

The Rail Yard Niderfeld

8.6 km to Allstetten, 4.3 km to Killwangen



Satellite Image 10/2000



see Table
scenar INFRAStructure

Lying between Dietikon in the south east and Spreterbach in the north west is an open expanse, the biggest in the Limmattal, of about 1.7 km width. The Rangierbahnhof Limmattal, Switzerland's biggest rail yard, borders to the north west, and to the south west a gentle slope rises up to meet the forest. Traversing it from East to West is the busy Überlandstrasse, which branches off to the north in the middle to pass under the rail yard. In the western corner lies the Niderfeld.

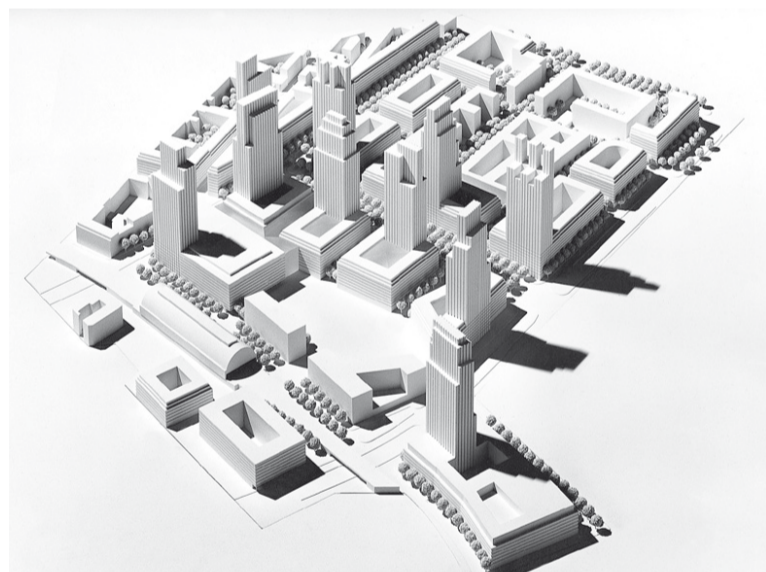
It is a characterised by an odd mix of old car lots, small businesses, patches of agriculture, bare fields and the occasional corner of trees. What makes the Niderfeld an interesting site, however, are the adjoining picturesque fields to the south of the road and the rail yard to the north. The rail yard, with its strict geometric arrangement of main plan and side tracks, an even, geometric monumentality. Furthermore, its flat expanse allows for sweeping views across the valley all the way to Zurich.

The LTB will pass directly through the middle of the Niderfeld and its planned Anwalderhausung. The planned arrangement of blocks, with a Central Park in the middle, however, totally ignores the potential site's surroundings. The rail yard, without a doubt one of the most fascinating sites of the Limmattal, will not be seen from the LTB, one does it play any part in the Anwalderhausung.



Gebietsentwicklung Niderfeld, Team Suburbia, 2013

Embodied by the plans of the Niderfeld concept study, which never show any of the surrounding context, we believe it necessary to rethink the site in terms of the rail yard. Because of the site's largely unused spaces, it bears the most promise when considering a potential adjustment of the LTB's route. The rail yard, previously only visible from the passing train, is now directly accessible by train and could be part of a new kind of public infrastructure at the site. Furthermore, it could provide a stark, highly urban backdrop for a development of much higher density than any previous plans for the Limmattal. Accessed either directly by the LTB or set into a visual relationship with its stops, it would play a decisive role when developing a possible alternative concept for a housing development, where public spaces defined by superimposed urban concepts (such as a central park) would become superfluous.



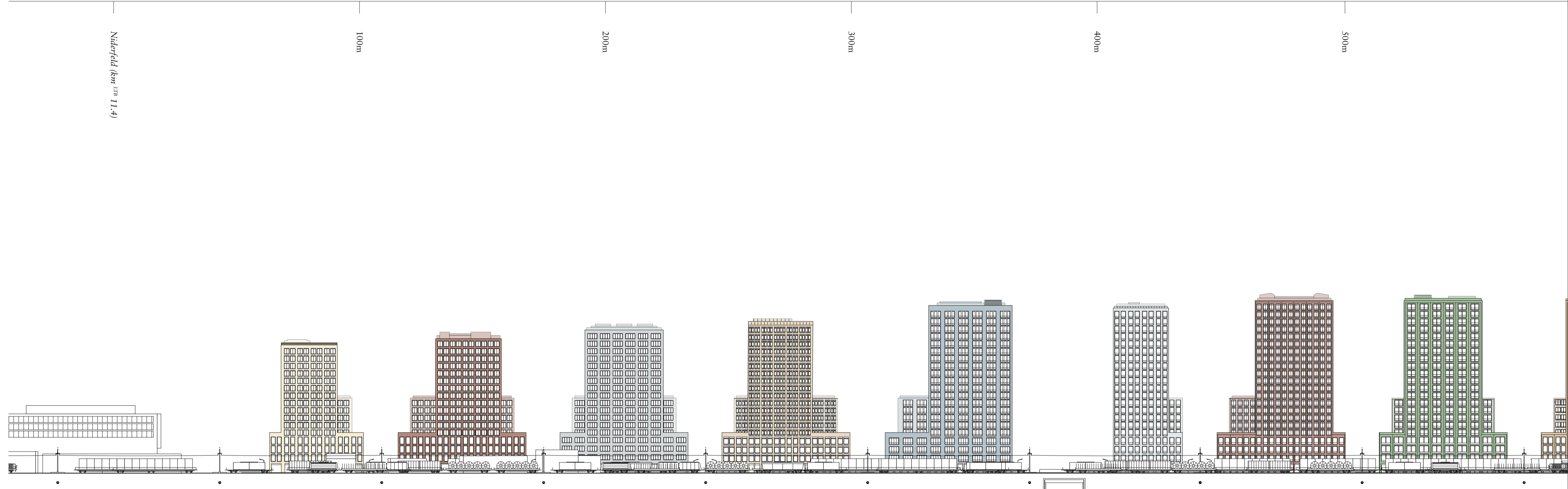
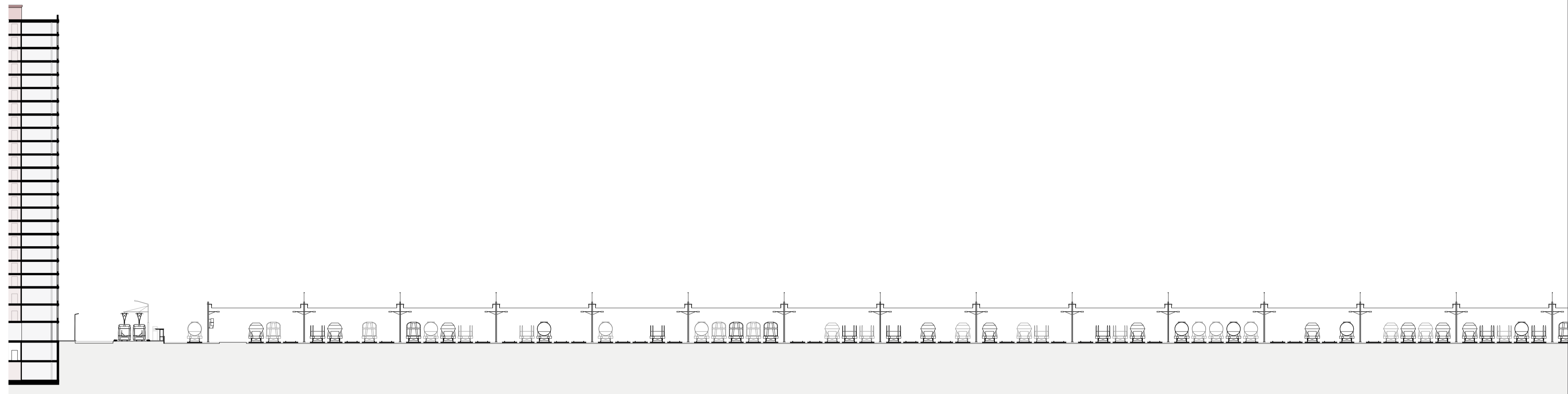
The structure is defined by flat plinths that are perforated by courtyards. Thanks to the architectural urban elements around the rail yard.
Masterplan Berlin Alexanderplatz, Hans Kollhoff, 1993

Our proposal stands as an alternative to the existing planning process that is being carried out by the city of Dietikon. While the rail yard has always been a significant element in the landscape of the Limmattal, we see a potential for an alternative way of living. Dense housing along the train line in the front should be completed with four-story blocks on the streetfront, southern side. Two rows of blocks, 52m in width, constitute the entire length of the new development. The front row towards the rail yard is deeper at 120m, than the second one, which has its strict geometry and follows the lines provided for by existing roads and property lines. What connects both rows of blocks is their continuous four-story height. On the south facing side the building appears as a singular entity, whereas on the northern side it becomes the plinth for a tower that faces the railway yard. Due to the rail yard's expanse, the two-hour shadow rule becomes unnecessary. Furthermore, a maximum floor area of 900 m² allows for towers with the efficient use of only one core. The set back shoulders facing the side streets remain at 30 meters, thus being below Zurich's height rules. The LTB's new route along the rail yard into building footprints and the north, therefore, allowing for a less dense border facing the south.



