

RESEARCH BY DESIGN



opening careful imaginaries toward more just
and liveable futures for young adults in fluid
housing situations

toward a careful imagination for the
liveability of young fluidly housed
adults in Brussels

Master Thesis - Design Explorations Booklet
MSc Architecture, Urbanism and Building
Sciences - Track Urbanism
Faculty of Architecture and the Built Environment
Delft University of Technology

Graduation Studio
Metropolitan Ecologies of Place

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June, 2025

This work was financially supported by scholarships
from the DAAD (German Academic Exchange Ser-
vice) and the Phillip Spangenberg Travel Grant.

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„If we do not design it – someone else will.“

When I began this thesis, I believed research was simply a prerequisite for
good design—a tool to ensure design decisions were grounded in facts.
However, over the course of the process, I came to realize that design itself
can be a political and critical act. It does not need to result in a single, finalized
outcome. Rather, design can open up imaginaries, invite dialogue, and spark
collective reflection on how we want to shape our futures—together.

Through methods like pattern language and its integration into research by
design, I learned that design does not have to dictate a top-down vision.
Instead, it can propose a range of possibilities—different combinations that
reflect diverse needs and shifting realities. In this way, design becomes not a
prescriptive solution, but a tool for imagining more just and equitable futures.
This reframing changed my understanding of design: from something fixed
and rigid to something iterative, generative, and inherently more careful.

I now believe that research and design are deeply interdependent. They
challenge and inform one another, producing more nuanced and grounded
insights. Moreover, the design process should not end at the drawing board—
or even at the moment of implementation. Design must extend into the life of
what is created: it should be revisited, adapted, and cared for over time.

This calls for a fundamental shift—not only toward more adaptive ways of
designing, but also toward more responsive ways of building. Careful design
requires deep understanding: respecting what exists, finding ways to ‘hack’
existing barriers through thoughtful interventions, embracing complexity,
and prioritizing long-term care over short-term fixes while allowing space for
evaluation.

To explore this, I have collected my design explorations in this booklet. Dra-
wing on one of the previously developed personas, five selected sites, and
my infrastructure of care—my pattern language—I apply relevant patterns to
specific locations to investigate how to spatialize this systemic shift.

While certain drawings reflect a top-down perspective of conceived space—
the abstract, planned environment shaped by planners and designers,
positioning the designer as an external agent imposing ideas from above—
the eye-level drawings emphasize lived space, focusing on how these larger
structures can be activated from the bottom-up to respond to the everyday
experiences and shifting needs of young fluidly housed adults. This approach
places them at the center as agents of care, enabling grassroots interventi-
ons within the larger planned structures—such as postboxes housed within a
pavilion for agency or food-sharing fridges that plug into public power out-
lets—fostering community resilience and mutual support.

Cover: sketches
of design explo-
rations to improve
liveability for Luca
at P3, made by
author



.1 OVERVIEW	04	.4 PLACE COLIGNON	48
.1 production of space	06	.1 lived space soft map	50
.2 five key sites	07	.2 design explorations	52
.3 lived space	08	.3 conceived space map	54
.4 conceived space	10	.4 design explorations	56
.2 PLACE DE LA REINE	12	.5 PLACE GAUCHERET	58
.1 lived space soft map	14	.1 lived space soft map	60
.2 design explorations	16	.2 design explorations	62
.3 conceived space map	18	.3 conceived space map	64
.4 design explorations	20	.4 design explorations	66
.5 lived space soft map	22	.6 RUE DE L'ABONDANCE	68
.6 design explorations	24	RUE JOSAPHAT	
.7 conceived space explorations	28	.1 lived space soft map	70
.3 ÉGLISE SAINT-SERVAIS & LEHON- PLEIN	30	.2 design explorations	72
.1 lived space soft map	32	.3 conceived space map	74
.2 design explorations	34	.4 design explorations	76
.3 conceived space map	38	.7 TAKE-AWAYS	78
.4 design explorations	40	.1 sub-conslusions	78
.5 lived space design explorations	42	.2 network of care	80
.6 conceived space explorations	46	.3 form studies	84



Fig. 1.1: Rue de la
Loi, Brussels
Photograph by
Max Schuska

Based on the theory of the Production of Space (Lefebvre et al., 1997), introduced in the methodology chapter (pp. 56–57), I conducted my design explorations on two interconnected levels:

Conceived space (top-down)

refers to the abstract, planned dimension of space, often imagined by urban planners, architects, and policymakers. This layer reflects the vision and power dynamics of those in control.

Lived space (bottom-up)

encompasses the emotional, symbolic, and cultural meanings individuals and communities assign to their environments. It is the realm of personal and collective experiences, where spaces are reclaimed and reinterpreted to meet individuals needs.

Distinguishing between these two dimensions helps clarify which interventions require larger-scale planning by policymakers and designers from the top down, but also opens up possibilities for sparking discussions on how these structures can be activated and adapted through bottom-up, community-driven actions—ultimately not to propose a single solution, but to provide a basis for rethinking how we want to live together.

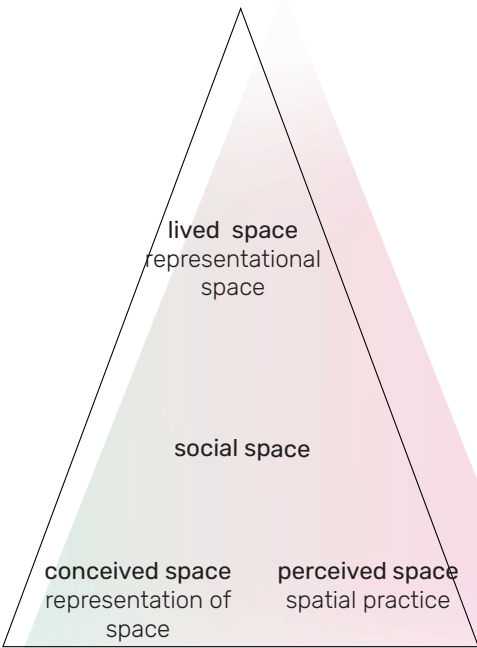


Fig. 8.6: Layers of Social Space, retrieved from (Lefebvre (2009), made by author

- not suitable
 - - transitional space
 - key connector
 - destination
 - buildings
 - poverty crescent
- 0 150m 300m

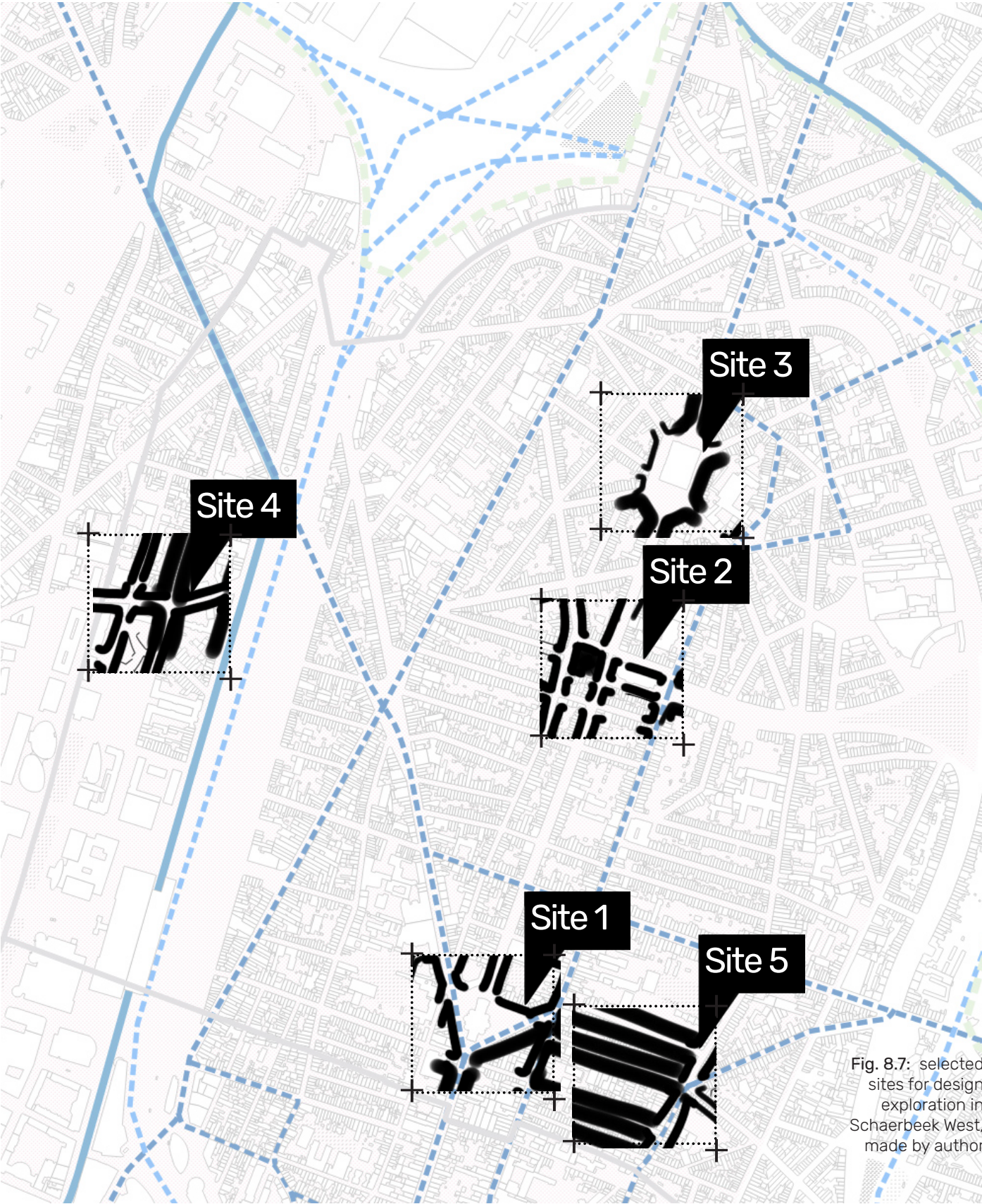


Fig. 8.7: selected sites for design exploration in Schaerbeek West, made by author

lived space
spaces reclaimed and reinterpreted
bottom-up

Site 1 - Place de La Reine & Rue Royale-Sainte-Marie

Who is there?
Churches, NGOs for international help, school, elderly home, youth daycare center, cultural center, art, theatre collective, food, doctors, KU Leuven architecture and art, French Community commission

What is there?
Kings road, mobile wahsing service, powerplug and wateraccess, community garden and park in school, benches, trees and changing programs (festival de la marelle; La Roncerie + Renovas (co-creation)EPN mobile Brabandt (open compuerroom); queers on the move; la marmmeet (mobile, participatory and social restaurant); semi-public backyards



Site 2 - Église Saint-Servais & Lehonplein

Who is there?
Church, DPD shop, Car Shops, Few restaurants, bookshop with printing workshops

What is there?
Printing workshops, High voltage power station, Bus stop, Basketball fields, Market on Fridays, six pavilions



Site 3 - Place Colignon

Who is there?
Municipality (townhall), Bike Workshop, Restaurants, School, Collective Housing Project, Hair dresser, Laundry service

What is there?
Roofgarden, Common rooms, School with Backyard, table tennis, small pots of greenery, small trees



Site 4 - Place Gaucheret

Who is there?
Social facility with rooftop, school, daycare, church and artschool for children

What is there?
Park, trees, benches, large area for temporary use



Site 5 - Rue de l'Abondance & Rue Josaphat

Who is there?
School, family help center, Neighborhood house for youth, facility for women education, facility for salary help, Nuns, club, doctors, food

What is there?
Park, Gardens, Square, Narrow street with few traffic, small raised bed in front of family help, active roof with sport facilities in school, graffitiwall



transit-area
key connector
desitination

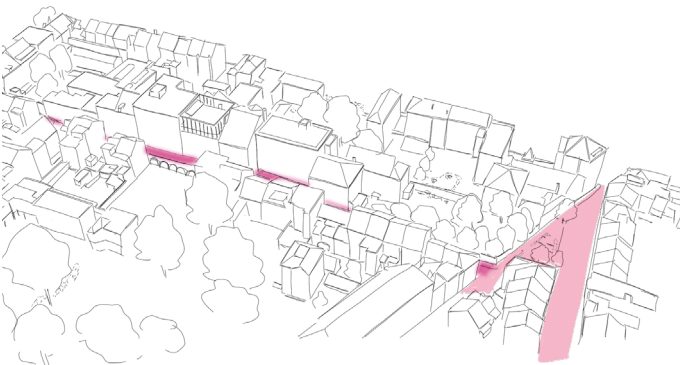
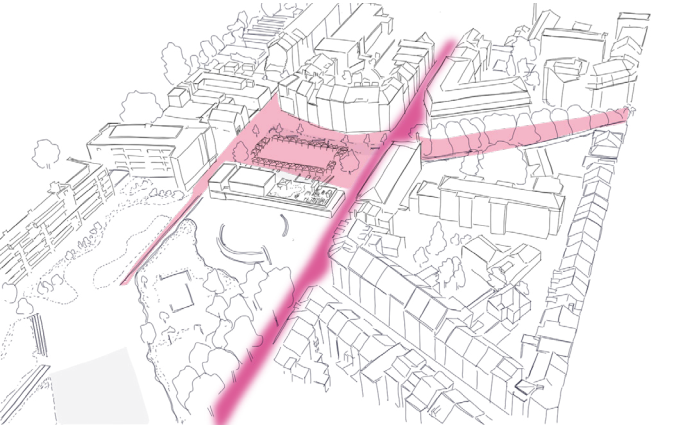
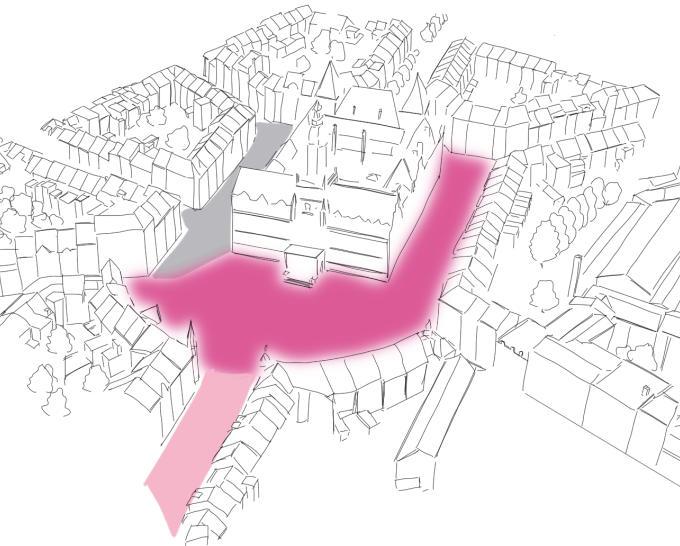


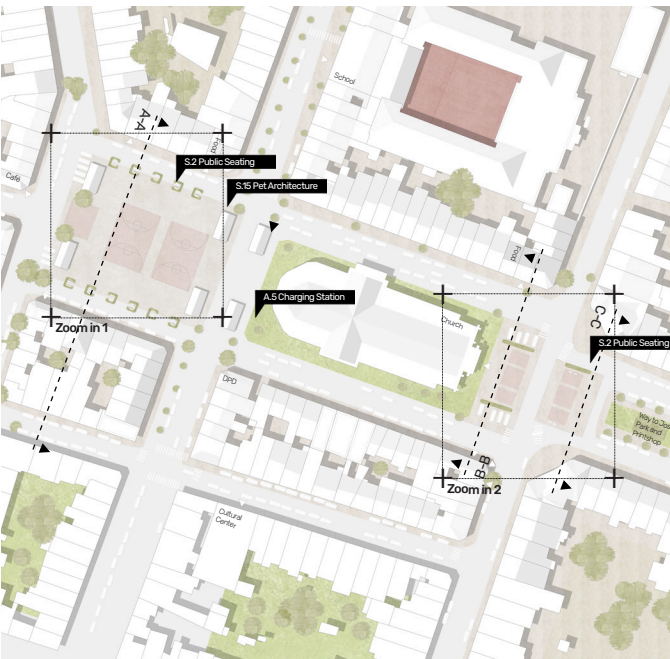
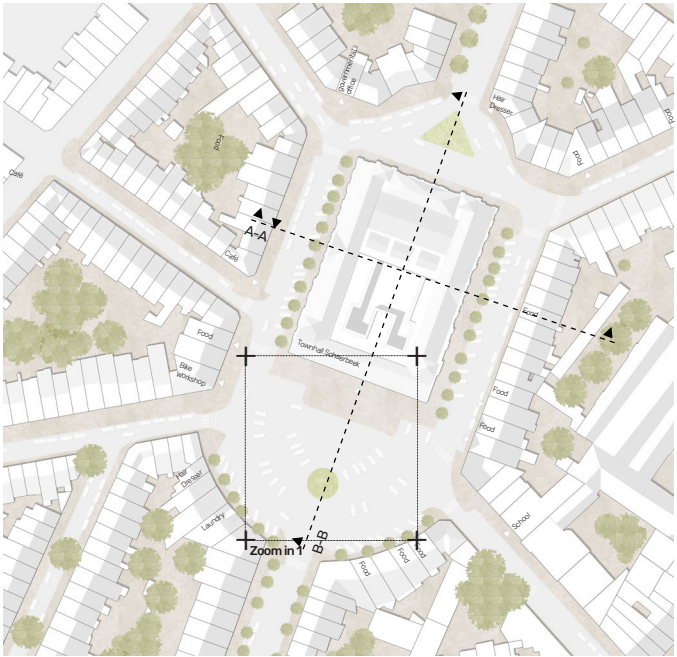
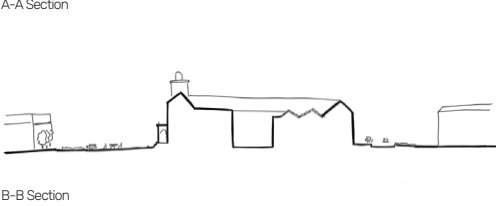
Fig. 8.8: five selected sites for design explorations and results from behavior-science analysis, made by author



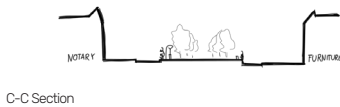
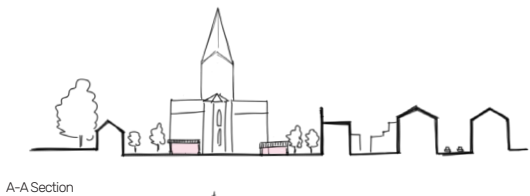
Site 1 - Place de La Reine & Rue Royale-Sainte-Marie



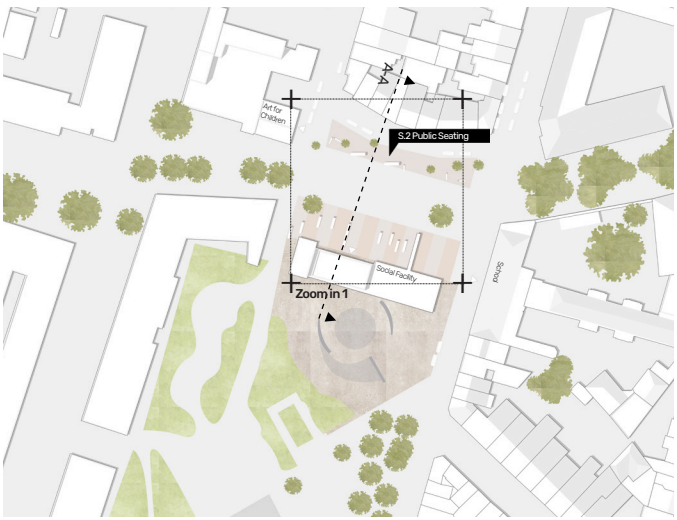
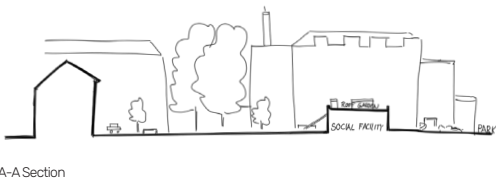
Site 3 - Place Colignon



