

Small Construction Businesses in RESIDENTIAL NEIGHBOURHOODS of Oerlikon

Introduction

The given site of two former MFO (Maschinenfabrik Oerlikon) plots is situated at the border of Neu-Oerlikon, which was created by 'Sonderbauvorschriften'. This new part of Oerlikon has been redeveloped from an industrial site into large blocks of housing and office buildings since the 90s. When stepping over the border into the older parts of Oerlikon, one experiences a change in scale as well as use. Apart from shops, doctors' offices, kindergardens, fitness studios and restaurants along the main streets that can also be found in Neu-Oerlikon, there also exist many small construction businesses (like painters, plasterers, carpenters, tilers, tinsmiths, roofers, horticulturist, or sanitation-installers) within the residential neighbourhoods.

They range from one-man businesses to having 25 employees, but what most have in common, is the appropriation of spaces not designed for commercial use or production within or attached to apartment houses. Many have rented these rooms for decades and the residents of the area get along well with the noise. They had to fall back on these spaces, namely garages, underground parking, or one-storey annexes, because they do not generate enough income to pay the expensive rents of ground floor locations in Neu-Oerlikon or elsewhere in the city.

They make do with spaces that are often far from ideal – being too small, badly isolated, without light etc. They often extend over time and appropriate neighbouring spaces that were not intended for them, because they want to be in the city to reduce time-consuming driving to work and to clients, which also reduces costs.

However, they are never sure how long their rental-agreement will last, especially since the area is prone to replacement buildings. 'Ersatzneubauten' are commonly used for densification reasons but also for making a profit: since apartment rents are higher and silent commerce less intrusive, the spaces for named business, qualifying as moderately disturbing, are omitted. Therefore, the business owners rely on their landlord's good will (one might also call it social responsibility) and hope they will not change their mind or sell, since new spaces could (probably) only be found at the fringes of the city.

In this environment, types beyond the classical apartment building or ground floor commercial spaces have been created and provide insight into questions of maintenance, coexistence, modularity, and diversity valuable to future (re)developments, especially when considering material and social durability.

Small construction businesses in residential neighbourhoods



To summarize, there are many small construction businesses in residential areas of Oerlikon. Due to the expected growth of inhabitants in Zurich till 2040, the ‘Kommunaler Richtplan’ plans to densify these residential neighbourhoods by 150 to 270 percent. However, the existing trend already shows that replacement buildings are created without rooms for production since apartments are much more profitable. Therefore, the small construction businesses are threatened to be displaced by ‘Ersatzneubauten’ and pushed out to the city’s fringes.

For multiple reasons, however, these businesses want to stay in the city: In most cases, the majority of their clients is from within the city limits or not far outside. A location in the city or in Oerlikon is great for reducing the time it takes to drive to work or to clients. While this also reduces costs for the clients, it especially makes sense for these kind of small-scale construction businesses since most of them do not need large storage spaces and some do not even have large workshops because they work only on the construction site (like painters, plasterers, tilers, sanitation-installers). Furthermore, this ‘business model’ is part of what makes their coexistence with residents work well since they are not collecting material at the depot every morning. This reduces noise and when some basic rules of respect are observed, like refraining from yelling or loud conversations outside before 8 am, the coexistence of housing and small construction businesses is quite unproblematic.

The Stiftung PWG’s experience with mixed use also shows, that tenants are willing to move into apartments above commercial spaces when building standards like sound-proof windows and ceilings are fulfilled. Se-

parate entrances help to reduce noise inside the building as well. In addition, the ‘lists of craftsmen’ at Gubelstrasse 2 (PWG) and the Furttal housing estate (Liegenschaften Stadt Zürich) make it clear that many companies travel long distances for repairs. Although the property managers actually recognise that proximity to the property is relevant for emergencies and sustainability, sometimes there are no „specialists” in the area.

Therefore, when considering the redevelopment of the MFO plots D6 and D7, the possibility of reusing this former site of production poses a great opportunity for the future of small construction businesses in Oerlikon. It would comply with the city’s idea of a “city of short distances” by providing the neighbourhood with people maintaining our buildings and making them more durable. Furthermore, the city wants diverse and socioeconomically mixed neighbourhoods with cultural activities, workplaces, and affordable housing.

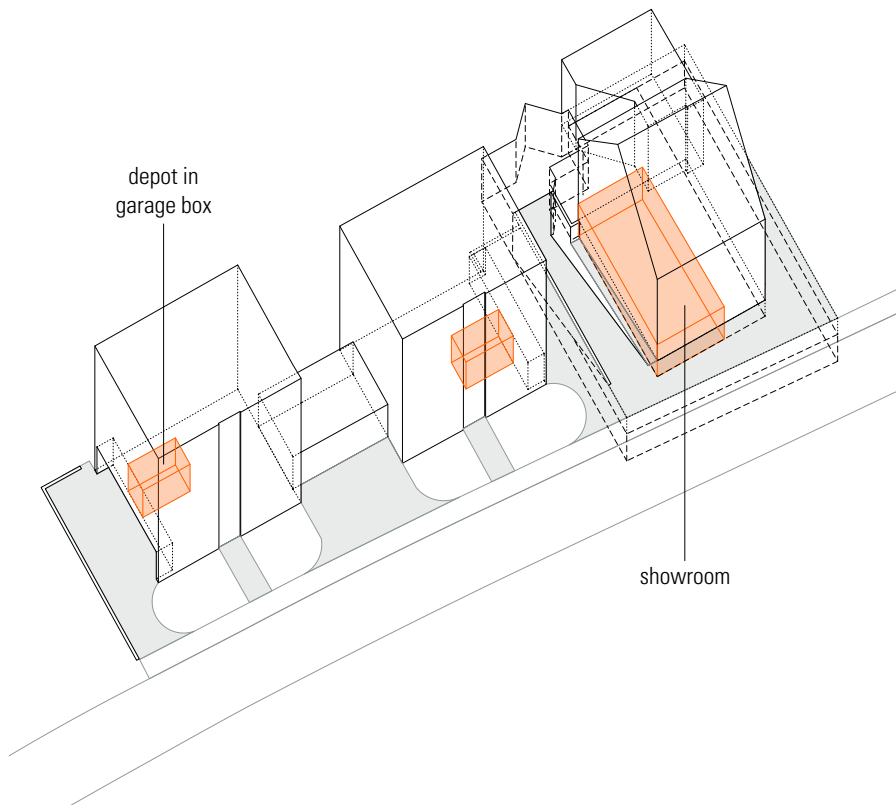
My project will, therefore, aim to find a possible solution of creating space for small-scale construction businesses within the existing historic structure of MFO, taking into account the businesses’ modularity and need for adapting, and intertwining them with other uses such as affordable housing. This challenges the proposed masterplan that wants to create housing solely on plot D7 next to the railway tracks, while building office spaces on the upper part of plot D6 (part A). It hopes to preserve more of the industrial building fabric while creating an “active”, “livable”, and “diverse” mixed-neighbourhood. In this process, I want to rethink the meaning of these qualities, that are prescribed by the city (as well as many architects) and presume to know what this means for all members of society.



1

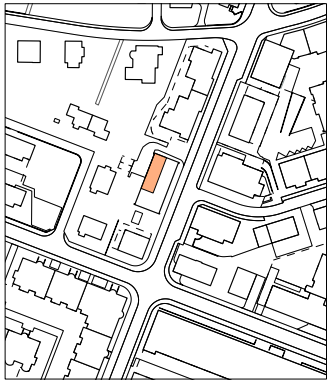
FERRARA Naturstein- & Keramikarbeiten

- Space: approx. 110 m²
- Radius: most within 10 km (also clients up to 30 km)
- Location: live in the area (short distance to work, good for family), well connected (public transport +highways)
- Work: specialized on qualitative tile work with stone and ceramics
- Clients: 50% new clients and 50% established real estate managments (all within Zurich)
- trucks deliver most material to their storage units, only for larger projects (new buildings) direct delivery to the construction site



Luigi and Giuseppina have been renting the showroom for 22 years and added 2 garage boxes later, because there was not enough storage. They could not find any other space close by that was affordable.