An inhabited wall faces the empty field of the railway yard.
Michigan Avenue, Chicago

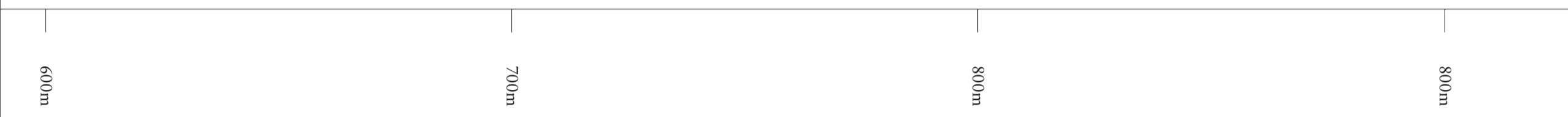
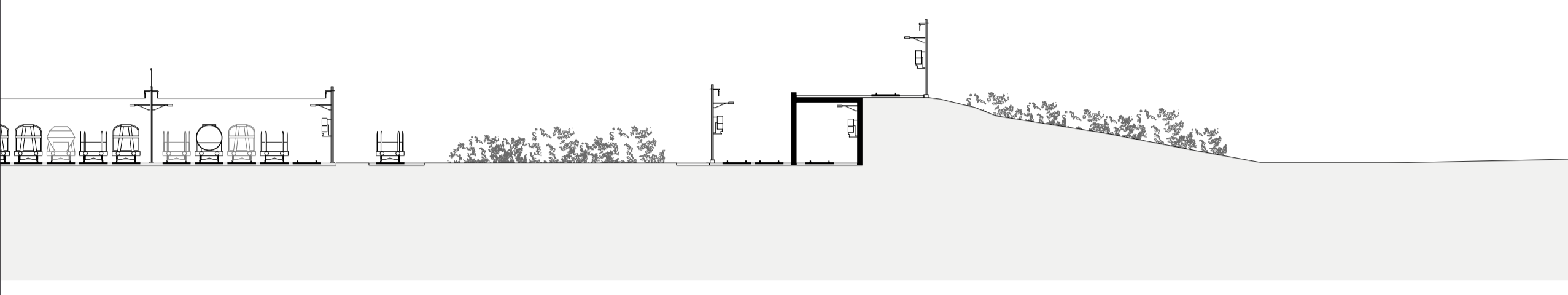
The height of the facades along the train tracks orientates itself on the surrounding context of industrial and commercial buildings, generating a wall like situation onto the train tracks, with the highest towers at 70m in the middle. The set back shoulders break up the strict sequence of towers, and integrate them into the urban street scape of the side streets. The front therefore stands for a highly metropolitan, extremely dense moment in the Limmattal. The central street in the middle of the new development is characterised by a uniform block structure on either side. On the southern patch of land, between the new development and the existing Überlandstrasse, the loosely spread functions of light industry, agriculture and grey fields are complemented by leisure functions that are interwoven with the existing patchwork. These necessary elements for the new city create the absolute counterpart to the front and their public functions therefore serve as the city's barrier towards the landscape to the south.



The southern side of the railroad is directly faced by middle-sized towers. The highest building intensity is in the middle with a maximum height of 70m. The inhabited wall faces the height towards both ends.
Elevation 1/1000

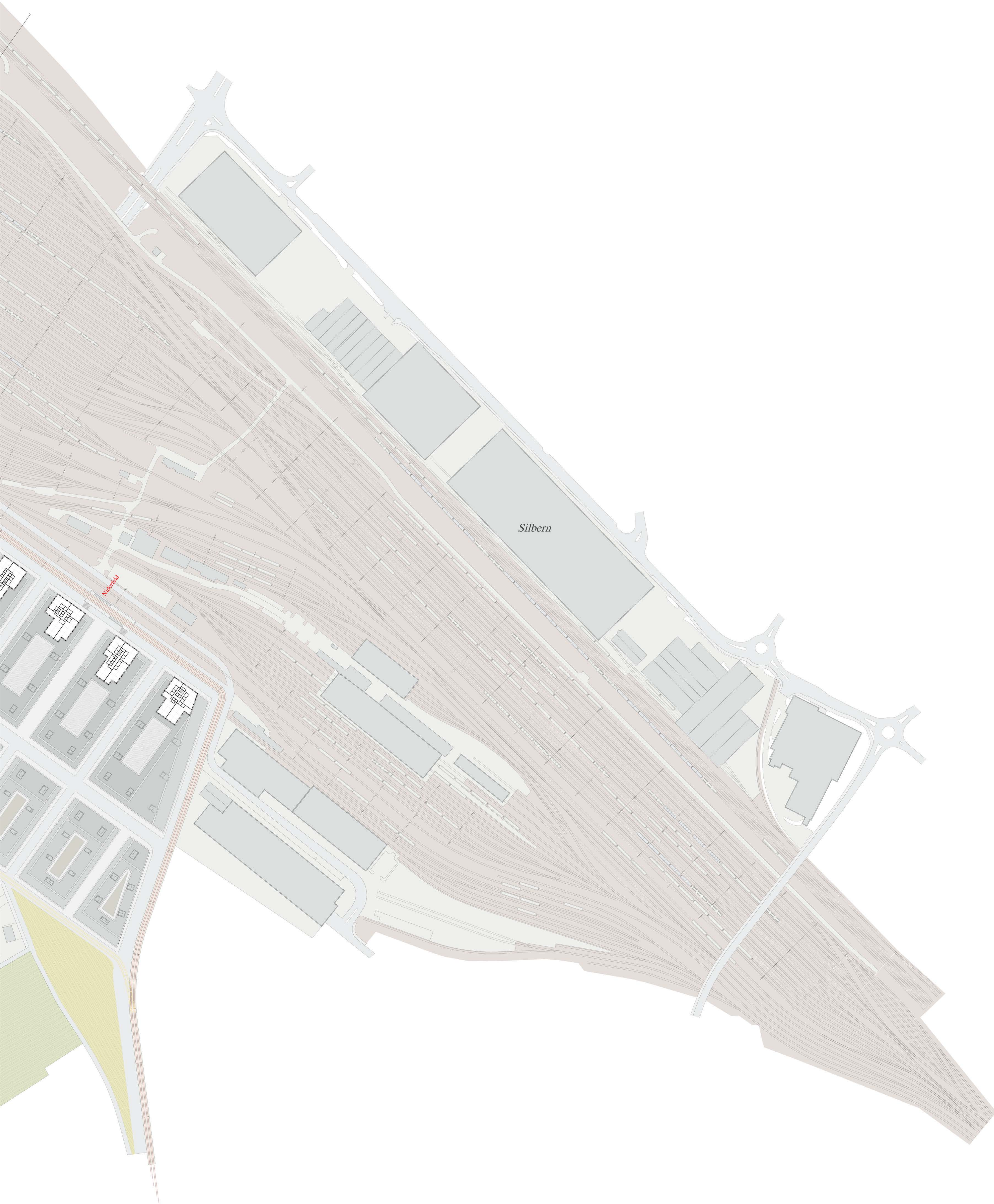


The size of the blocks under the size of the industrial and SBB buildings around the rail yard. Building height decreases towards the rail yard, where tower and public buildings are interwoven into the existing fabric of agriculture and industry.
Station 1/1500



A flat-roofed building defines the urban street space. The facade of blocks facing the road and are 12m by 13m. The successive progression with double window lighting on the lower levels and living spaces on the upper levels and in the center. The second row of blocks, with over 20m reaching down to street level, also for more living spaces closer to the street. A series of red brick blocks from the top of all high towers on the southern side to a four-story building on the southern side.

Section 1000



The River Schäftlisch

6.7 km to Altstetten, 7.3 km to Källangren



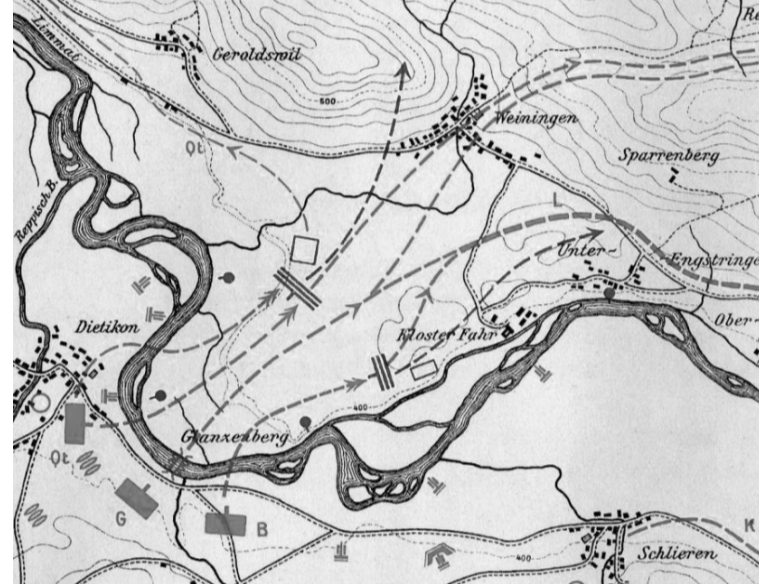
Schäftlisch Image 12/13/00



see Table section RIVER

In between the river and a residential neighborhood, two rail lines and a busy street pass through a narrow stretch of about 10m width. South of the *Zapfenstrasse* lies a medium density, nondescript mix of small single family homes and middle-sized 30's flats. In the surroundings, the residential neighborhood is bordered by a pathway following the stream *Schäftlisch*. Separating the street and the rail lines, a 3m high wall protects the residential neighborhood from the sound of passing trains. The site leaves one of the Linmat's inherent paradoxes; although the Linmat is only close by, it is hardly ever seen from the street.

Characterized by its extremely nondescript appearance, the site is the only stop along the LTB's route this close to the Linmat. This raises the potential to create a stop that is directly connected to the public space of the Linmat and its double nature of infrastructure, namely flood and water cable management, and recreational park.

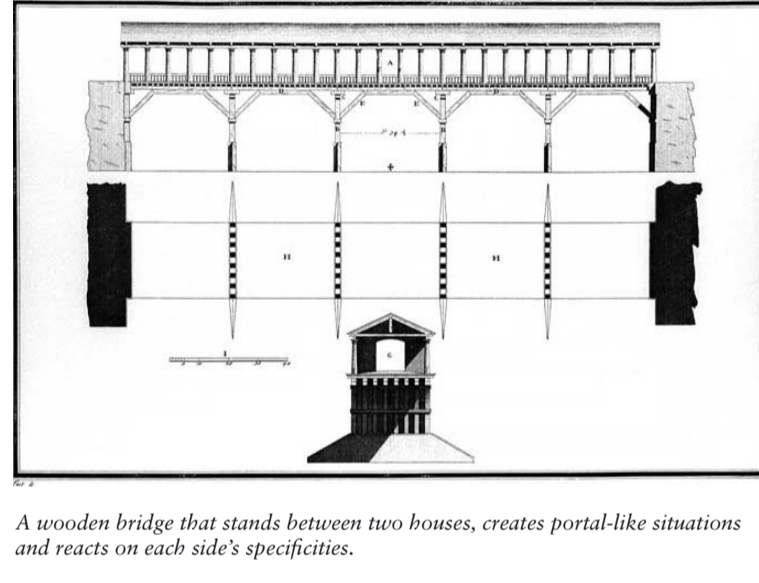


On September 21st 1794, the French army made use of the railroad with and the destruction of the Linmat, where today's station *Schäftlisch*. The original location of the site played a decisive role during Napoleon's campaign against the Austrians.

Battle Course, Napoleonic Army, 1790

The difficult traffic conditions, however, as well as the one-sidedness of the street are likely to encourage development in denial of the potential living just across the train tracks. The immediate yet visible proximity of the river therefore poses questions of how a public sphere, enabled by infrastructures such as passages or bridges, in a place where there is absolutely no public space at the moment, is able to create a specific place. A rethinking of the access to and across the river could provide the necessary grounds for a redefinition of the train stop and a possible design of the street space and infrastructural elements.