Site 2 - Église Saint-Servais & Lehonplein



Site 4 - Place Gaucheret



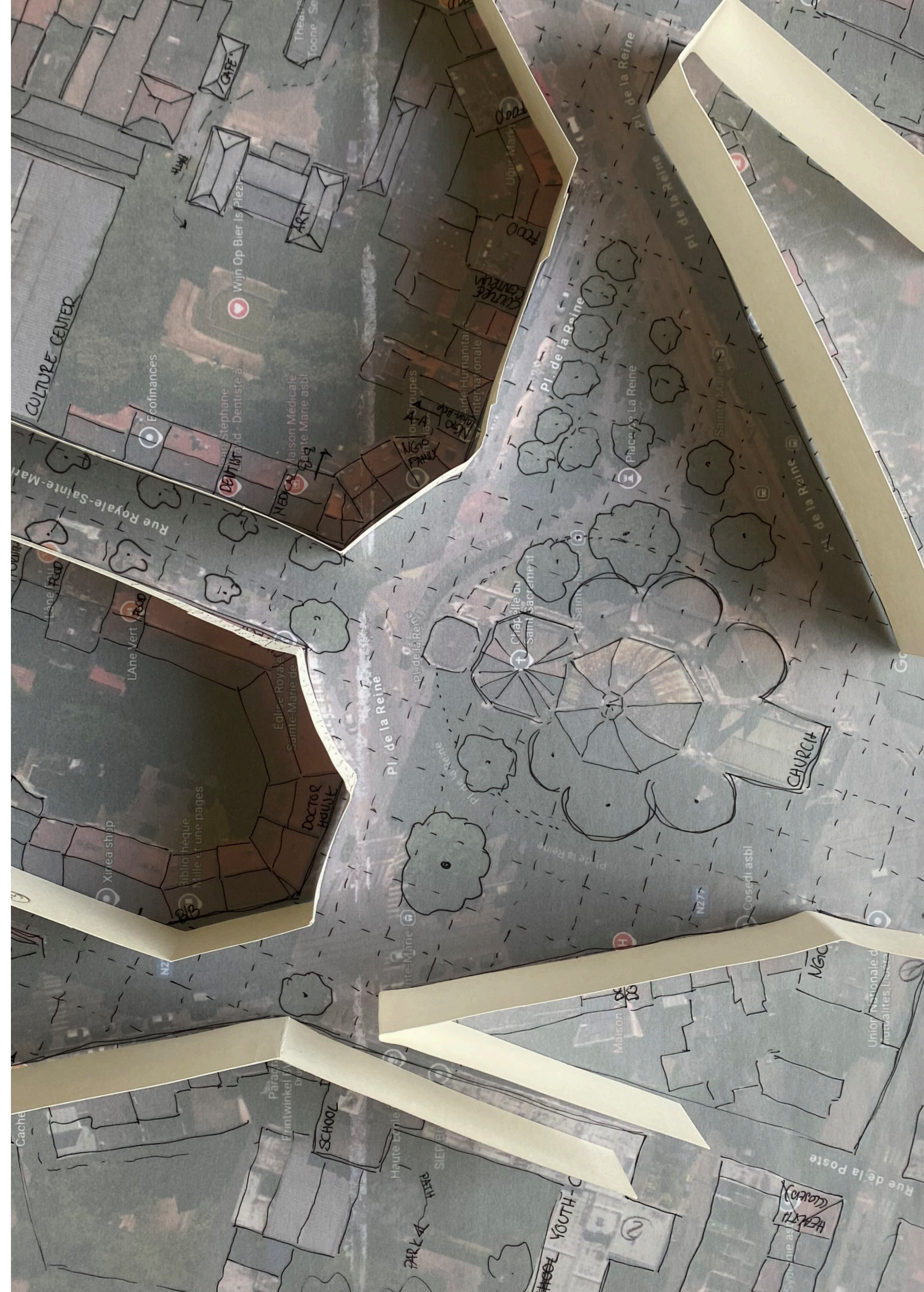
Site 5 - Rue de l'Abondance & Rue Josaphat



Fig. 8.15: five selected sites for design explorations and results from behavior-science analysis, made by author

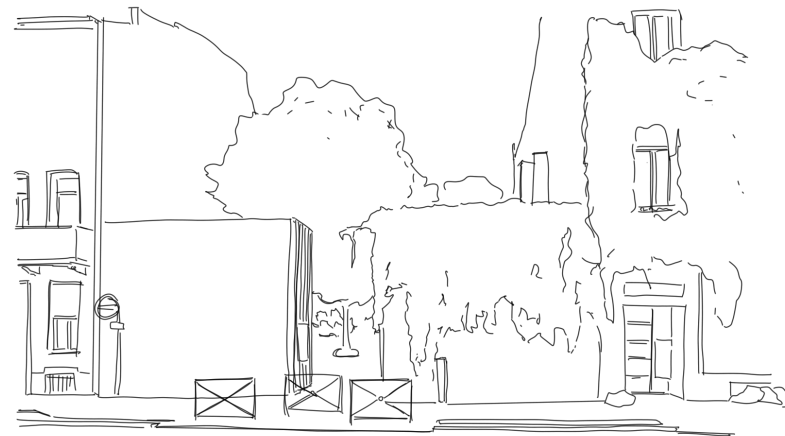
Place de la Reine (Koninginneplein) is a distinctive triangular square located at the intersection of Rue Royale, Chaussée de Haecht, Rue Royale Sainte-Marie, and Rue des Palais in Schaerbeek. Dominated by the striking Royal Church of Sainte-Marie, the square marks a key point along the historic Royal Route — the ceremonial axis used by the King of Belgium to travel between the Royal Palace in central Brussels and the Royal Castle of Laeken. Today, it functions as both a major traffic hub and a center for community life, home to schools, NGOs, and facilities such as an elderly care home. The trees and benches invite many people to stay, which makes it a perfect location for the mobile washing service that comes there each week.

Fig. 2.1: site 1
Schaerbeek West,
made by author



lived space

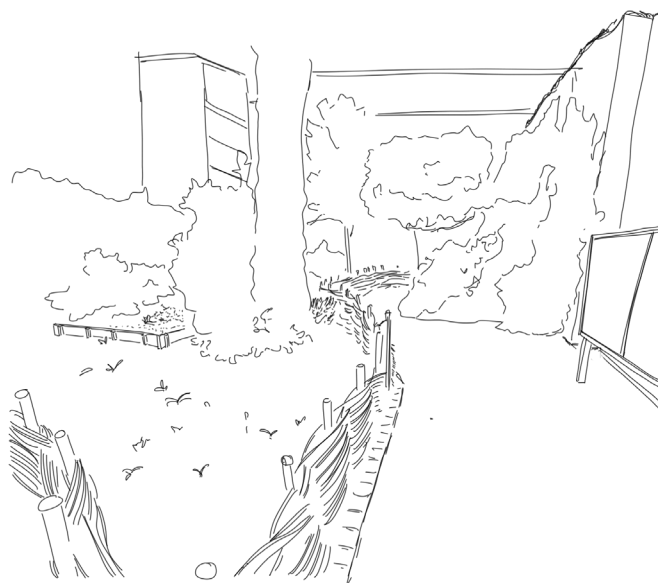
Place de La Reine



1.



2.



3.

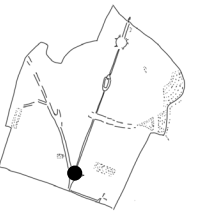
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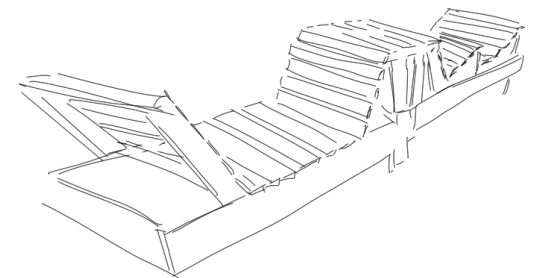
existing situation

soft map

- transit-area
- key connector
- desitination



5.



6.

Who is there?
Churches, NGOs for international help, school, elderly home, youth daycare center, cultural center, art, theatre collective, food, doctors, KU Leuven architecture and art, French Community commission

What is there?
Kings road, mobile wahsing service, powerplug and wateraccess, community garden and park in school, benches, trees and changing programs (festival de la marelle; La Roncerie + Renovas (co-creation) EPN mobile Brabant (open compuerroom); queers on the move; la marmet (mobile, participatory and social restaurant); semi-public backyards

Problems:
a lot of traffic, many parking cars, tram is curring off church from public space, no toilets

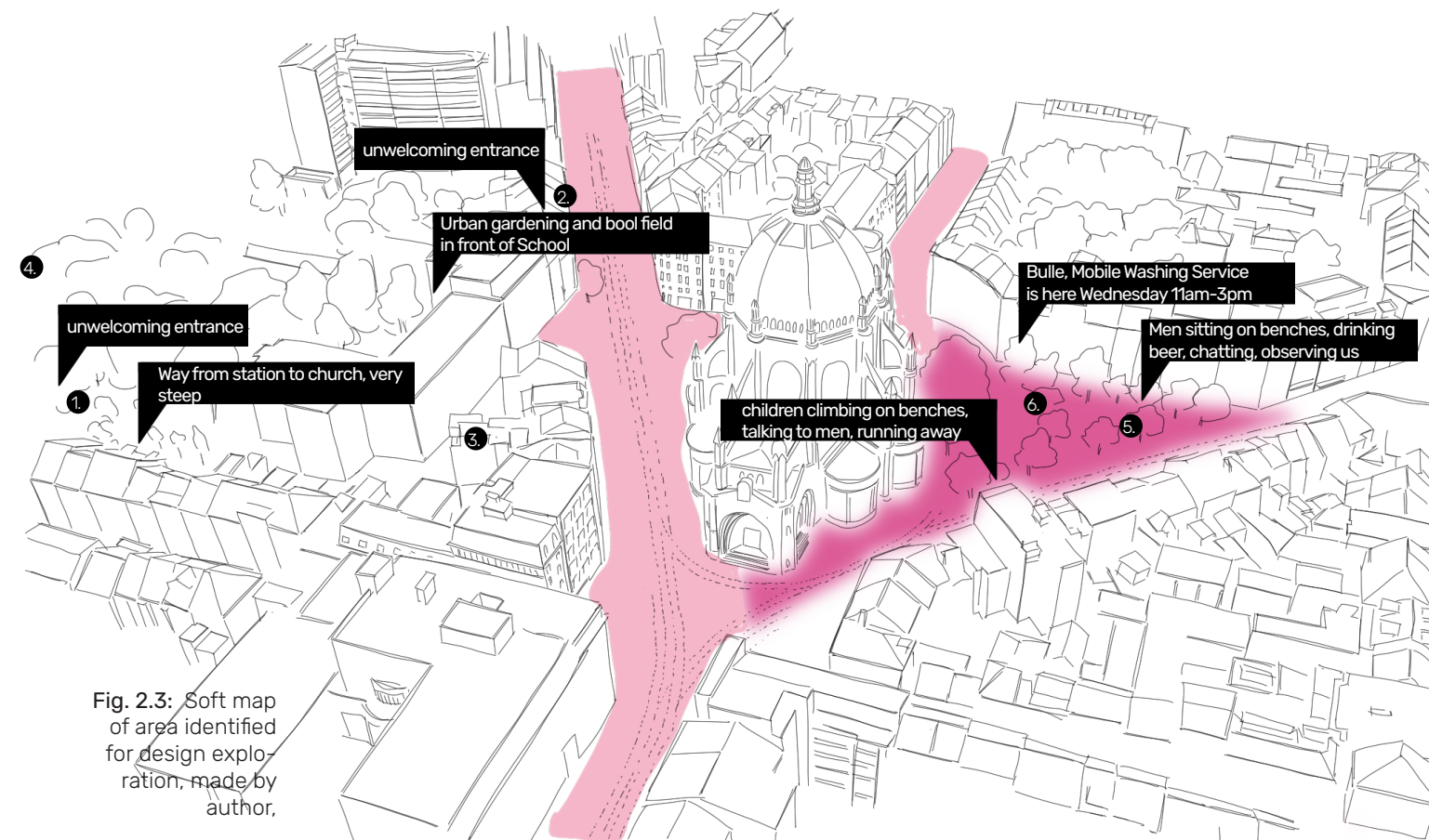


Fig. 2.3: Soft map of area identified for design exploration, made by author.

lived space
Place de La Reine &
Rue Royale-Sainte-Marie

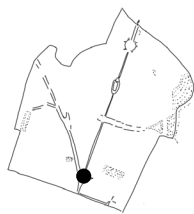


Fig. 2.4: site 1
Schaerbeek West,
made by author

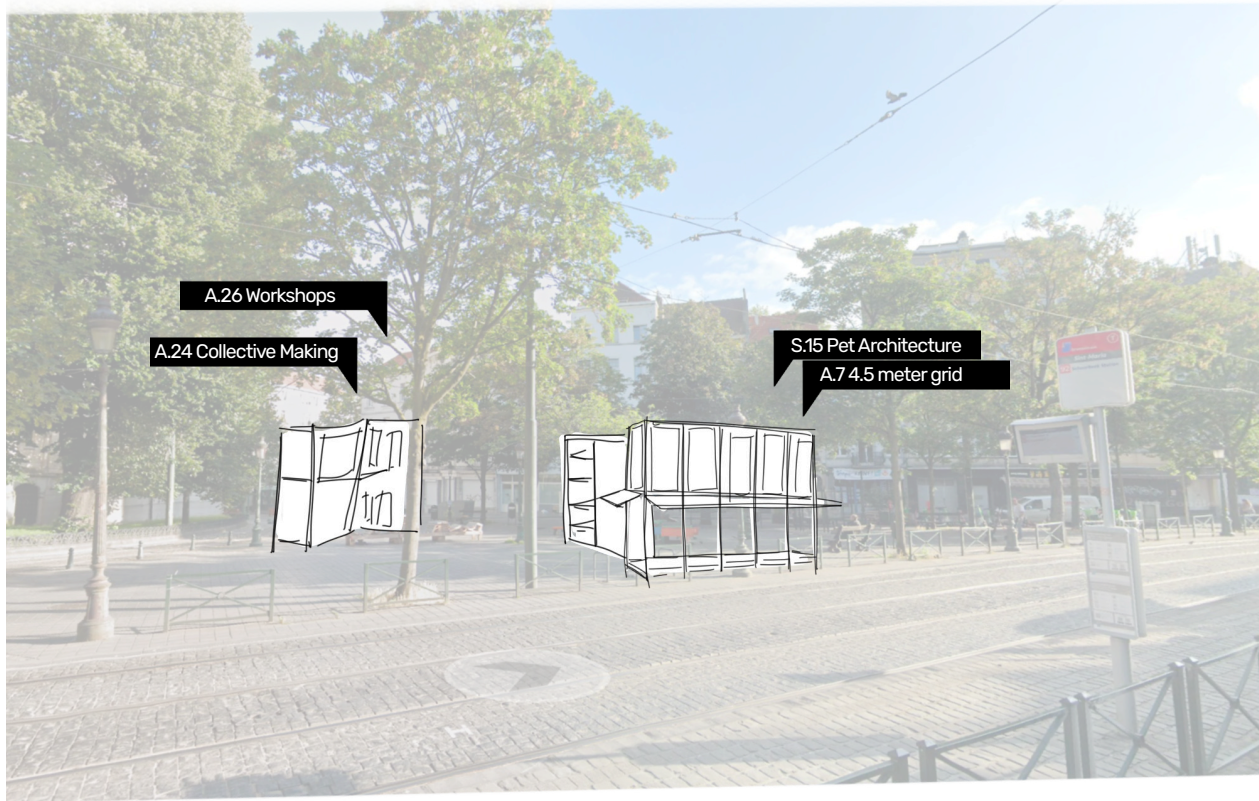
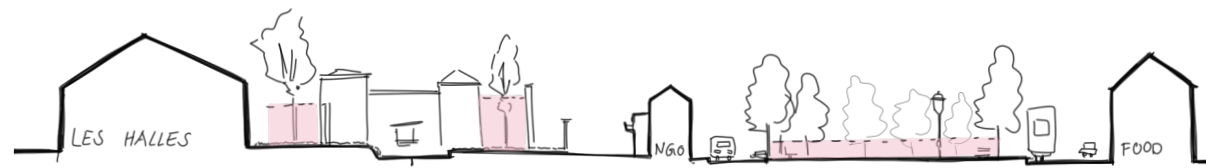
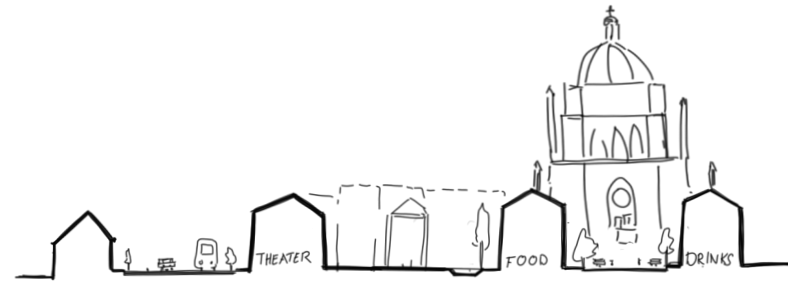


Fig. 2.5: site 1
Schaerbeek West,
made by author

conceived space
Place de La Reine &
Rue Royale-Sainte-Marie



A-A Section



B-B Section

existing situation
map and section

- existing buildings
- existing green

0 10m 20m

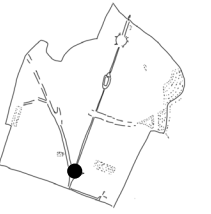
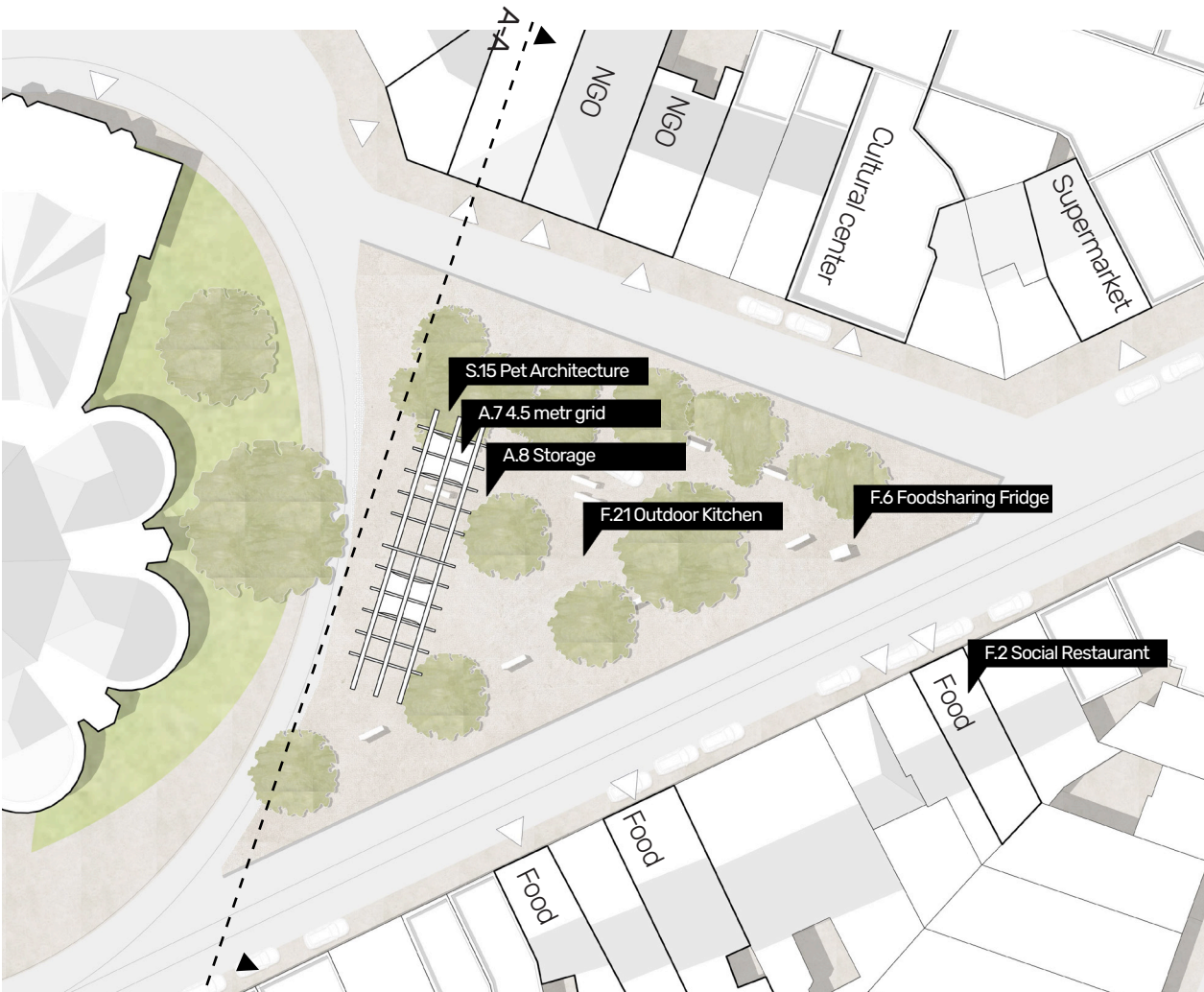
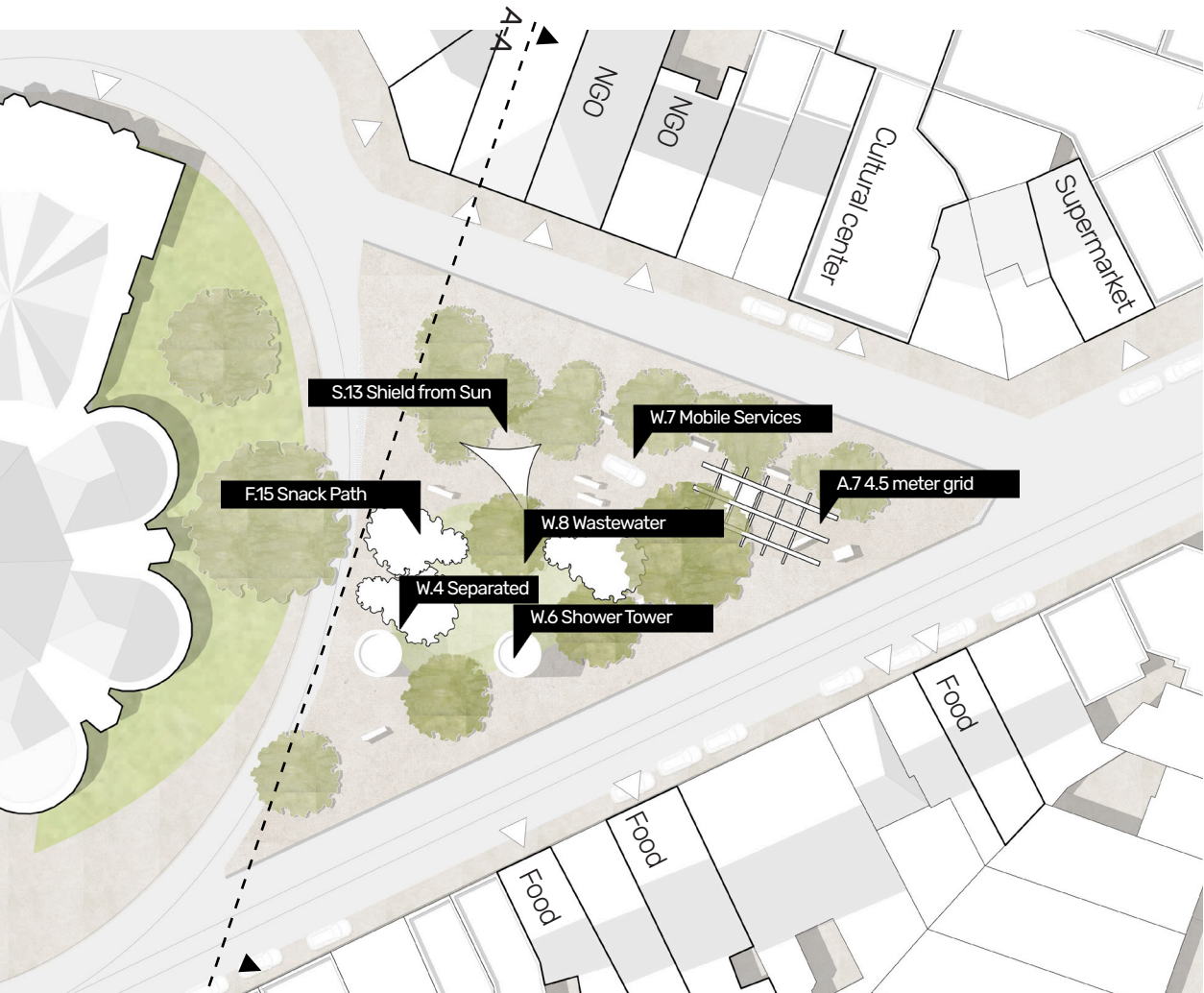
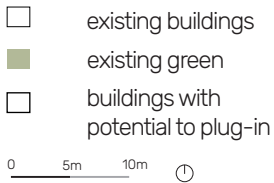


