

MEPS Report

21.06.2010
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1. Task

Survey at the bikeway network with respect to weaknesses/ gaps including elaboration of measures to enhance the situation. The bikeway network of Wiener Neustadt has some problematic areas/ breaks which were not able to be closed till now (for example Kreuzung Grazer Straße/ Ungargasse, Wiener Straße/ Stadionstraße, Neunkirchner Straße/ Marktgasse and so on). In the framework of the investigation these problem points should be identified and planning considerations should be carried out.

Object 1.

Identify problems for cyclists.

Object2.

Suggest solutions for the problems

2. Introduction

In Wiener Neustadt, the modal split of the cycling is 12% (it is 5% in Vienna) which is a comparably high percentage. The majority of cyclists is 20-39 years old. And the ownership of bikes is also quite high: 62% of the people have at least 1 bike. (42% people in Austria) The major purpose of using bikes is to go to school and leisure centres, which accounts to 16%. The average length of journeys is 2.1km.

Therefore, we can say that bikes are one of the most important means of transportation in the city.

The infrastructure for cyclist is also of high quality. The total length of bike lanes is 75,689km in 2010.

This is approximately 21% of the total road-length. However, 65% of respondents want an expansion of the cycle network in Wiener Neustadt.

We find the problems considering bike lanes and come up with solutions to them.

3. Methods

We do cycling in the city following the map which is issued by the city in order to find the problems of bike lanes of Wiener Neustadt.

We ask the person responsible for bike lanes about the planning problems with the inhabitants.

We measure the width of the lanes and compare it to the criteria of Austrian bike lanes.

To consider the improvement of the bike lanes in the city, we take these points into account.

I . Quantity

- Integration
- Ring roads
- Under the elevated

II . Quality

- Uniformity
- Orientation signs

4. Conclusion

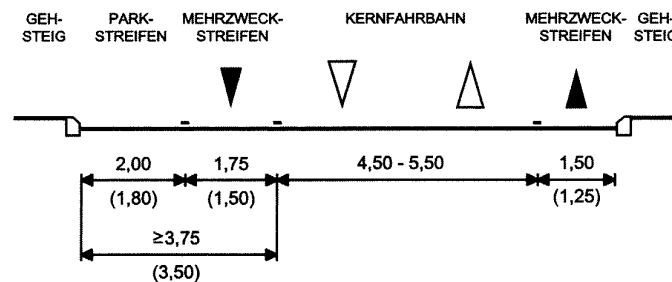
4-1. Quantity

To increase the number of cyclists, we have to consider how bikes are used. Bike lanes should be planned from the point of view of cyclists in order to make it more convenient for them.

There are four prominent approaches for the construction of bike lanes.

1. Minimize the width of the road

The minimum size of car lanes is 2.75 meters, for bike lanes it is 1.50 meters (one way) and 2.50 meters (both ways), and for pedestrian lanes it is 1.80 meters. However, quite few car lanes are more than 3.0 meters. Therefore in order to create the space for the cyclists the width of car lanes can be minimized.



Picture1. Standard widths of a road

2. Create a combined bus and bike lane

When the width of the lane is too narrow for a dedicated bike lane but a bus lane is present a combined bus and bike lane can be created. This has the advantage of taking up only 3.1 meters of the total of the lane.



Photo1. Bus and Bike lane

3. Create a Multi-purpose lane

When the total width of the lane is too narrow to allow for a dedicated bike lane a multi-purpose lane can be used. This type of lane is divided from the rest of the lane with a "division line" on the left side. In contrast to that a "solid line" is used on the left side of bike lanes to separate them from the rest of the lane. Additionally a multi-purpose lane has to exhibit bike symbols in regular intervals.

Generally the multi-purpose lane is meant to be used by cyclists. If there is not enough space in the lane bordering at the left side of the multi-purpose lane it can be used by other vehicles though. They must do so taking special care of cyclists however. For a multi-purpose lane only 3.0 meters are needed.