The originally planned stop, just in front of a nondescript, almost invisible passageway under the train tracks, does not incorporate questions of the river's visibility. Furthermore, it requires a potentially strategic location where pathways coming down from the valley sides intersect the train stop. Our proposal moves the new train stop about 100m East of the planned stop. The path following the stream *Schäftlisch* therefore directly intersects the new stop. The radius of influence of the new train stop not only extends into the Linmat - space via a new pedestrian bridge, but also connects to areas located further away up the path.



A wooden bridge that stands between two houses, creates portal-like situations and opens up each side's street front.

Peter Wechs, Bassano del Grappa, Andrea Palladio, 1560

The bridge focuses on connecting the two sides and increasing the visibility of the Linmat. The wooden bridge, with a central wood beam, spans across the train tracks and the Linmat. Between the train tracks, a concrete wall provides support for the beams. A small, wooden stair case allows access to the path along the tracks. At both ends, concrete cores incorporate elevators and provide space for small functions that are different on each end. On the street side, the bridge takes on the nature of the neighboring houses, turning into a train stop with a small link on the ground floor. A wooden stair case leads directly from the stop up to the level of the bridge. On the forward side, the stair case wraps itself around the concrete core, which provides for a small sheltered seating area.

The bridge connects the *Agglomerationspark Linmat* to an existing path network along the *Schäftlisch*, extending the reach and impact of the new train stop. Furthermore, it creates a small centrality for the neighborhood, defining the entrance to the river as a specific moment along the LTB's route.



The southern end of the bridge (integrated in the street facade), the building incorporates the structure of a small block.

Horizont 1510



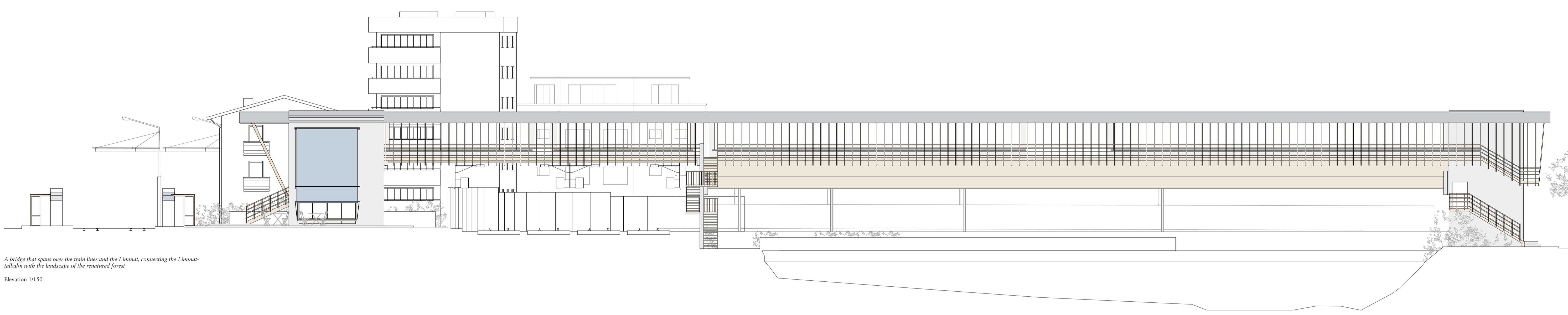
The southern end of the bridge. Unlike the other end of the bridge with its public, more urban facade, the southern end only provides for a small private-like structure and a seating possibility under the bridge's structure.

Horizont 1510



5000 4000 3000 2000 1000

Schiffbaustrasse 47



A bridge that spans over the main lines and the Limmat, connecting the Limmat valley with the landscape of the residential forest.
Elevation 0130