Fig. 2.6: Existing situation, area in Schaerbeek West, made by author

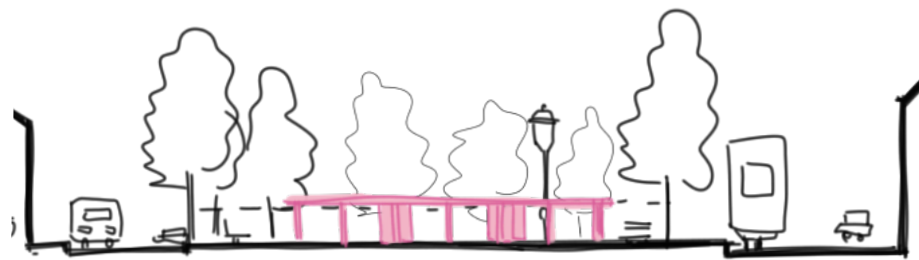
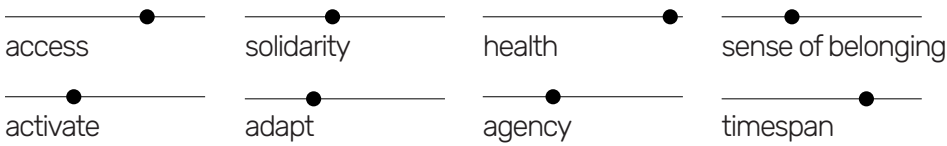
conceived space
Place de La Reine &
Rue Royale-Sainte-Marie

research by design



A-A Section
x2

Evaluation



A-A Section
x2

Evaluation



Fig. 2.6: Design
Exploration, area
in Schaerbeek
West, made by
author

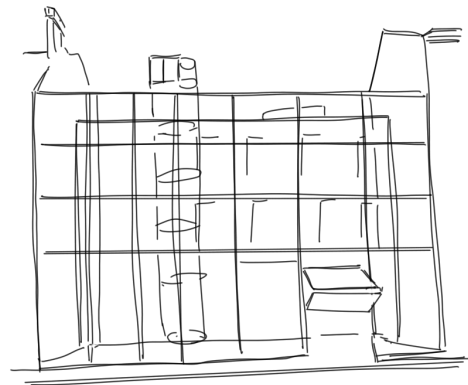
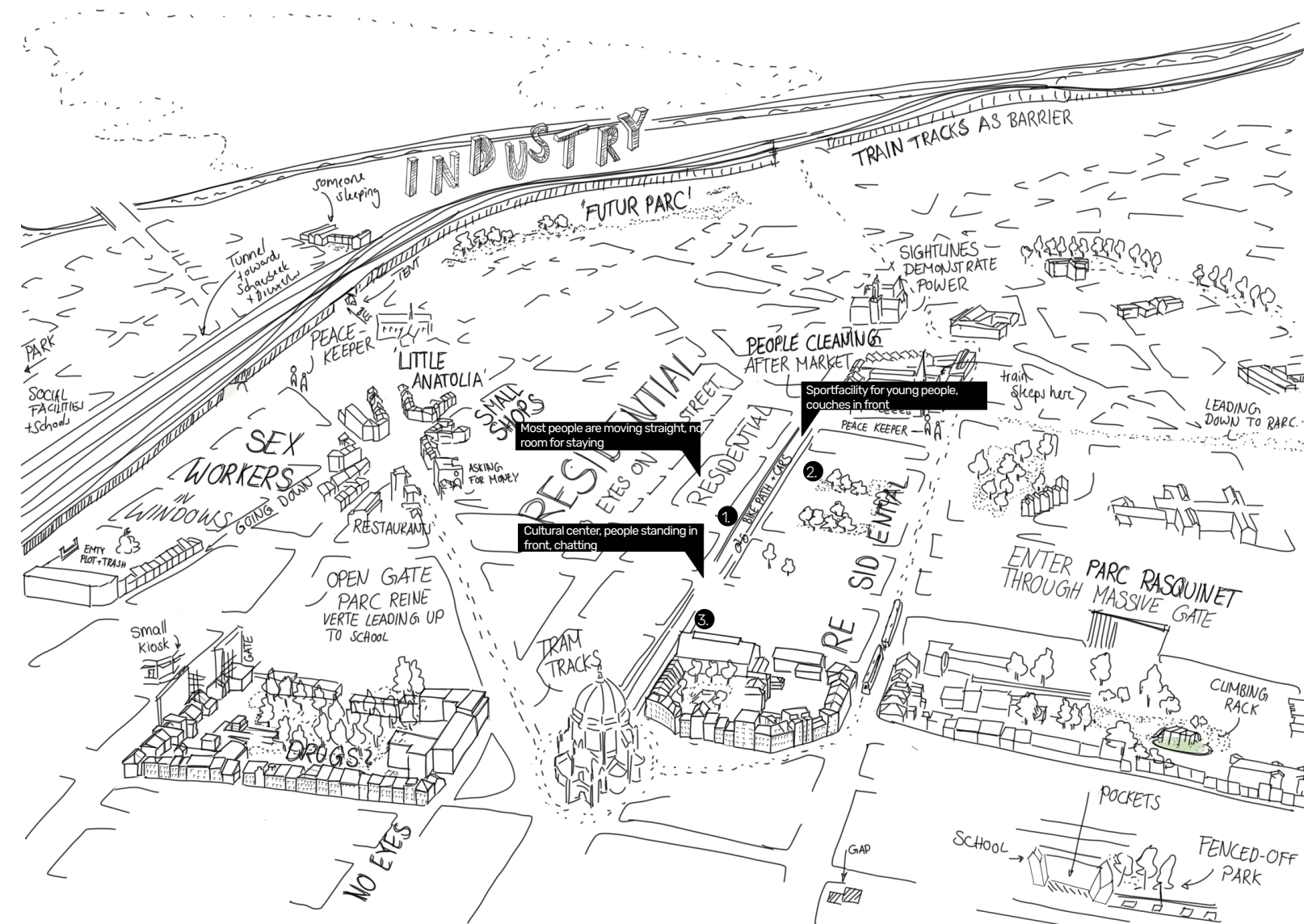


Fig. 2.7: Soft map of Schaerbeek West, made by author,



lived space
Place de La Reine &
Rue Royale-Sainte-Marie

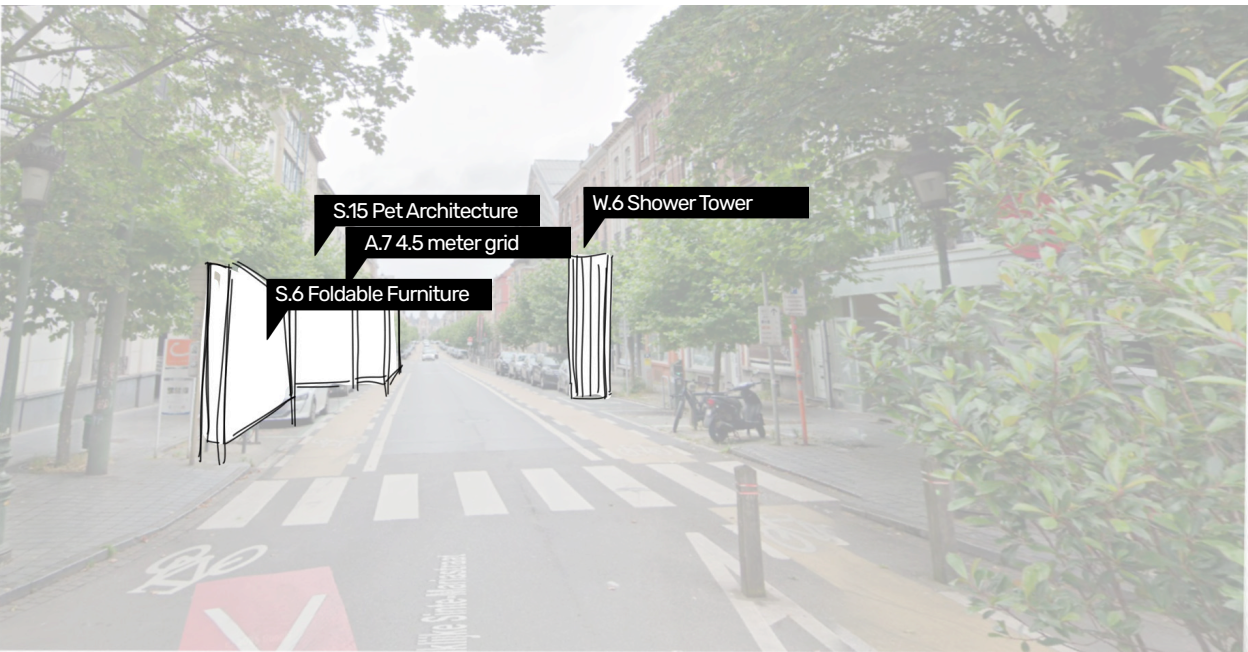
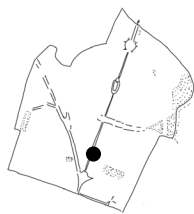


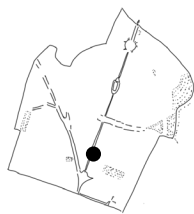
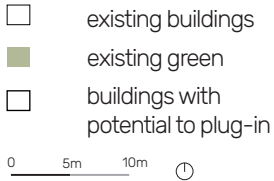
Fig. 2.9: site 1
Schaerbeek West,
made by author

Fig. 2.10: site 1
Schaerbeek West,
made by author

lived space
Place de La Reine &
Rue Royale-Sainte-Marie

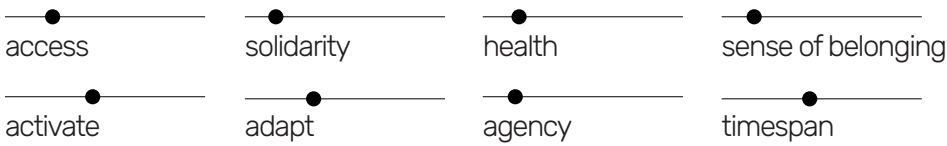


conceived space
Place de La Reine &
Rue Royale-Sainte-Marie



B-B Section
x2

Evaluation



A-A Section
x2

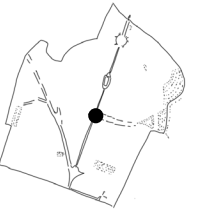
Evaluation



Fig. 2.8: Design
Exploration, area
in Schaerbeek
West, made by
author

Lehonplein is a square in Schaerbeek, centered around the Église Saint-Servais, a 19th-century neo-Gothic church. Every Friday, the square comes alive with a bustling market that draws plenty of activity. It is surrounded by a mix of residential buildings and local amenities like a school and shops. While the church gives the square a strong visual presence, Lehonplein struggles to attract more everyday use, largely because of its straight edges and rigid lines.

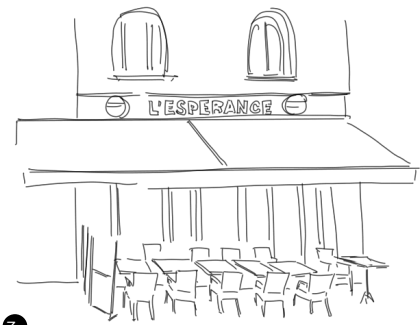
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1



2



3



4



5

Who is there?

Church, DPD shop, Car Shops, Few restaurants, bookshop

What is there?

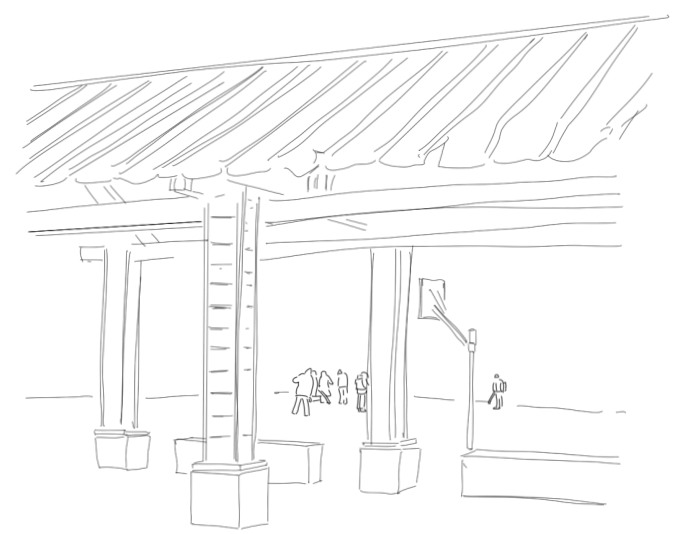
Printing workshops, High voltage power station, Bus stop, Basketball fields, Market on Fridays, six pavilions

Problems

most of the time empty, used for crossing, not for staying, except on market days, a lot of garbage lays around after the market, little shade, straight corners