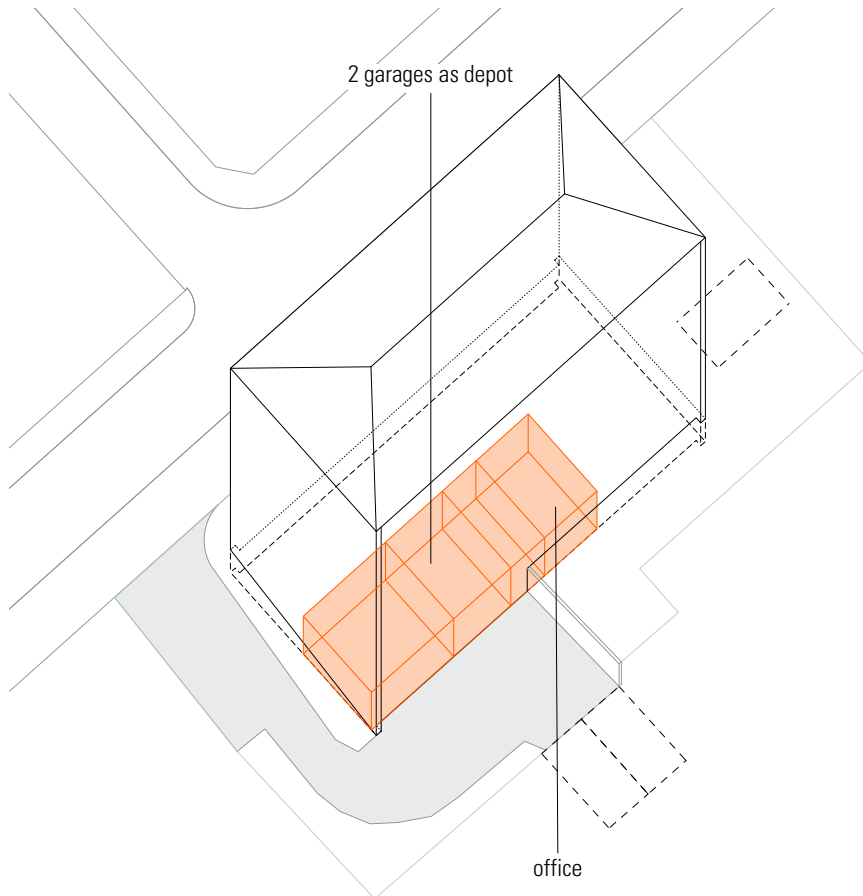


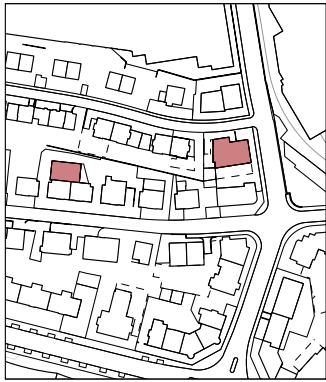
2

Maler CALABRESE

- Space: approx. 120 m²
- Radius: 50 km (active throughout German-speaking Switzerland)
- Location: been there for almost 50 years because his father knew the architect

Garage is not registered as commercial space, so they were lucky to have been there for more than 30 years before the fire police noticed because then the 'Gewohnheitsrecht' applied. The concrete ceiling helps as well.



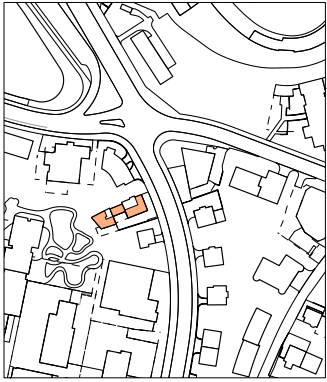


3

Maler vocat

Moved 150m from one-storey annex in the backyard of Affolternstr. 100 to Langwiesenstr. 1, when businesses' owner built own building with workshop in the low-parterre and apartments above.

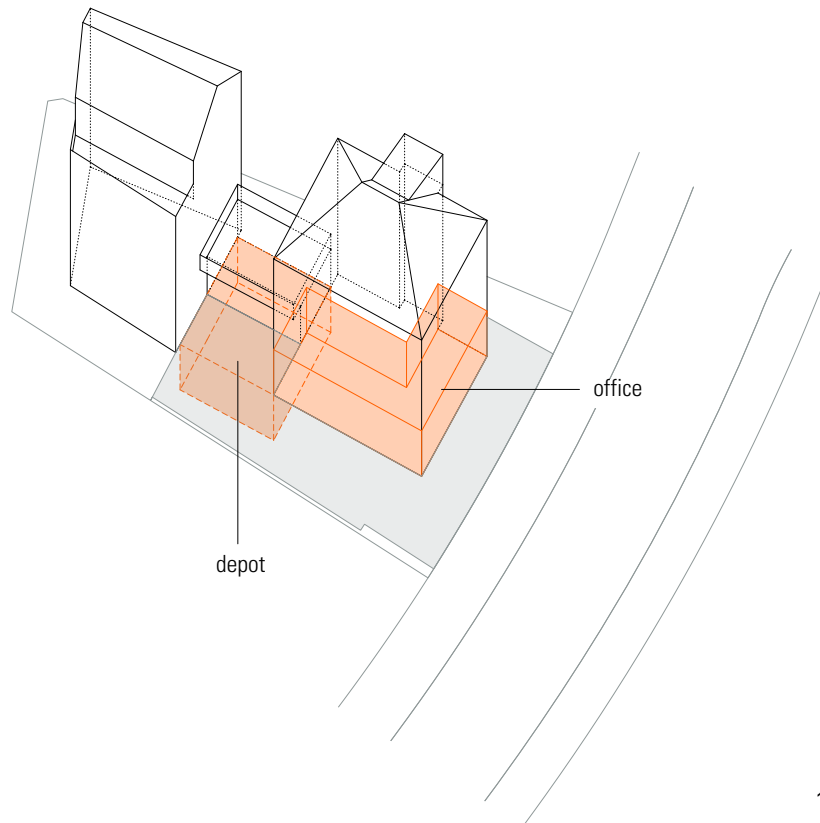
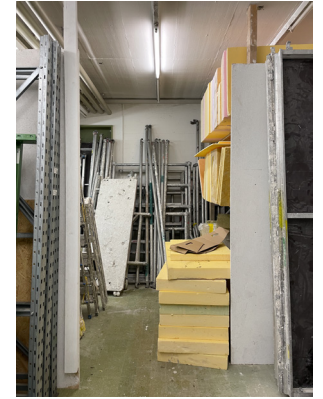




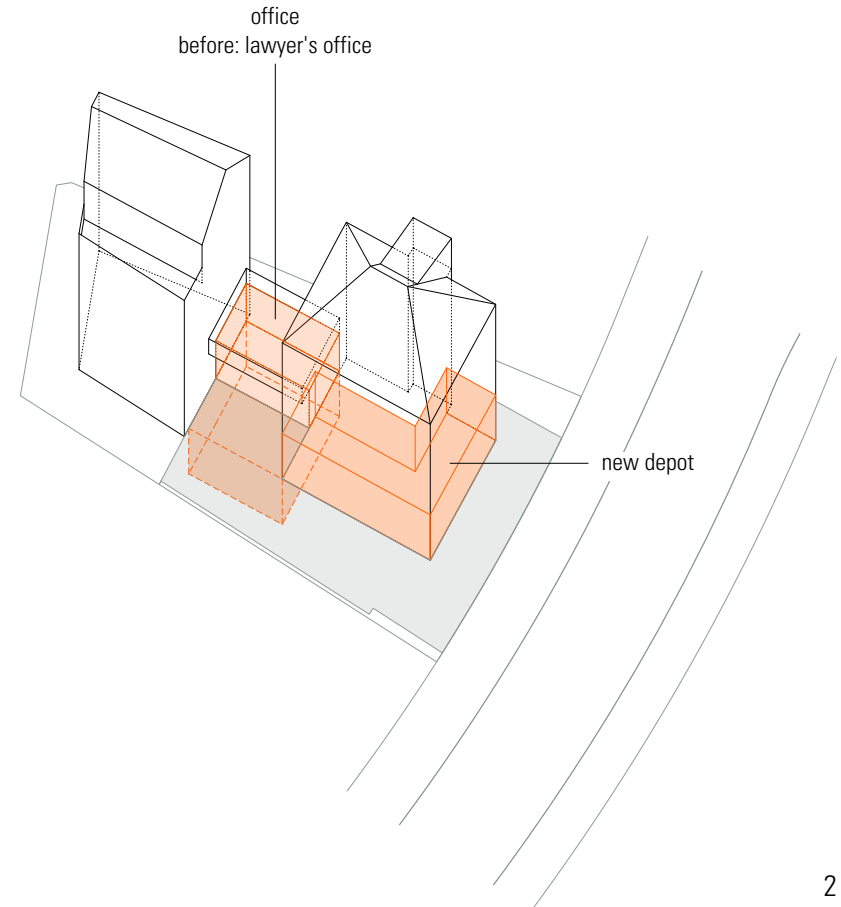
4

LEBAG & Partner GmbH

- Space: approx. 175 m²
- Radius: most within 20 km (city of Zurich and surroundings up to Winterthur)
- Location: very central, like being close to their clients and close to where they live
- Rooms: extending over time
- Clients: mostly new buildings and refurbishments, few contact with property management
- Coexistence: very good relationship with residents, but has been there before most of them and is careful about noise



