

REVITALISING THE PLINTH

DAPHNE FAHRNER | VACANT HERITAGE
22 JUNE 2022

ASSIGNMENT

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ROTTERDAM HARBOUR POLICE STATION

- 3 separate brick buildings
- Layering of time
- Different sizes and shapes

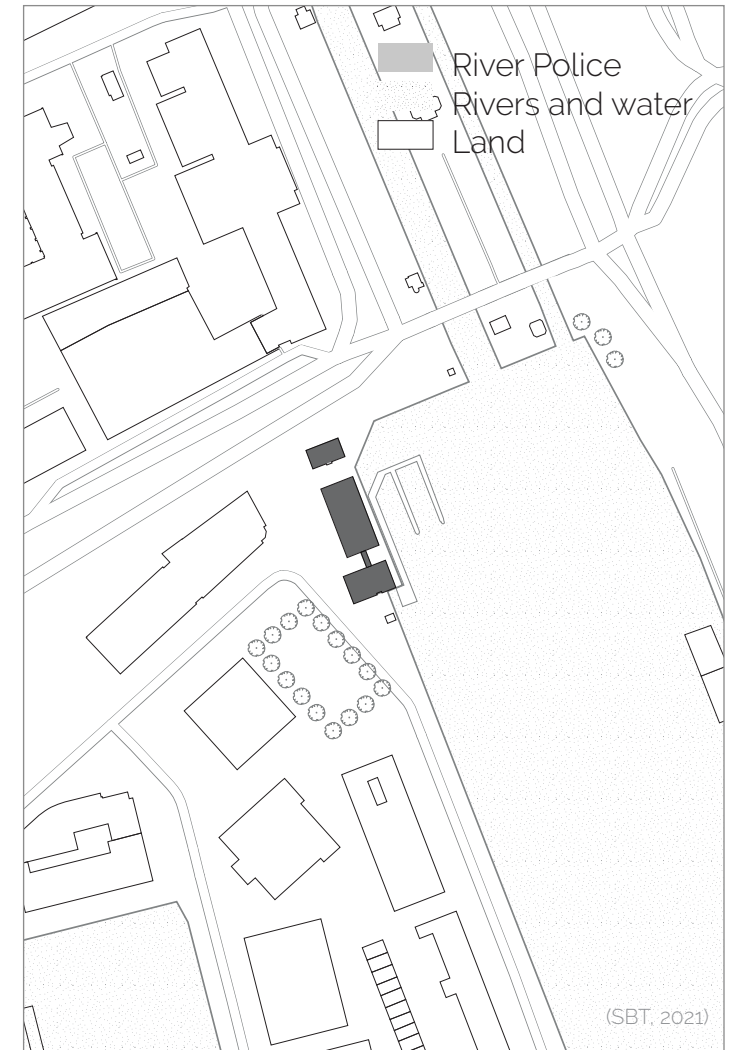
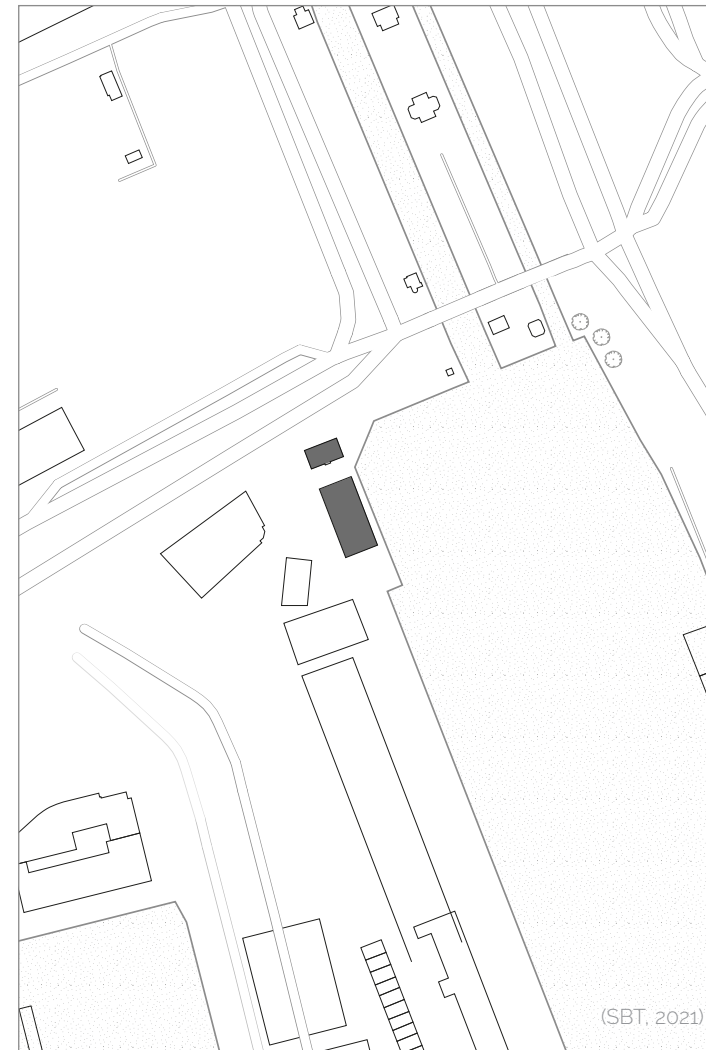
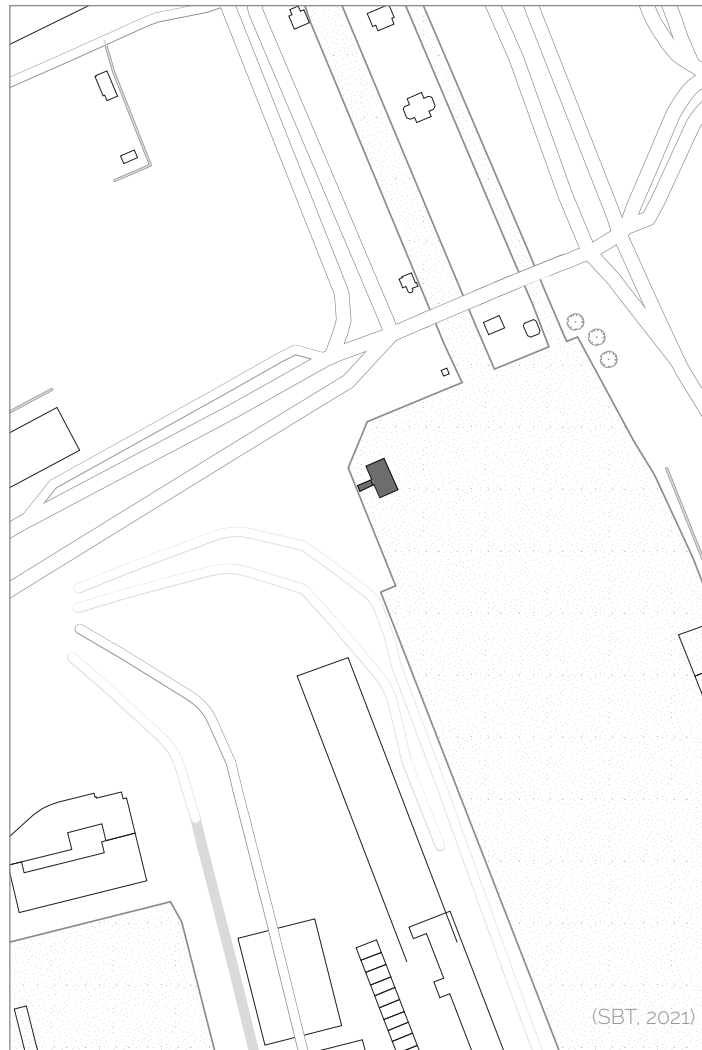
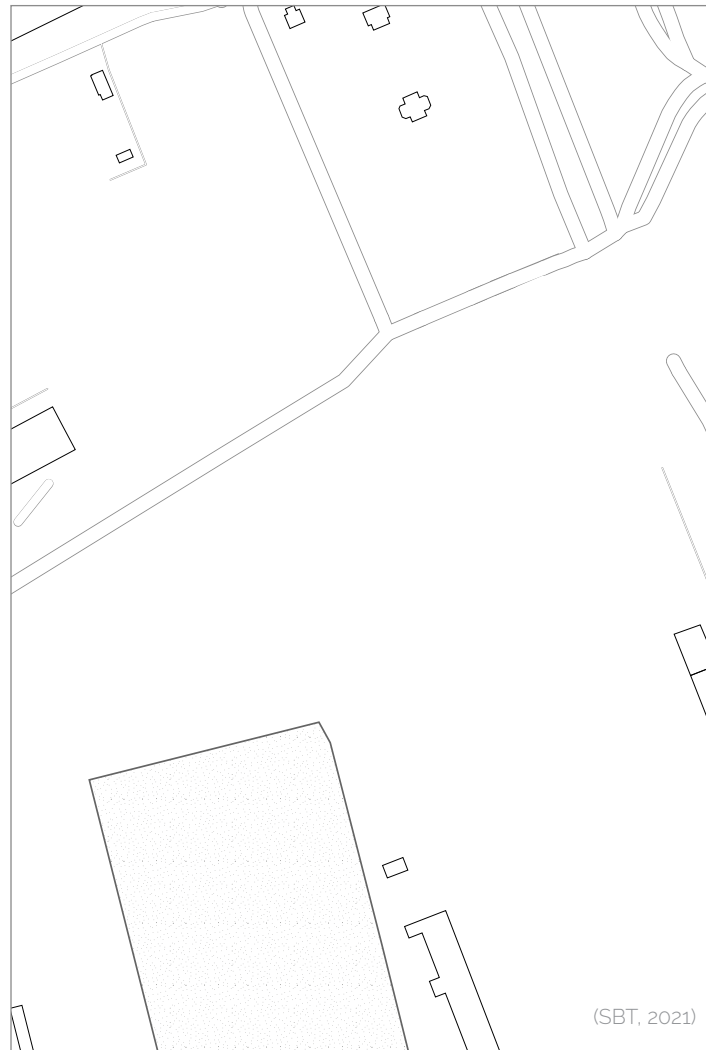