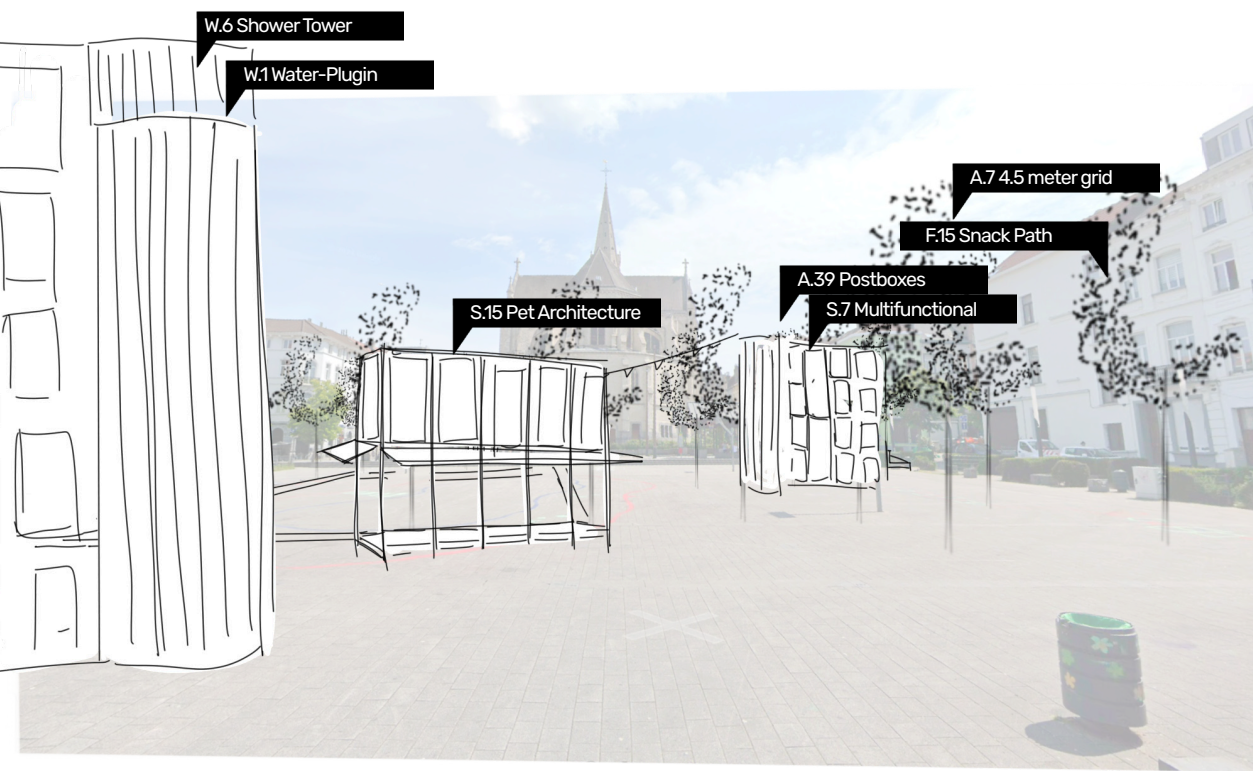
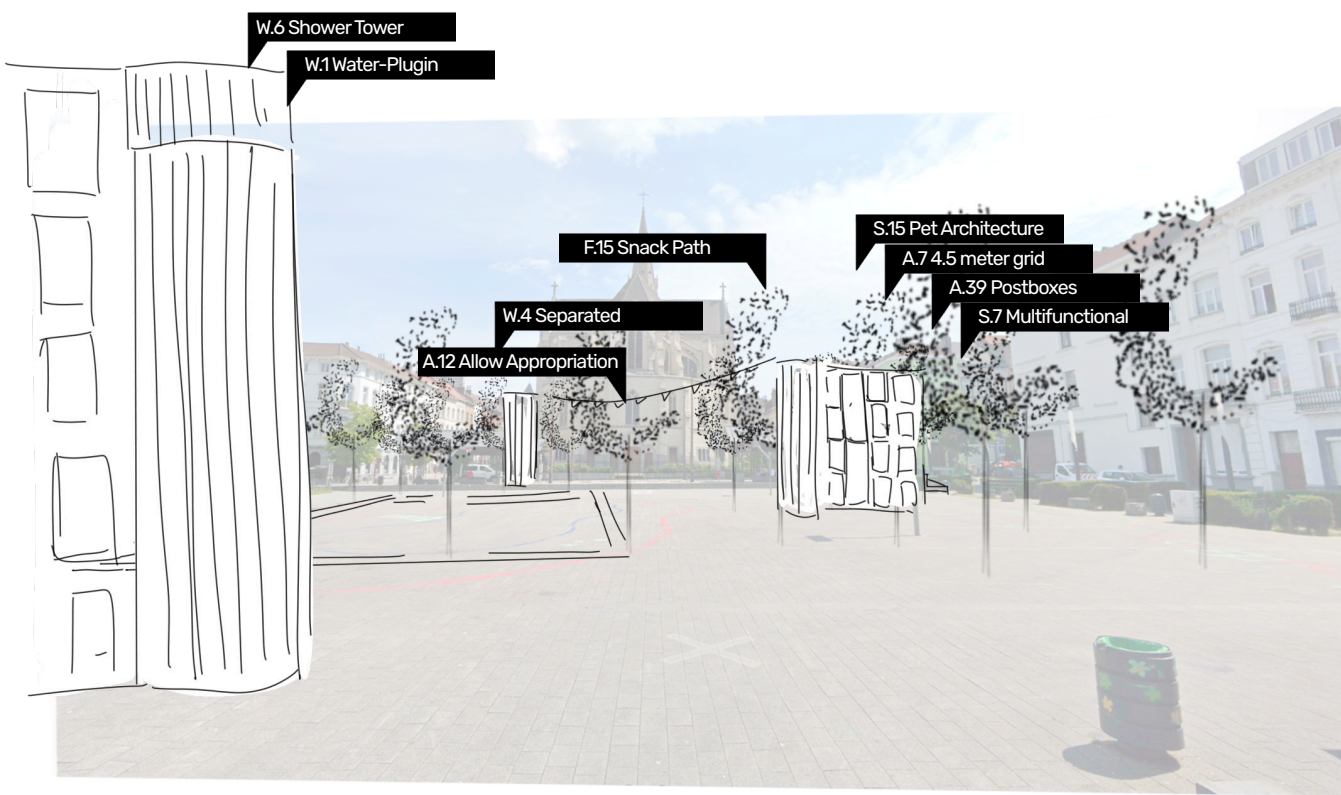
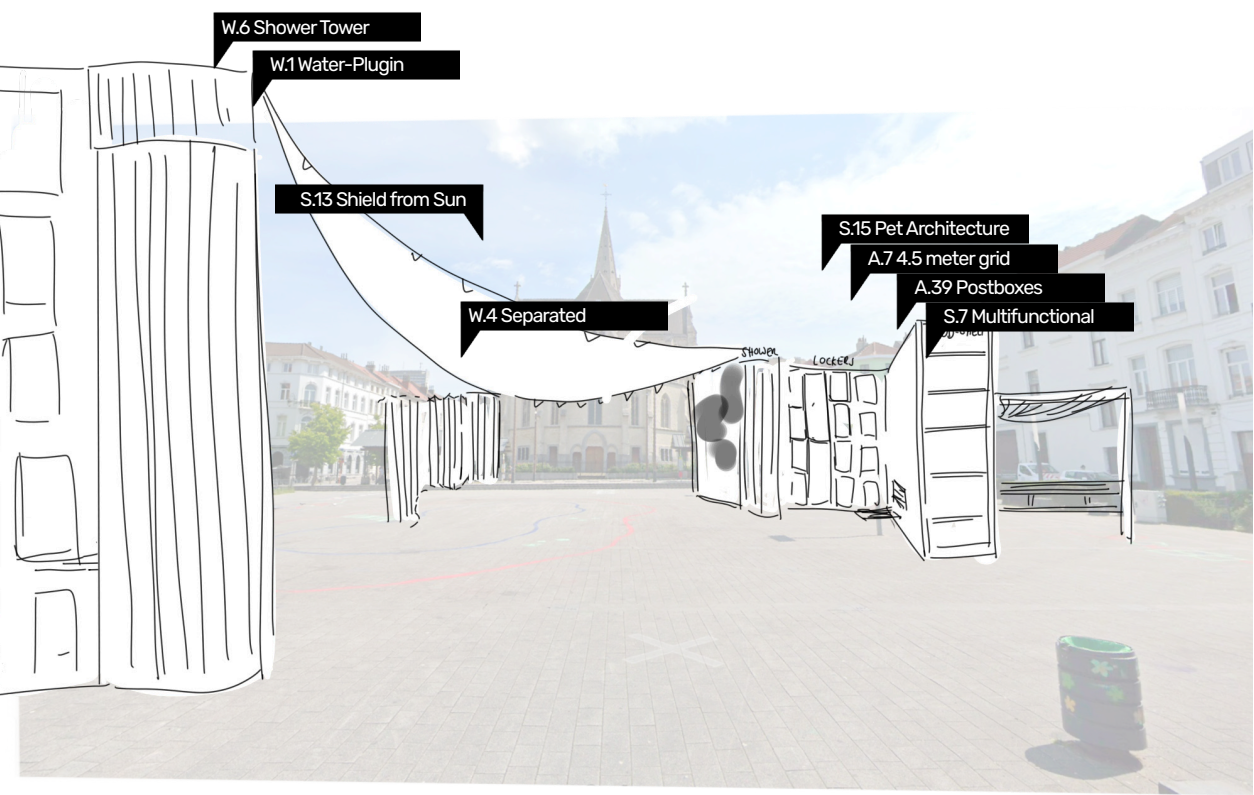
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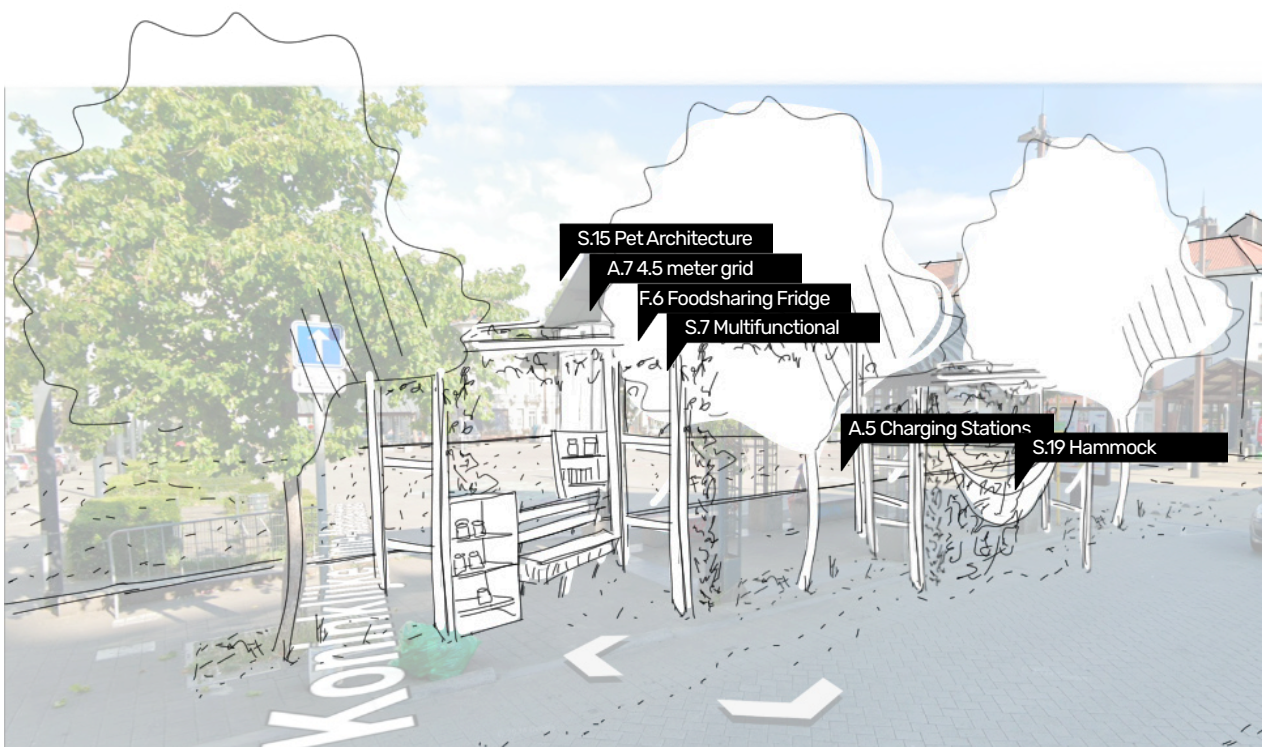
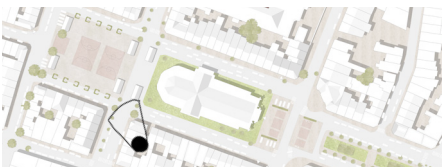
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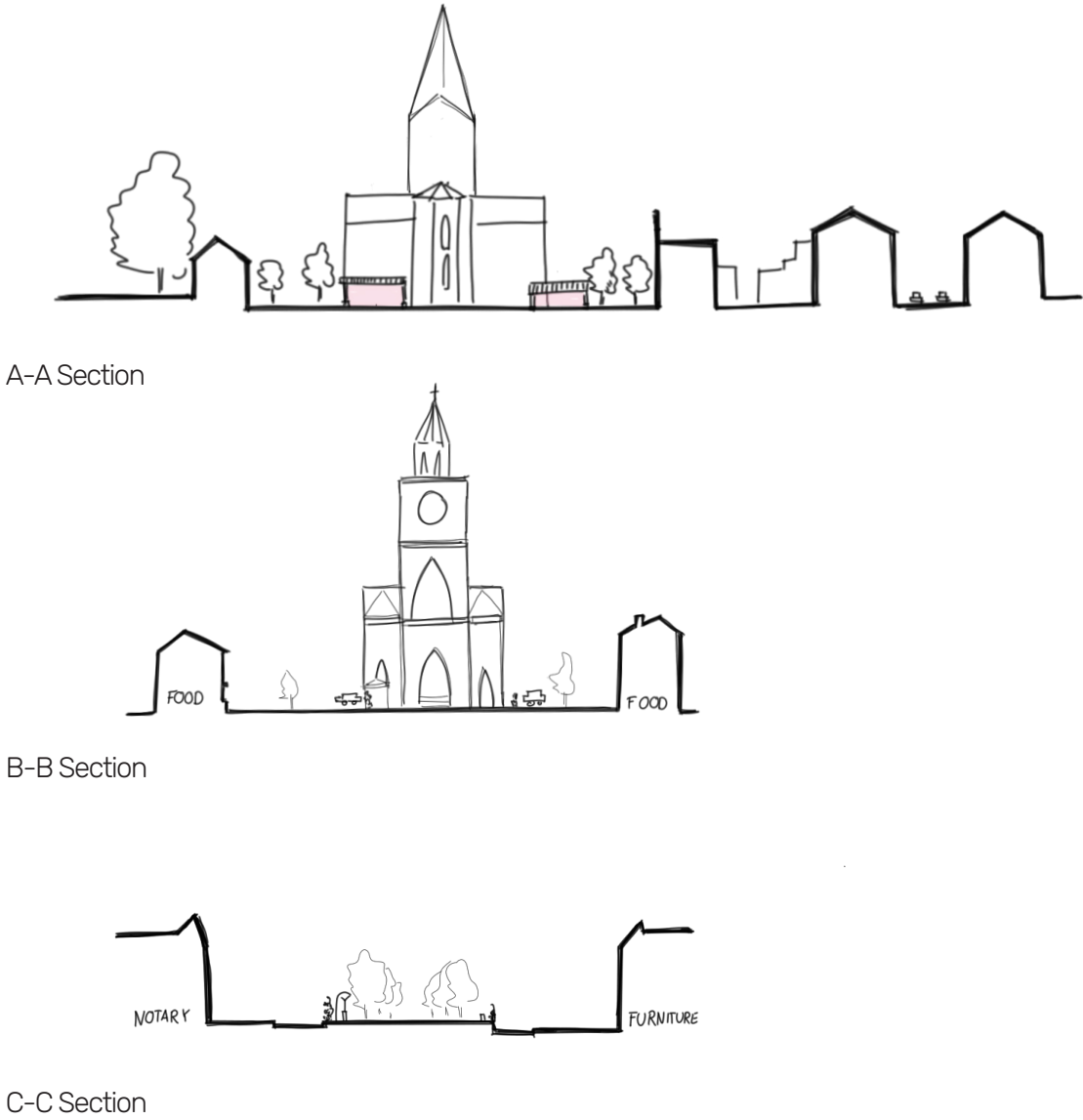
Fig. 8.13: Soft map of area identified for design exploration, made by author,



lived space
Église Saint-Servais & Lehonplein



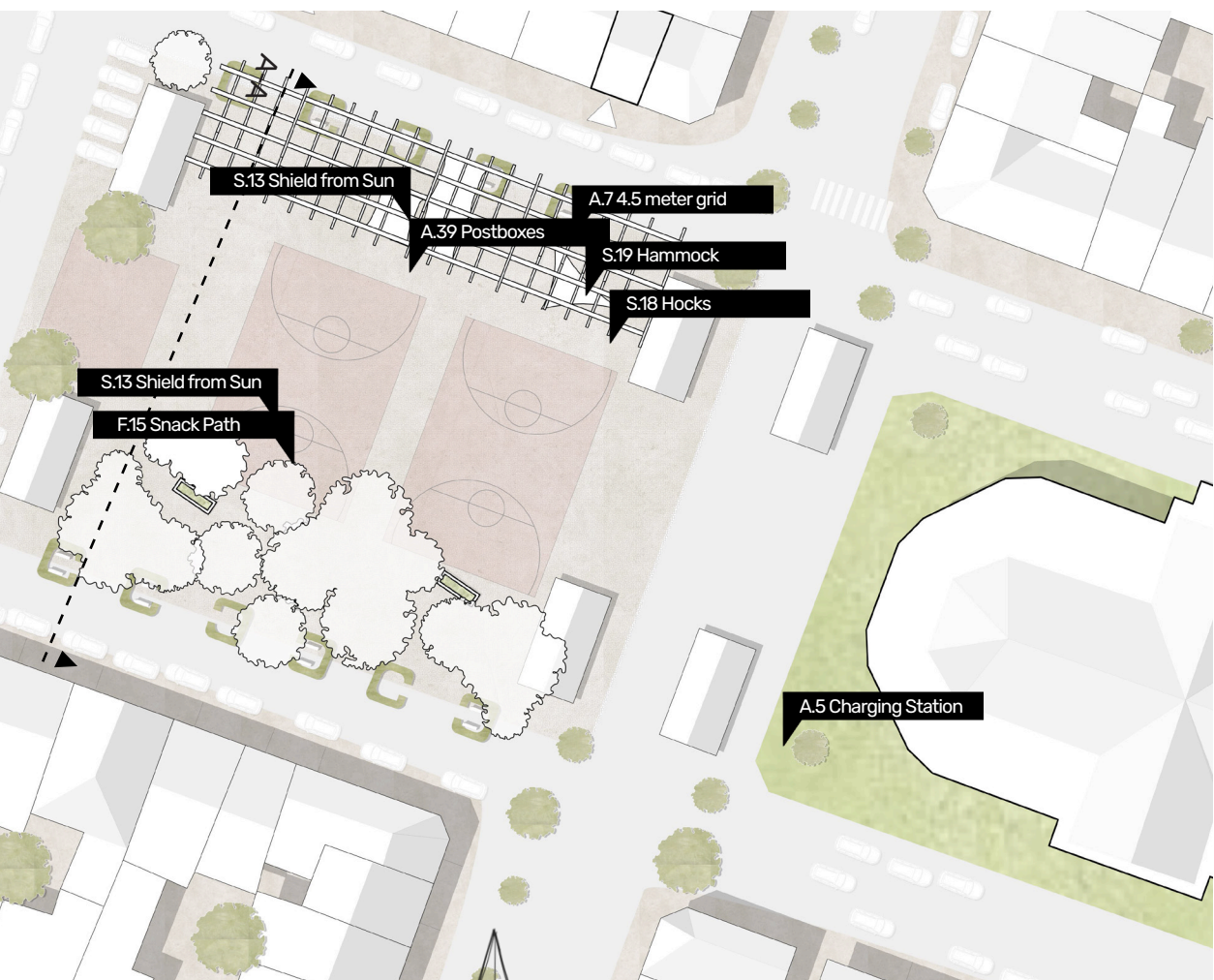
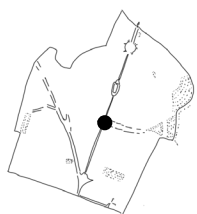
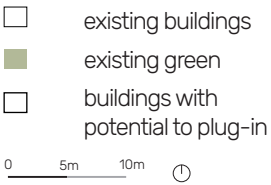
conceived space
Église Saint-Servais & Lehonplein



existing situation
map and section

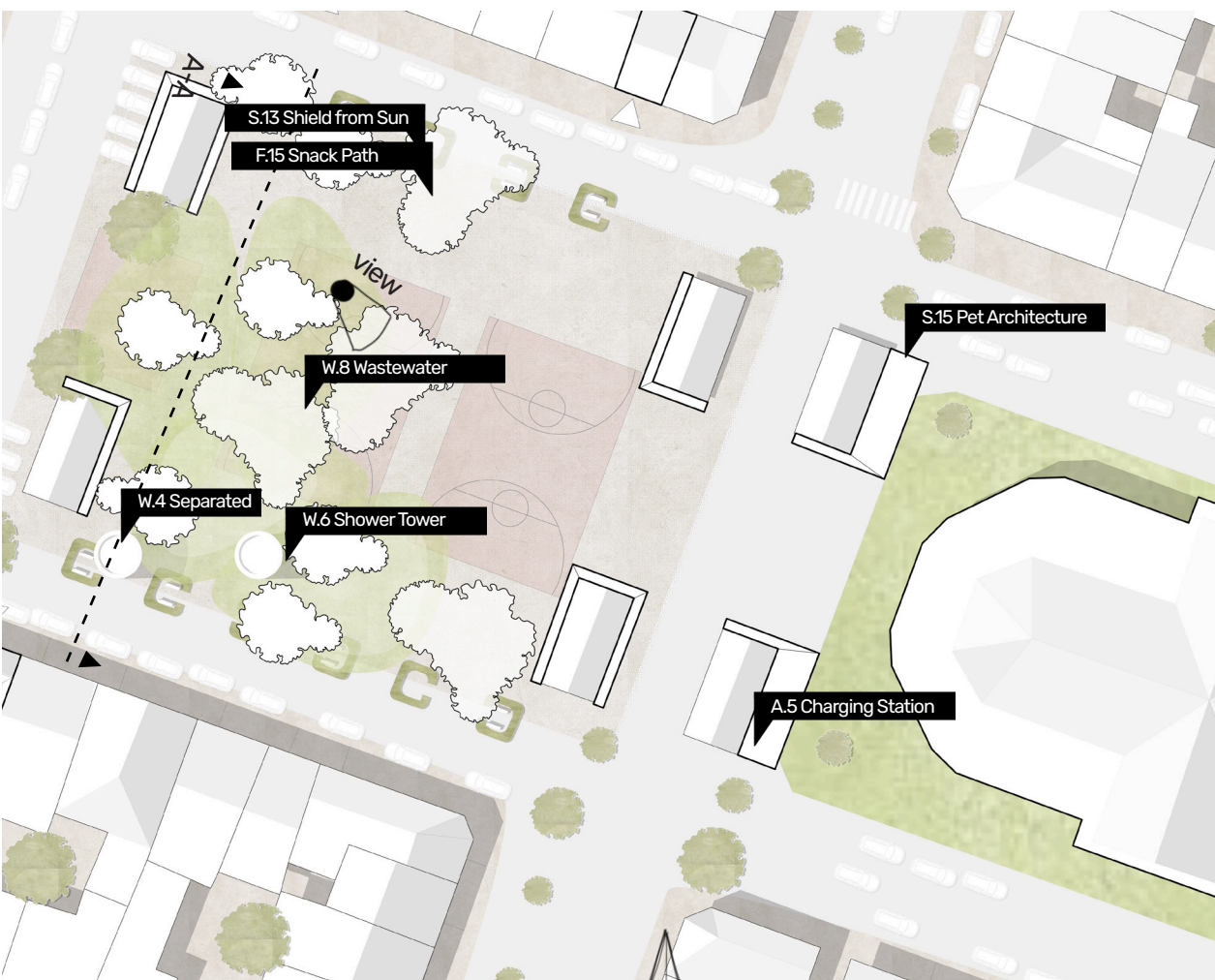
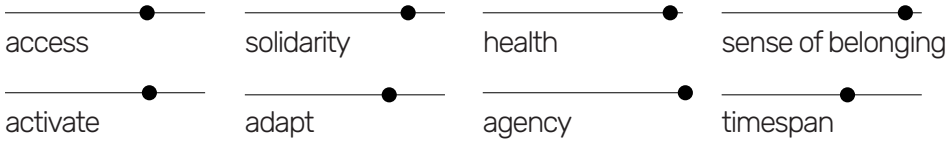


Fig. 8.14: Existing situation, area in Schaerbeek West, made by author



A-A Section
x2

Evaluation

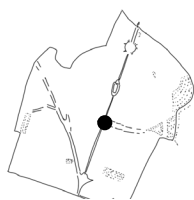
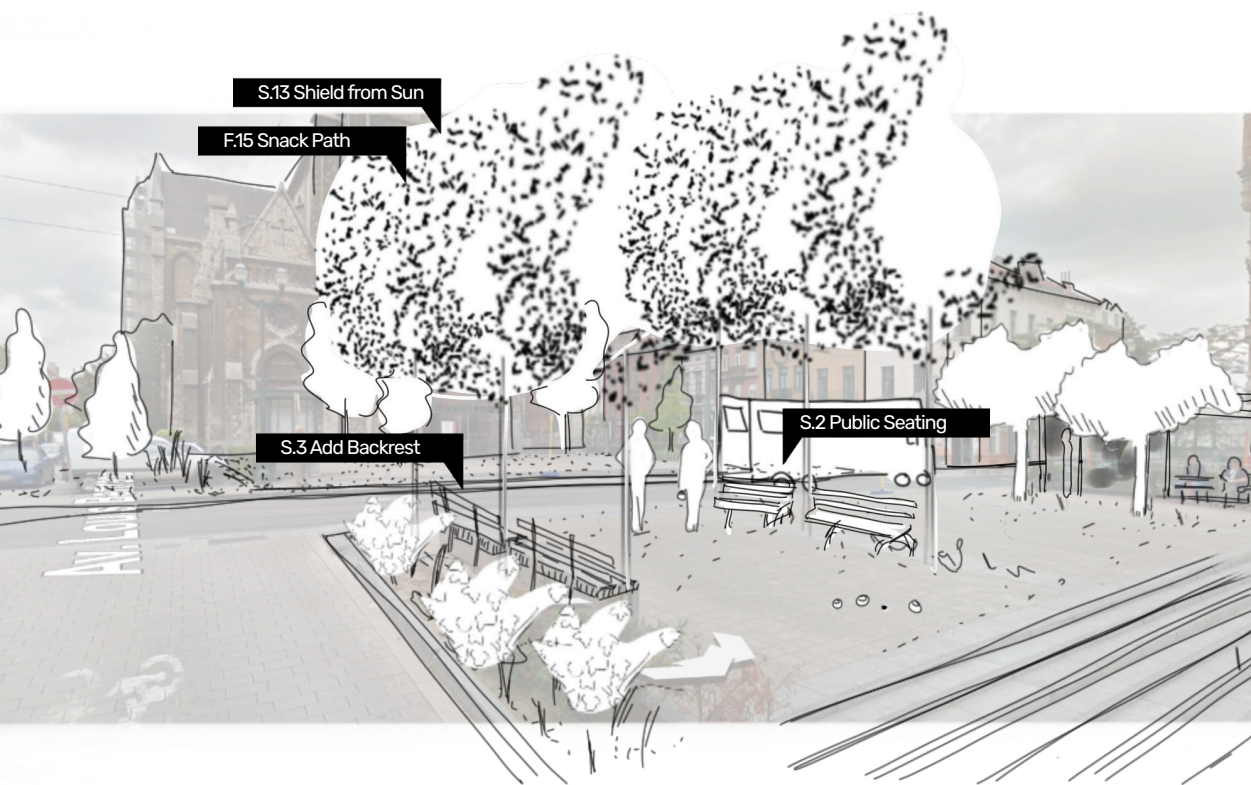