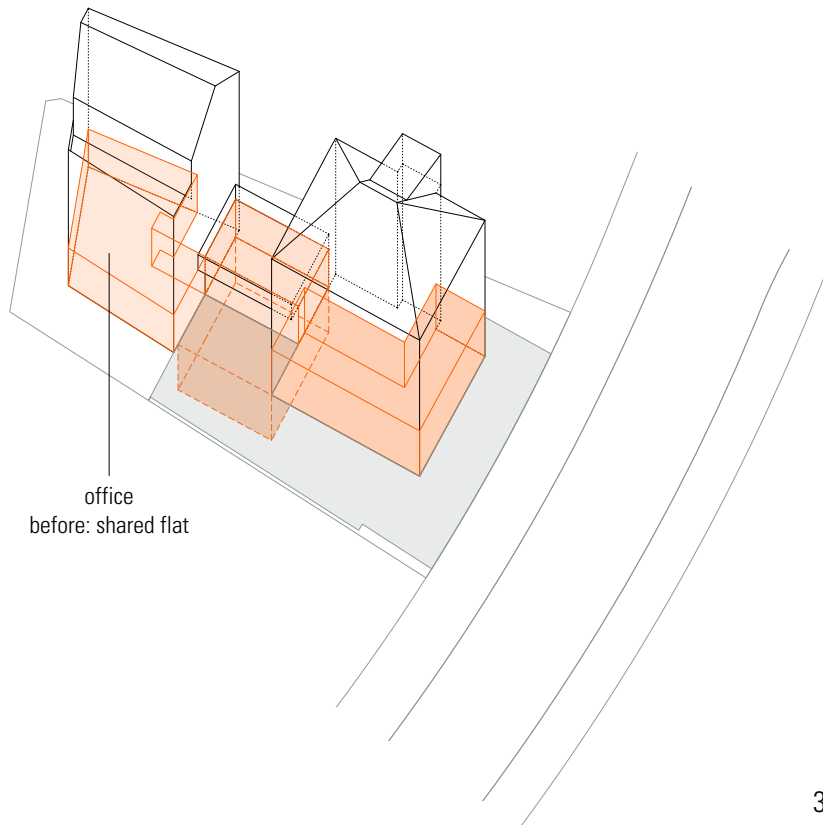
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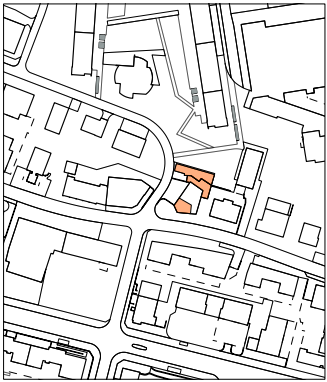


2



Renting storage is very expensive (more than compensates for the volume discount for material), so instead he only has a depot for the temporary storage of leftover materials. This 'business model' is part of what makes their coexistence with residents work well since they are not collecting material at the depot every morning.

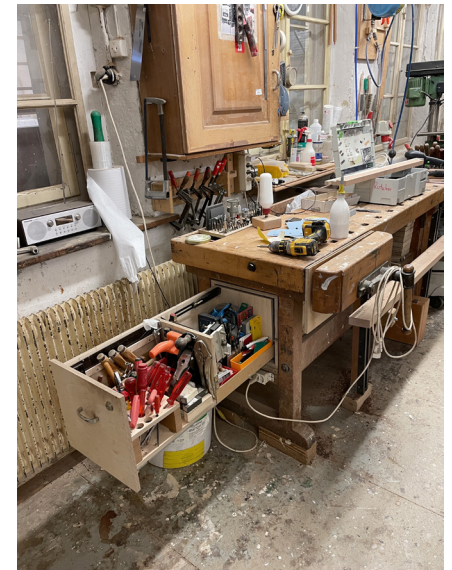
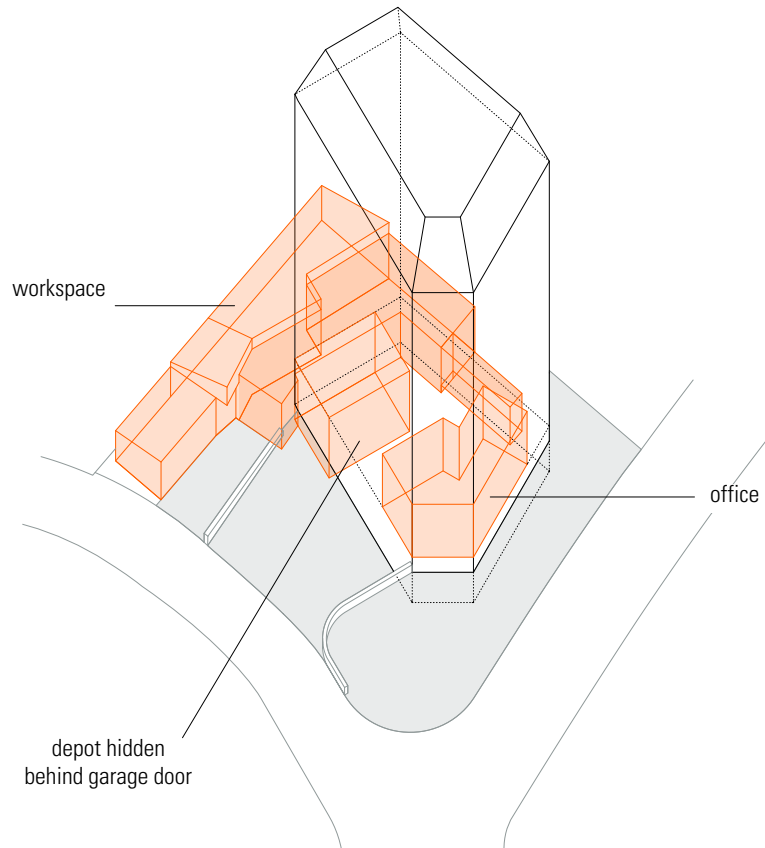




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Schreinerei HERT

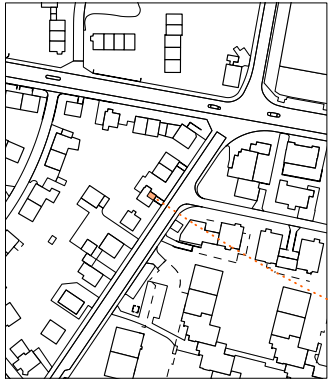
- Space: approx. 200 m²
- Radius: most within 10 km
- Rooms: dug out garage to create almost same floor level as workshop, garage door blocked with shelf from the inside (office at first, now storage)
- Clients: mostly real estate managements and co-operatives, 'Hausschreiner' for many schools (no fixed contract)
- Work: individual orders and repairs, no more new buildings since focusing on quality and correct offers (more expensive than competition)



Left part art of annex isn't isolated: cold in winter and hot in summer. Right annex has terrace on top and was leaking so they hung up a bucket to stop water damage on wood. Every last bit of space is used for storing equipment or material.

Have been there since 50 years, good location but a bit small, so they are always looking for alternatives. Had to close down second workspace for cutting glass at Oerlikonerstrasse because the building is being torn down.