Photo2. Multipurpose lane

4. Mix green strips with parking lanes or remove parking lanes

If there is not enough space for bike lanes, it is possible to create a lane with alternating parking and green area to create additional room for bike lanes.



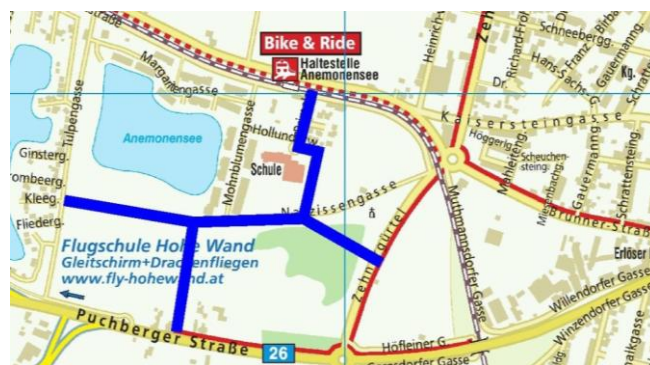
Photo3. Green area and parking area

4-1-1. Integration

There's the service at some stations which called 'BIKE and RIDE'. This service is for people who bring their bike into a train or go to the station by bike and park their bikes close to the stations. Therefore, the bike lanes connections to the station are quite important.



Picture2. Haltestelle Wr. Neustadt Civitas Nova



Picture3. Haltestelle Anemonensee

There is no proper connection for cyclists between the north and the south of the train rails (Haltestelle Wr. Neustadt Civitas Nova). There is a bridge for pedestrians (shown below on the left), which is not adequate for bikes though.

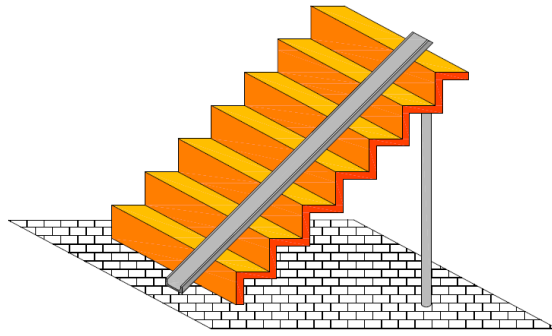


Photo4. & Picture4. Crossover bridge

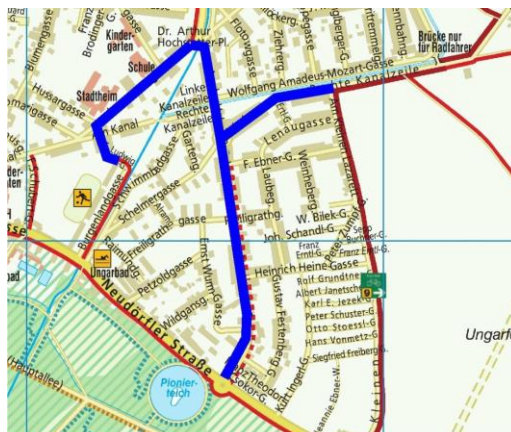
The city is planning to construct an underground connection under the train rail in the future. However, we suggest that it is necessary to also built the connection for the cyclists which goes over the rails, as pictured above on the right.

The connections to public facilities are also important, especially for the facilities used by children who get into traffic accidents easily. Raugasse, the road in front of a school doesn't have a bike lane because of the parking lane. There are a lot of parents who bring their children to the school and the inhabitants along the street need the parking lane. This road's width is just 11.9 meters including two pedestrian lanes. Consequently, if we keep the parking lane, we cannot have bike lanes. The only way to construct bike lanes is to persuade the people who use the parking lane to get rid of it.



Photo5. Raugasse

Quite a lot of public facilities are in speed limited areas which in turn means that there are no bike lanes. In our opinion, if there is a school nearby, bike lanes should be constructed even in speed limited areas. For example, along the "Lazarettgasse", which is located in the east part of the city, there is a kindergarten and a school.



