians to pay attention to contraflow cyclists as well.



*Picture 1. Example of added road marking in a Brussels limited one-way street*

At some crossroads, at the entrance or the way-out of a limited one-way street, the Road Manager adapts the infrastructure to secure the crossing.



Picture 2. Road-design to encourage drivers to keep right.

## Cyclists accidents in limited one-way streets in the Brussels Capital Region

Unfortunately, the "limited one-way street" item does not exist on the police statements. And very few municipalities have a computerised limited one-way map available. A large scale accident study is therefore not easy.

Brussels Region is made up of 19 Municipalities. Some of those implemented the limited one-way streets in the early nineties, but the most important one – Brussels City – has placed the signals and road marking only in 2007 for most of his limited one-way streets. It was therefore not possible to include Brussels City in an accident analysis.

We select 6 municipalities of the eastern part of Brussels Region, representing 305 658 inhabitants. The road network has the following characteristics:

Road network	km		sections	
Whole road network	587.8	100%	3386	100%
Limited one-way streets or crossroads	91	15.5%	731	21.1%

We know that there is a huge under registration of cyclist accidents in the National Institute for Statistics database. But this database can not be ignored for such an analysis. For the last 3 available years (2005 – 2006 – 2007), 165 cycling accidents with casualties are listed.

The accidents cartography shows that:

- 16 accidents (9.7%) are located in a limited one-way street or at a crossroads including a limited one-way street.

- Among these 16 accidents:
  - the cyclist was not riding in the contraflow direction in 8 cases (4.8%);
  - the direction of the cyclist was unclear in the police statement in 5 cases (3%);
  - the cyclist was riding in the contraflow direction in 3 cases (1.8% of the total).

These 3 accidents are quite similar: the motor driver did not yield to the cyclist coming from the right and who had right of way. In 2 of these 3 cases, the infrastructure could have given to the motor driver the feeling that he had right of way.

Compared to the road network, it appears that the accident risk is lower in a limited one-way street or crossroads.

Location of accident	accident/km	accident/section
Whole road network	0.28	0.049
Limited one-way streets or crossroads	0.18	0.022
Limited one-way streets or crossroads + contraflow cyclist	0.03 to 0.09	0.004 to 0.011

## Conclusions

This quick analysis might be extended to be more significant. Nevertheless, it is clear that the implementation of limited one-way streets does not constitute a road safety problem but rather a road safety solution for the road manager.

For the cyclists, the limited one-way network represents an important part of the whole urban road network (15 to 21%) that enlarges their freedom of movement in urban areas.

The quite low accident risk in limited one-way streets or crossroads is mainly located at crossroads, where markings and road design can improve traffic safety.