A-A Section
x2

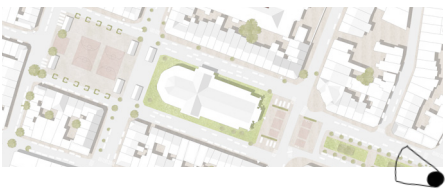
Evaluation



Fig. 8.15: Design
Exploration, area
in Schaerbeek
West, made by
author



lived space
Église Saint-Servais & Lehonplein



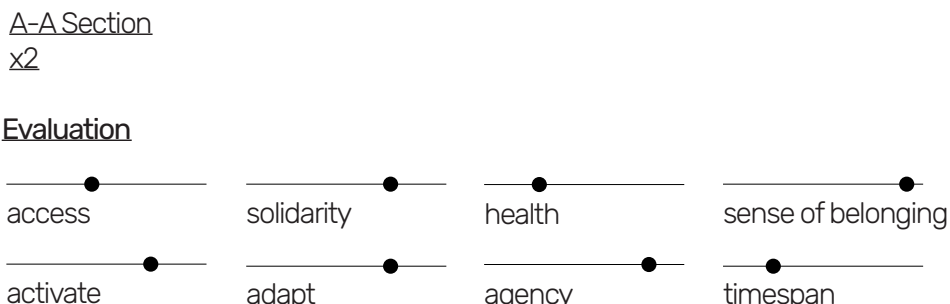
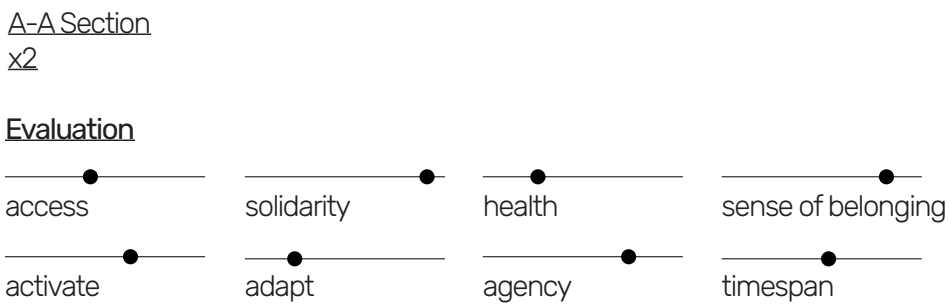
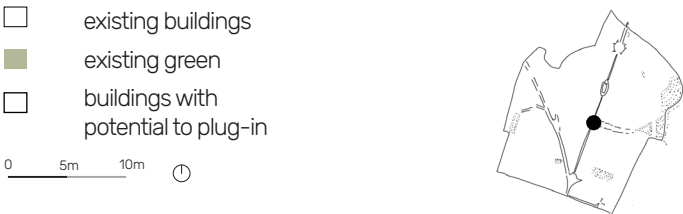
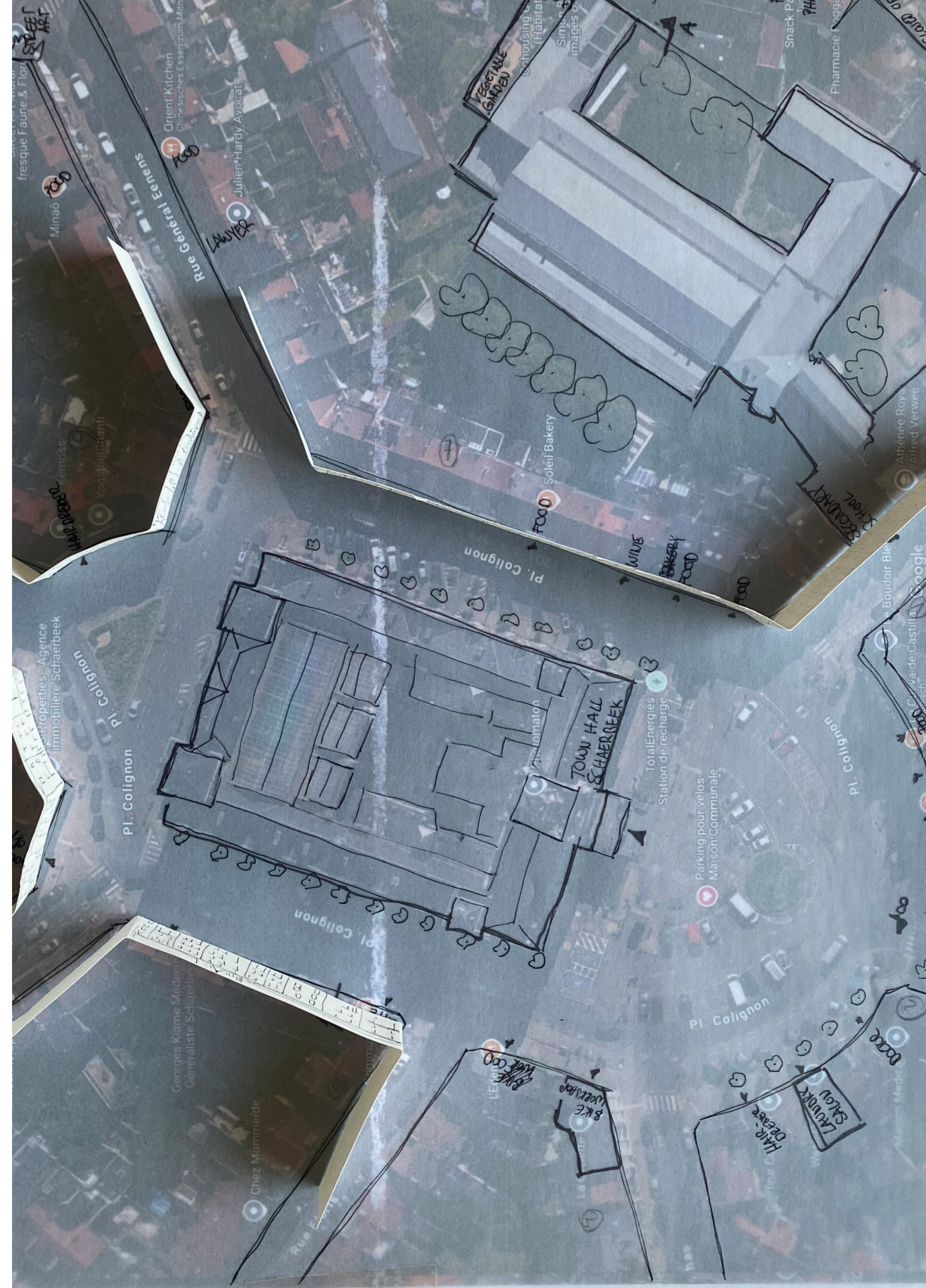


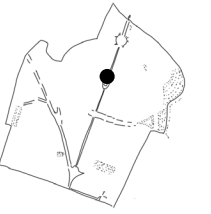
Fig. 8.16: Design Exploration, area in Schaerbeek West, made by author



Place Colignon

Place Colignon is centered around the impressive Schaerbeek Town Hall, renowned for its ornate façade featuring a striking combination of red and black brickwork, blue stone, and limestone, beautifully accented with decorative mosaics. The buildings surrounding the Town Hall echo its architectural style, creating a harmonious and picturesque urban landscape. The square itself has an almost oval shape, with seven streets radiating outward: Rue Royale Sainte-Marie, Rue Verhas, Rue Floris, Rue Quinaux, Avenue Maréchal Foch, Rue Général Eenens, and Rue Verwée. It is surrounded by many restaurants and some smaller businesses like hair dressers and a bike workshop.



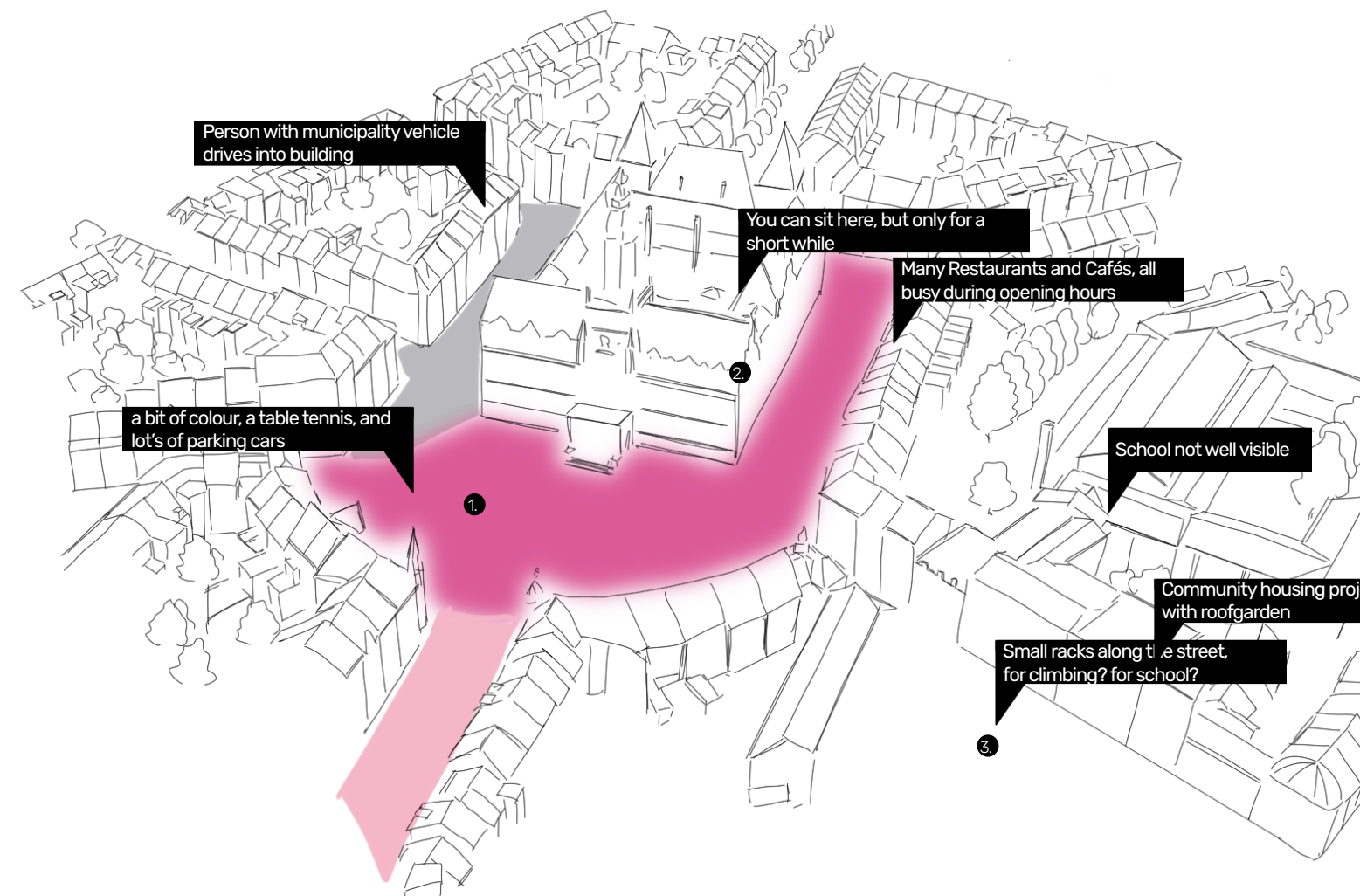


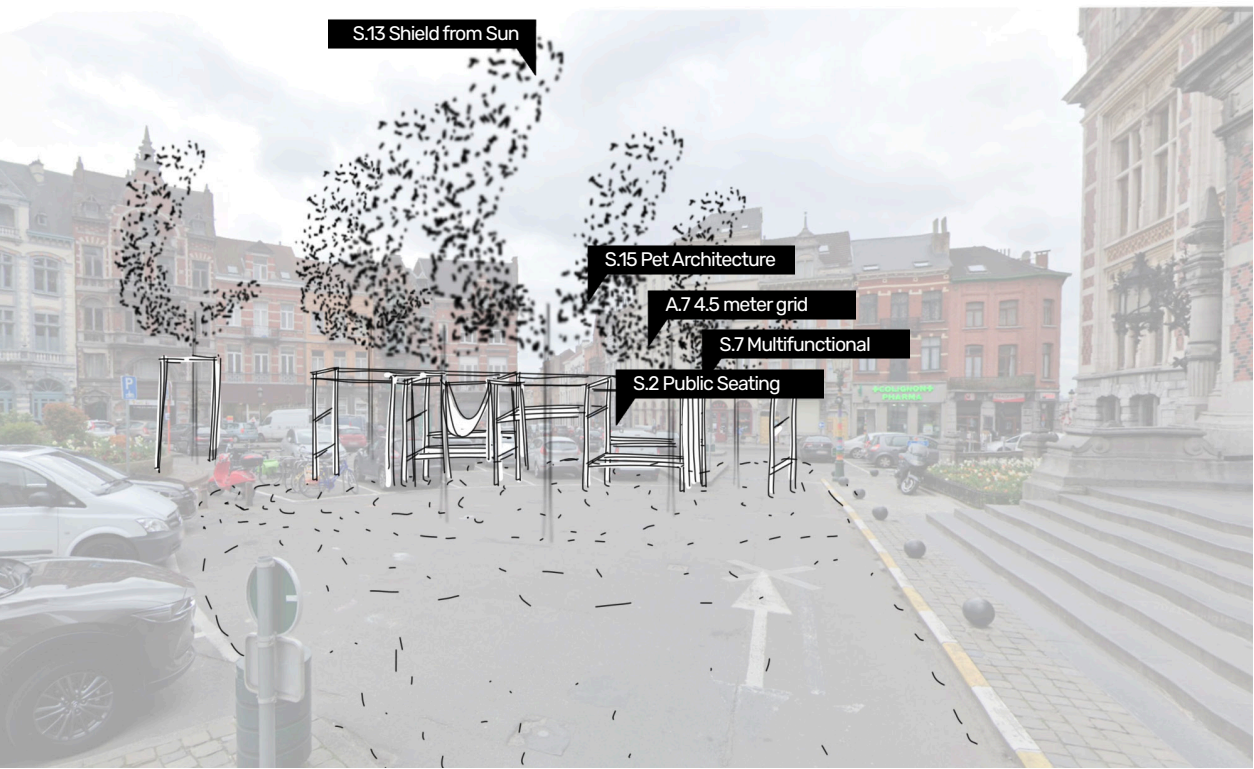
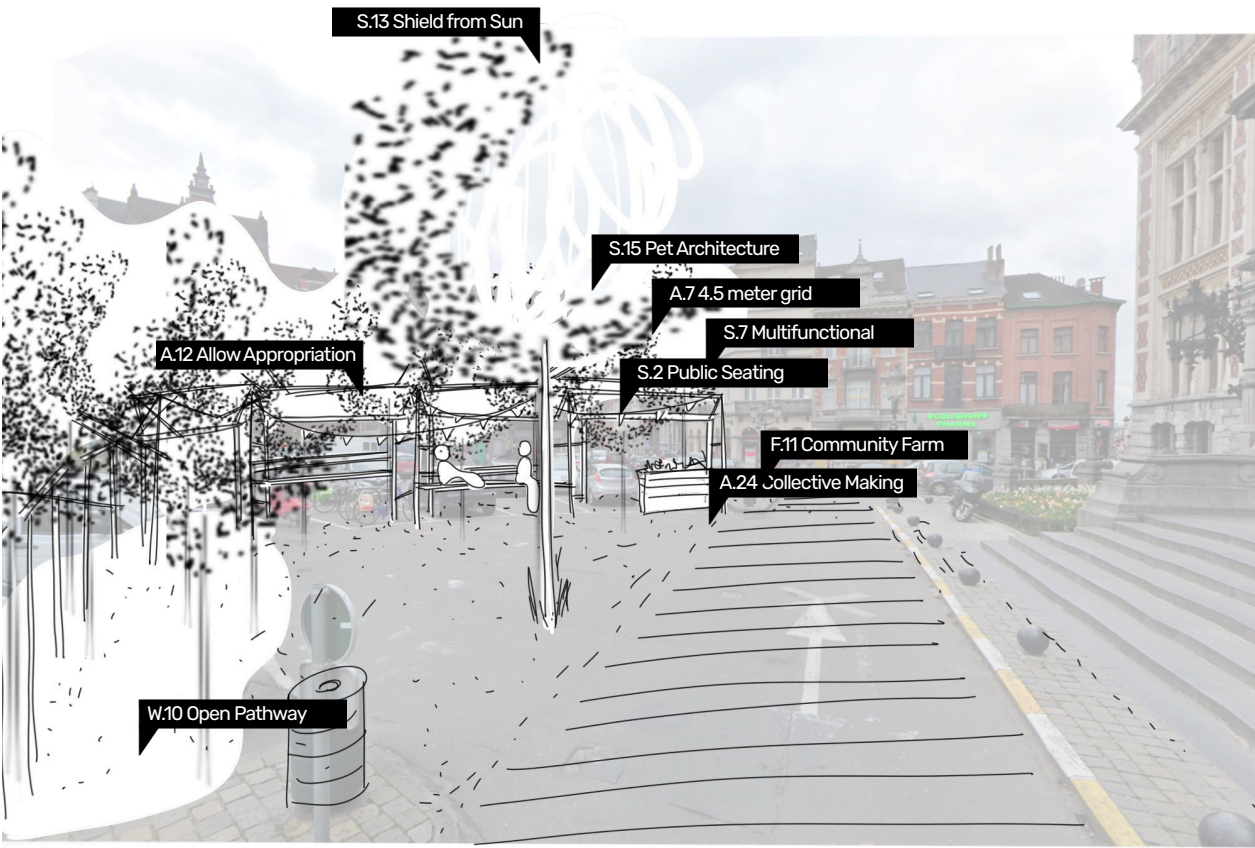
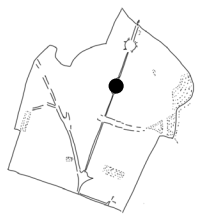
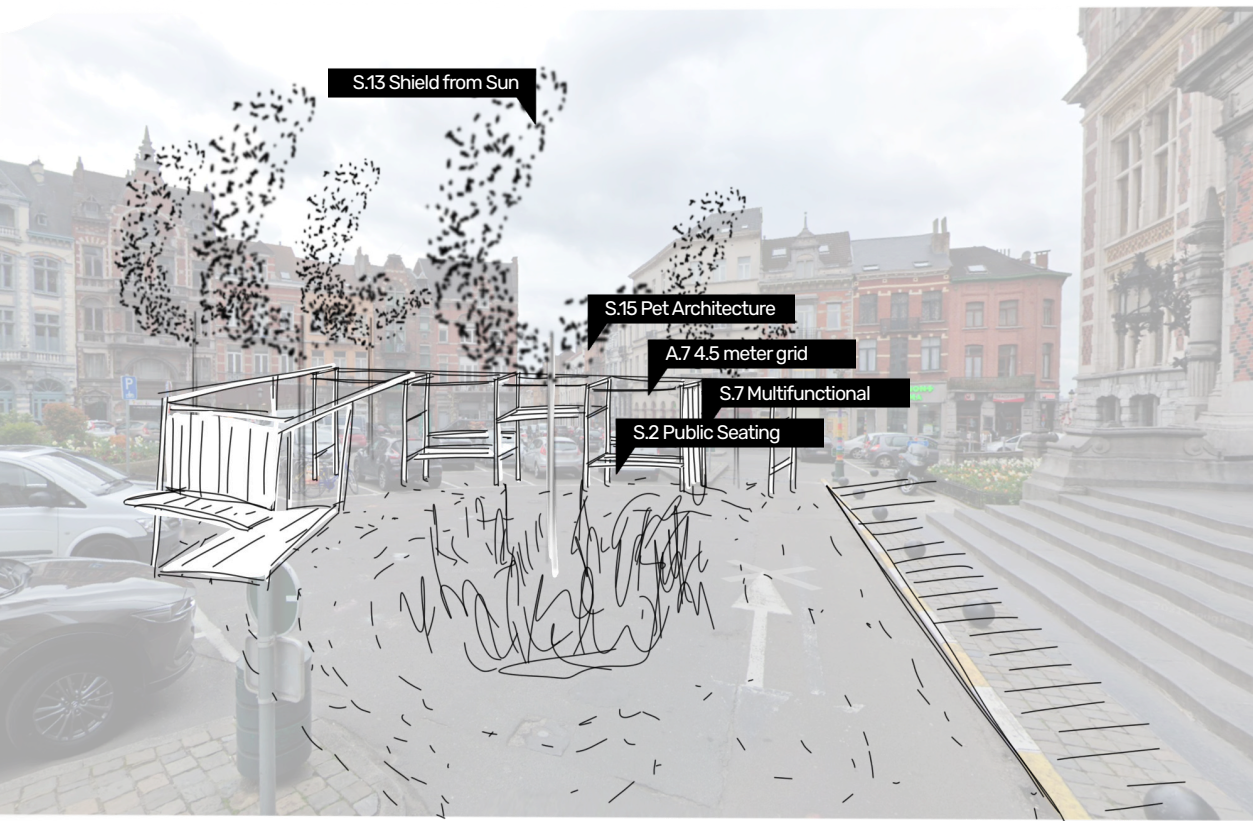
Who is there?
Municipality (townhall), Bike Workshop, Restaurants, School, Collective Housing Project, Hair dresser, Laundry service

What is there?
Roofgarden, Common rooms, School with Backyard, table tennis, small pots of greenery, small trees