DIETIKON

Killwangen Spreitenbach - 7.3 km

Bahnhof Dietikon

L I M M A T

Franseschatten

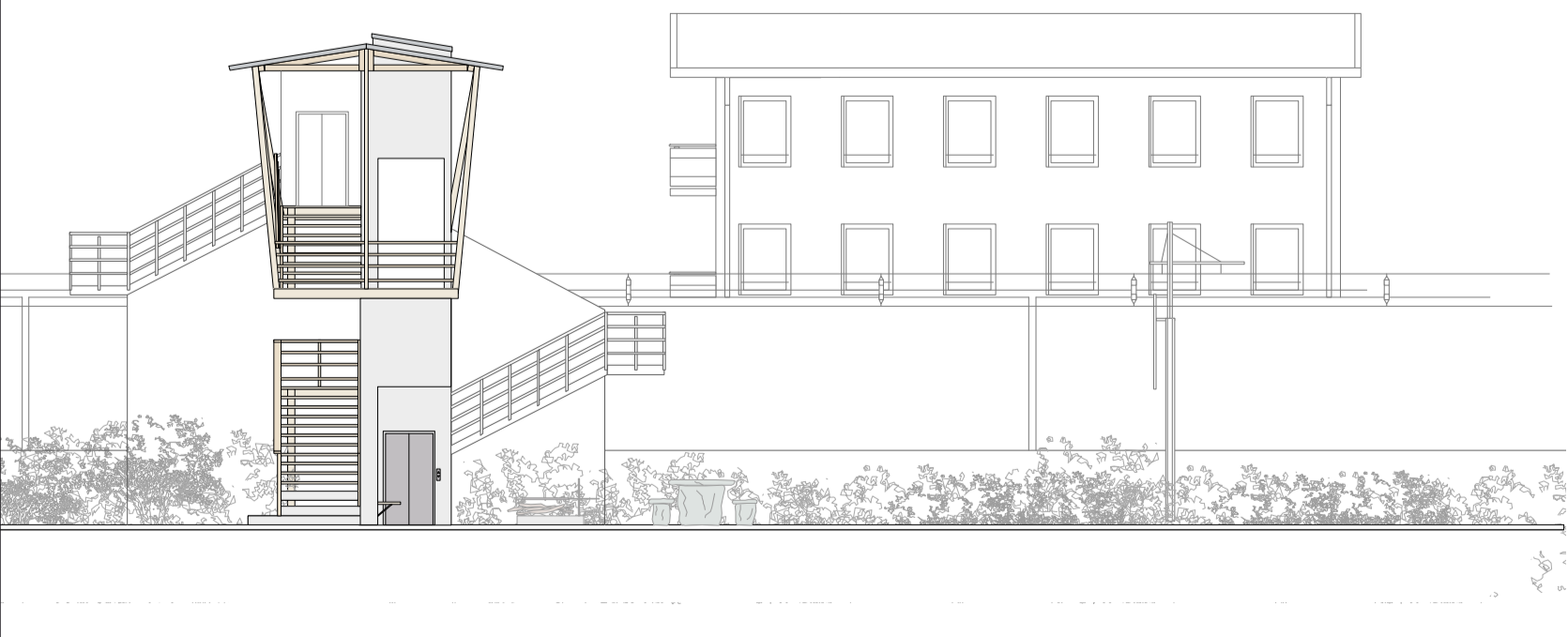
Stüchli Glasenberg

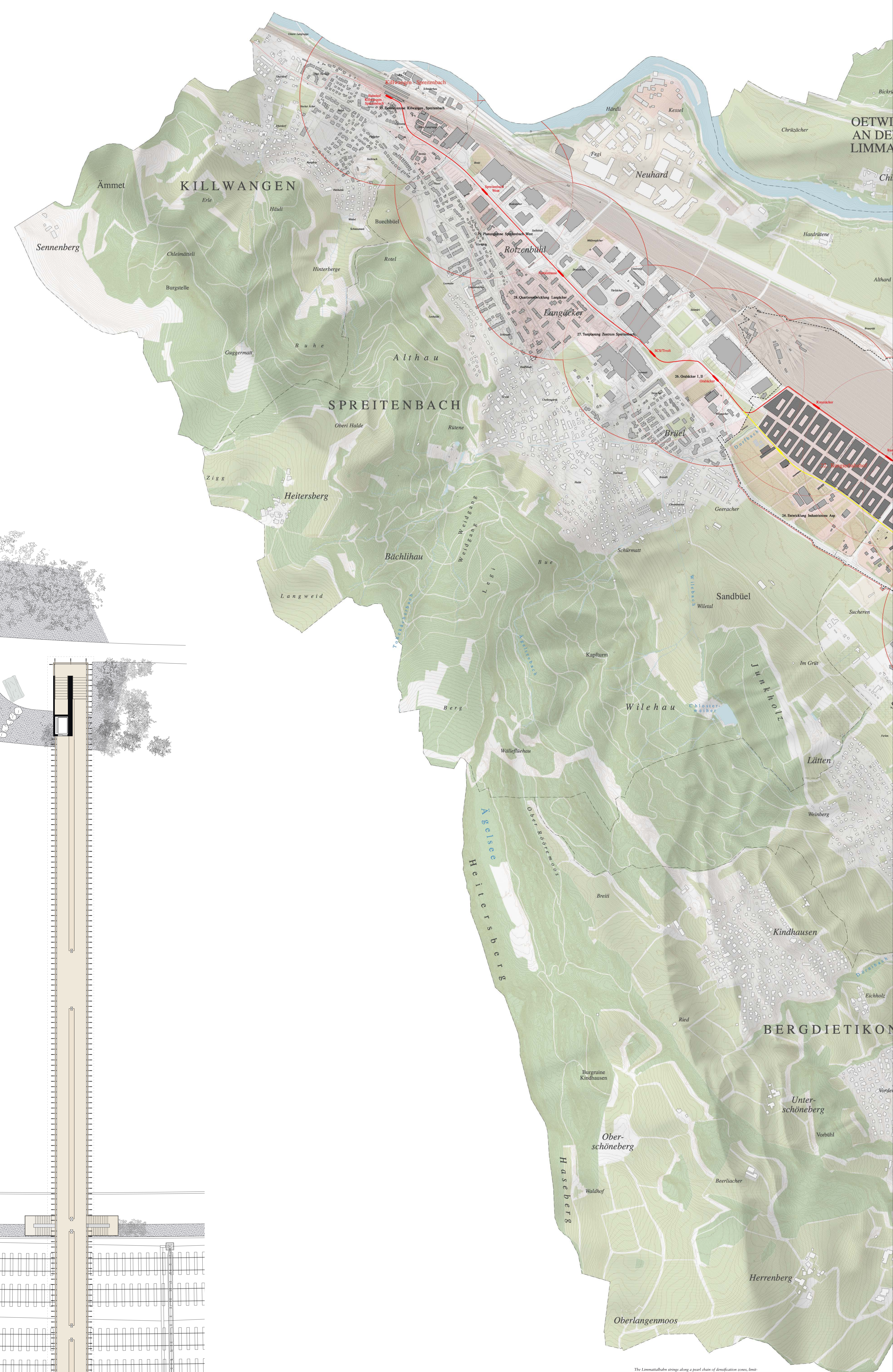
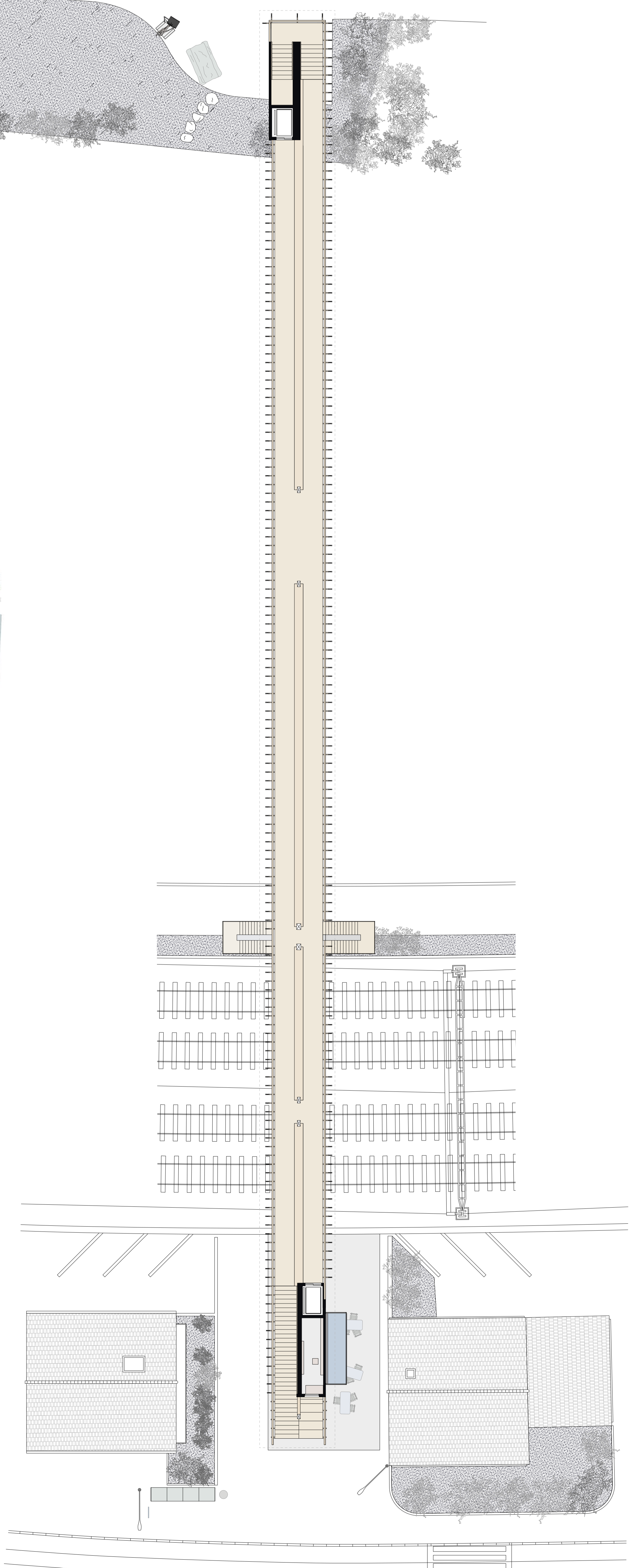
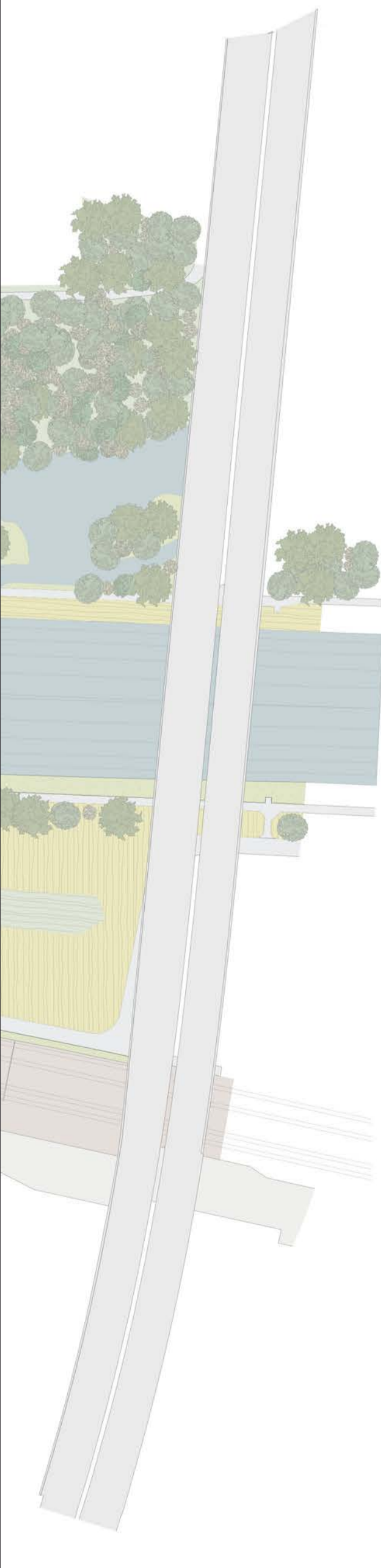
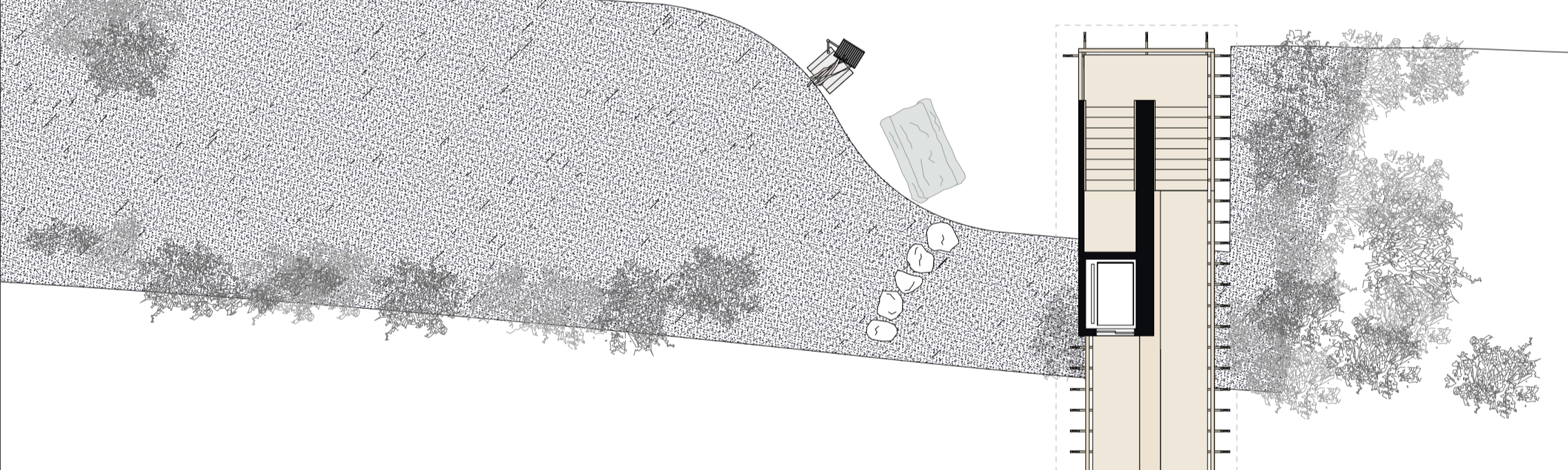
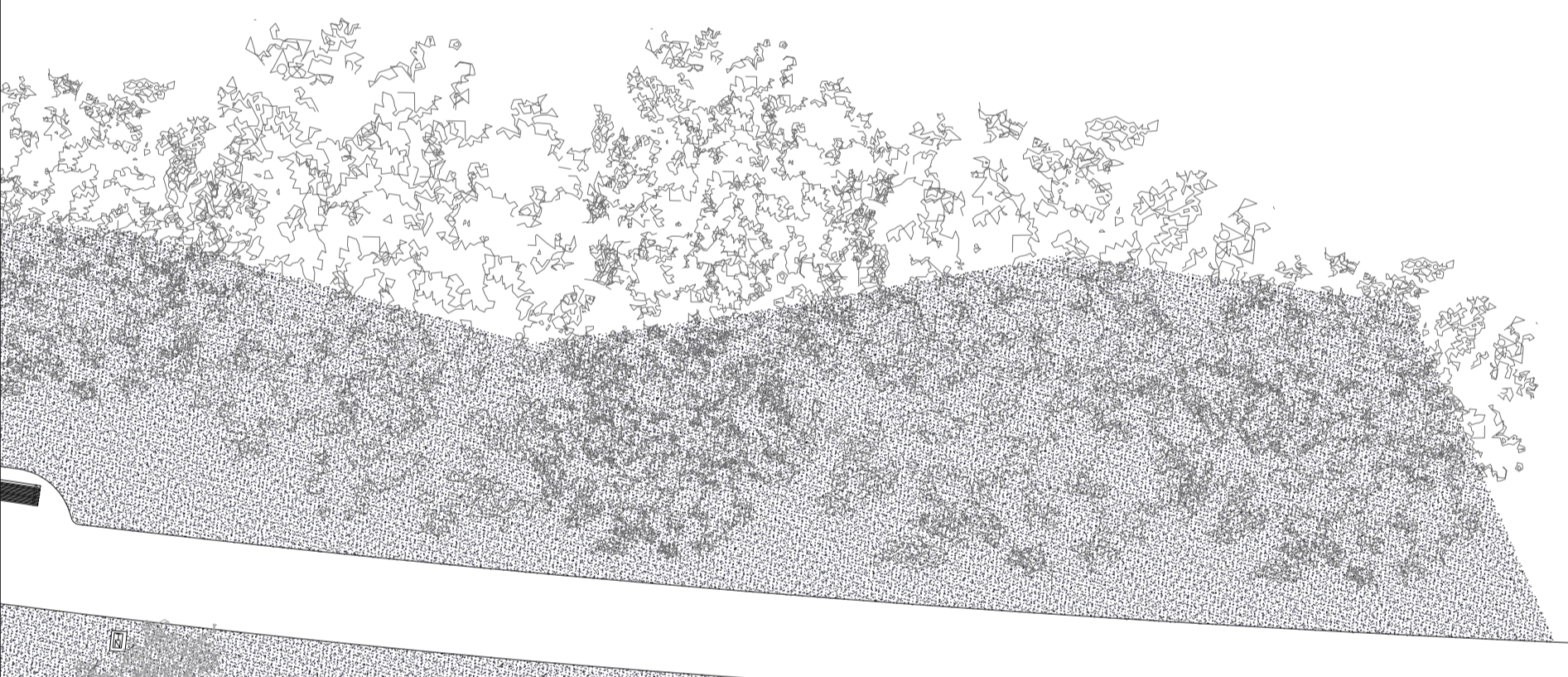
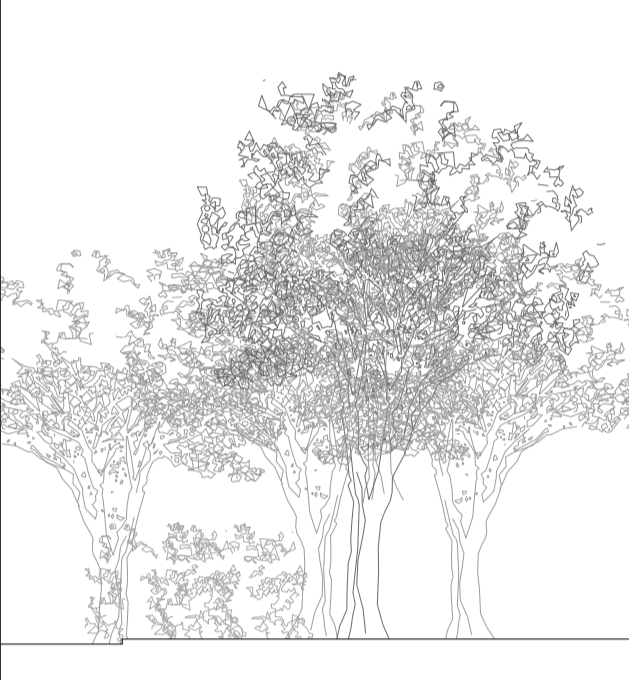
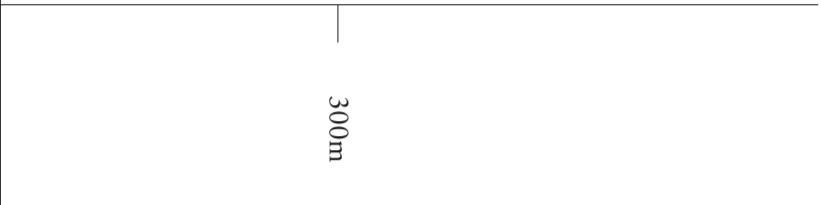
Hofacker