Picture5. Lazarettgasse

4-1-2. Ring roads

To increase the convenience for cyclists, we plan to construct ring bike roads around the centre of the city, as well as the perimeter.



Picture6. Map of the centre

North part of the centre

There is a bike lane but only one way. The total width of the car lanes are 7.5 meters. By reducing the width of the car lanes we can create enough space for the construction of one additional bike lane.



Photo6. Baumkirchnerring

East part of the centre

There is no space for bike lanes on Grazer Strasse, but it has four lanes for cars and buses. There is high traffic volume on this street compared to other streets in the city but according to road standards, four car lanes are not necessary. The solution to have bike lanes should cut one car lane and construct two bike lanes, whereas one of them is combined bus lane.



Photo7. Grazer strasse

South part of the centre

There is a large park called Stadtpark in the south of the centre. Because Maria Therese-Ring is too narrow to construct bike lanes, the connection between east and west is in the park. The problem here is the connection between the south and the north. As the shown in the picture below, some points of the pedestrian crossing are missing. Since there is high traffic volume on Maria Therese-Ring, traversing the road without a pedestrian crossing is quite dangerous.



Photo8. Maria Therese-Ring

West part of the centre

A lot of bike lanes are too narrow compared to the standard of bike lanes. The standard width of bike lanes is 1.5m for a one way lane. However, there are 1.0 meter lanes for example on 'Ferdinand Porsche-Ring', 'Babenbergerring'. This is because they constructed bike lanes separated from pedestrian lanes just by painting onto the pedestrian lanes. As a consequence, both pedestrian and bike lanes cannot meet the standard criteria.

On Ferdinand Porsche-Ring the width of the car lane is 6.9 meters for both directions. That means we can construct bike lanes by using a multi-purpose lane, which is 3.0 meters for both car and bike. We suggest changing the present bike lane to a pedestrian lane and instead create a multi-purpose lane.

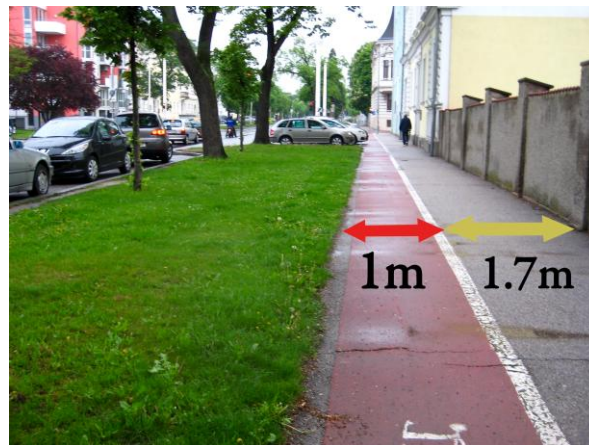


Photo9. Ferdinand Porsche-Ring

On Babenbergerring, there is a private area in front of the houses. In the private area, there is a parking area for the inhabitants. Since there is no space for pedestrians in the public area, many people use the bike lane for walking instead of the private area which should be for pedestrians. When cars enter the private area, people should move into the houses or into the parking area. A situation like this should not occur. We propose to change the present bike lane to a pedestrian lane. On the street the minimum of the car lane is 6.9 meters for both directions. Therefore we can construct a multi-purpose lane on the present car lane.