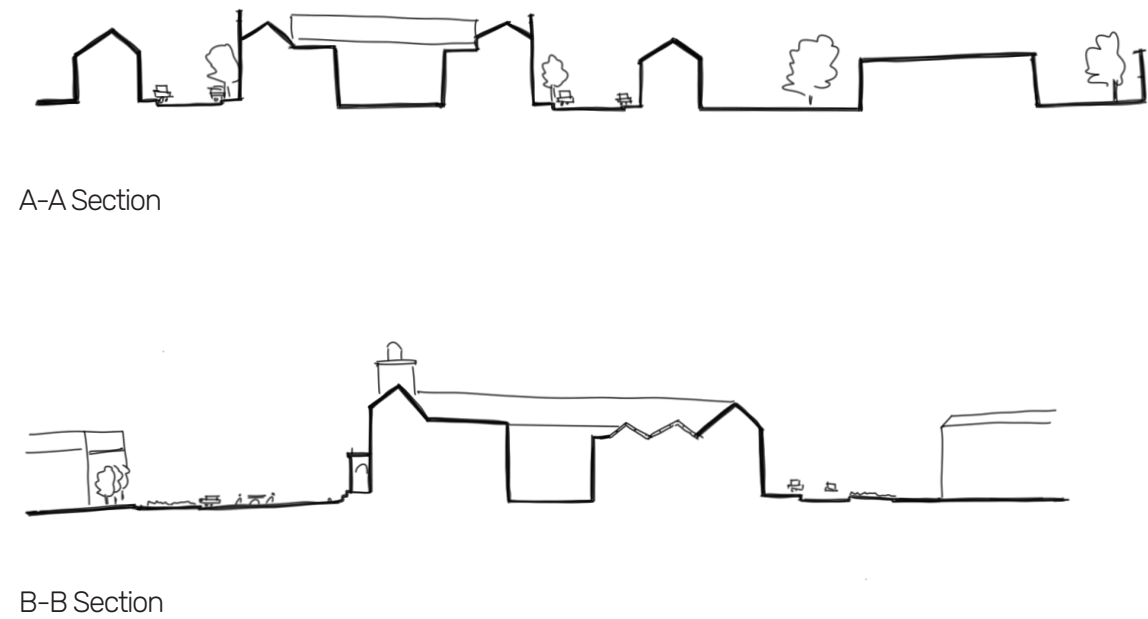
Problems:
busy street, large parking space in front of townhall, little space on sidewalk

Fig. 8.17: Soft map of area identified for design exploration, made by author,





conceived space
Place Colignon



existing situation
map and section



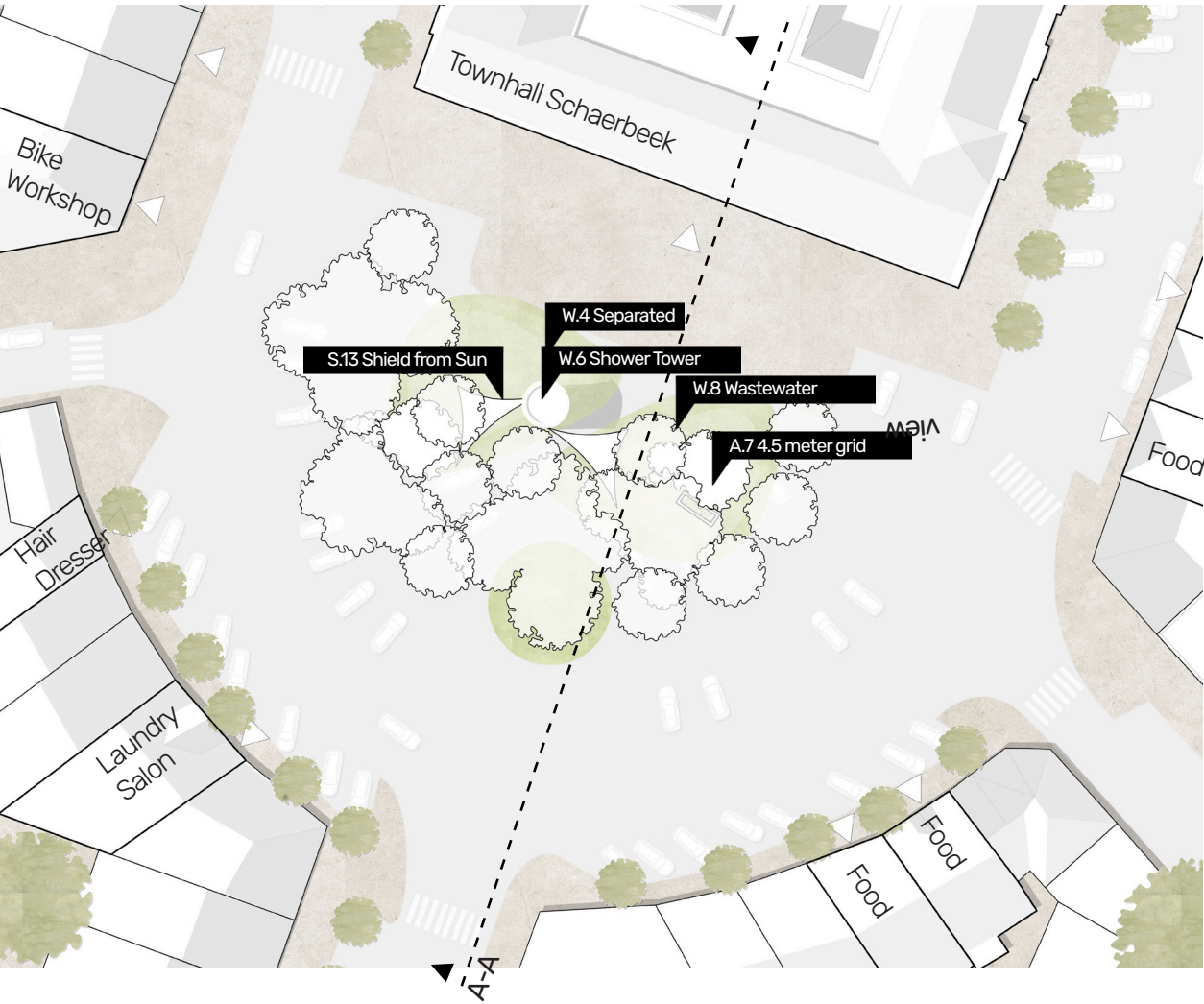
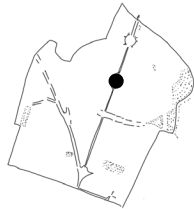
Fig. 8.18: Existing situation, area in Schaerbeek West, made by author

existing buildings

existing green

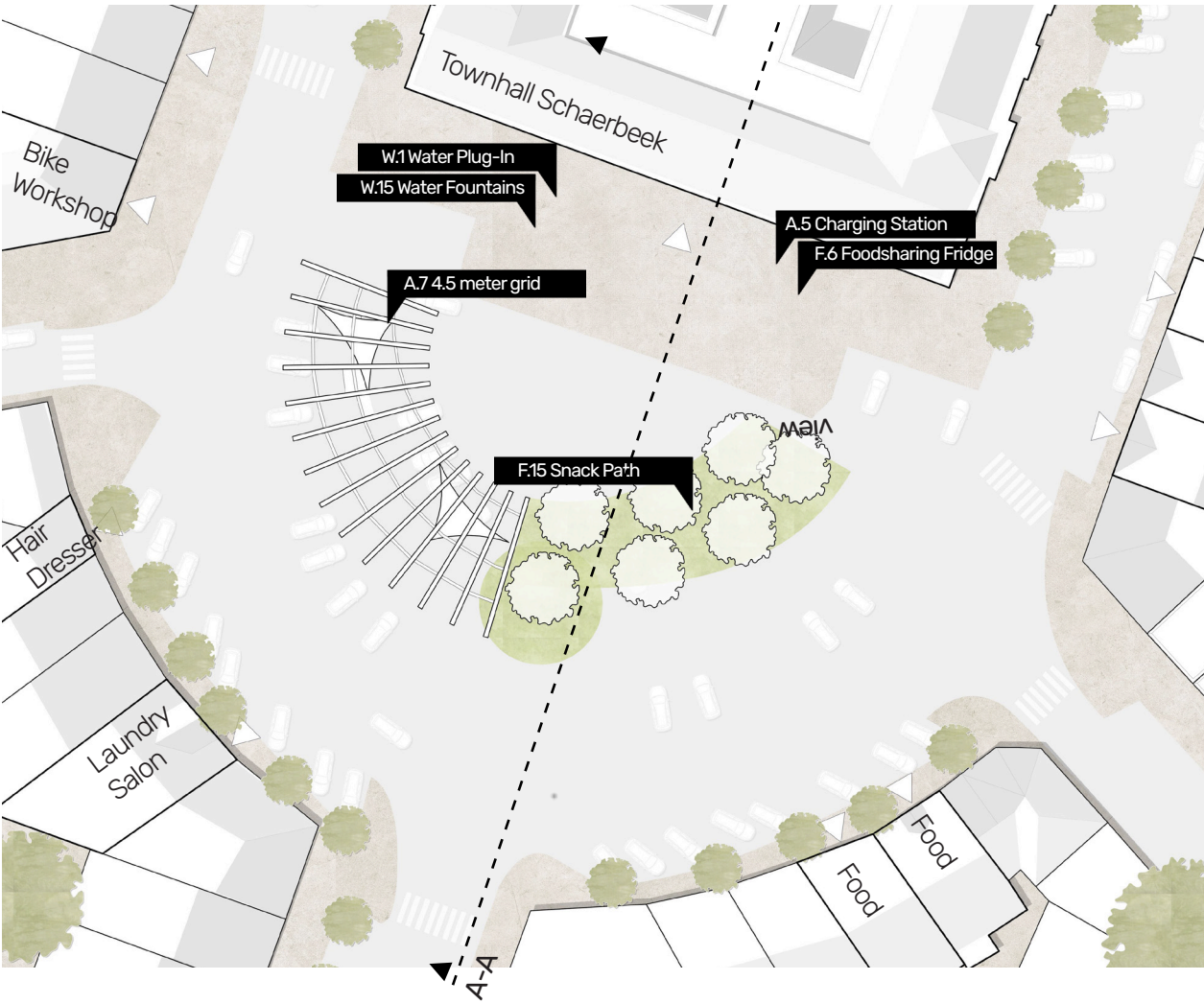
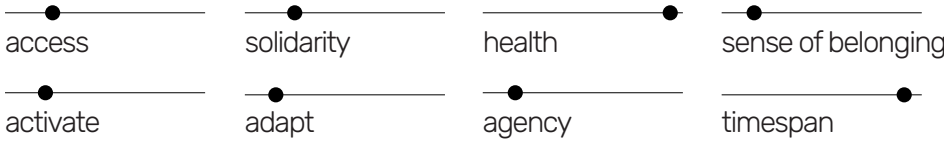
buildings with potential to plug-in

05m10m



A-A Section
x2

Evaluation

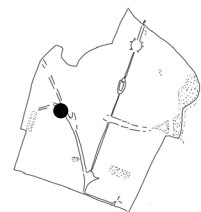


A-A Section
x2

Evaluation



Fig. 8.19: Design
Exploration, area
in Schaerbeek
West, made by
author



Place Gaucheret

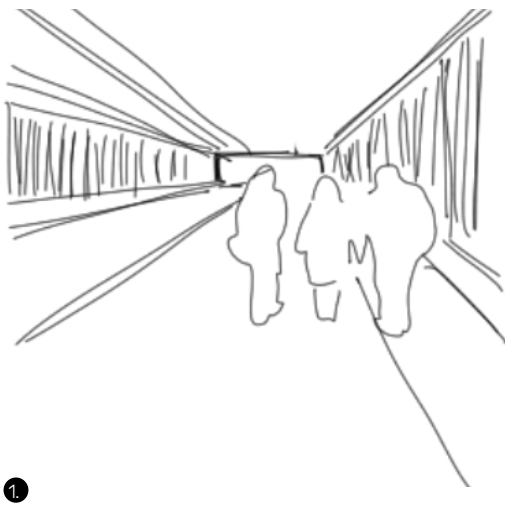
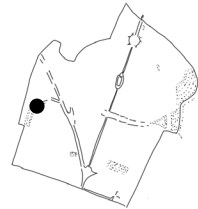
The Place Gaucheret was developed as a multifunctional urban space, designed by landscape architect Erik Vandeveld. This area includes playgrounds, sports facilities, and a decorative bronze strip commemorating the former railway line. A community center was established at the square. Today, Place Gaucheret serves as a public space for recreation and community events. Its design aims to integrate the area's industrial past with its residential present and is surrounded by a school, churches, childcare and art for children.



lived space
Place Gaucheret

existing situation
soft map

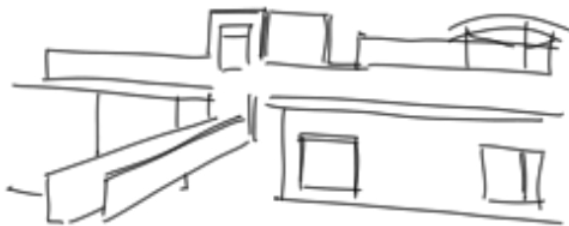
transit-area
key connector
desitination



1



2



3



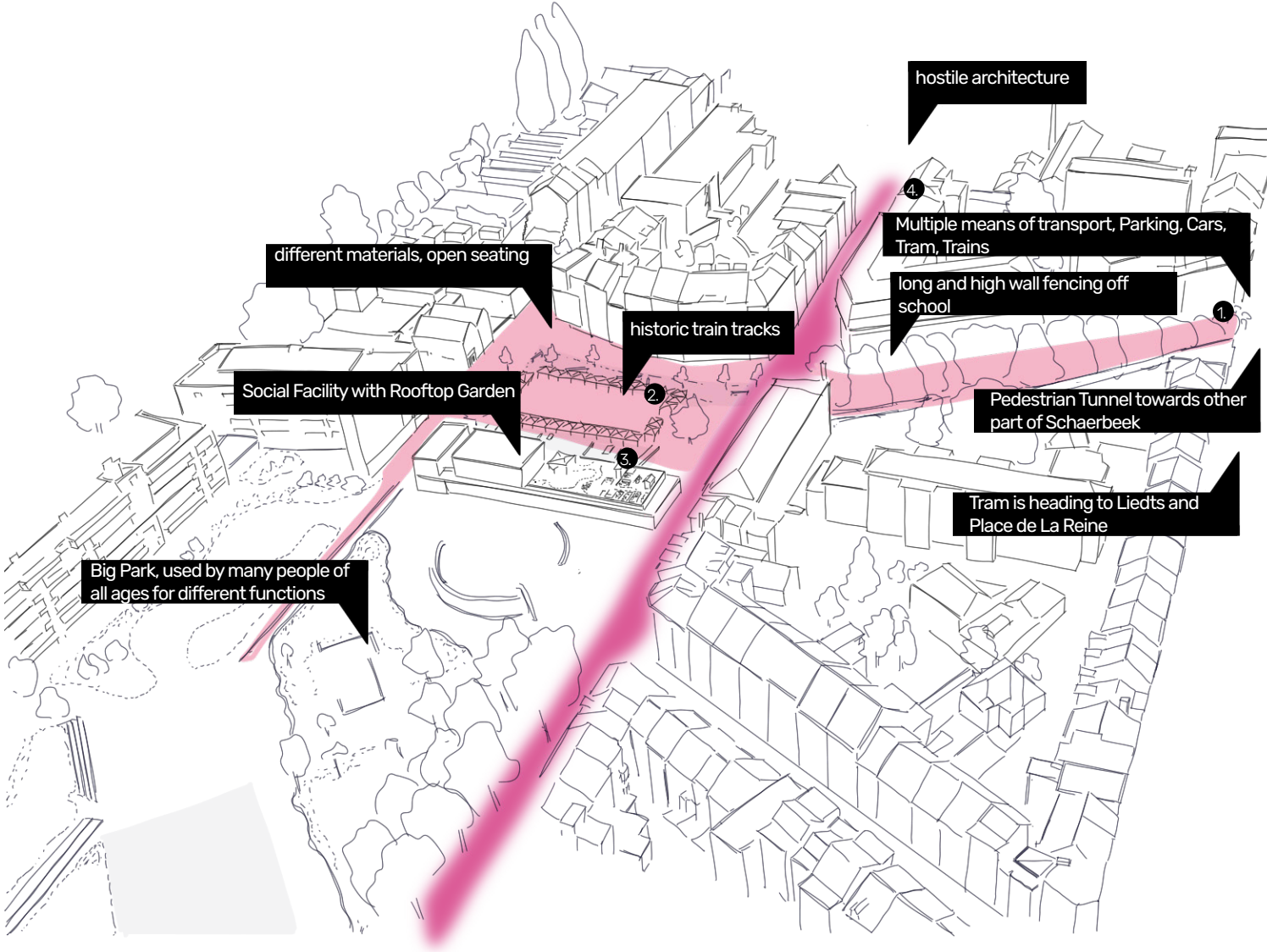
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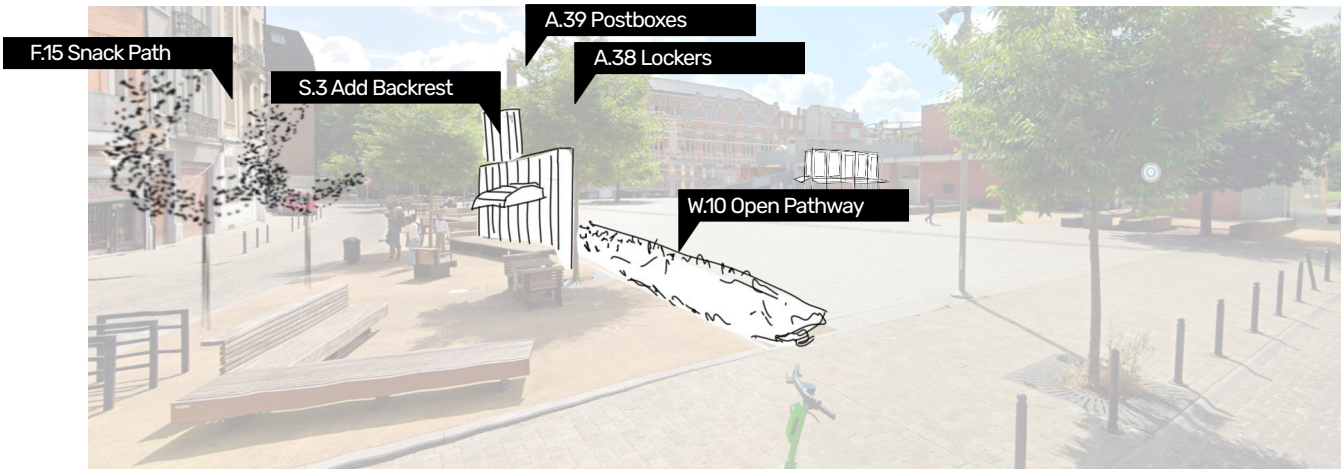
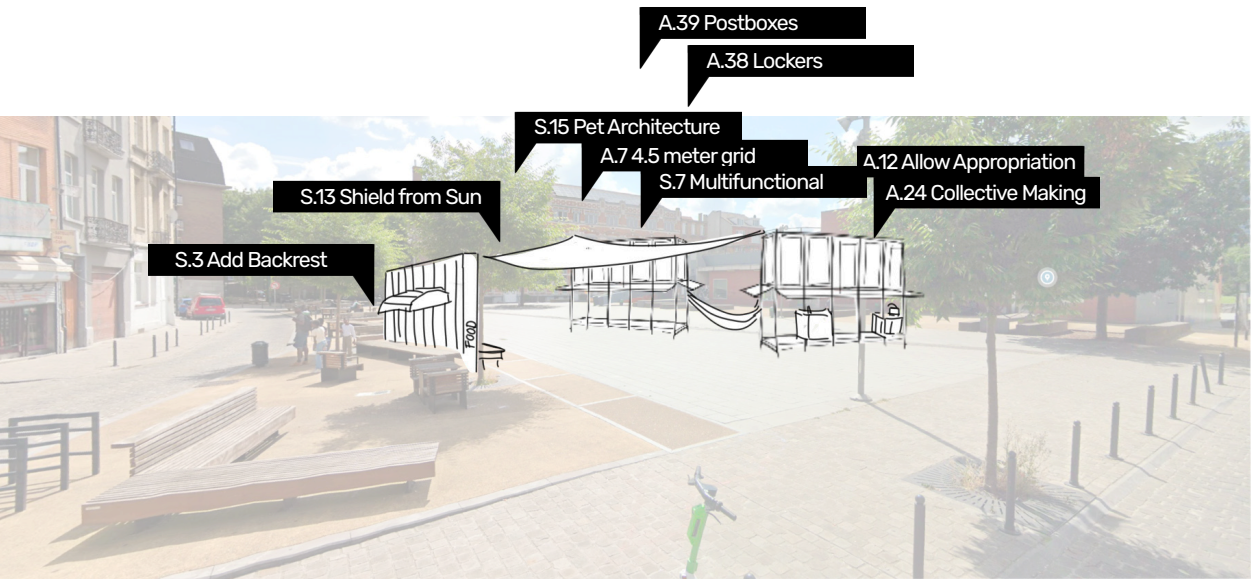
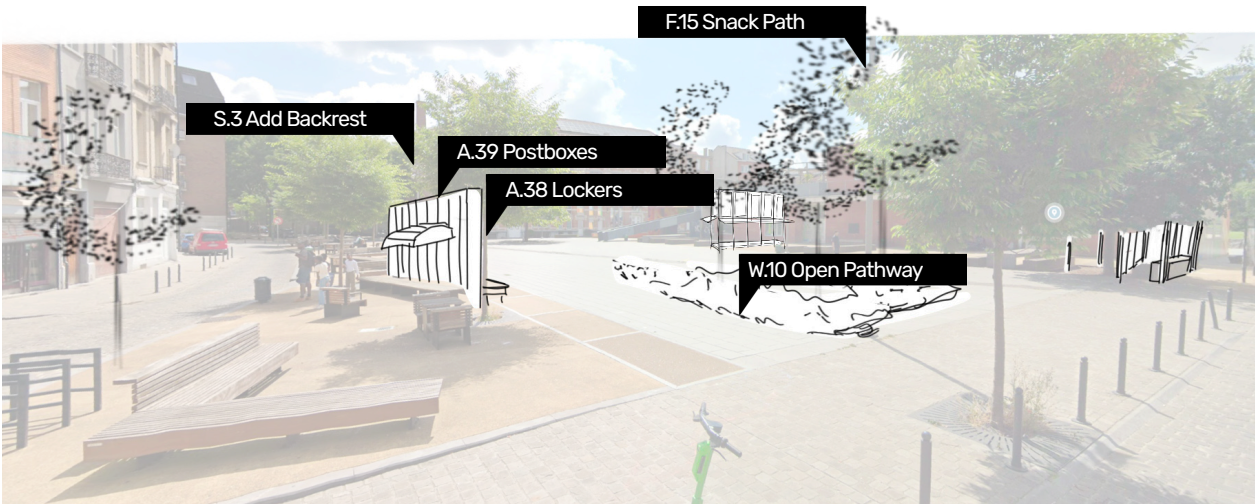
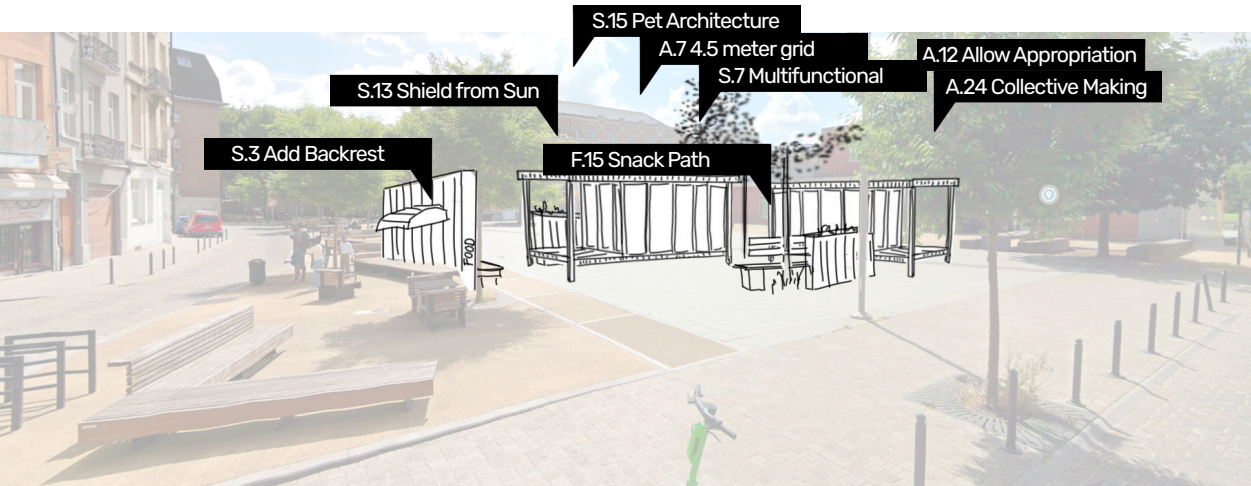
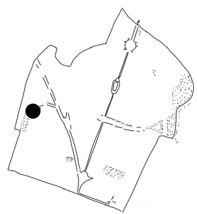
Who is there?
Social facility with rooftop, school, daycare, church and artschool for children