SITE & BUILDING ANALYSIS

SITE & BUILDING ANALYSIS

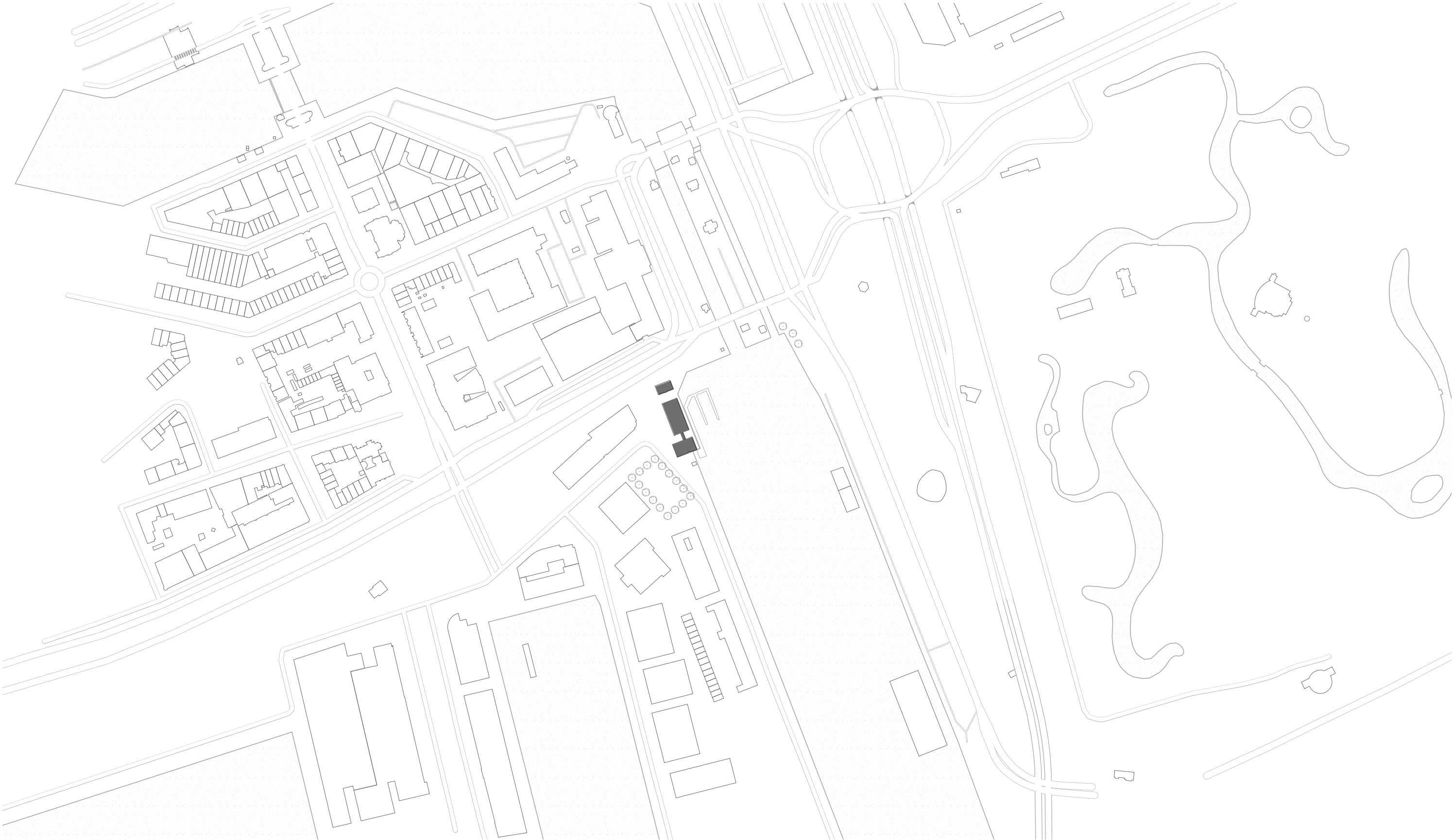
URBAN DEVELOPMENT

- No harbour in 1850
- First activities 1900
- Parkhaven during WWII
- Current situation