Photo10. Babenbergerring



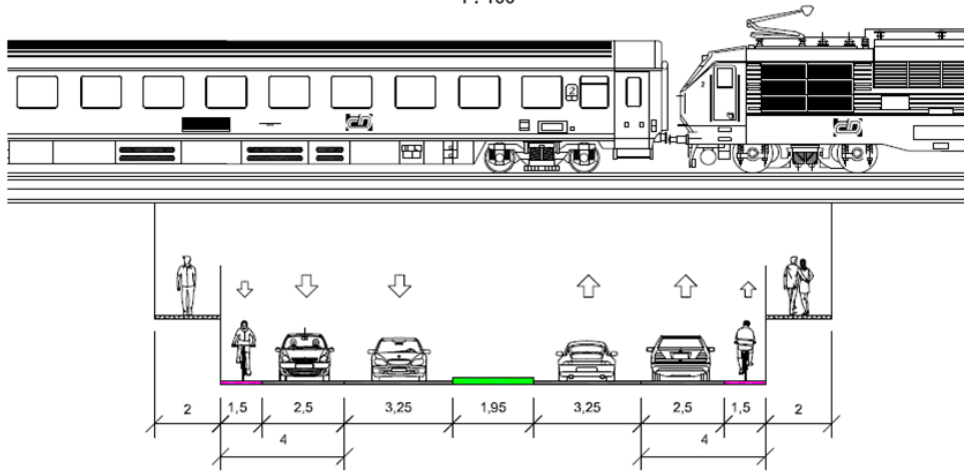
Photo11. Private area on Babenbergerring

4-1-3 Underneath the elevated rail ways tracks

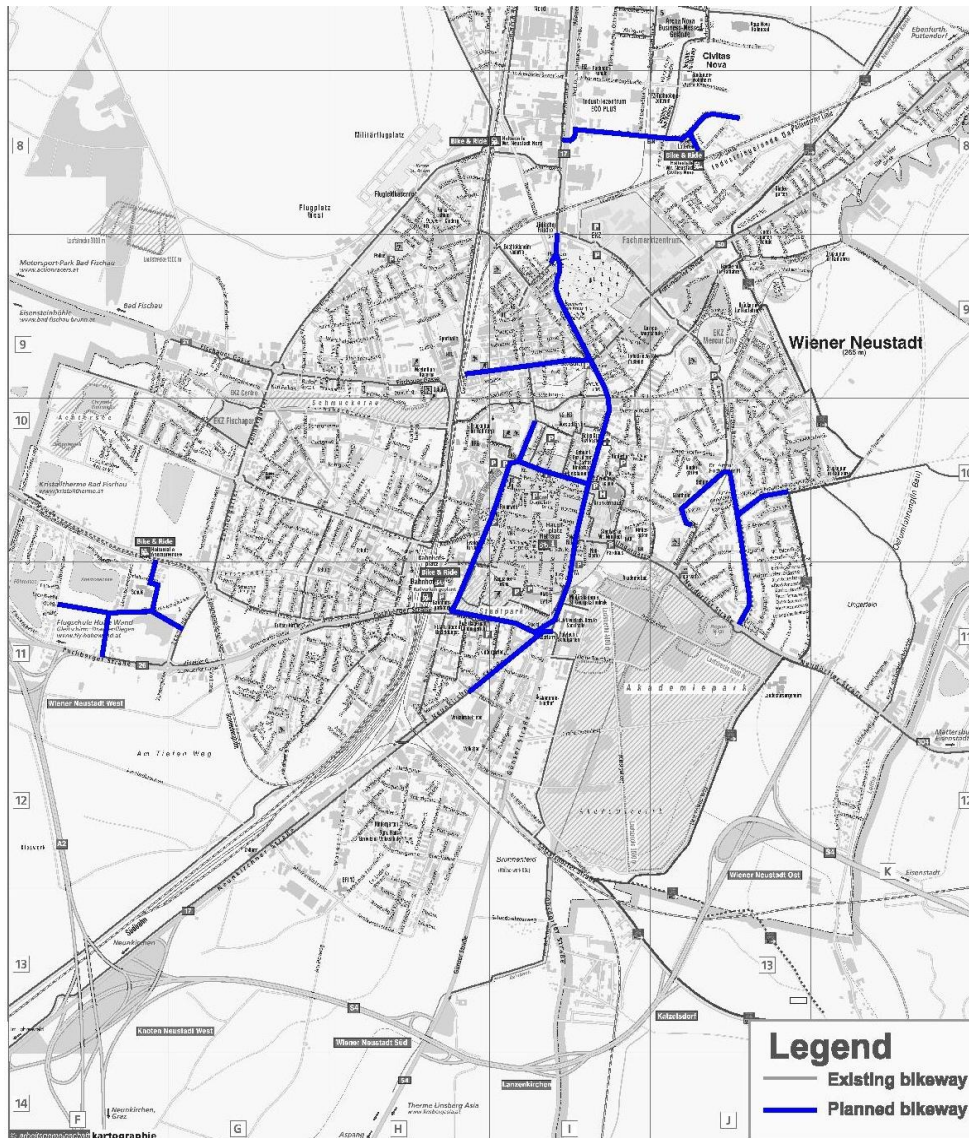
On Wiener StraßeWerkstraße, pedestrians and cyclists use the same lane under the bridge and it is only 2.0 meters wide. The mixed lane is dangerous for pedestrians and moreover this lane has a slope which makes cyclist go faster, which makes this spot much more dangerous. The car lanes have enough space, two lanes for each direction and more than 3.5 meters of each lane. We propose that construction of bike lanes by means of reducing the green area.