What is there?
Park, trees, benches, large area for temporary use

Problems:
fenced off spaces (artschool, school backyard), no public toilets, empty space without protections from sun/rain

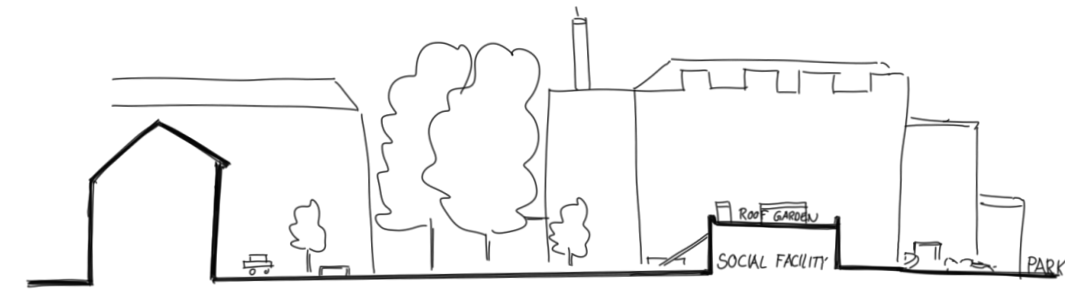
Fig. 8.20: Soft map of area identified for design exploration, made by author,





conceived space

Place Gaucheret



A-A Section

existing situation

map and section

- existing buildings
- existing green

0 10m 20m

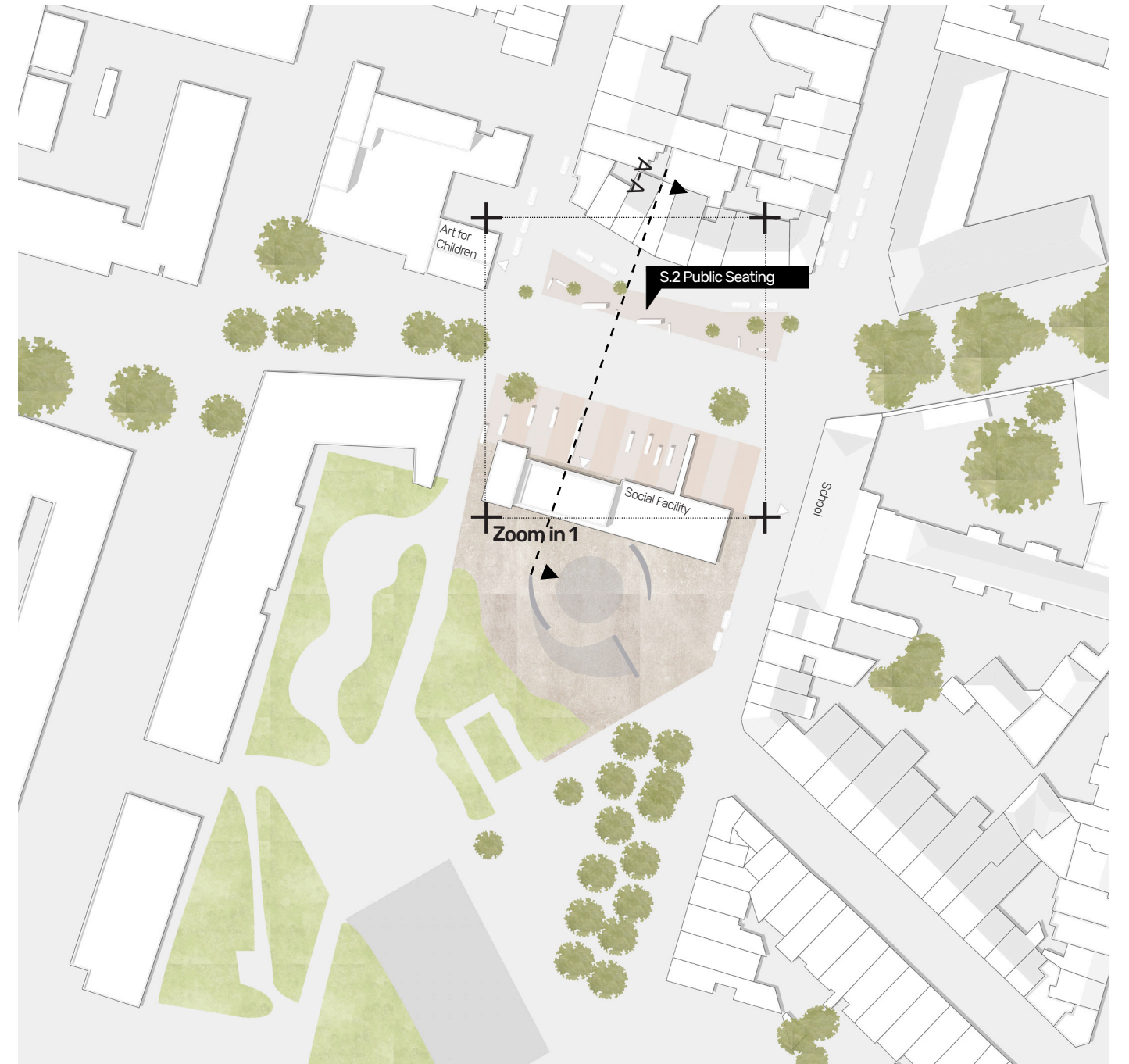
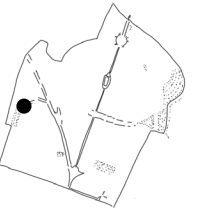
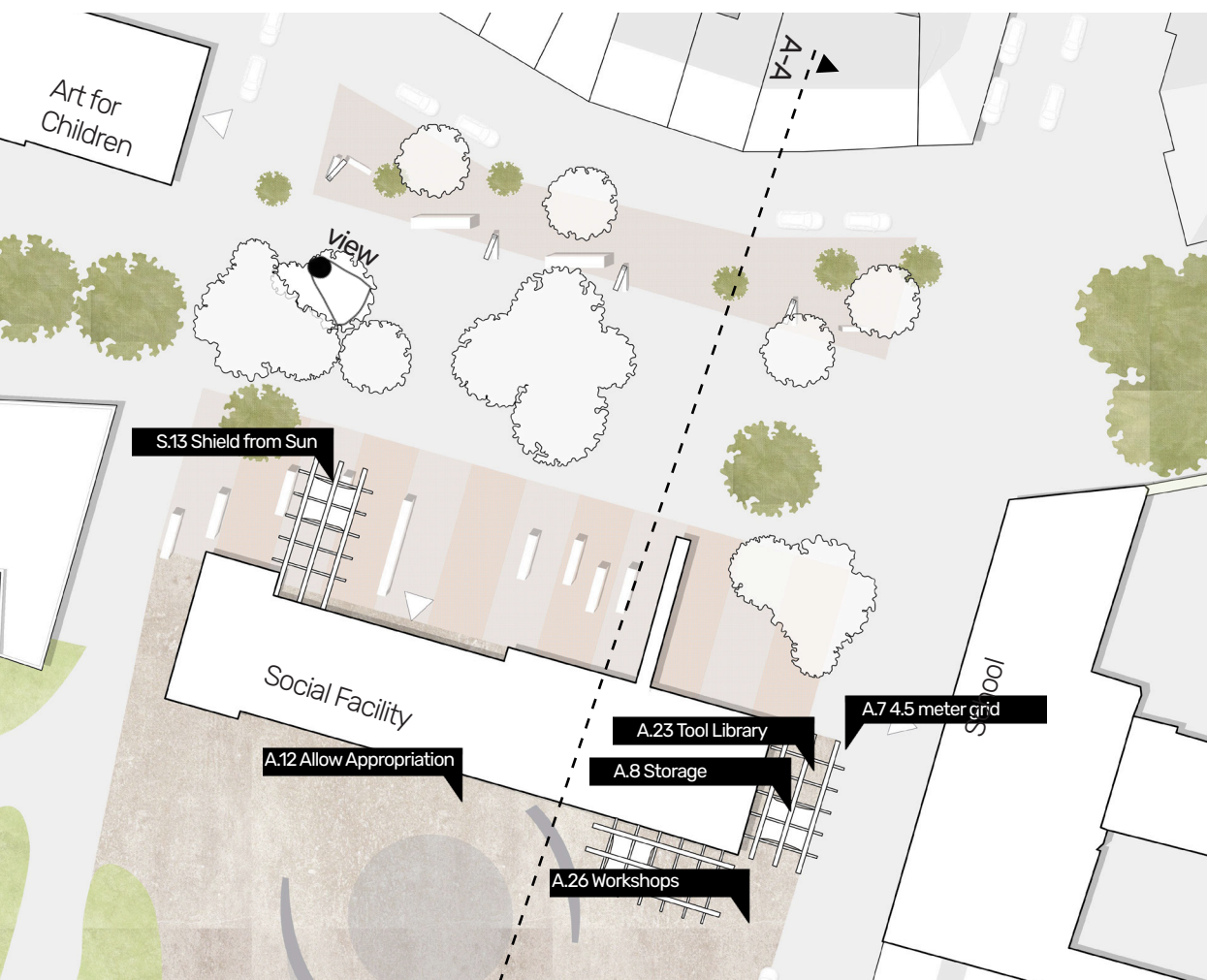


Fig. 8.21: Existing situation, area in Schaerbeek West, made by author

#4

conceived space

Place Gaucheret



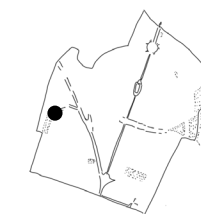
A-A Section
x2

Evaluation

access	solidarity	health	sense of belonging
activate	adapt	agency	timespan

research by design

- existing buildings
 - existing green
 - buildings with potential to plug-in
- 0 5m 10m



A-A Section
x2

Evaluation

access	solidarity	health	sense of belonging
activate	adapt	agency	timespan

Fig. 8.22: Design Exploration, area in Schaerbeek West, made by author

Rue Josaphat (Josaphatstraat) is one of the main streets in Schaerbeek. It begins near Saint-Josseten-Noode and extends to Avenue Louis Bertrand, passing through Rue de l'Abondance along the way. Along this route, you find several key community landmarks: The White Mosque, the first mosque in Schaerbeek, the Rasquinet non-profit association (ASBL Rasquinet), the Josaphat School, officially recognized as a protected historic monument and the Maison des Femmes de Schaerbeek (House of Women), a community and cultural center dedicated to supporting women.

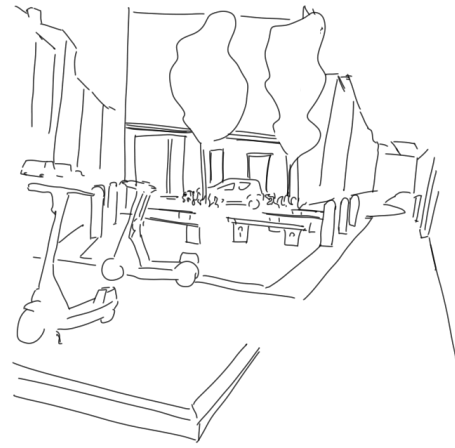
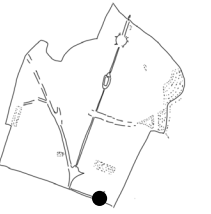
To improve the quality of life in the neighborhood, the local government has launched a "calm street" (rue pacifiée) initiative near the school area. This project aims to create a safer, more welcoming environment—especially for children—through traffic-calming measures and the development of play and social spaces.



lived space
Rue de l'Abondance
Rue Josaphat

existing situation
soft map

transit-area
key connector
desitination

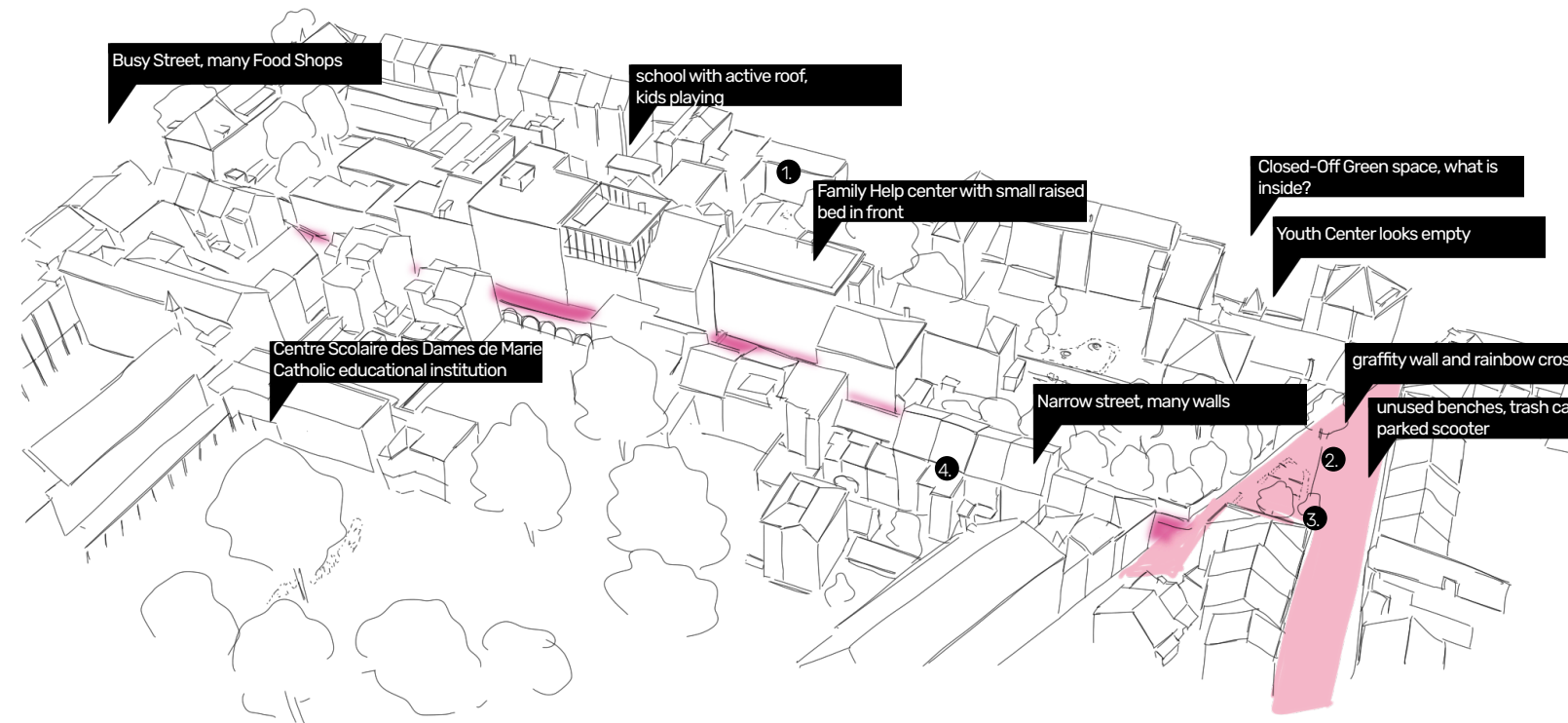


Who is there?
School, family help center,
Neighbourhood house for youth,
facility for women education, facility
for salary help, Nuns, club, doctors,
food

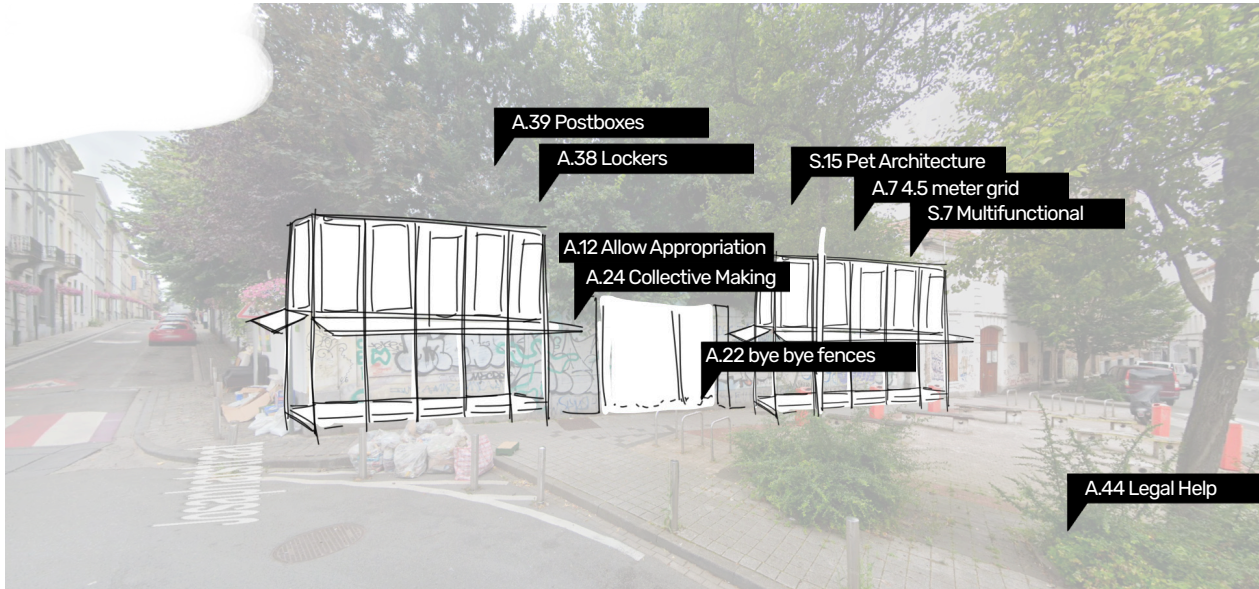
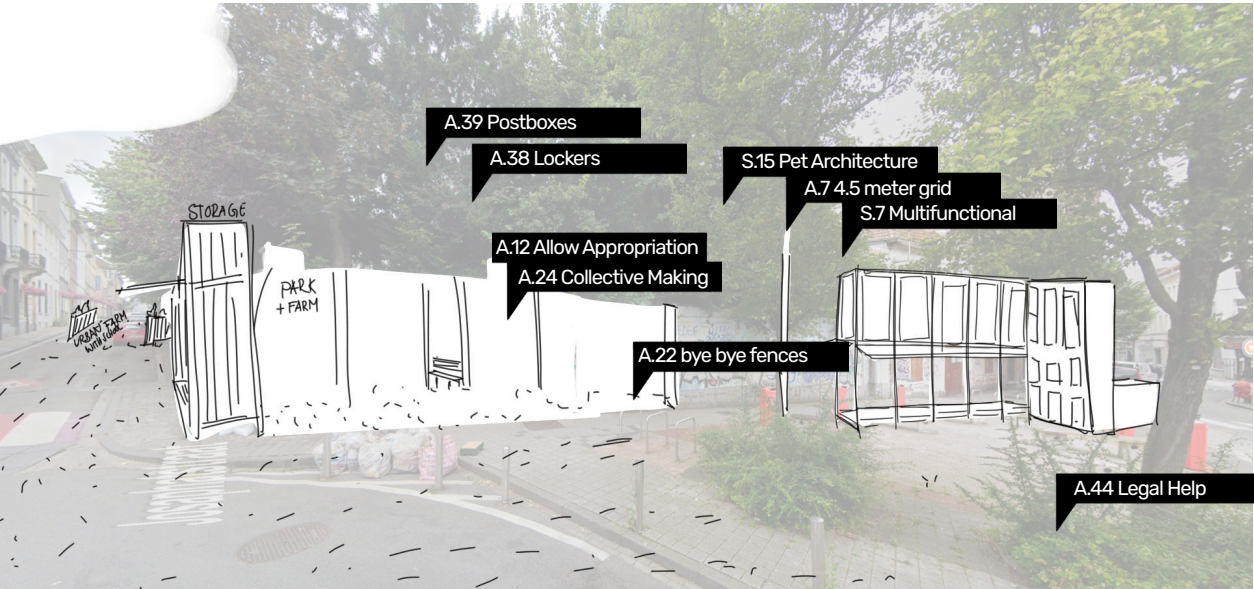
What is there?
Park, Gardens, Square, Narrow street
with few traffic, small raised bed in
front of familc help, active roof with
sport facilities in school, graffitiwall