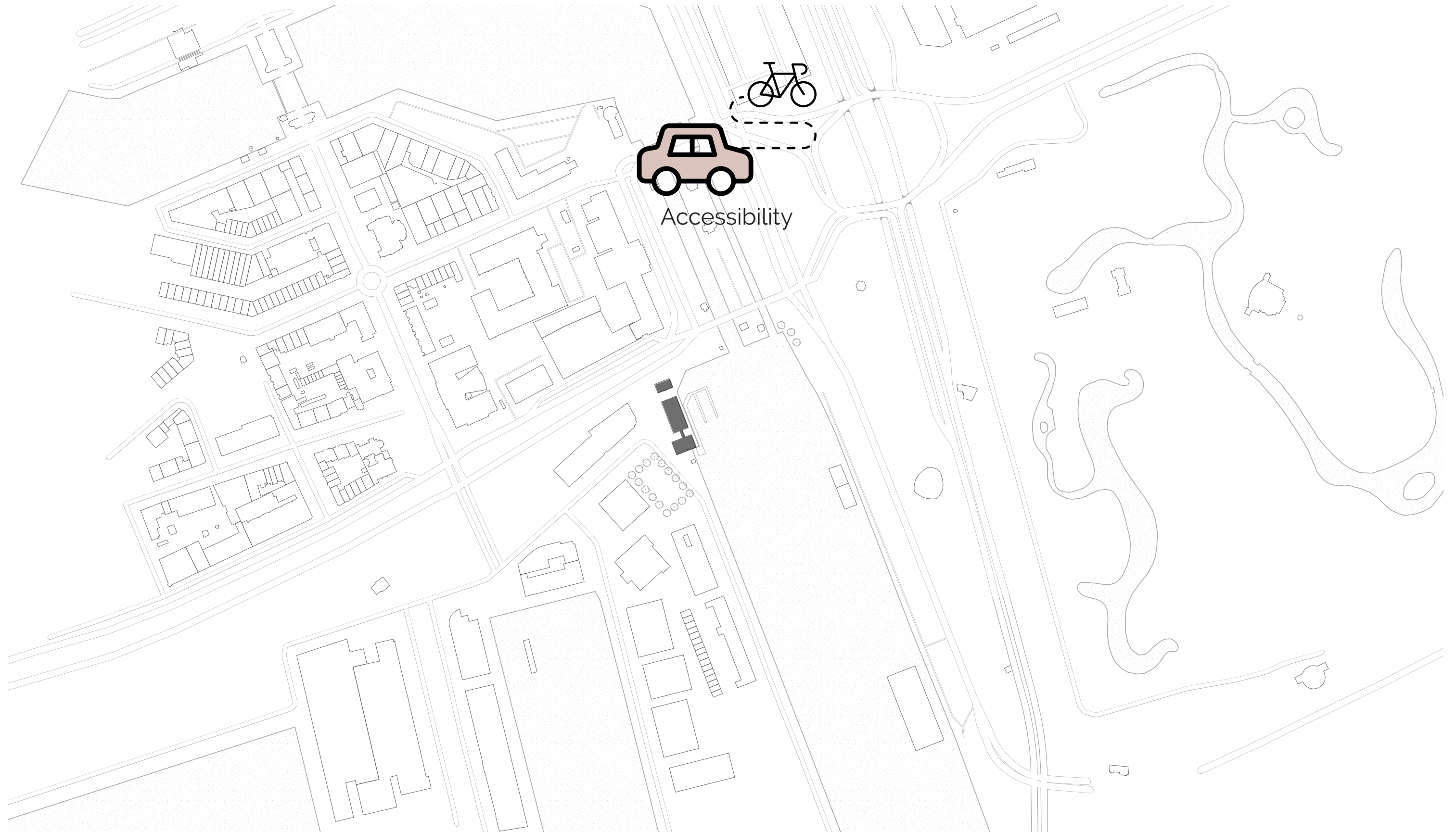
SITE & BUILDING ANALYSIS

URBAN CHARACTERISTICS



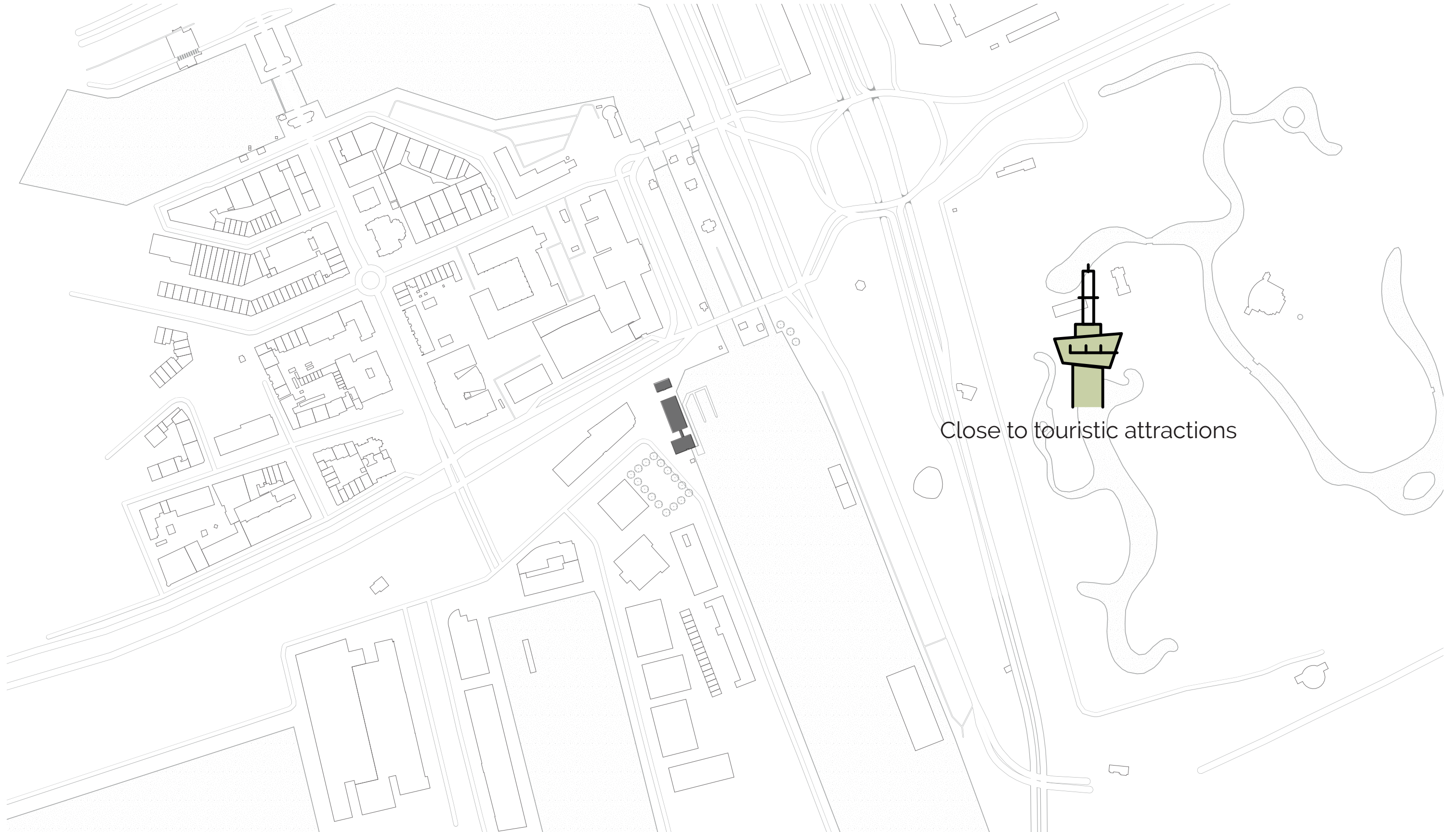
SITE & BUILDING ANALYSIS

URBAN CHARACTERISTICS