NORMALQUERSCHNITT - WIENER STRASSE (EISENBAHNVIADUKT)

Version 1
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Picture7. Under the elevated



Picture8. Whole bike lanes map of the city

4-2 Quality

The problems of bike lanes are not just quantity but also quality. To increase the safety, we should have proper signs and lanes.

4-2-1. Uniformity

Bumps

There are bumps between bike lanes and pedestrian lanes at some points. When cars come close to the cyclists, they cannot escape to pedestrian lanes at these points. Bumps between bike lanes and pedestrian lanes should be sloped or we should make bumps between car lanes and bike lanes.



Photo12. Bump

Conflict zone

In some cases when buses turn into a street, they traverse over parts of bike lanes. These parts which the buses ride over should be clearly marked as danger zones to make it as obvious as possible for cyclists to be careful in these areas.



Photo13. Conflict zone

Pedestrian cross

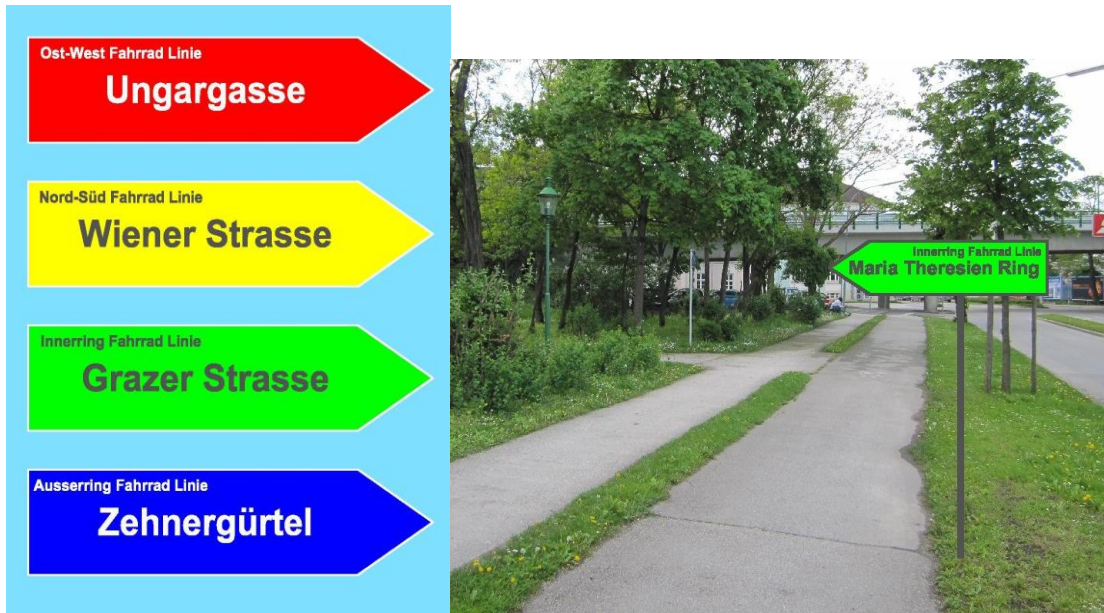
The signs for the pedestrian's crossing on bike lanes are not uniform. In some cases, they are simply left out on the bike lanes. This increases the danger of accidents between pedestrians and cyclists. It needs to be clearly visible for the cyclists that they need to stop in front of the pedestrian's crossings as well.