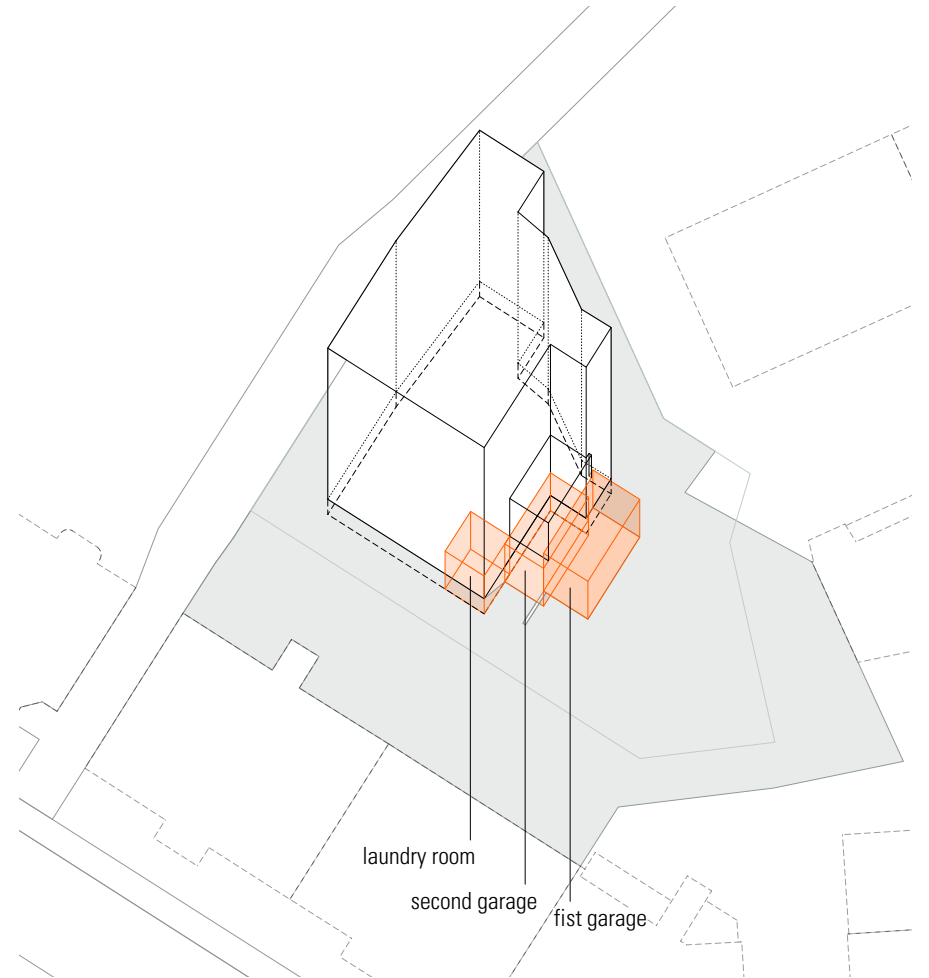
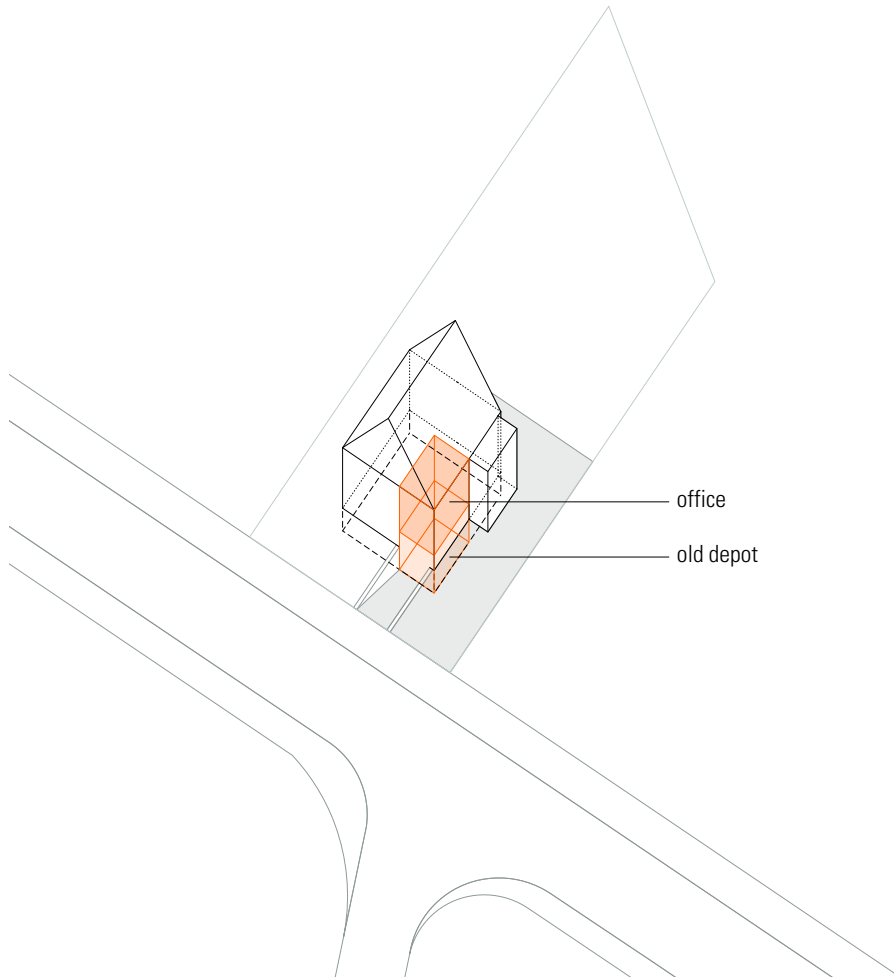
Bucher Haustechnik

- Space: approx. 50 m²
- Radius: 12 km (all of Zurich)
- Work: small commissions (no more than 6-family houses), only works with the existing (not new buildings)
- Clients: advertisement through recommendations of clients; does not have any other method of acquisition, so very important to do good/qualitative work
- cheap rent is important for one-man business since payments continue during holidays, so expenses have to pay off, plus he does his work at the customers and, therefore, does not need a workshop



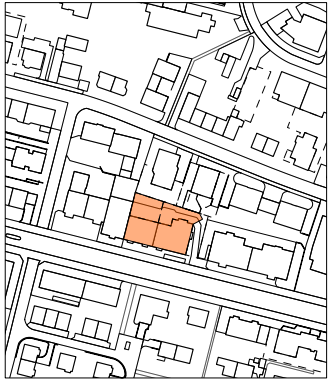
2,1 km

6





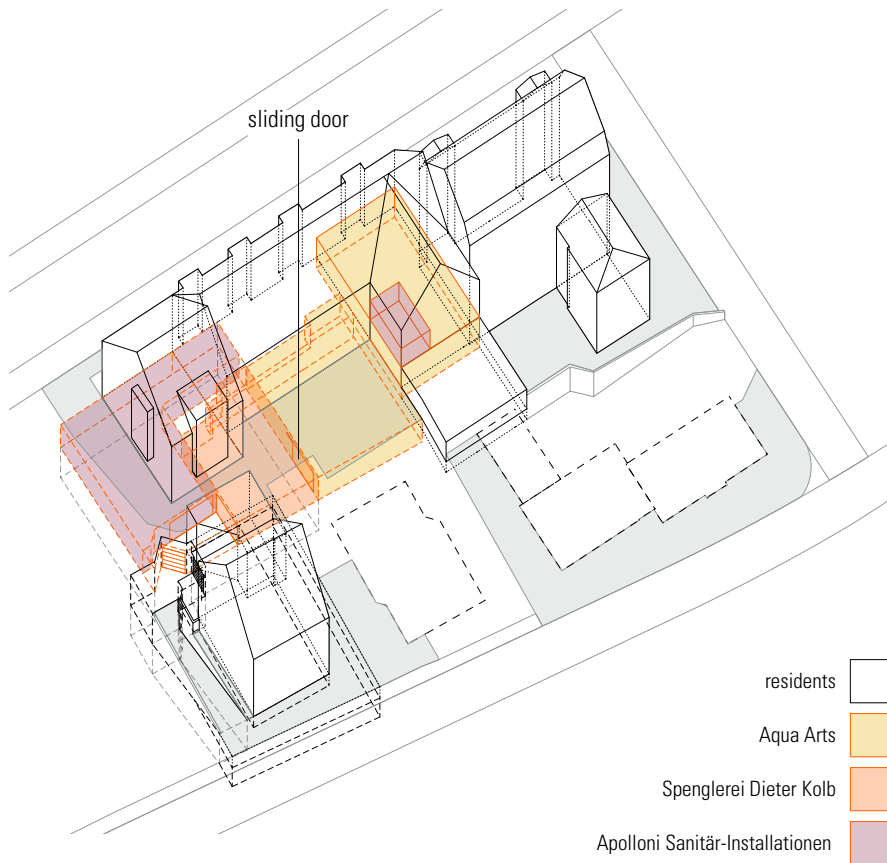
The first garage he rented at Buchmattweg 4 did not have access to a bathroom so he used to go to the tearoom across the street. He had done work for the owner and bought food and drinks. The second garage there that rented one year ago has a narrow access to laundry room of the apartment house with wash basin and toilet in the cellar.