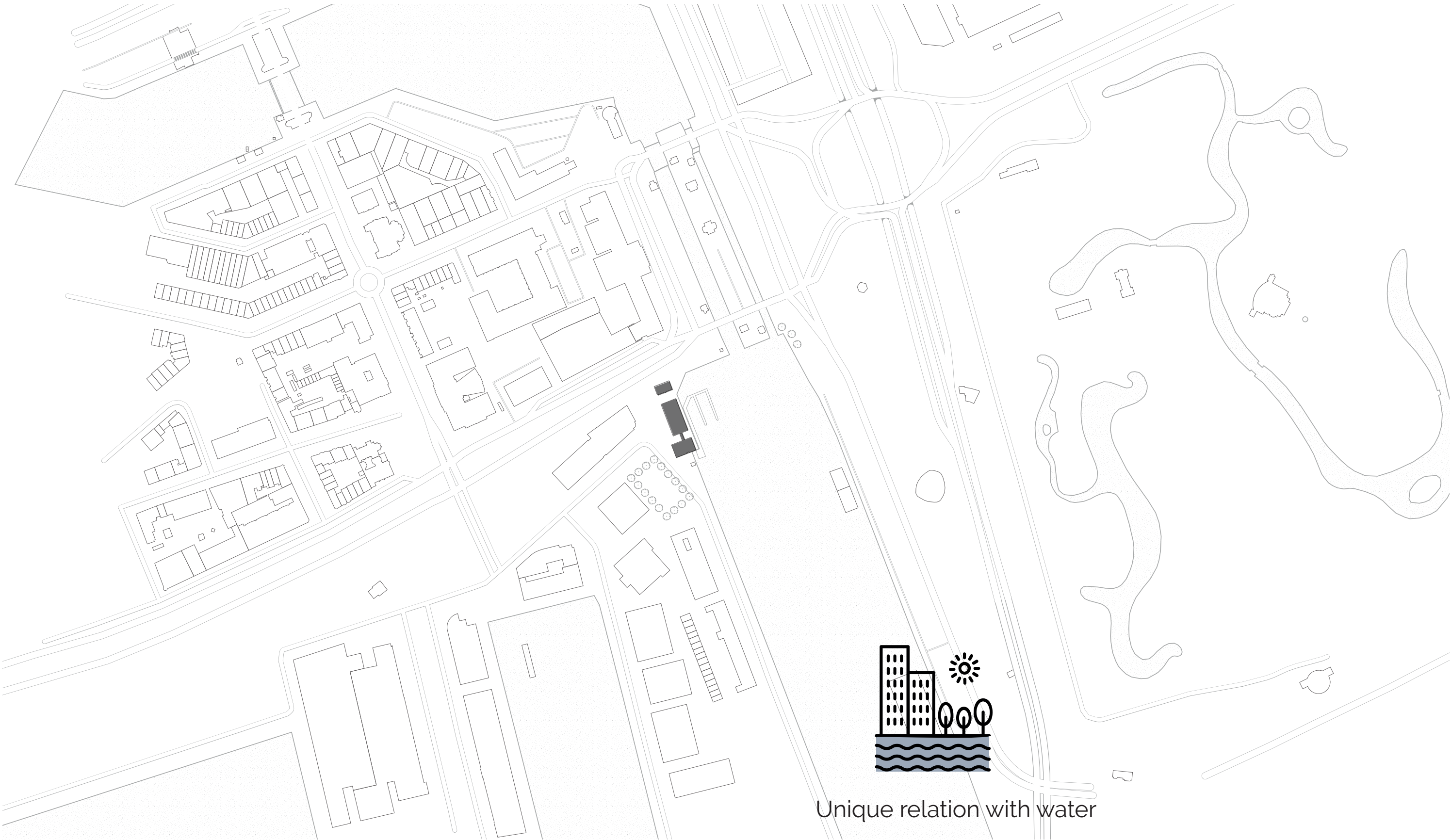
SITE & BUILDING ANALYSIS

URBAN CHARACTERISTICS



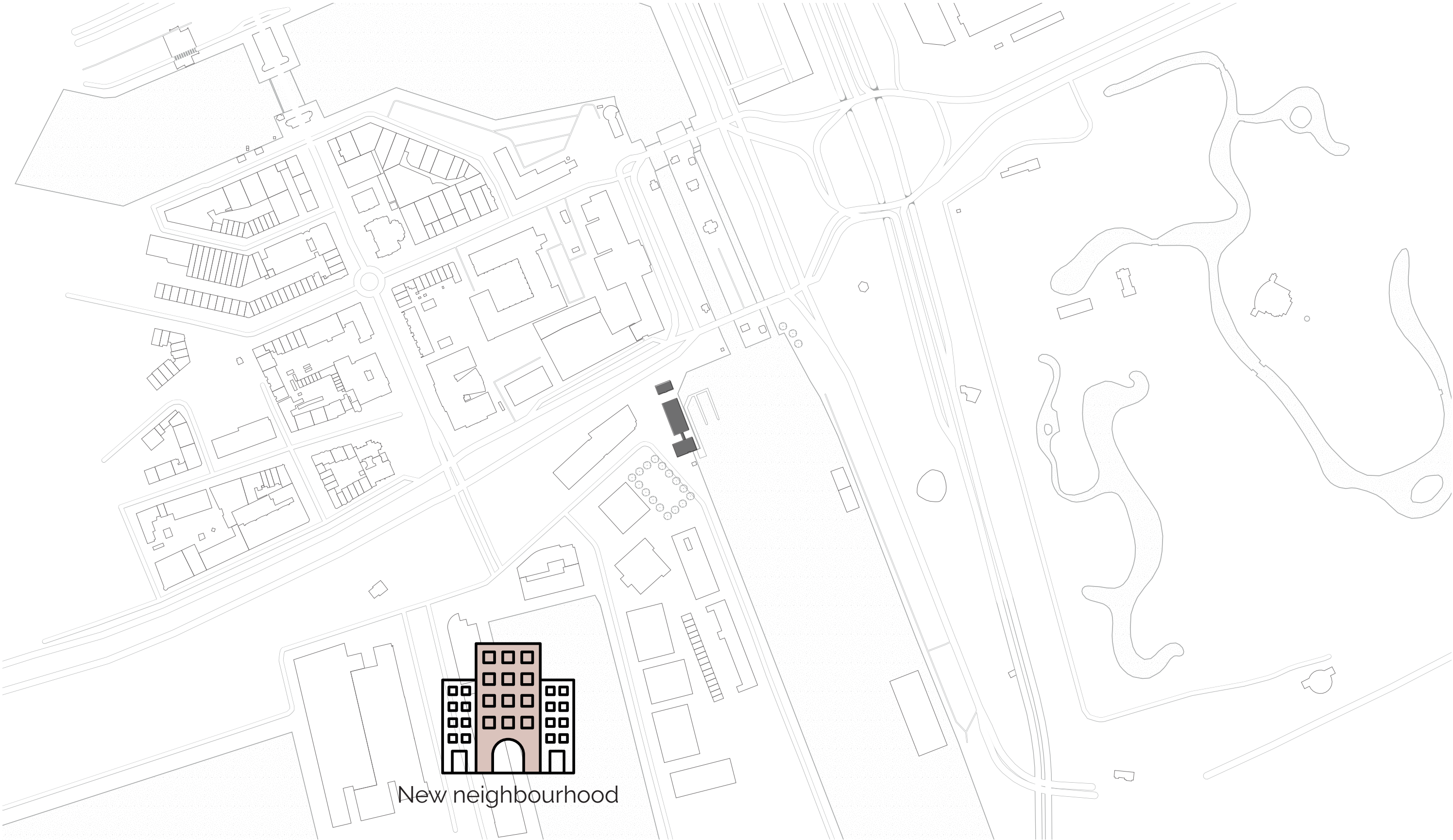
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URBAN CHARACTERISTICS

