USE CASE

# Corridor Studies

Automated route analysis & cross-section compliance

**Varianten und Ziele**

Korridorstudie
B+S


LB, SR / 2026-04-01
Datenquellen: OSM, B+S

0 100 200 300 m

**Indikatoren: Abbiegewinkel**

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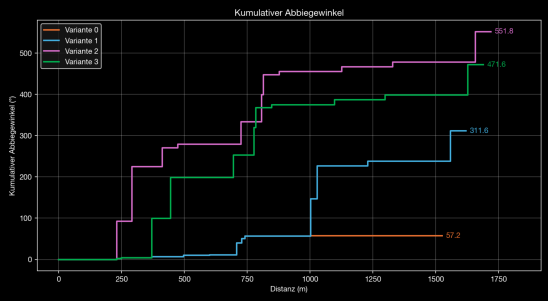
*Jede "Treppenstufe" entspricht einem Knoten im Verlauf der jeweiligen Routenvariante. Die Höhe der Stufe ist der absolute Wert des Abbiegewinkels in Grad. Ein grösserer kumulativer Abbiegewinkel deutet auf eine geringere Verständlichkeit und schlechteren Fahrfluss hin.*

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## WHAT ARE CORRIDOR STUDIES?

A corridor study analyses possible cycling route alignments within a defined geographic corridor — typically between two or more locations — and evaluates which route best meets planning standards, user needs, and infrastructure constraints.

Corridor studies are a standard deliverable in cycling network planning, feasibility studies for high-quality cycle routes, and network-level variant assessments. Clients are typically engineering and planning firms, regional transport authorities, and municipalities working under national or local cycle-route design guidance.

- Which route alternatives exist within the corridor, and how do they compare?
- Where does the existing road infrastructure fall short of the required cycling standards?
- What cross-section changes or measures are needed to bring non-compliant sections up to standard?

## OUR SOLUTION

The agentic system automates the most time-intensive and repetitive steps of a corridor study — route generation, indicator calculation, and cross-section compliance checks — so that planning teams can focus on interpretation, client communication, and decision-making.

For each corridor, our agentic system delivers:

Our base model represents the road network with individual lanes and space dimensions. It is generated automatically from public data sources (OpenStreetMap, aerial imagery, cadastral plans) and can be extended with client-supplied data such as official survey axes, traffic volumes, parking counts, or fear spots.

All inputs — data, standards, and indicators — can be updated at any time, with results recalculating automatically. This makes it straightforward to test

## WHAT YOU RECEIVE

- **Unlimited route alternatives** with full alignment and standardized scoring
- **Cross-section analysis** for the preferred route(s), comparing current infrastructure against applicable standards and proposing compliant alternatives where needed
- **Consequence mapping** showing the implications of proposed measures (parking loss, land requirements, changes to motorised traffic regime)
- **A slide deck** summarising all results, ready for client presentation
- **GIS-exportable outputs** compatible with common GIS tools

## ANALYTICAL PROCESS

1

### BASE MODEL

The agentic system runs on a logically consistent spatial model of the built environment. For corridor studies, the base model represents the street network at lane level (geometry, widths, connections, and existing cycling infrastructure), and can be extended with client-provided datasets where available.

2

### CORRIDOR DEFINITION AND ROUTE GENERATION

Based on client-defined corridors and fixed points (e.g. key nodes, third-party projects, no-go zones), the agentic system computes all feasible route alignments for each corridor.

3

### STANDARDIZED ROUTE EVALUATION

Each route alternative is assessed against a set of quantitative indicators, including:
Directness and length
Gradient
Turning angles
Number of guidance-type changes
Traffic volumes on affected road sections
Legibility and safety
Evaluation follows the applicable design guidance or a client-defined indicator set. The scoring provides an objective basis for variant comparison; experiential and qualitative inputs remain with the planning team.

4

### CROSS-SECTION ANALYSIS

For the preferred route(s), the agentic system compares each road section's existing infrastructure against the guidance forms required by the applicable standard. Where the current situation is non-compliant, the agentic system proposes an alternative cross-section that meets the standard.

5

### CONSEQUENCE ANALYSIS

For proposed cross-section changes, the agentic system maps out the practical consequences: parking spaces affected, land take, changes to motorised traffic lanes or regimes.

6

### REPORT

Outputs are delivered as a slide deck plus GIS-ready geodatasets and tabular exports (e.g. Excel spreadsheets), so results can be reviewed, communicated, and integrated into standard planning workflows.

## CASE STUDIES

- **P0017 — Cycling measures N23 (Eschikofen–Arbon West), Thurgau**
- **P0031 — Corridor study (cycle superhighway feasibility: Mönchengladbach–Grevenbroich) (North Rhine–Westphalia)**
- **P0036 — Corridor study Stäfa (variant assessment: Zehntentrotte bicycle network) (Stäfa)**
- **P0038 — Corridor study Zollikofen–Burgdorf (Canton of Bern)**
- **P0042 — Zurzibiet cycling network (Zurzibiet)**