7

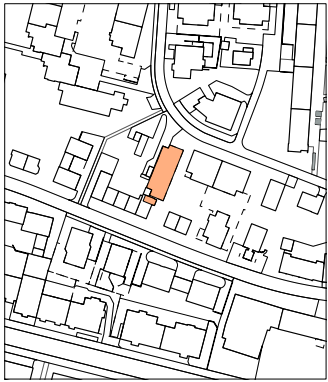
H. Apolloni Sanitär-Installationen / Spenglerei Dieter Kolb

- Space: 300 m² (shared with Car Cosmetic) / 180 m² + 45 m² (vestibule)
- Radius: most within 10 km / 20 km (but works in all of Switzerland, does not mind driving)
- were friends before, so M. Apolloni asked D. Kolb when workspace became free
- Spenglerei: mostly repairs for private clients, new jobs through recommendations by former clients
- Sanitation: repairs and often works together with Schreinerei HERT from down the street



Workshops are underground and without natural light. Entrance over ramp is too narrow for large delivery trucks. Space was subdivided by partitions and one sliding door between units make extension possible. Blocked at the moment.



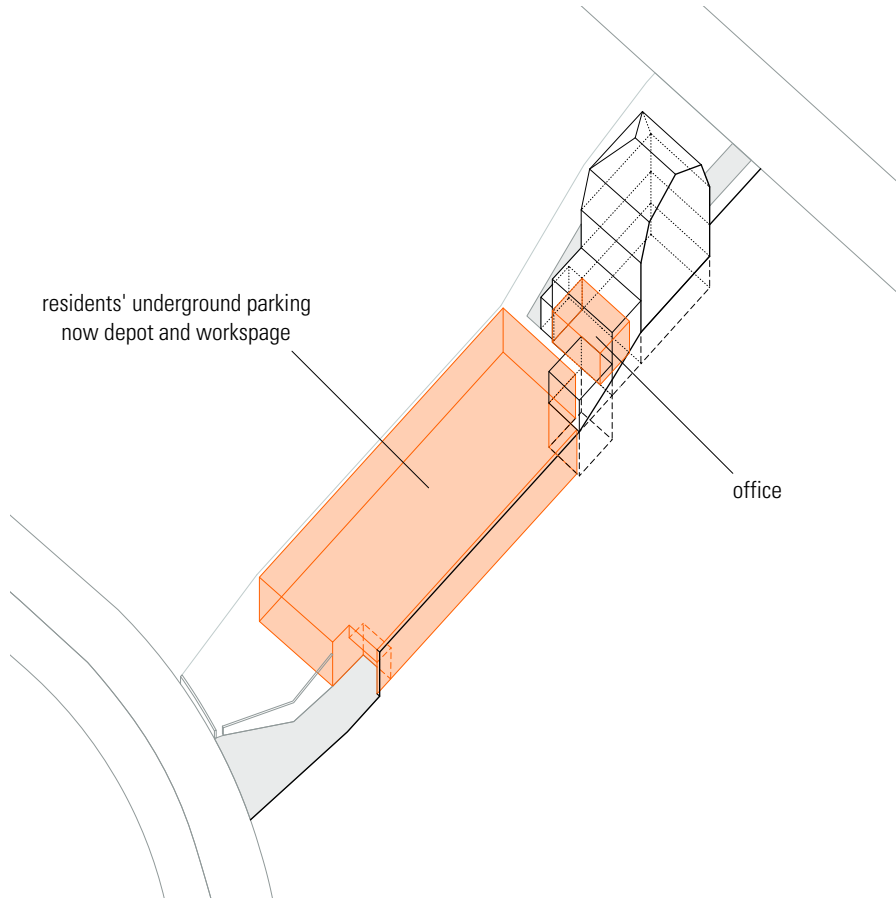


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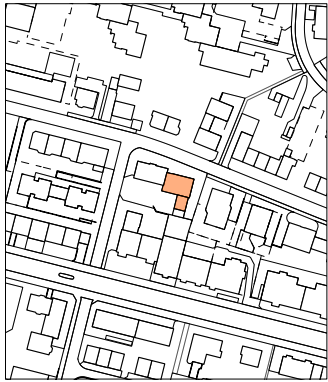
SCHUDEL Bedachung

- Space: approx. 280 m²
- Radius: 5 km (focused on Kreis 11)
- Work: specialized on renovations and repairs, but also do new buildings
- family business since 1950 was taken over in 2006

The location is spacious and well connected, but they are not sure how long they will be able to stay there since house was just sold and could be replaced.



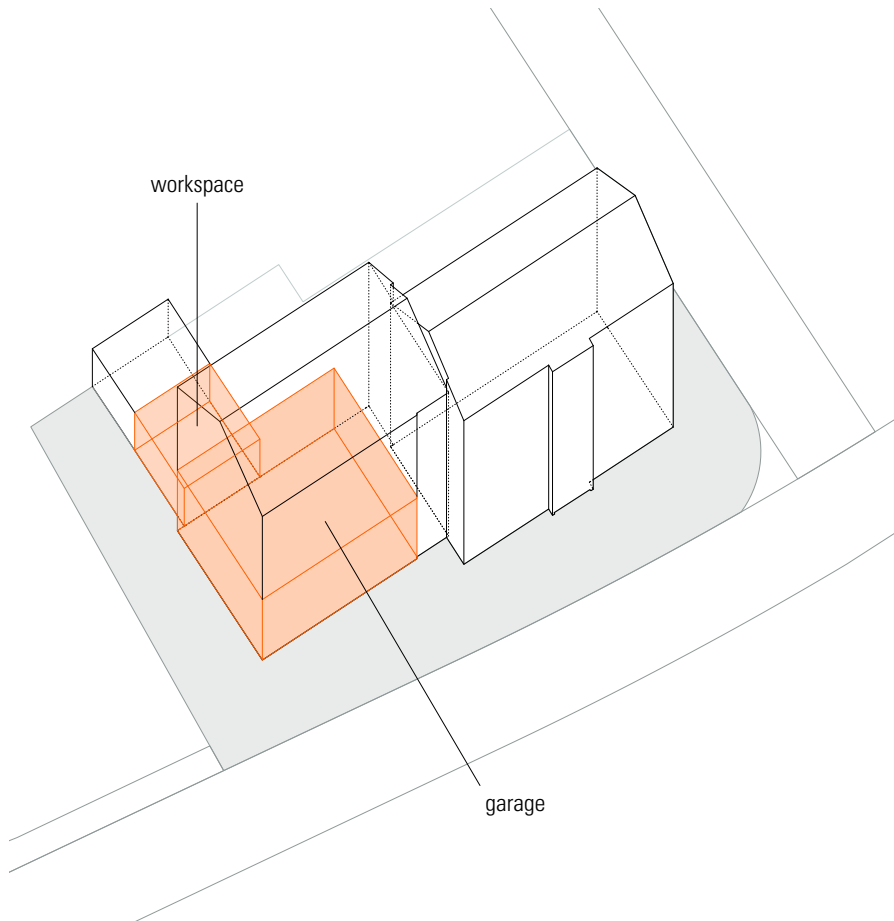




9

Schiber Transport AG

- Space: 145 m² (indoor) + 280 m² (parking space)
- Radius: 15 km (all of Zurich)
- Location: in this house since it was built 75 years ago
- Rooms: whole ground floor was built with ceiling high enough for parking trucks inside
- Work: bring rubble/ construction waste directly to the landfill, only storage of waste trough