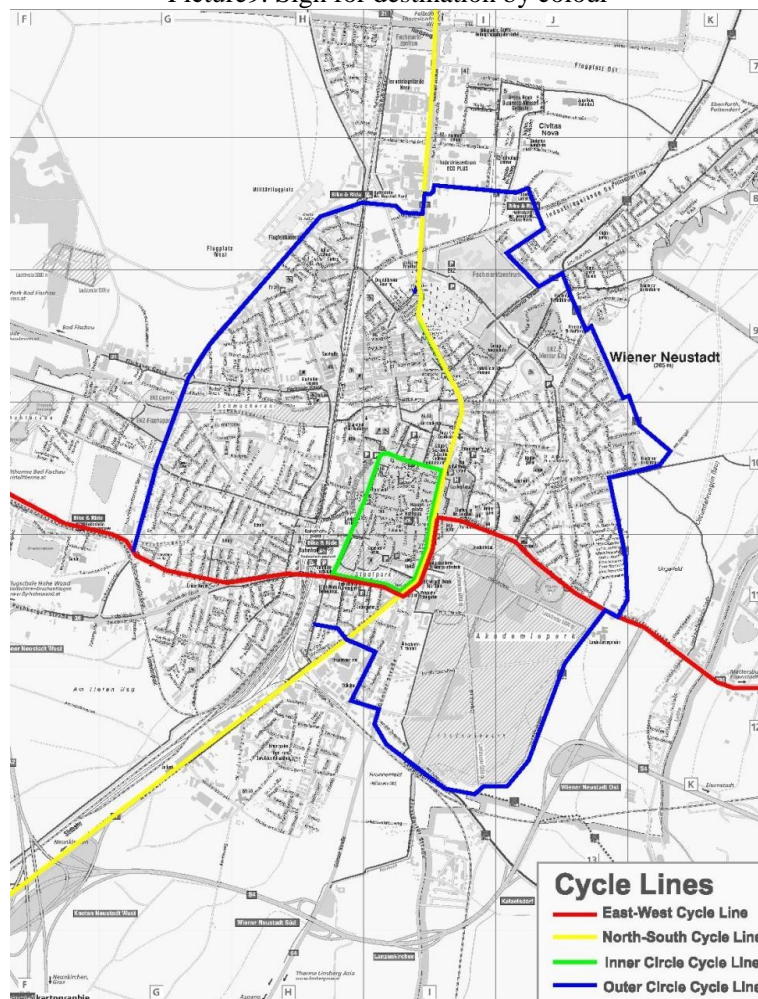
Photo14. Pedestrian cross

4-2-2. Orientation signs

There are no bike lanes in the speed limited areas because they are safe enough for cyclists. However it is easy to get lost when cycling. Every time when we ran into a junction, we had to stop to look at the map. Since there is no sign for cyclists along the road, we suggest putting some signs for main destinations with clearly distinguishable colour coding. This would make orientation much easier.



Picture9. Sign for destination by colour



Picture10. Map of cycle lines

5. Discussion

There are a lot of approaches to construction of bike lanes, but in fact there are problems of money and the disagreement from the residents. The most important point to improve bike lanes is to reach an agreement about the basic concept about cycling with the inhabitants. To think about environmental issues, economic activities and fossil fuel crises, it is obvious that people should not use cars a lot. However, after people get used to using a car, it is difficult to consider infrastructure without thinking about car.

The given infrastructure determines the people's choices in terms of transportation. The average use of bikes in Wiener Neustadt surpasses that of Austria and a better infrastructure for cycling is wanted. Give the proper infrastructure there is a high possibility that to raise the number of cyclists even further, while reducing the amount of traffic accidents and environmental issues.