# Survey results: Pop-up cycle lanes on Lichtenberger Strasse

## **Background situation:**

Lichtenberger Straße is a street about 820 meters long in the Berlin district of Friedrichshain-Kreuzberg, next to the border of the district Mitte. It begins at the Platz der Vereinten Nationen and leads via Strausberger Platz and Karl-Marx-Allee to Holzmarktstrasse. There it merges into the street "An der Michaelbrücke". On April 7, 2020, temporary pop-up bike lanes with a width of 2.5 meters were installed on both sides of Lichtenberger Strasse on an approximately 500-meter section between Holzmarktstrasse and Strausberger Platz. As early as November 2020, the pop-up bike lanes were made permanent as part of a roadway reconstruction project.

In October 2021, work began on the construction of a protected cycle lane on Lichtenberger Strasse, between Platz der Vereinten Nationen and Neue Weberstrasse/Weydemeyerstrasse, i.e. the section north of Strausberger Platz. This created a longer continuous safe bike infrastructure at the expense of at the expense of a parking strip



Figure 1: Section of Lichtenberger Strasse with pop-up bike lane, since April 2020, Image: Google Maps

## Volume of traffic: Surveys commissioned by the Berlin Senate

The number, composition and speed of motor vehicles on Berlin's roads are measured at over 240 locations in Berlin using infrared detectors (so-called TEUs = Traffic Eye Universals). However, since there are no TEU detectors on Lichtenberger Strasse, modelled traffic volumes from the Berlin Senate Department had to be used for the evaluation. This is a traffic volume model (IQ Mobility) that models hourly traffic volumes for all main roads on the basis of the Berlin traffic model (as at 2014) and the current values of all TEU detectors. The traffic model shows that since the introduction of the pop-up cycle lane, there has been a significant decrease in the number of vehicles on Lichtenberger Strasse.



Figure 2: Development of motor vehicle traffic on Lichtenberger Strasse - daily averages. Data from the Berlin SenUMVK; Evaluation: Environmental Action Germany

From January 2019 to the end of March 2020, the average daily traffic volume on Lichtenberger Strasse was 13,059 vehicles. Since the introduction of a pop-up cycle lane in April 2020 in response to the pandemic and its permanent establishment in November of the same year, the number of cars has dropped significantly. Between May 2020 and December 2021, only 10,871 cars per day were recorded. This corresponds to a decrease of around one sixth. Since the extension of the safe cycling infrastructure northwards beyond Strausberger Platz at the end of 2021, the number of vehicles has decreased even more significantly to 10,043 vehicles per day. This corresponds to a decrease of 23 percent compared to the period before the cycle lane was established.

#### 13,059 vehicles before pop-up cycle lane



#### 10,043 vehicles after pop-up cycle lane

## Cycle traffic counts through the Strava Metro mobility data platform.

The SenUMVK operates 18 automatic permanent counting stations<sup>1</sup> for the continuous survey of bicycle traffic. However, there are none of these along Lichtenberger Strasse, so other data sources have to be used to quantify the development of cycle traffic. For this purpose, data from the Strava Metro mobility platform is used.

A comparison with the official figures from the Senate Department shows that Strava records slightly more than one percent of all cycling movements in Berlin - with the trend increasing. The proportion of movements recorded was calculated as an annual average and applied to the figures contained in Strava for Lichtenberger Strasse, so that a statement can also be made for streets that are not covered by the permanent counting stations. For Lichtenberger Strasse, the cycle traffic figures were evaluated at the points where motor vehicle figures are also recorded.

In 2019, there were on average 986 cyclists per day on Lichtenberger Strasse. After the introduction of the pop-up cycle lane and its subsequent permanent continuation, the number of cyclists has increased by 16 percent to 1,143 per day (for the period from January 2022 to the end of September 2022). In a direct comparison with the first three quarters of 2019, the increase is slightly lower: From January to the end of September 2019, there were 1,008 daily movements, whereas the same period in 2022 recorded an average of 1,143, an increase of around 14%.

#### 1,143 bicycles after pop-up cycle lane



#### 1,008 bicycles before pop-up cycle lane

For comparison: Throughout the whole of Berlin, cycle traffic increased significantly in 2020 compared to the previous year. This positive trend which was related to the Corona pandemic changed again in the following year 2021 – cycling traffic figures in 2021 were on average 10.5 percent lower than in the record year 2020 – but this reduction can only be documented to a lesser extent for Lichtenberger Strasse: here the decline from 2020 to 2021 was only 4.2 percent. Thus, the cycle lane could lead to a permanent increase in use, even if only to a lesser extent.

## **Classification:**

The traffic surveys on Lichtenberger Strasse show that a downward trend in the volume of cycling traffic, as was seen throughout Berlin from 2020 to 2021, can be stopped with targeted measures and reversed

<sup>&</sup>lt;sup>1</sup> <u>https://www.berlin.de/sen/uvk/verkehr/verkehrsplanung/radverkehr/weitere-radinfrastruktur/zaehlstellen-und-fahrradba-rometer/</u>

in the long term. The change in the number of cyclists was slightly more positive than on other streets in Berlin. The fact that no significant increases were recorded could be due to the main cycling route over the Jannowitz Bridge, which is only 500 metres away. The Jannowitz Bridge cycle counting point is the most frequented cycle counting point in Berlin; cycling traffic is concentrated at this bridge, while Lichtenberger Strasse and the adjacent Michaelbrücke are only part of the supplementary network.

### About the project:

DUH has been working since October 2020 on the project "Pop-up Republic: New Mobility Berlin", which is funded by the international association of cities ICLEI within the framework of the ICLEI Action Fund. The aim of the project is to collect, prepare and analyse environmental data in order to objectify discussions about the transition of mobility. The impact of new cycle lanes – with a special focus on popup cycle lanes, parking space management, neighbourhood traffic calming measures and 30 km/h speed limits – on the volume and composition of traffic as well as on  $NO_2$  pollution will be investigated in order to be able to make informed statements about the impact on air quality and climate.

In addition to data on Lichtenberger Strasse, numerous other analyses have been conducted and are published on our website: https://www.duh.de/handbuch-pop-up-republik/. These include, among others, the following analyses:

- Kantstrasse pop-up cycle lane
- Kottbusser Damm and Kottbusser Strasse pop-up cycle lane
- Improved cycling facilities Frankfurter Allee
- The traffic-calmed Bergmannkiez
- Tempelhofer Damm bicycle traffic system and 30 km/h speed limit



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