LANFRANCONI Bauunternehmung

- Space: 700 m² inside + 500 m² outside
- Radius: 15 km
- second location in Winkel (14 km away)

10

„Business in residential area has no future, even if politicians advocate for it, because no one wants to have it close to them. Complaints from many teachers living in the area when there is noise in school holidays before 8 o'clock.“



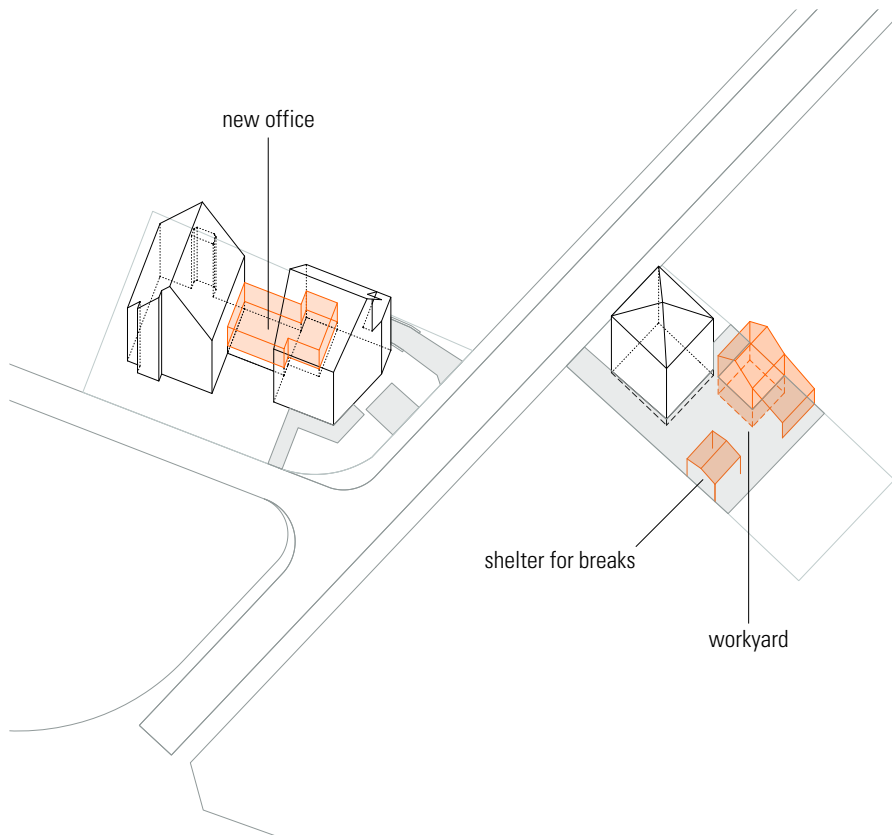


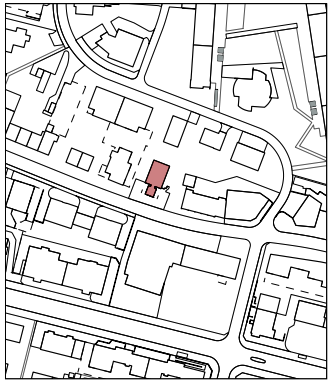
11

Schädeli Gartenbau

- Space: 130 m² inside + 300 m² (workyard)
- Radius: 15 km (Zurich and the surrounding area)
- Clients: private clients as well as municipalities, property management and industry, 300 regular customers
- 25 employees including apprentices

The workyard situated behind the house with parking spots, annex with cellar and pavilion for breaks outside (chairs and table), shelter for material, earth, lawnmower, etc. Moved office into apartment building across the street due to lack of space.

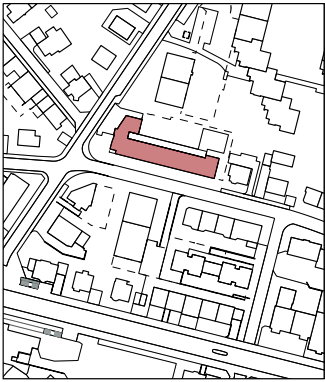




Affolternstr. 154

- Built 1920, torn down 2001, photographed 1986
- Ersatzneubau only has apartments





Affolternstr. 196

- Built 1928, torn down 1994, photographed 1993
- Ersatzneubau has apartments and a private garden on the ground floor

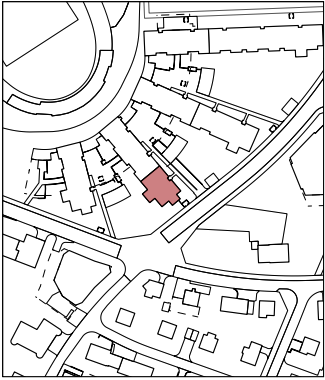




Oberwiesenstr. 54

- Built 1912, torn down 2009, photographed 2008
- Ersatzneubau has apartments and a private garden on the ground floor

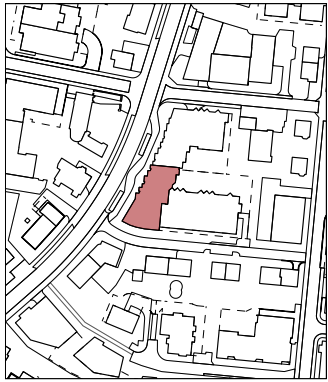




Kirchenackerweg 24

- Built 1920, torn down 2001, photographed 1986
- Ersatzneubau has apartments on the ground floor

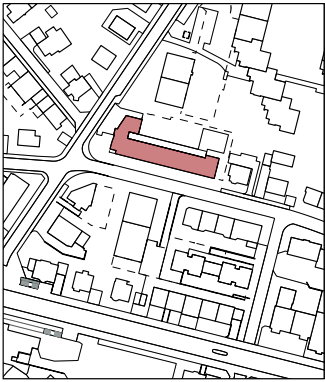




Dörflistr. 10

- Built 1936, torn down 1982, photographed 1979
- Ersatzneubau has multiple offices on the ground floor but no production

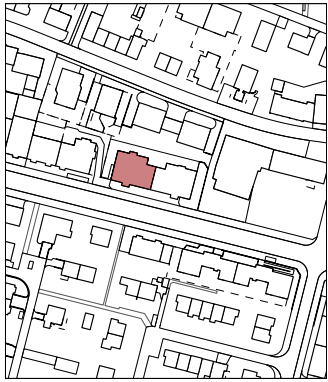




Affolternstr. 196

- Built 1928, torn down 1994, photographed 1993
- Ersatzneubau has apartments and a private garden on the ground floor

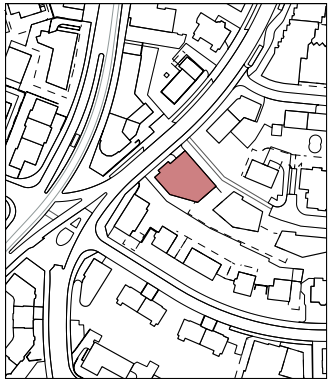




Regensbergstr. 240

- Built 1928, torn down 1994, photographed 1993
- Ersatzneubau has commercial space in the low-parterre but no access for heavy deliveries