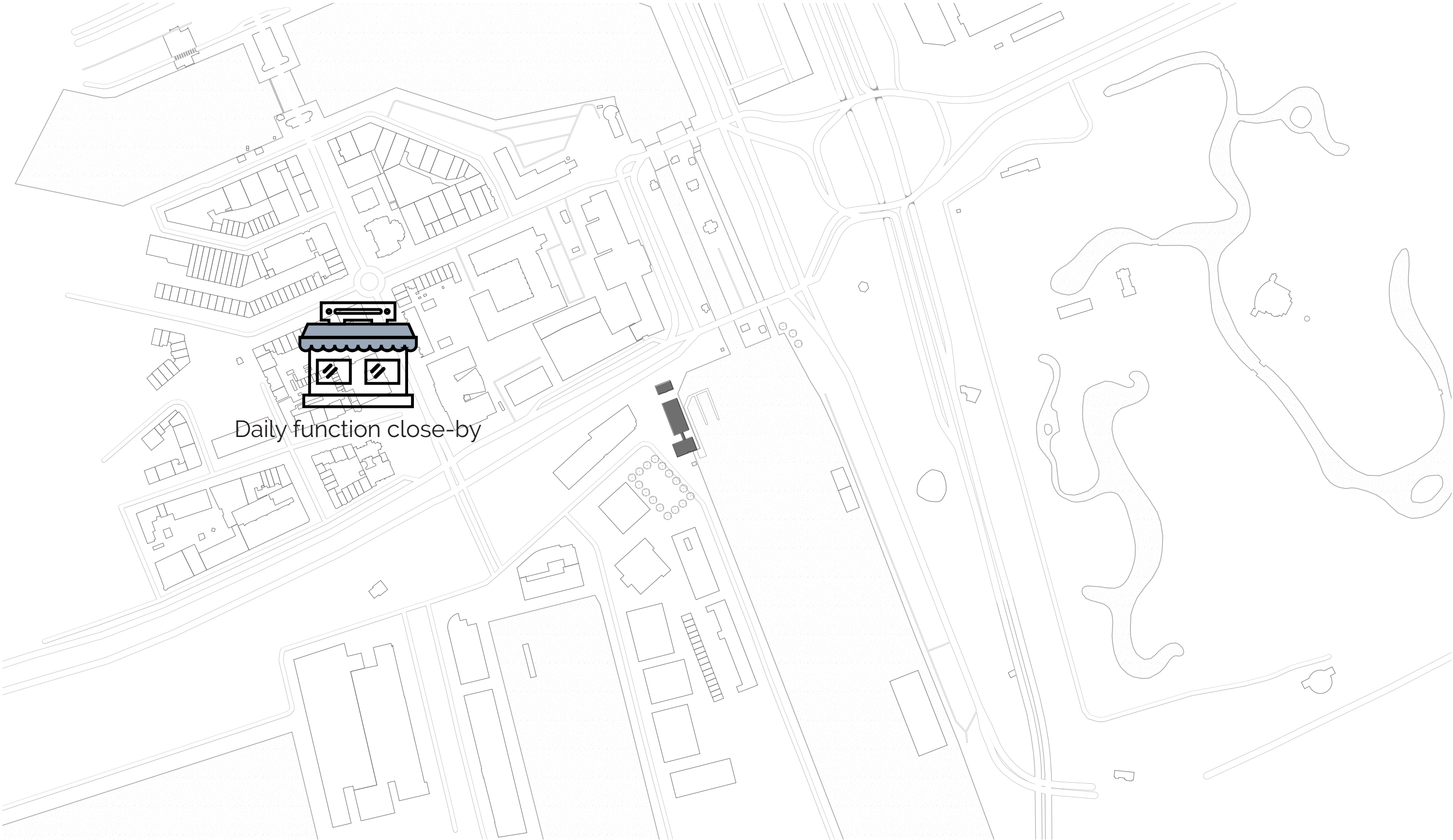


SITE & BUILDING ANALYSIS

URBAN CHARACTERISTICS



URBAN CHARACTERISTICS

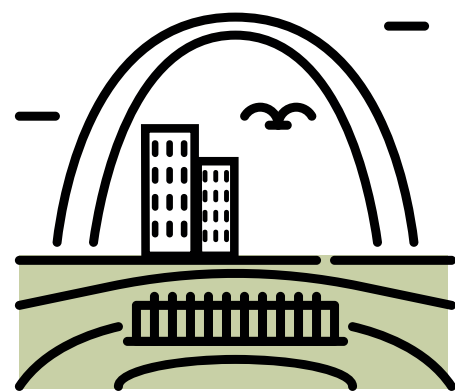


SITE & BUILDING ANALYSIS

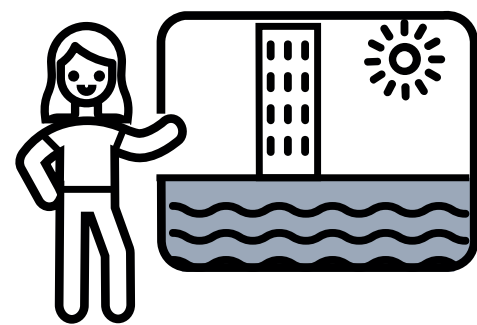
VALUES OF THE BUILDING



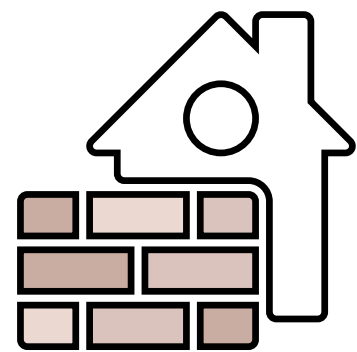
Time layers



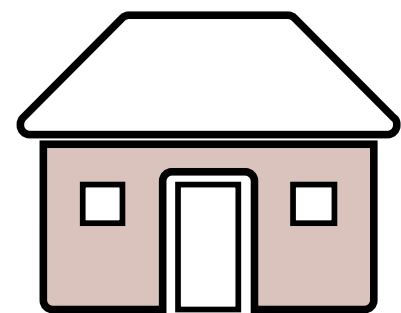
Entrance



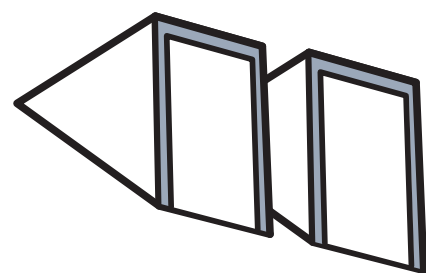
Sightlines and relation



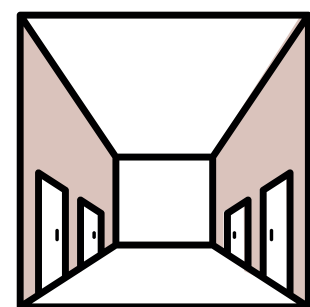
(Traditional) brick & detailing



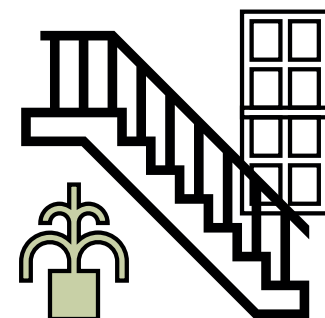
Geometric shapes



Relation inside-outside



Corridor structure



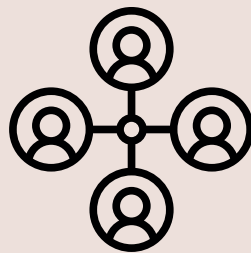
Recognisable staircases

SITE & BUILDING ANALYSIS

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KEY INFORMANT SET

LEARN & MEET



- New residential area
- Diversity and cultural variety
- Loneliness and digitalisation
 - Symbolic gateway

SOCIAL & LIVING



- Daily functions closeby
- Upcoming neighbourhood
- Densification, housing shortage
 - Beautiful views

HOSPITALITY & TOURISM



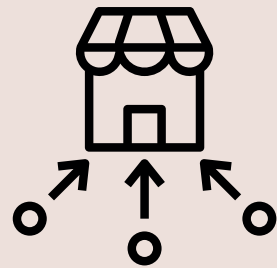
- Entrance area
 - Located near city icons
- Rotterdam as service economy
 - Good accessibility

SITE & BUILDING ANALYSIS

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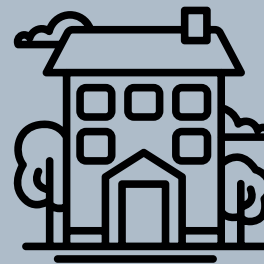
NEW PROGRAM