Altenmatten 0.7 km

The bridge is strategically located to incorporate existing path networks. Before and after the bridge, the networks will be revised in order to enable the Limmat valley passengers' direct access of the Limmat and the bridge.
Situation 01300

A smaller river runs through the bridge and provides the main load bearing structure. The wooden lattice on the side provides the support for the light roof and landscape.
Elevation 0130

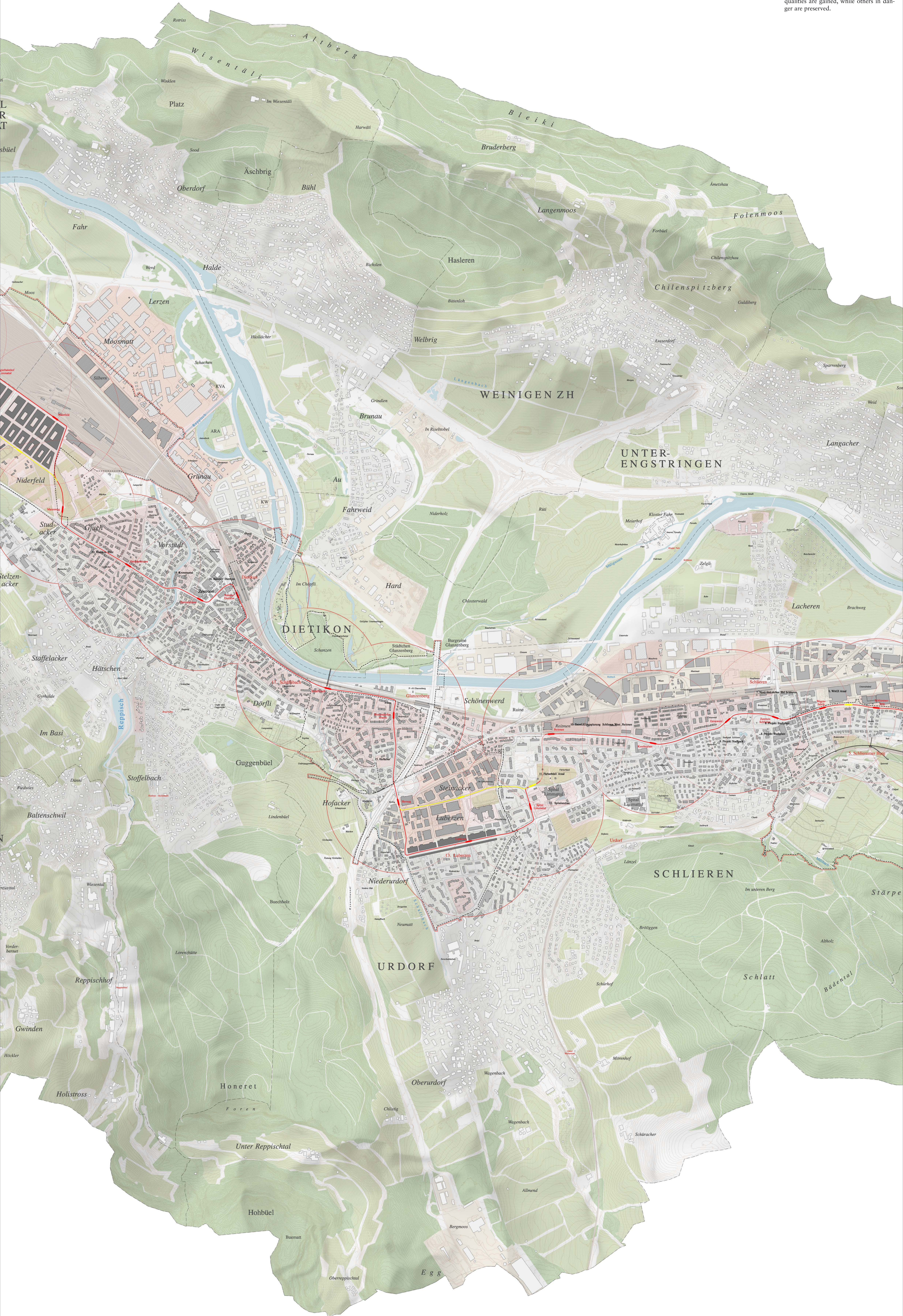




The Eisenmühlbahn strip along a proof chain of classification zones, based on a single planar's 40m value between the 50m station, the line is changed at four sites.
Map 10000

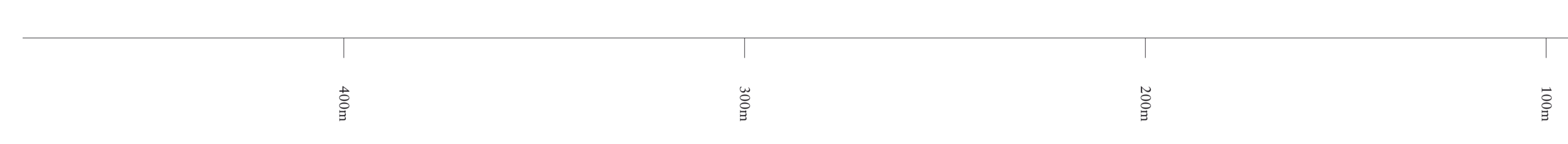
The Limmattalbahn Four Sites along the Line

13 km from Alstetten, Zurich to Källwangen-Spreitenbach, Aargau
The LTB's route takes it through areas mostly dominated by inconspicuous housing. There are, however, specific sites, moments when boundaries are crossed and territories converge. Four of these previously peripheral border zones will be projected into centrality by the LTB. We have chosen these sites for an Architecture of the Periphery. By making small alterations to the location of the planned stations, as well as alternations of the line, qualities are gained, while others in danger are preserved.



From start to finish, a tram ride with the LTB takes approximately 40 minutes and connects 27 stops, five of which are S-Bahn stations. The LTB follows the major traffic arteries that run parallel to the valley's topography with only two noticeable deviations from its predominantly straight course. The first occurs at the border of Schlieren, Udorf and Dietikon, where the LTB passes uphill through a tunnel to reach the Spital Limmatthal and the Kammoschule Udorf, then reverses downhill just after the industrial zone of Aulerhütte to continue along the valley floor after passing the S-Bahn station Glaneggberg. The second, smaller deviation occurs in the centre of Dietikon, where the LTB takes a bend in order to reach the Bahnhof Dietikon. Along the proposed route, development zones have already started to emerge; they relieve the centres of the present development, yet bear the risk of creating a homogeneous strip, similar to that which has developed along the line of the Glattalbahn. Although mostly dominated by inconspicuous housing areas, the LTB does encounter a variety of situations along the stretches between the densely developed centres in the proximity of the S-Bahn stations. Specific moments where the LTB's route is interrupted by, or passes close to, fragments of the other three territories. With the advent of the LTB, these peripheral locations, which had been located far away from the S-Bahn stations, will suddenly be projected into centrality. The LTB and the newly provided accessibility of four previously peripheral sites therefore provide the setting for our search for solutions to the problem of public space in the Limmatthal – solutions in which an architecture emerges from a precise understanding of these sites and their adjoining territories. Spaced in between the five S-Bahn stations, these four sites not only create a rhythm in regard to the entire length of the LTB, but are also likely to be seen and accessed by passengers not traveling the entire length by train. The LTB's conceivable running every 15 minutes will be tied to that of the S-Bahn, and it stands to reason that most passengers will not take the LTB the entire way, but start or end their train ride at one of the stations along the way. The exact layout of the LTB is the result of a meticulous process dominated by issues of traffic planning. Although the future tram stops have already been defined, we put to question not only the names and locations of the stops but also the designated route of the LTB in the vicinity of our chosen sites. Furthermore, with regard to our conception of an architecture of the periphery, we challenge the notion that prevailing concepts of urban public spaces – parks, plazas and squares – should be the decisive factors shaping housing development in the Limmatthal. Instead, by rethinking the relationship between public space and infrastructure, we seek to clarify boundaries, usability and access of this unique territorial arrangement. By showing these four sites we have identified prototypical situations – situations that are specific to the Limmatthal, but could also appear elsewhere in the agglomeration. As densification and development are likely to occur along the entire LTB line, we believe it necessary to search for solutions that go beyond the mere question of densification at these specific sites. By seeking answers to the contemporary problems – the driver for densification – we hope to create places that emerge out of the specific conditions prevalent in the periphery. Four places that are not just characterized by density, but also by the atmosphere that results from the unique relationship between architecture and territory.