Dörflistr. 4

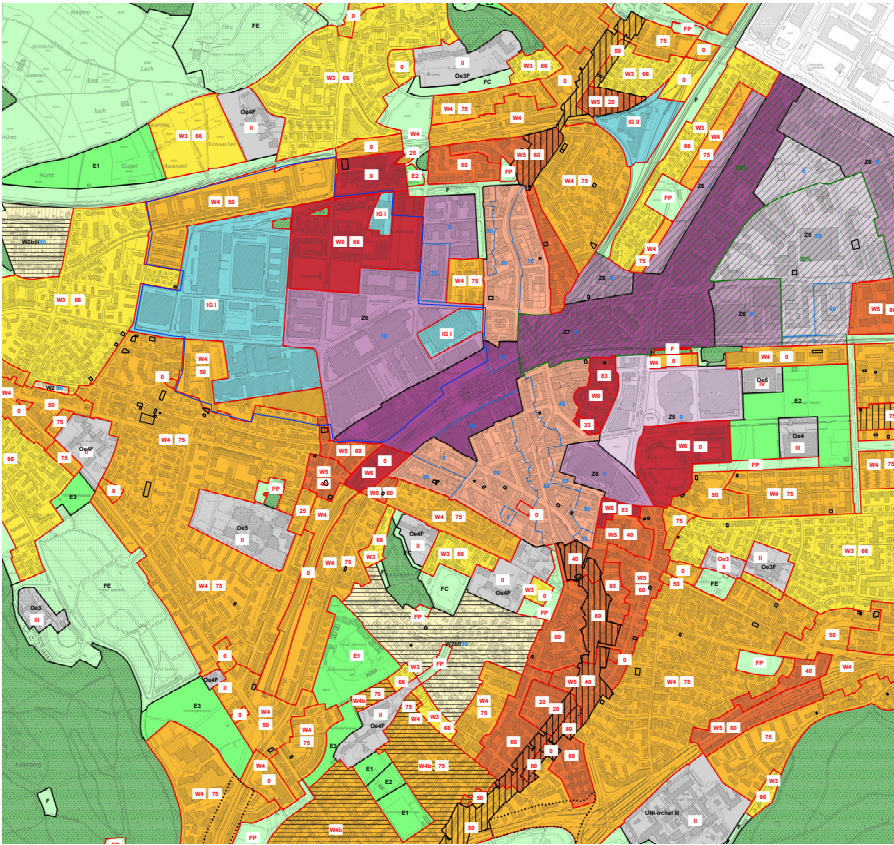
- Built 1932, torn down 2015, photographed 2014
- Ersatzneubau has a KITA on the ground floor



Legal Guidelines

The ‚Kommunaler Richtplan‘ defines zones for living, mixed use and city centers with the associated ‚Empfindlichkeitsstufen‘ ES I - IV (sensitivity levels) concerning noise and other emissions that could disturb residents. The small construction businesses fall into the category of ES III ‚mässig störendes‘ Gewerbe (moderately disturbing), meaning that noise emissions only happen during normal working hours and that they are compatible with neighbouring residential uses in terms of activity and traffic volume during normal operation.

Moderately disturbing businesses are allowed in ‚Zentrumszonen‘ (centre zones) as well as certain residential zones as long as the prescribed percentage of residential use is not higher than 90% for two-storey residential zones (W2) and 66% for tree- to five-storey residential zones (W3 - W5). The construction site D6/7 of the former MFO site have been declared as six-storey centre zones so the sensitivity level is ES III and, therefore, small construction businesses are allowed.



Festsetzungen

- W2b Zweigeschossige Wohnzonen (I, II, III)
- W2 Zweigeschossige Wohnzone
- W3 Dreigeschossige Wohnzone
- W4b Viergeschossige Wohnzone
- W4 Viergeschossige Wohnzone
- W5 Fünigeschossige Wohnzone
- W6 Sechsgeschossige Wohnzone
- Z5 Fünigeschossige Zentrumszone
- Z6 Sechsgeschossige Zentrumszone
- Z7 Siebengeschossige Zentrumszone
- IG Industrie- und Gewerbebezonen (IG I, IG II)
- IHD Industriezone mit Handels- und Dienstleistungsbetrieben
- Oe Zonen für öffentliche Bauten / Oe2 bis Oe7
- Q Quartierhaltungzone
- K Kernzone
- E Erholungszone E1, E2, E3
- E1/E2 Sport- und Freizeitanlagen
- E3 Kleingärten
- F Freihaltezone A, C, D, E, P
 - A Allmend
 - C Schulsportwiesen, Fluss- und Seebäder
 - D Campingplatz
 - E Friedhöfe
 - P Parkanlagen und Plätze
- Lk Landwirtschaftszone (kommunal)

Empfindlichkeitsstufen (ES) gemäss Art.3 BZO

- ES II; sofern Wohnanteil < 90% ES III
- ES II; sofern Wohnanteil < 66% ES III
- ES II; sofern Wohnanteil < 83% ES III
- ES III
- ES IV
- ES II-IV
- ES II; sofern Wohnanteil < 90% ES III
- ES III
- ES III; FE = ES II

Property Management's facility service

Conversation with Stephan Jack
from *Liegenschaften Stadt Zürich*

Quality of provided services is a relevant factor to choose construction businesses, but the main factor is price!

In the past, construction companies tended to come from Zurich, back then there was a higher level of local responsibility, which is why second offices were often even established in Zurich in order to be allowed to take on a contract here. Today, however, the submission law is designed against discrimination against companies from other cantons.

They have imposed on themselves a threshold of 10000 CHF above which they invite tenders (Ausschreibungen). This amount is far below the amount set by public procurement law or the WTO agreement.

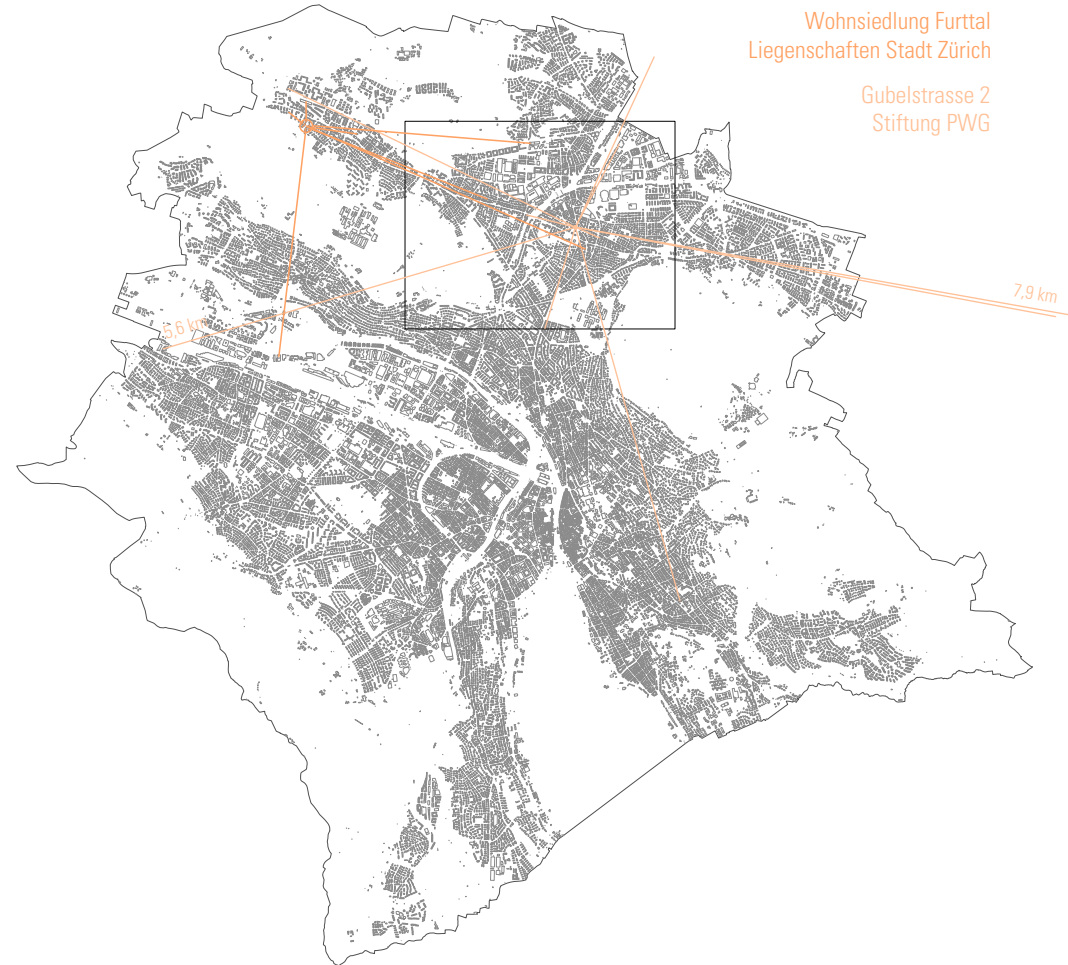
They do not have fixed contracts with recurring businesses but award individual contracts for every order. Lists of 'Haus-handwerker' exist (at least for Furttal).