COMMUNITY CENTER



- Public access
- Flexible layout
- Diverse and dynamic

HOUSING



- Appealing and accessible
- Connected surroundings
- Emphasis on slow traffic

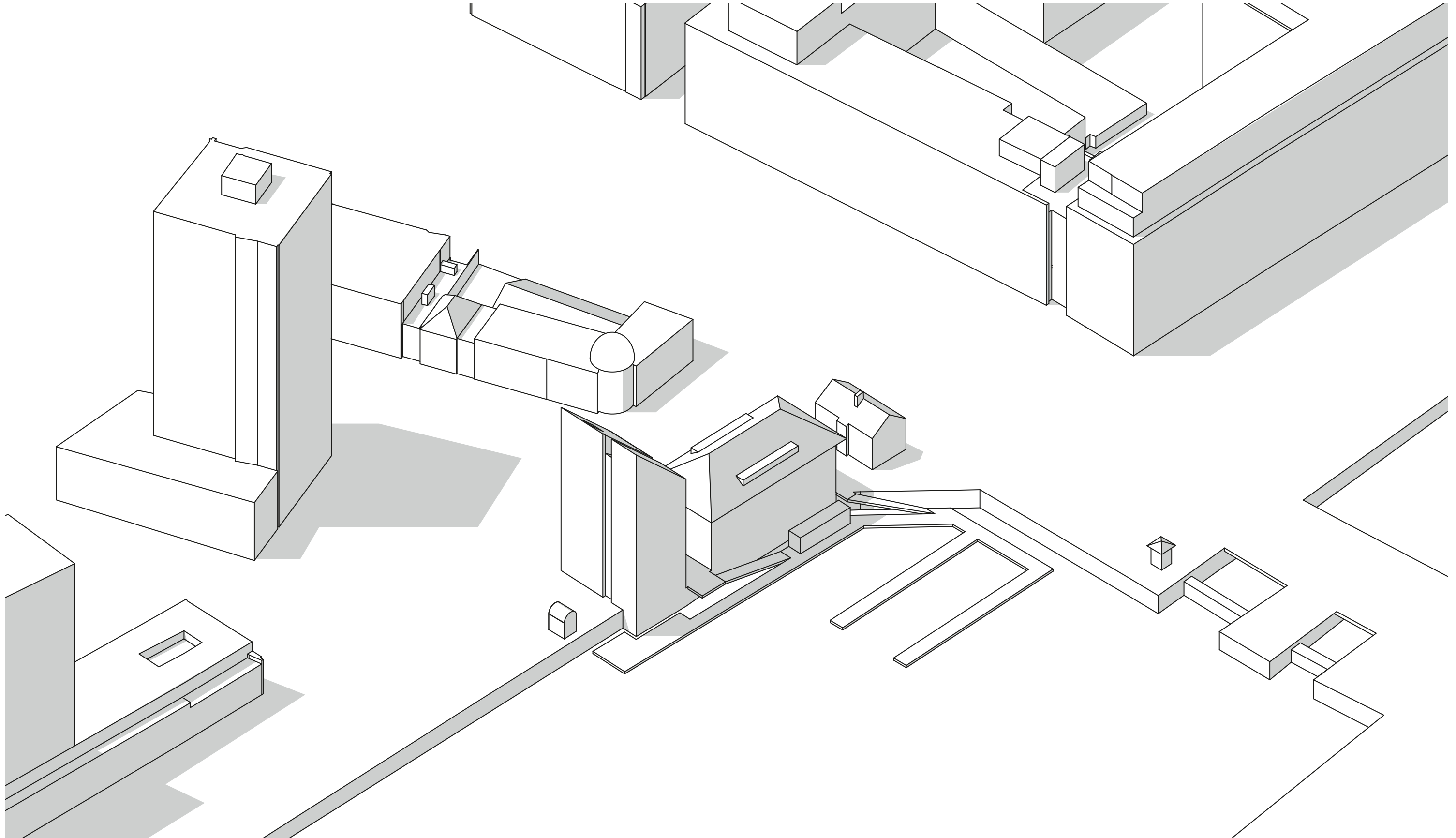
HOTEL & RESTAURANT



- Welcoming plinth
- Open and transparent
- Accentuating sightlines

SITE & BUILDING ANALYSIS

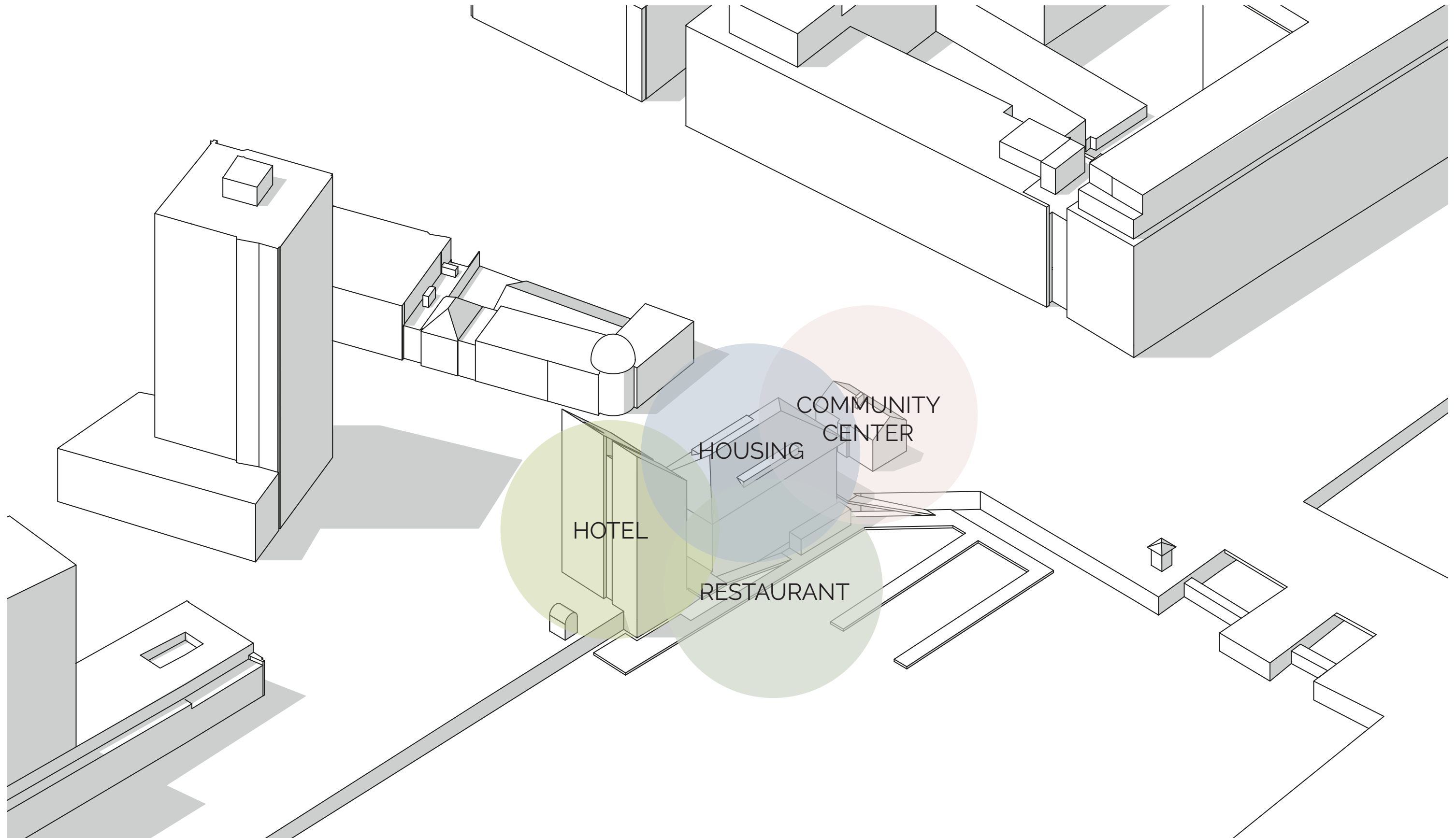
EXISTING VOLUMES