- Proposed line of the Limmatthalbahn
- Line Deviations and Corrections
- 400m Radius of Impact
- Anticipated Densifications and Developments
- Line of Densification Areas and the four Project Perimeters:
1. Töss and Toblach, Abstermenten
 2. MZL Badweg, Herlis, Immenhofen
 3. Geroldswald, Herlis, Zersungshof
 4. Geroldswald, Herlis, Immenhofen
 5. Schlieren, Herlis, Zersungshof
 6. WAG Auel
 7. Nord- und Süd- Bahnhof Udorf
 8. Friedhof Stadler
 9. Friedhof Stadler
 10. Friedhof Stadler, Schönen Wei, Birmen
 11. Friedhof Auel
 12. Spitalberna
 13. Industrielle Liegenschaft
 14. Friedhof Stadler
 15. Friedhof Stadler
 16. Friedhof Stadler
 17. Schlieren / Agglomerationspark Limmatthal
 18. Bahnhof Dietikon
 19. Koenigsplatz
 20. Dietikon West
 21. Friedhof Stadler
 22. Nidwald / Hauptbahnhof Limmatthal
 23. Mauerwerk, Herlis, Immenhofen
 24. Friedhof Stadler, Herlis, Immenhofen
 25. Hauptbahnhof Limmatthal
 26. Friedhof Stadler
 27. Hauptbahnhof Limmatthal
 28. Hauptbahnhof Limmatthal
 29. Hauptbahnhof Limmatthal
 30. Hauptbahnhof Limmatthal



Industrial buildings with repeated floor heights in the ground floor were up in the past and the tracks of the Limmatthalbahn. The buildings follow the sites and the grid of the industrial buildings. Their use and programmatic arrangement provide a clear border for the urbanised area, shielding its interior from housing developments.

Elevation 1200



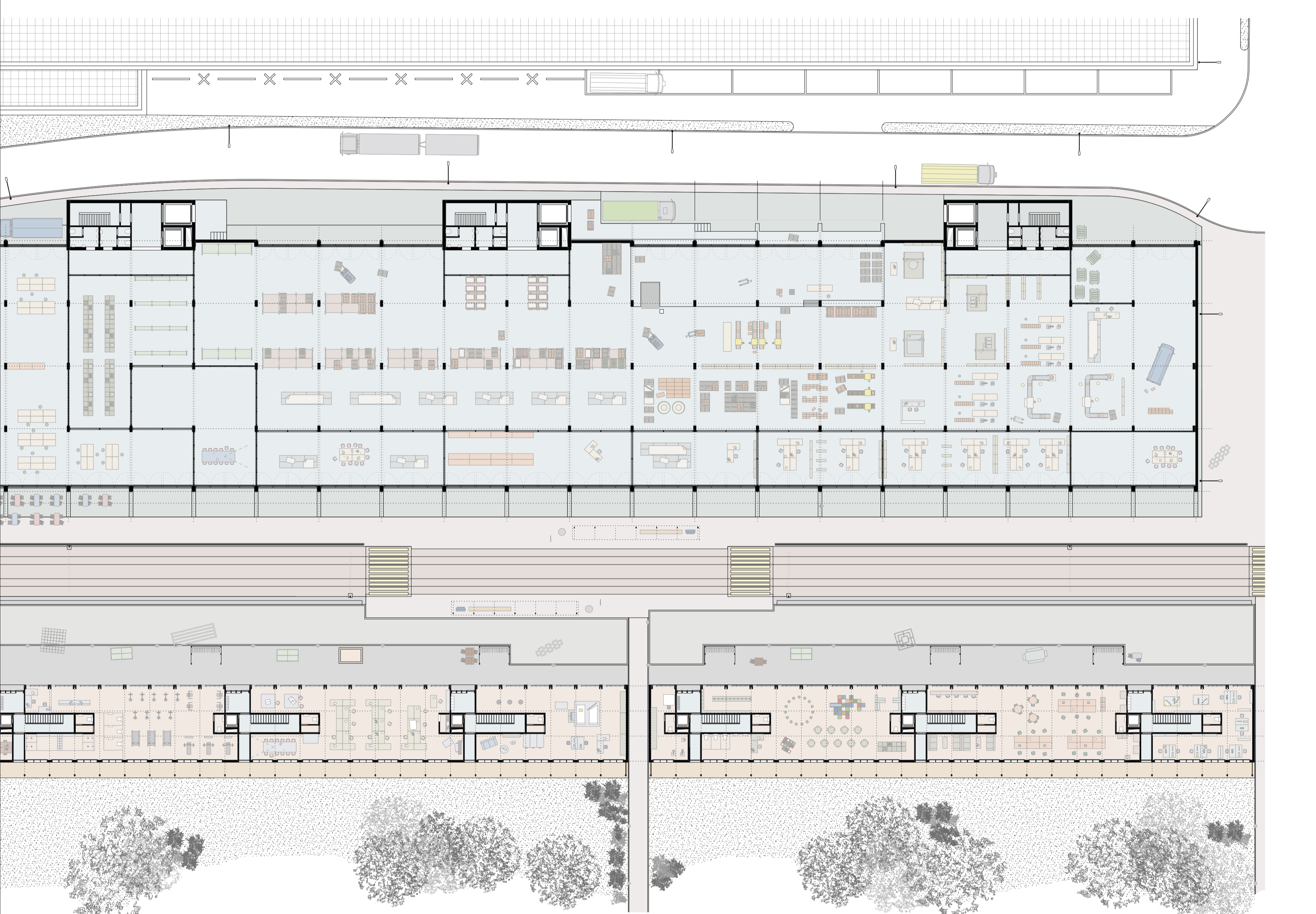
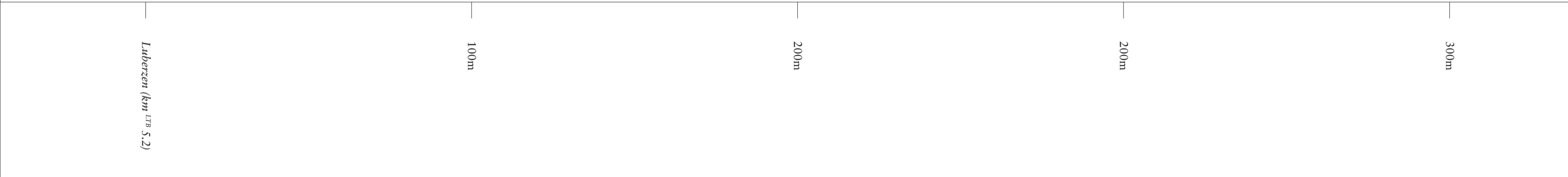
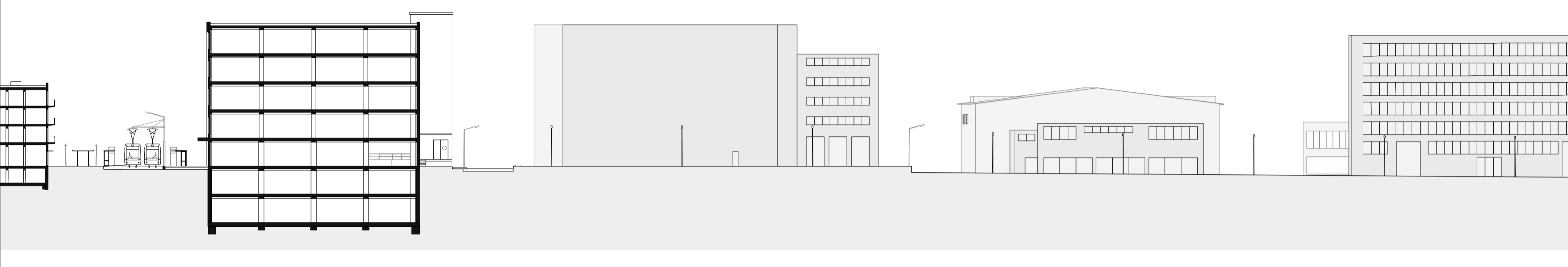
A 100m long housing building serves as a facade wall for the Glattalbahn. While in length it fits with the scale of the terrain, its height presents a small contrast that fits within the character of the existing, the open ground-floor houses and small shops for the residents and people of the neighborhood.

Elevation 1200



A vertical housing building of 100m length, opens up to the Glattalbahn situation in the south with a row of deep balconies. The use case is evenly placed along the central axis of the site, building a middle ground between open and construction. The building's height is consistent with the existing, with all essential functions packed into the core on the northern side.

Sketch 12100



The space between the industrial and the housing building is characterized by low surfaces. The covering of the industrial area is incorporated on the other side of the space tracks, creating the setting for a specific structure of both the architecture on the housing side and the industrial/commercial use on the industrial side. The space plays a role in the different characteristics, although in different scales, of both ground floors.

Hoopla 1370



The Industry Luberzen

5.2 km to Altstätten, 8.8 km to Kallwang



Satellite Image 12/19/00



The industrial use of Luberzen is characterized by areas that profit from the low rents, very accessibility to air and relative freedom in the layout.

Under the industrial and commercial district, Luberzen, situated at the border to Schönen and Dietikon, is one of the last of its kind in the Limmatal. Once a hub for the booming light frame industry, the nearby highway exit nowadays makes it attractive for small and medium enterprises. This is being reflected in the traffic participants. With only one bus stop (303) in walking distance, the district is very poorly connected to public transportation. Unsurprisingly, Luberzen has been able to keep its inconspicuous appearance and low rents.

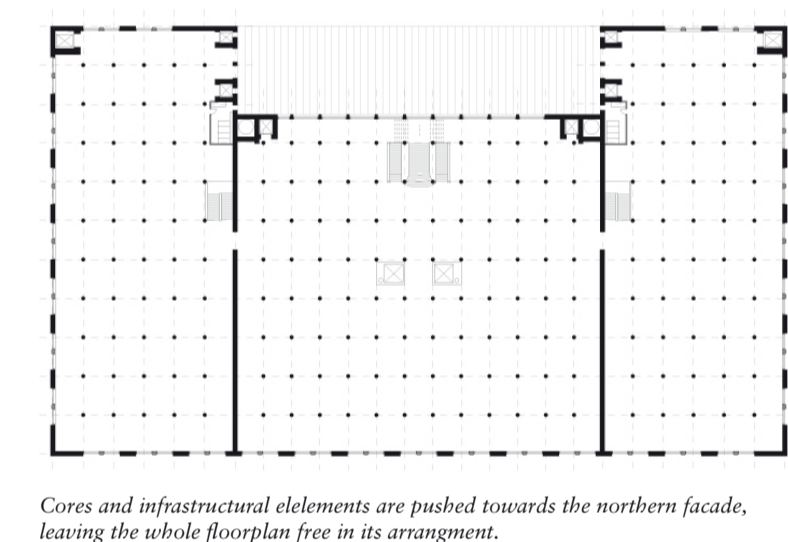
It is expected that the LTB will induce change. At the present, Luberzen is making an effort to rezone the area to mixed-use, therefore developments on the empty lots remaining will likely be left to operate within the industrial zoning confinements. With the LTB's newly imposed centrality, however, a measure increase in rental rates is expected, and the pressure to rezone will rise.