Conversation with C. Caffisch
from *Stiftung PWG*

PWG has two types of caretakers: tenants who live there, employed to take care of the property (decreasing trend), or caretaker companies (facility management service) for larger properties and those that include commercial space or lots of building technology. They give both a list of 'Haus-handwerker' (recurring businesses without a fixed contract) for the property in question.

This list is drawn up by PWG and is based first and foremost on professional suitability or good experience and secondly on the proximity of the tradesmen to the property, so that they do not have to travel all over the city. However, this cannot be confirmed in the example of Gubelstrasse 2, as some of the tradesmen come from almost 10 km away. According to them, this is due to the fact that there are no corresponding companies with the knowledge in the vicinity. This may be the case for lift companies, but it is not true for carpenters. I assume that habit plays a role here.

Next to affordable appartements, they also promote small-scale businesses, as the name PWG suggests. However, they have the claim that it should be mainly quiet commercial use. So they exclude restaurants directly (because there is a lot of noise in front of the house). However, they also assess it individually for each property, as the location and facilities allow for different things in each case. In Gubelstrasse, for example, they have very well insulated windows due to the noisy street, which is why noise in front of the house does not really play a role. However, it is important to them that no noise inside the house disturbs the residents. Therefore, separate units (soundproof ceilings) and separate entrances are advantageous. For example, they also have a print shop on the ground floor in one house. There they have written this into the tenancy agreement for the tenant's information.



Property Management's facility service

Conversation with R. Scheifele
from *Scheifele Immobilien*

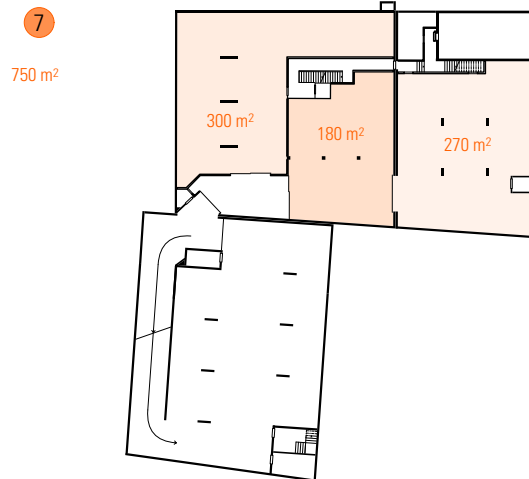
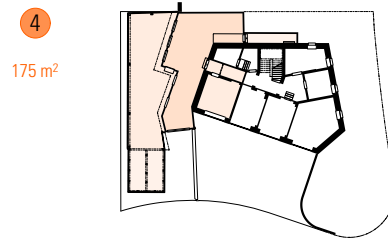
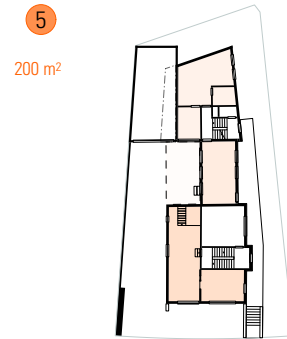
The buildings of Regensbergstrasse 242-246 and Affolternstrasse 169 were built by her grandfather and were intended to have commercial use on lower-parterre level. It was a trick to have an additional floor with natural light because it did not count towards the utilization figure (Ausnützungsziffer). He also built underground storage space in addition to underground parking for the residents. The partitions dividing the space now and creating an entrance are for delivery as well as 3 workshops were added in later. Between two exist a large sliding door to make it possible to use it as one and there was a freight elevator added later on to connect underground storage with low-parterre office space. Furthermore, the apartment types were also designed for flexibility: one room in each apartment is accessible separately from the staircase and has its' own bathroom. They have rented them out as studios as well as additional room to the connected apartment. In her experience, people appreciate smaller units. The mixed use has the advantage that there is always someone in the building, so they have much less vandalism than elsewhere. The inhabitants build a close community, bring in post for each other, and help each other out when someone is ill. There are very few complaints about the businesses, only when they talk in the backyard early in the morning. Her position as landlady is that there are other businesses like Schriber Transport AG that also make noise and have

been there for a long time. When hiring businesses for repairs or refurbishments she looks for quality. Costs are less of a factor because cheap offers are often not honest so you would end up paying the same price in the end. Their location is also less relevant since she uses people that she knows well and trusts. For example, she has a painter and a sanitation installer as tenants, so she uses them as well as longstanding business relationships or even friends from all over Kanton Zürich. Trust is very important because property managers with many apartments cannot accompany every single repair, so they have to know the work is done satisfactory.

Information from *Livit*

Thanks to their many years of activity in real estate management, they have access to proven regional construction businesses who they can easily entrust with the work in hand at any time. However, they are not under permanent contract. Livit Facility Management Services (separate firm) provides the caretaker in certain properties. The caretaker can, of course, carry out minor repairs himself. The individual thresholds, under which the caretakers can decide independently on assignments, are set by the respective owner. Smaller repairs are of course carried out by the highly trained caretakers themselves. The most relevant criteria for selecting construction businesses are reliability and the quality of the services provided. Of course, the rapid accessibility of the property in an emergency also plays a role.

Design Brief



To summarize, there are many small construction businesses in residential areas of Oerlikon. Due to the expected growth of inhabitants in Zurich till 2040, the 'Kommunaler Richtplan' plans to densify these residential neighbourhoods by 150 to 270 percent. However, the existing trend already shows that replacement buildings are created without rooms for production since apartments are much more profitable. Therefore, the small construction businesses are threatened to be displaced by 'Ersatzneubauten' and pushed out to the city's fringes.

For multiple reasons, however, these businesses want to stay in the city: In most cases, the majority of their clients is from within the city limits or not far outside. A location in the city or in Oerlikon is great for reducing the time it takes to drive to work or to clients. While this also reduces costs for the clients, it especially makes sense for these kind of small-scale construction businesses since most of them do not need large storage spaces and some do not even have large workshops because they work only on the construction site (like painters, plasterers, tilers, sanitation-installers). Furthermore, this 'business model' is part of what makes their coexistence with residents work well since they are not collecting material at the depot every morning. This reduces noise and when some basic rules of respect are observed, like refraining from yelling or loud conversations outside before 8 am, the coexistence of housing and small construction businesses is quite unproblematic.

The Stiftung PWG's experience with mixed use also shows, that tenants are willing to move into apartments above commercial spaces when building standards like sound-proof windows and ceilings are fulfilled. Se-

parate entrances help to reduce noise inside the building as well. In addition, the 'lists of craftsmen' at Gubelstrasse 2 (PWG) and the Furttal housing estate (Liegenschaften Stadt Zürich) make it clear that many companies travel long distances for repairs. Although the property managers actually recognise that proximity to the property is relevant for emergencies and sustainability, sometimes there are no „specialists“ in the area.

Therefore, when considering the redevelopment of the MFO plots D6 and D7, the possibility of reusing this former site of production poses a great opportunity for the future of small construction businesses in Oerlikon. It would comply with the city's idea of a "city of short distances" by providing the neighbourhood with people maintaining our buildings and making them more durable. Furthermore, the city wants diverse and socioeconomically mixed neighbourhoods with cultural activities, workplaces, and affordable housing.

My project will, therefore, aim to find a possible solution of creating space for small-scale construction businesses within the existing historic structure of MFO, taking into account the businesses' modularity and need for adapting, and intertwining them with other uses such as affordable housing. This challenges the proposed masterplan that wants to create housing solely on plot D7 next to the railway tracks, while building office spaces on the upper part of plot D6 (part A). It hopes to preserve more of the industrial building fabric while creating an "active", "livable", and "diverse" mixed-neighbourhood. In this process, I want to rethink the meaning of these qualities, that are prescribed by the city (as well as many architects) and presume to know what this means for all members of society.



D6 - Halle D/Nord
3'658 m²

D6 - Halle 550
8'172 m²

D7 - Stage one
5'283 m²

D7 - ehem. Werkhalle 87S
3'380 m²