Problems:
fenced off spaces (green spaces),
help facilities look closed and not
inviting, small underused square
next to high graffiti wall

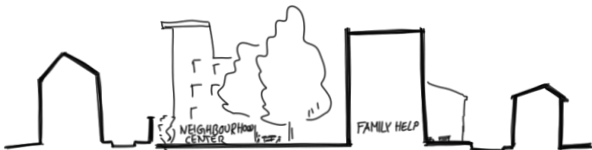
Fig. 8.23: Soft
map of area iden-
tified for design
exploration, made
by author,



lived space
Rue de l'Abondance
Rue Josaphat



conceived space
Rue de l'Abondance
Rue Josaphat



A-A Section

existing situation
map and section

- existing buildings
- existing green

0 10m 20m

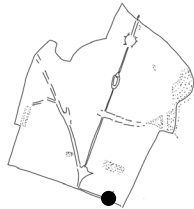


Fig. 8.24: Existing situation, area in Schaerbeek West, made by author

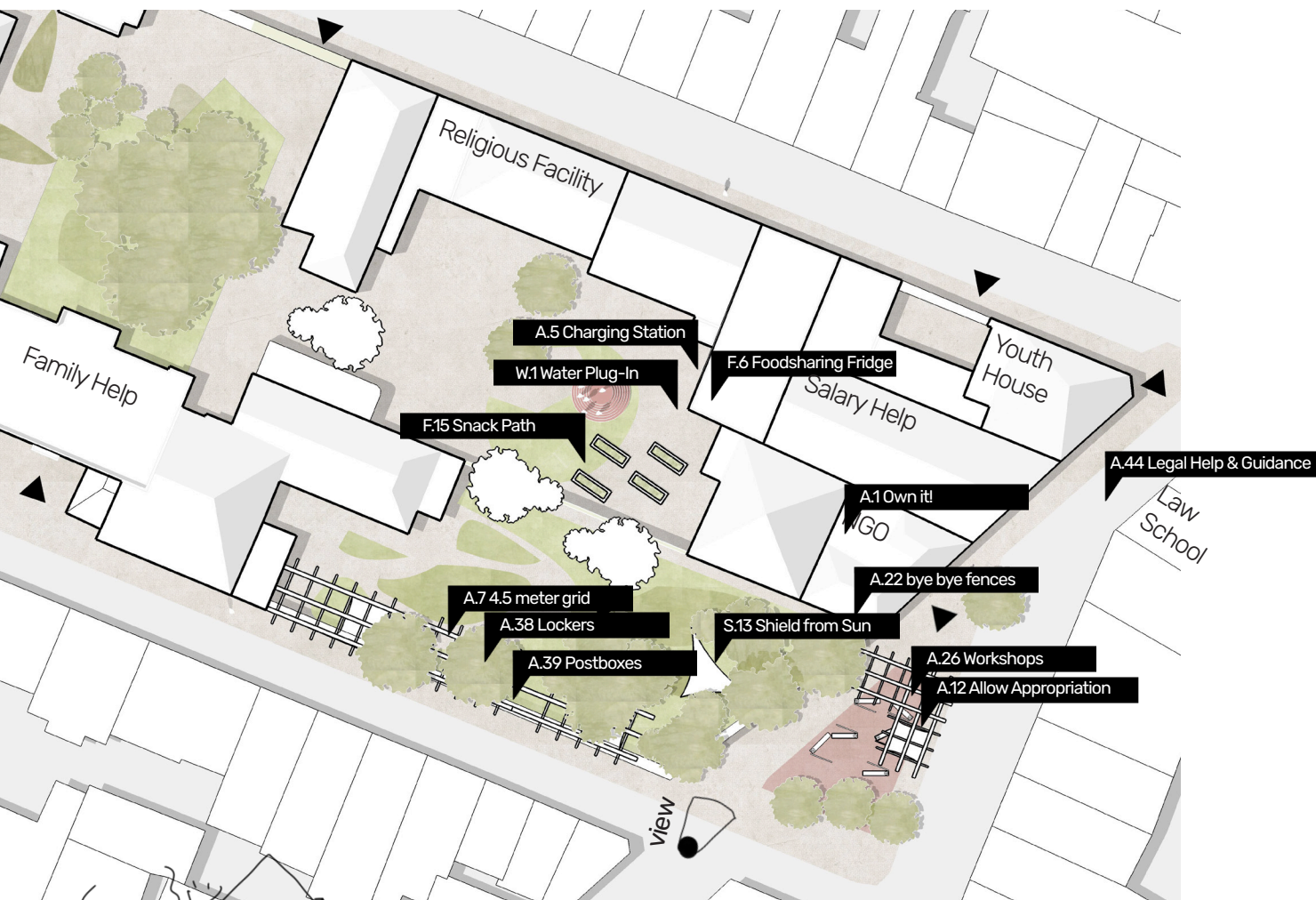
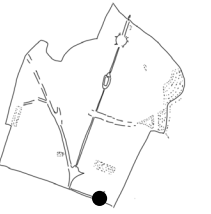
#5

conceived space

Rue de l'Abondance
Rue Josaphat

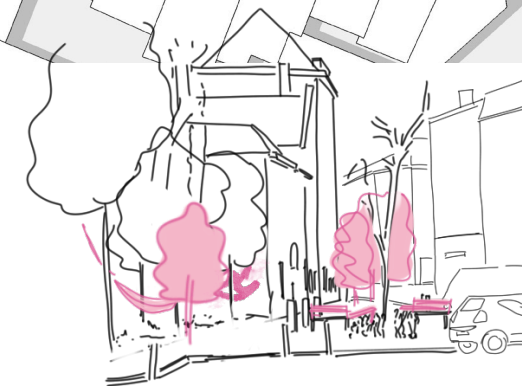
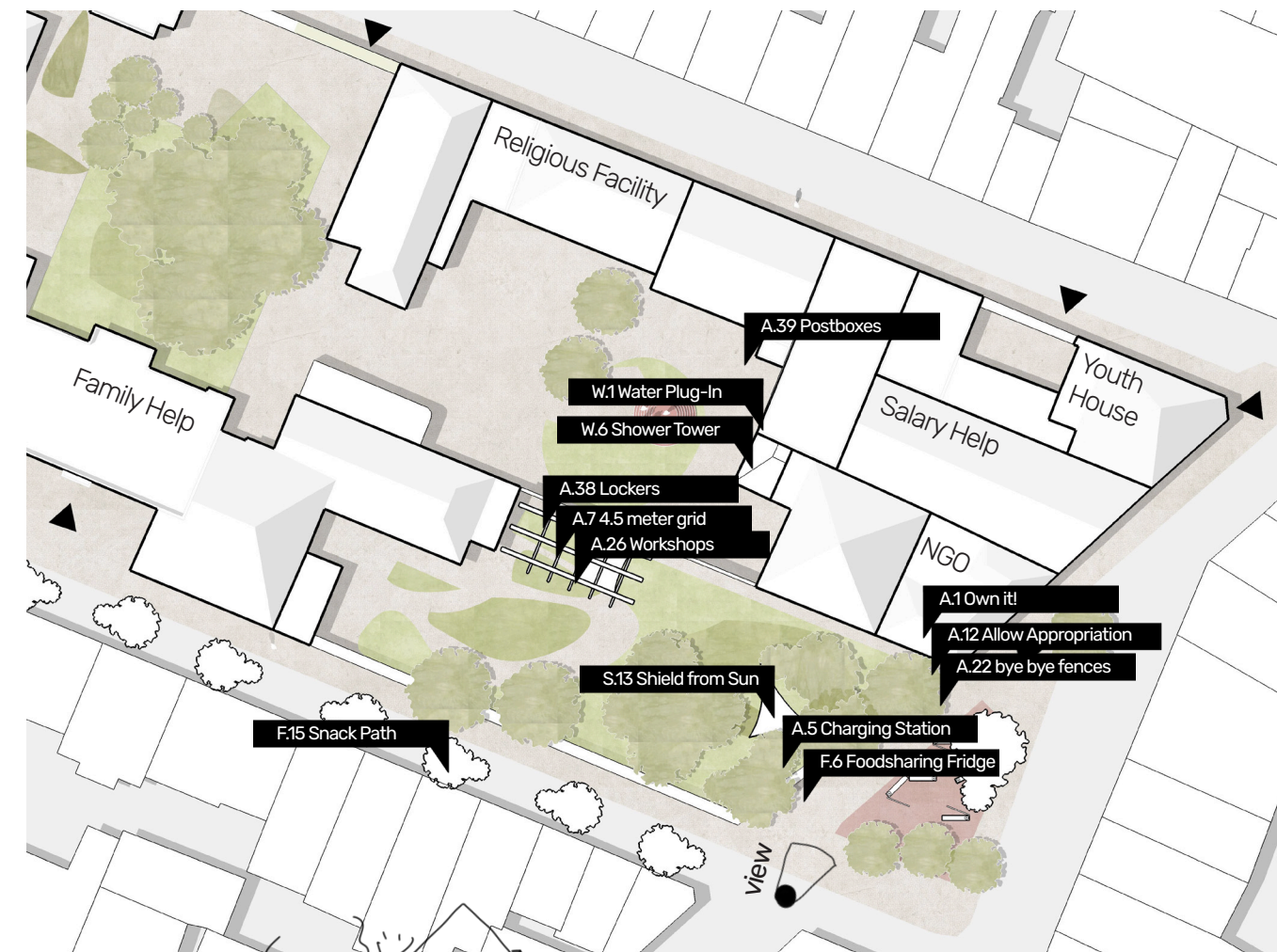
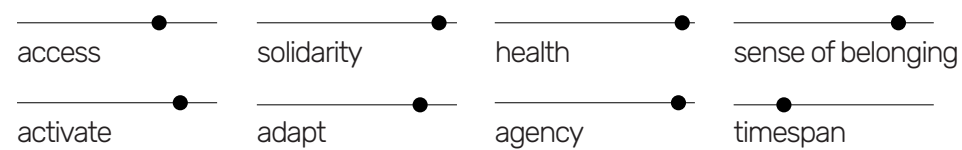
research by design

- existing buildings
 - existing green
 - buildings with potential to plug-in
- 0 5m 10m



A-A Section
x2

Evaluation



View

Evaluation

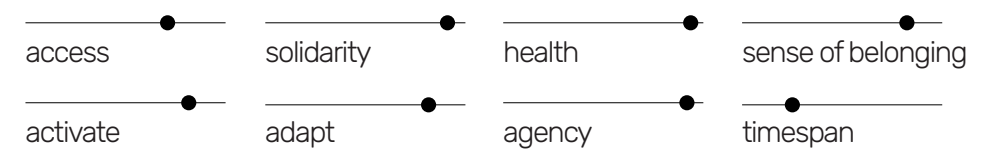
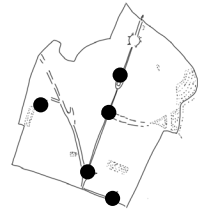


Fig. 8.25: Design Exploration, area in Schaerbeek West, made by author

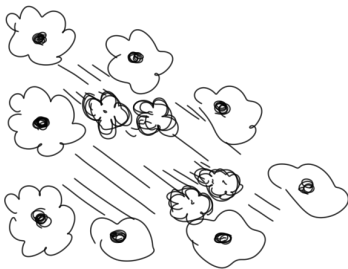


Schaerbeek West presents a network of diverse public spaces that offer strong potential for implementing an Infrastructure of Care. However, interventions should be site-specific—responding sensitively to the existing conditions while also allowing for future adaptability.

Site 1 Place de La Reine & Rue Royale-Sainte-Marie

Already equipped with a power plug and currently used by a mobile washing service, Site 1 includes benches and is surrounded by trees, creating a sense of intimacy—even with trams passing on two sides. This space has strong potential to be further introverted through the addition of trees or small structures. Integrating water-related infrastructure could enhance the existing washing service and allow the creation of a care cluster, including showers and toilets.

Help & Guidance



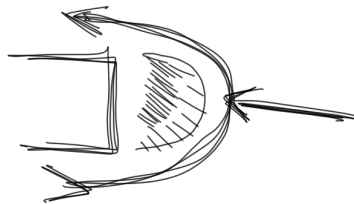
Site 2 Église Saint-Servais & Lehonplein

As a large public square, Site 2 offers the possibility of accommodating a wide range of functions. However, such open spaces, often defined by straight, hard edges, can feel exposed and insecure. To counter this, it is important to work with height differences and introduce edges and contours within the space to make it more engaging and comfortable.



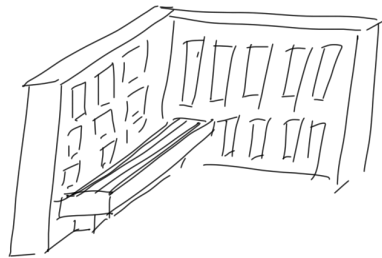
Site 3 Place Colignon

Currently a parking lot situated on a busy road, Site 3 faces challenges in terms of creating intimacy or a sense of retreat. Given its extroverted context, it may be more suitable for outward-facing uses, such as snack paths, markets, or workshops, that thrive in more active, visible settings.



Site 4 Place Gaucheret

Located next to various social facilities—including a school and an art center for children—Site 4 borders a well-used park and features large benches and some small trees. Adding minimal infrastructure, such as backrests and sheltered lockers, could make the benches safe and welcoming for sleeping. Plug-in micro-architecture connected to the nearby facilities could provide space for workshops, kitchens, or hygiene services, increasing the site's value as a node of informal care.



Site 5 Rue de l'Abondance & Rue Josaphat

This site is already surrounded by a cluster of care-focused social facilities and includes generous green areas with mature trees. However, these are currently fenced off with high walls. Carefully opening these boundaries and replacing them with more porous barriers—such as pavilions that can be closed when needed—could transform the area into a flexible, multi-functional space. Given its location slightly outside the main street grid, it offers a greater degree of privacy, making it ideal for a gradient of uses focused on young, fluidly housed adults.

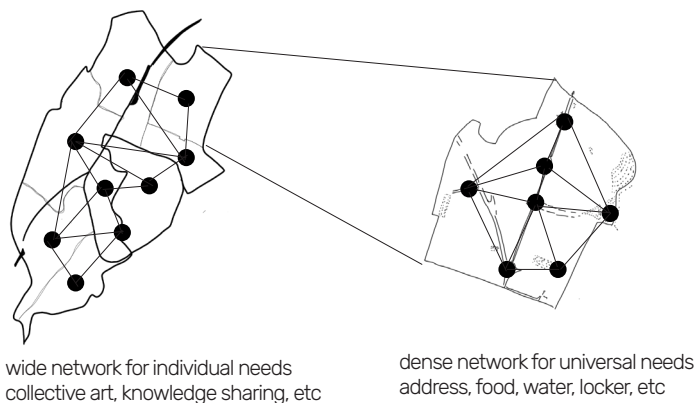


Fig. 8.26: conclusions from Design Explorations, made by author

To effectively implement an infrastructure of care that ensures access, activation, adaptation, and fosters solidarity in Brussels—particularly to improve liveability for young, fluidly housed adults—we must establish a network of socio-spatial interventions across the Poverty Crescent.

Universal needs such as access to water, hygiene, food, and rest should be addressed through a dense network of interventions within each neighbourhood. These interventions might include public seating, toilets, sheltered pockets in the streetscape, pavilions that can be activated for different uses, water taps, charging stations, lockers, and postboxes. Each of these elements should be reachable within a 10-minute walking distance. To achieve this, existing infrastructure can be leveraged. For example, nearby restaurants and kiosks could support a food-sharing fridge connected to their power supply, while a shared outdoor kitchen could draw on existing water and cleaning systems.

In parallel, individual or community needs form a looser but equally essential network of care. These include spaces for collective art-making, knowledge sharing, and other forms of communal activity, such as community centres like the Rainbow House, which foster solidarity and belonging. While fewer in number, these spaces serve as key destinations and must remain accessible. Ideally, each neighbourhood should have at least one such space, so that one is never more than a 30-minute walk away from another.



- cluster friends
- universal needs plug-in
- buildings network
- electricity network
- water network

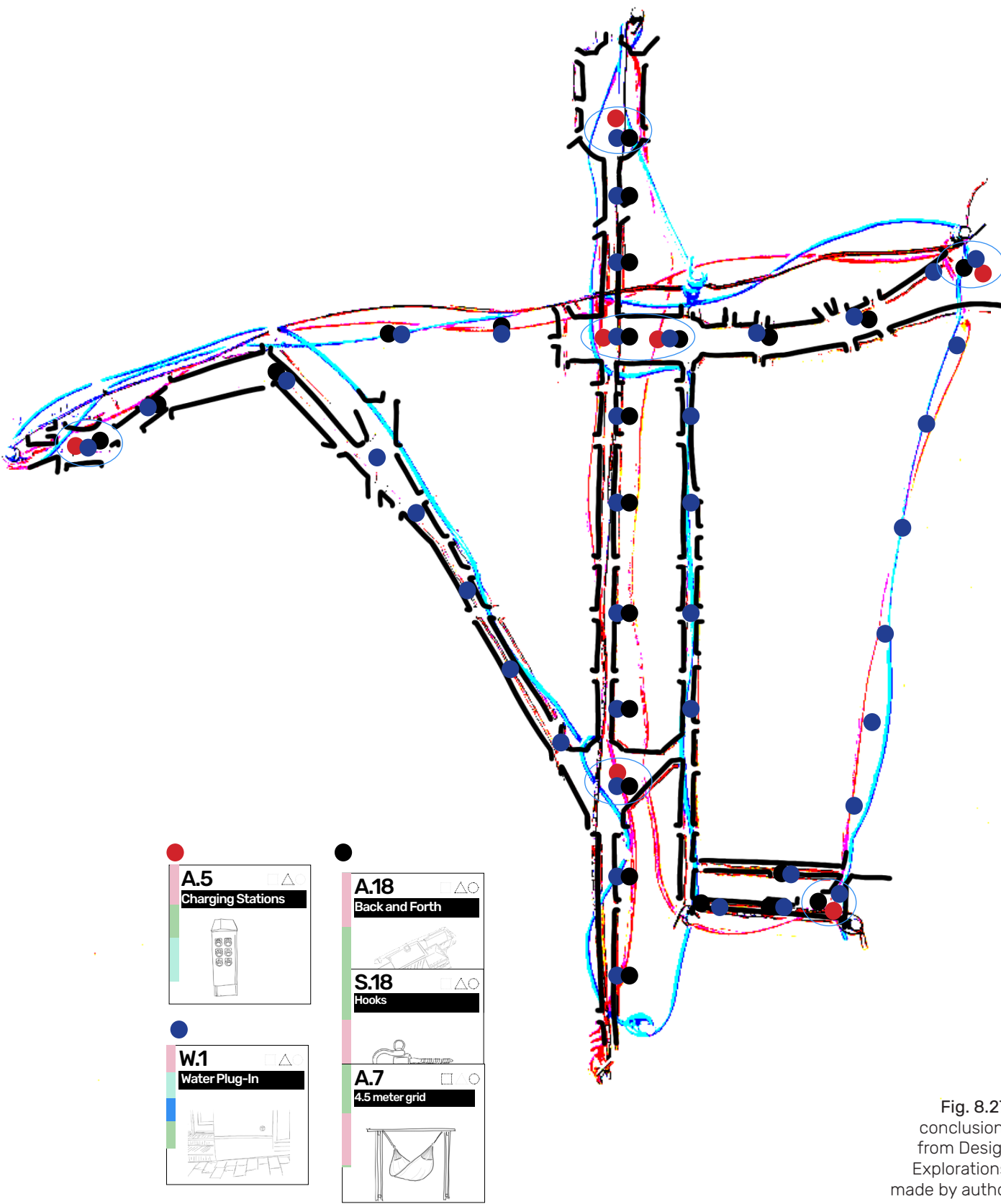
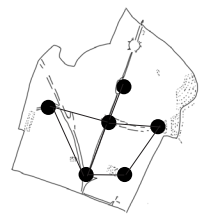


Fig. 8.27: conclusions from Design Explorations, made by author