The industrial area that lies in Luberzen's North is an ideal framework for housing in Luberzen, especially since both adjacent to the district.

What was once a purely commercial and industrial district would therefore come under scrutiny to develop. The relatively new situation, the access of industrial districts by public transportation, raises questions about a potential public sphere. How can the existence of a commercial area, a district school and a residential area cope with each other?

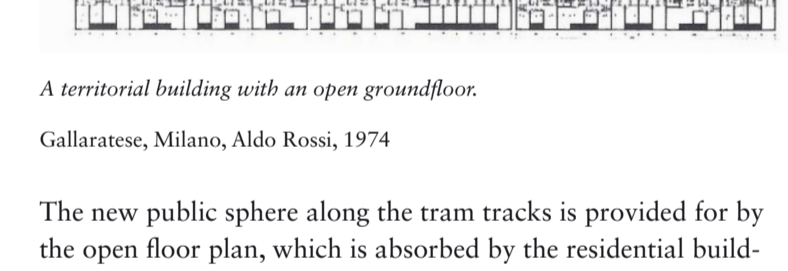
Our proposal mediates between the commercial district and the adjacent residential zone. The sharp, yet unclear division between the two neighborhoods requires a transition. Particularly the residential side of the border has enormous potential for densification. We therefore propose to narrow the LTB, leaving its center around the industrial district on the southern side. The LTB now marks the border between the adjacent residential neighborhood and the industrial zone.



Contour and development elements are pushed towards the northern facade, leaving the central Kammerschule as its arrangement.

F&M Warehouse, Chicago, H.H. Richardson, 1885

On the northern, industrial side, the edge is defined by a series of deep, open floor plan office or industrial buildings. Their size and arrangement reflect the needs and predominant building typologies of the industrial zone. The straight alignment of their edges facing the LTB provides a clear visual boundary, which is contrasted by a long, thin building on the residential side. The building, through its length, is perceived as a territorial wall, separating the industry from the residential neighborhood.

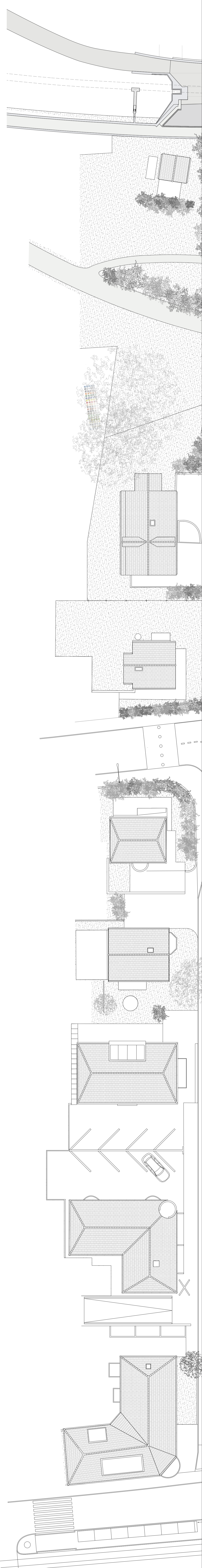


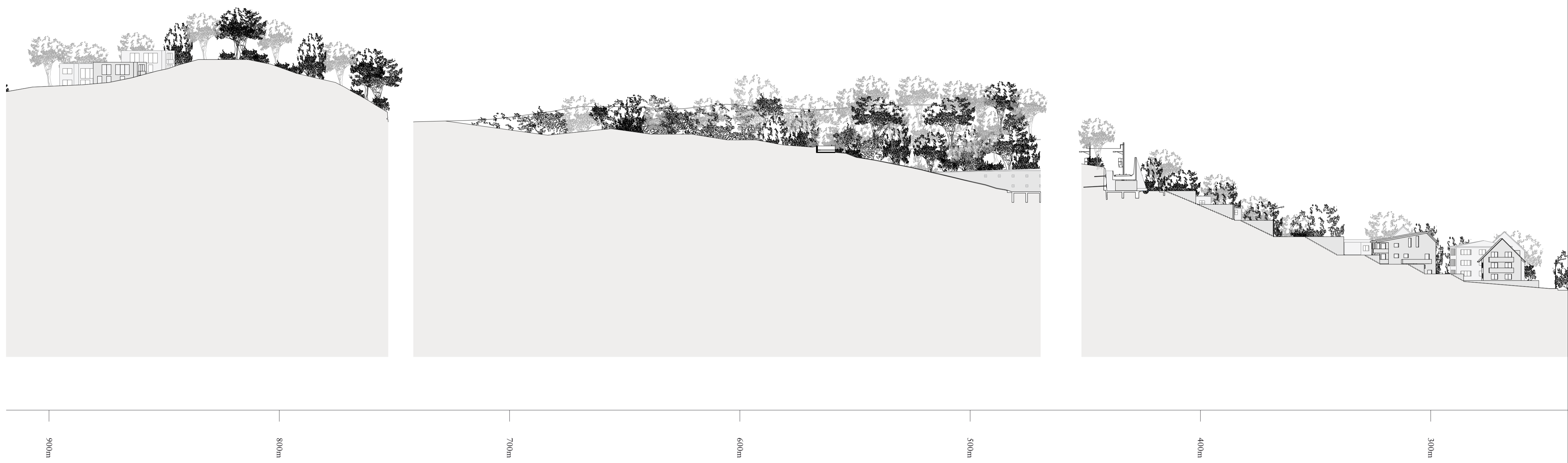
A territorial building with an open ground floor

Gallerneer, Milers, Aldo Rossi, 1974

The new public sphere along the train tracks is provided for by the open floor plan, which is absorbed by the residential building's first floor. Mimicking the uses of the industrial side on a smaller scale, it provides spaces for ateliers, workshops etc.

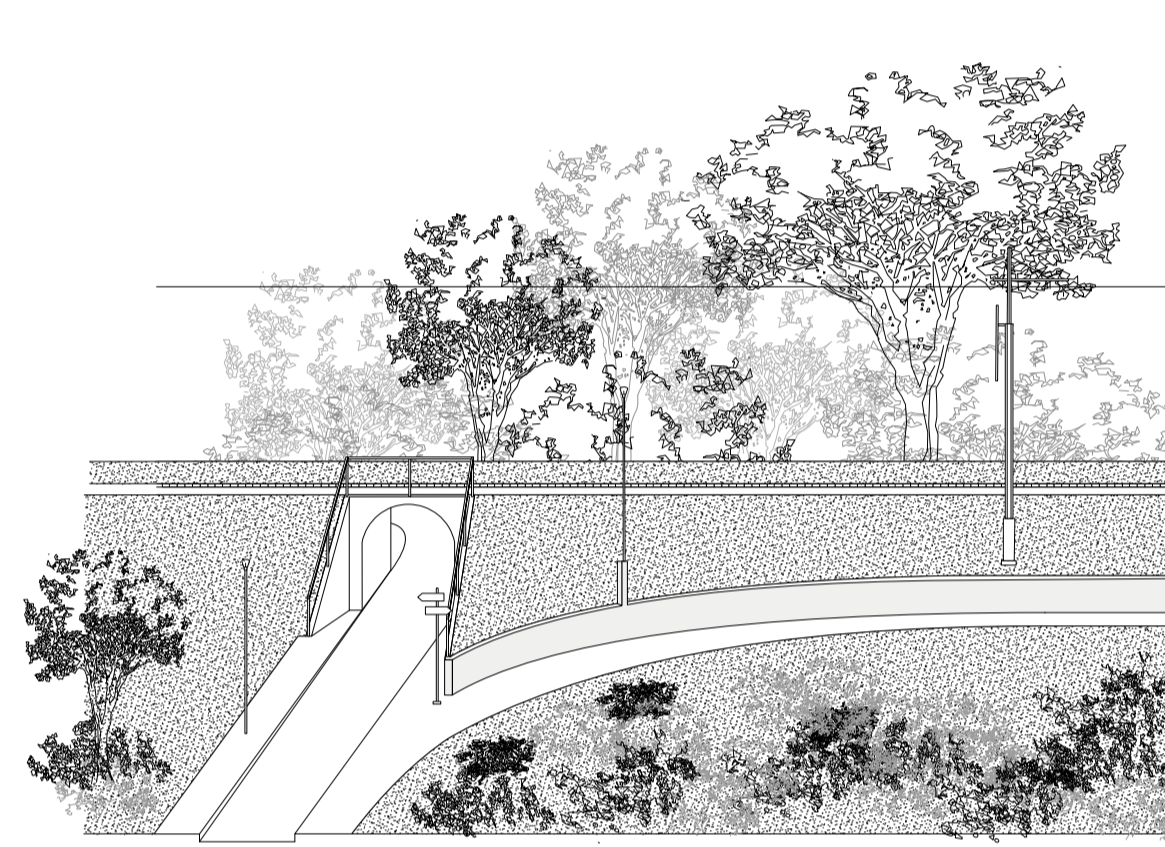
In order to connect the grid-like fabric of the industrial zone and the free arrangement of paths and buildings of the 60's Garmstadt, five passages perforate the residential building. While the industrial zone is able to survive due to the adjustment of the LTB's route, the residential zone profits from a specific quality of a new, clearly defined and confined public realm as well as enhanced accessibility by the train.





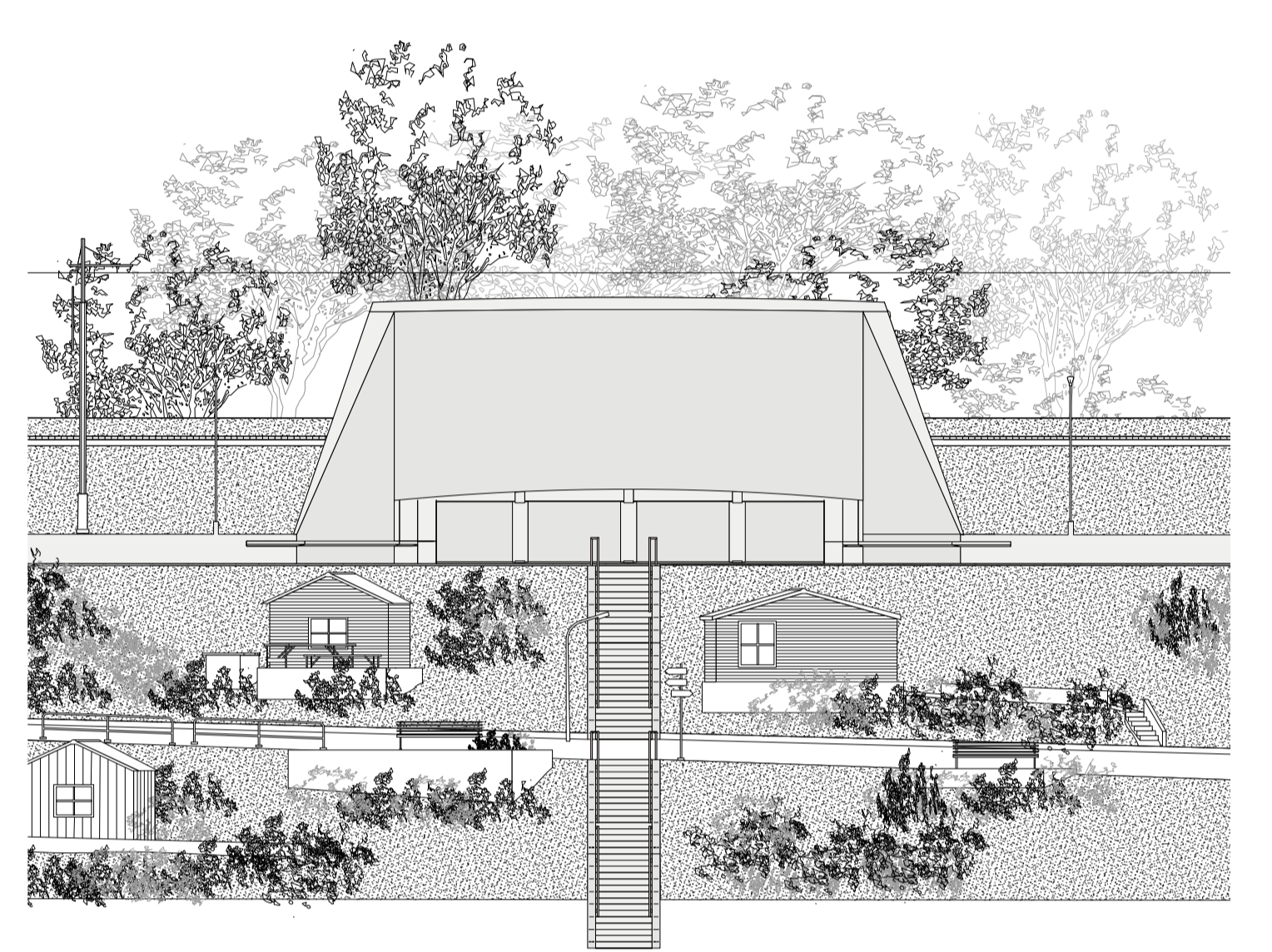
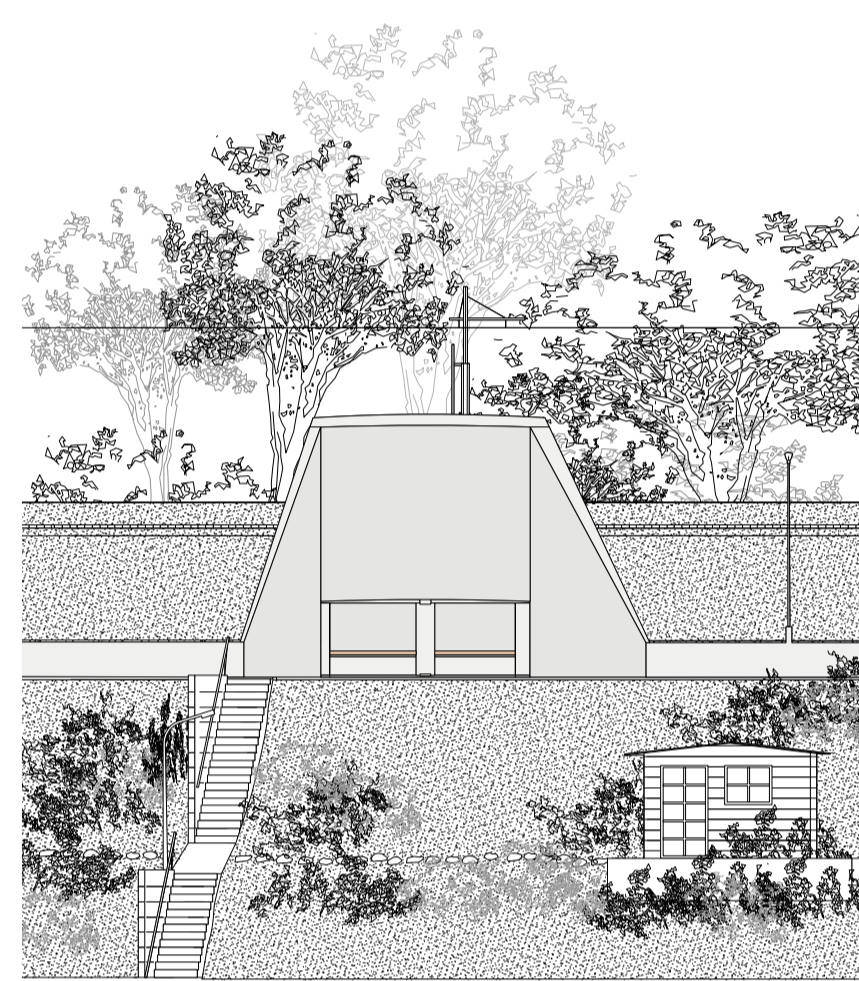
The existing three flights of stairs are extended to the new path following the main route. The steps lead to a small terrace with a small open space in front. After passing the terrace, a path leads up to a small resting place in the woods on top of the ridge.

Plan 1:200



Along the ridge of the Schliererberg, four new steps are implemented in order to create a direct visual connection from the ridge to the path. The path, starting and ending with the existing stairs, is interrupted by three segments where the existing wall is broken by little arches, providing small spaces and shelter and a new access to the meadow in the middle.

Section 1:200





The Forest Schliererberg

2.5 km to Allstetten, 11.5 km to Källungen



Satellite Image 1/25'000



view Table section FOREST The plateau of the Schlierer Berg, a small, picturesque expanse of agriculture between the Allstetten to the South and Schlieren to the North.

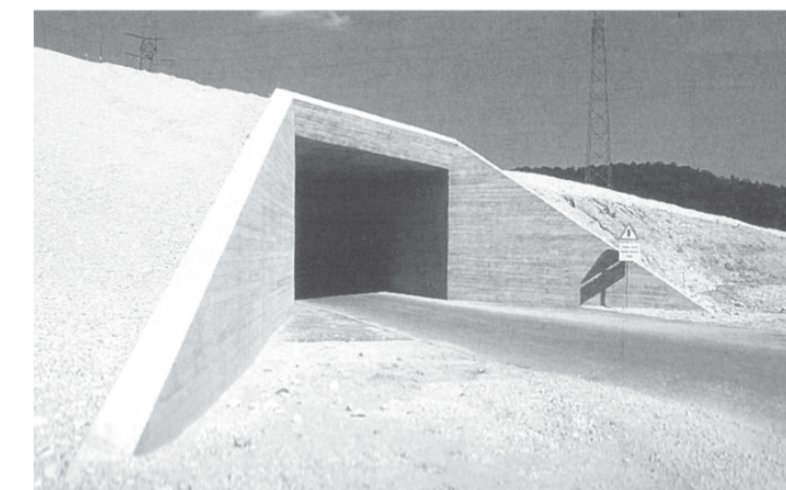
Smoothed and flattened by the glaciers during the last ice age, the Schlierer Berg now takes the form of a low lying plateau. It marks the End of the *Albisette*, a chain of hills that stretches along the western shores of the Lake of Zurich. From the chain's highest point, the *Uetliberg*, the hills smoothly out and drop down to meet the low topography of the Schlierer Berg. Its flat plinth raises the plateau by about 60m and therefore sets it apart from the surrounding settlements of Zurich and Schlieren. From this plateau one has a clear view of the Alps, Zurich and the Limmat. The predominant use comes from agriculture, with some single family homes loosely sprinkled along the edges of the plateau. The undulating, soft landscape of this plateau, however, is completely invisible from below. Furthermore, it is cut off by the train line to Udorf, physically disconnecting the plateau from the valley.

The stretch below this ridge will undergo development pressure when the Limmatbahn arrives. The empty lots to the north of *Badenerstrasse* and around the former WAGI-Areal are for the most part already caught up in a planning process. On the southern side of the street, between the train line and the ridge that marks the edge of the plateau, development has not yet started. The current situation poses questions regarding accessibility to the mountain and a possible building site along the ridge. In the East, the 60s housing settlement on the slope leading up to the train tracks, with its loose building typologies, does not form any connection between the bottom and the top of the plateau. The arrangement of buildings becomes more mixed towards the West, where 60s blocks are interspersed with single family homes and smaller apartment buildings and allotment gardens sticking to the slopes below the train line.



A cascade of stairs follows the topography and ends at a small resting place. Stair Cascade, Josef Plecnik, Prague Castle 1920-34

Our proposal for this site aims to clarify the edge condition below the forested ridge, and to provide a clear hierarchy of access leading along and underneath the train line. Of the three tram stops on *Badenerstrasse*, only the first one grants easy access to the mountain through a tunnel under the train line. The following three stops are therefore slightly rearranged to coincide with straight views of the ridge, making it directly visible from the tram stops. A new pathway running under the train line connects the first tunnel at the eastern end to a second, already existing, pedestrian tunnel to the west that is not visible from the street. At the three points where the new pathway and the sight lines from the tram stops converge, small architectures provide sheltered seating arrangements, and enhance the visibility of the new pathway. In the middle of the path, the architecture takes on the nature of infrastructure, providing a third, new tunnel that leads to a direct pathway up through the forest to a small clearing and the mountain.



The quality of the underpass finds its appropriate expression in the little architecture of the gateway. Floor Ruchat Roncati, 1991



Four stops are slightly repositioned to fall in line with direct views of the ridge. A new path follows the train line, connecting 2 existing pedestrian tunnels. At three moments where the sight lines and the path converge, the path's remaining wall breaks open to incorporate small architectures. Situation 1/1:500

Im hinteren
Schliererberg

Albisgüetli - Skm