SITE & BUILDING ANALYSIS

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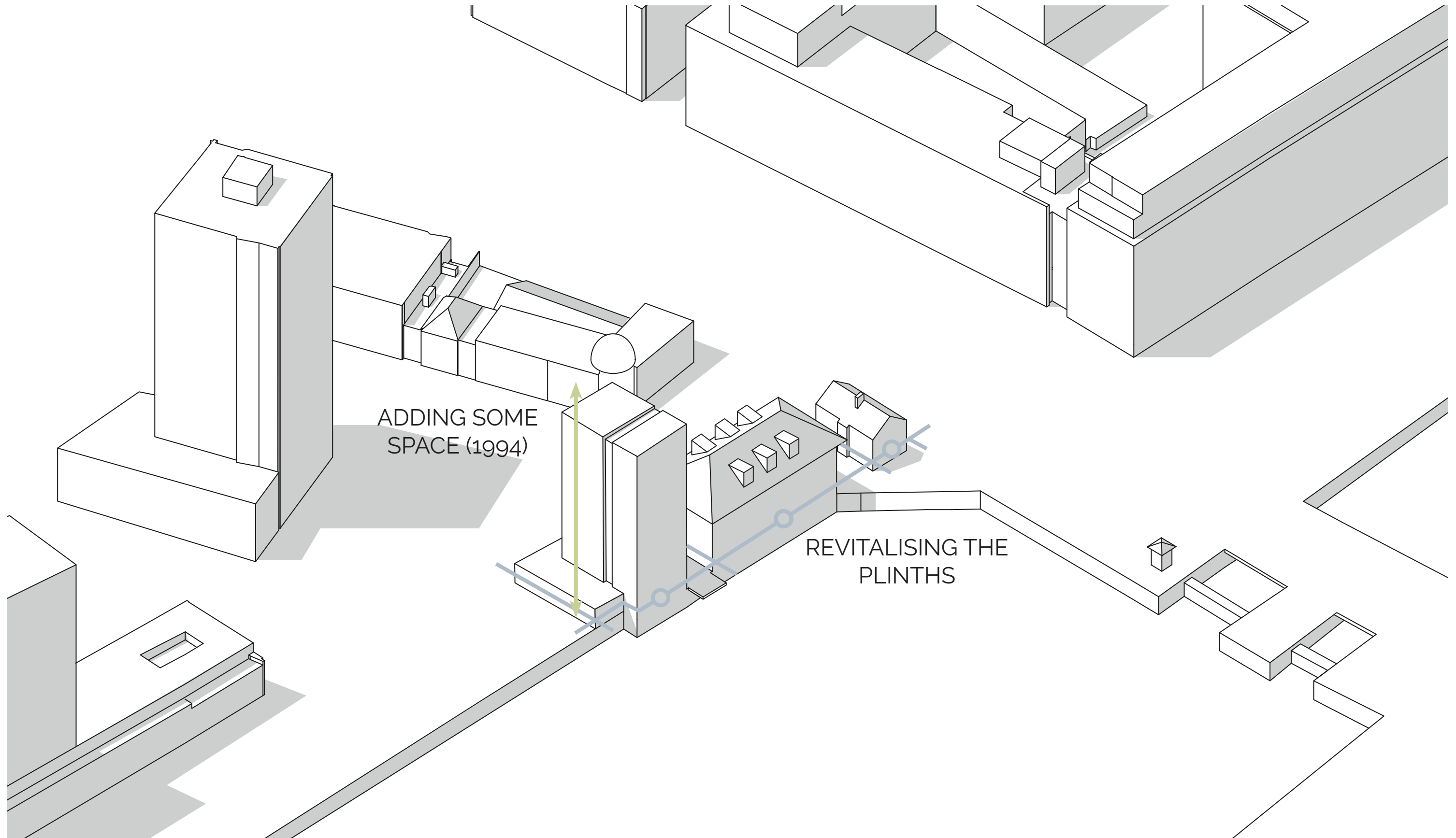
ADDRESSING FUNCTIONS



SITE & BUILDING ANALYSIS

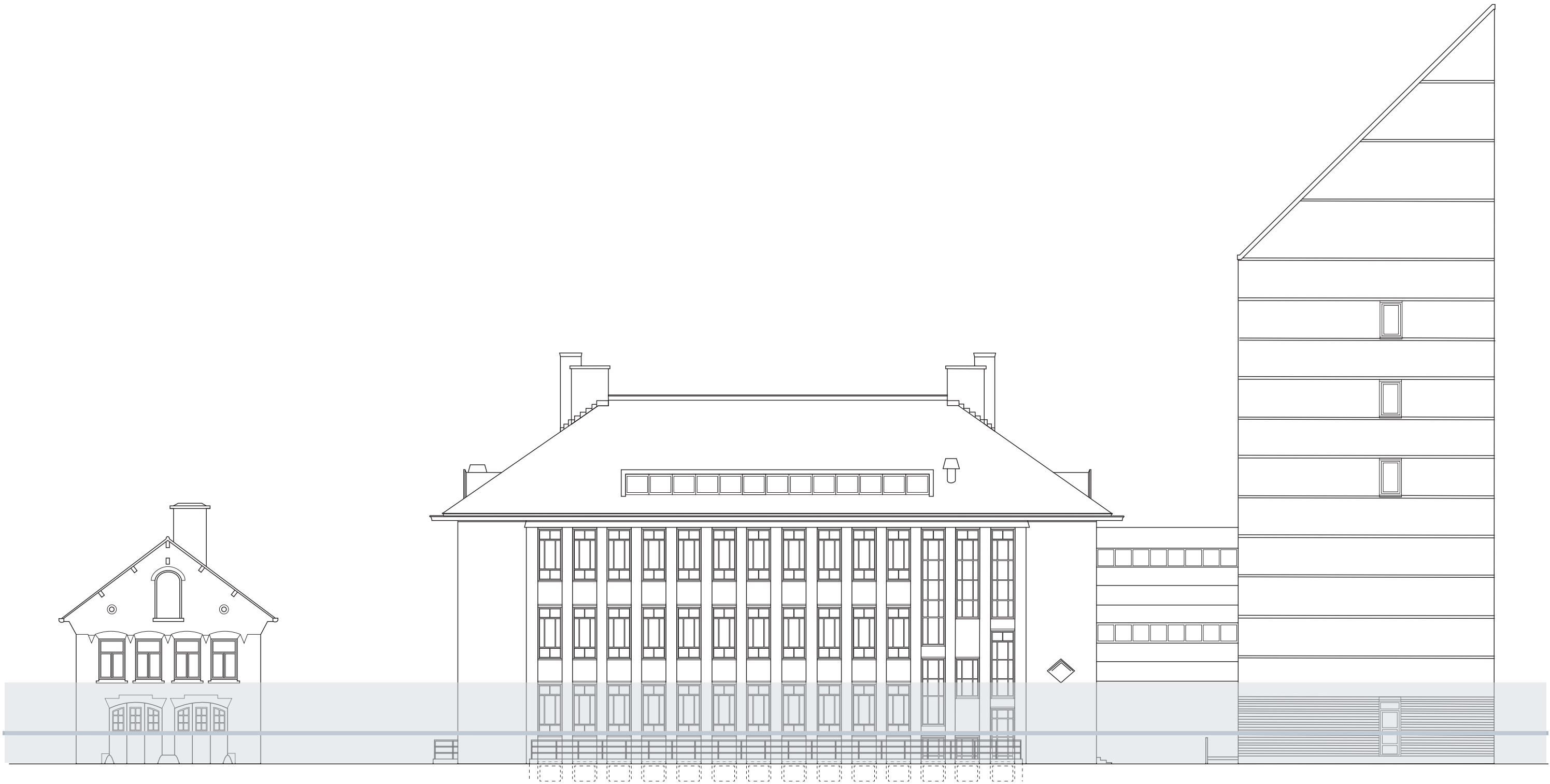
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CONCEPTUAL DESIGN



SITE & BUILDING ANALYSIS

REVITALISING THE PLINTH



RESEARCH

RESEARCH APPROACH

MAIN RESEARCH AND DESIGN GOAL

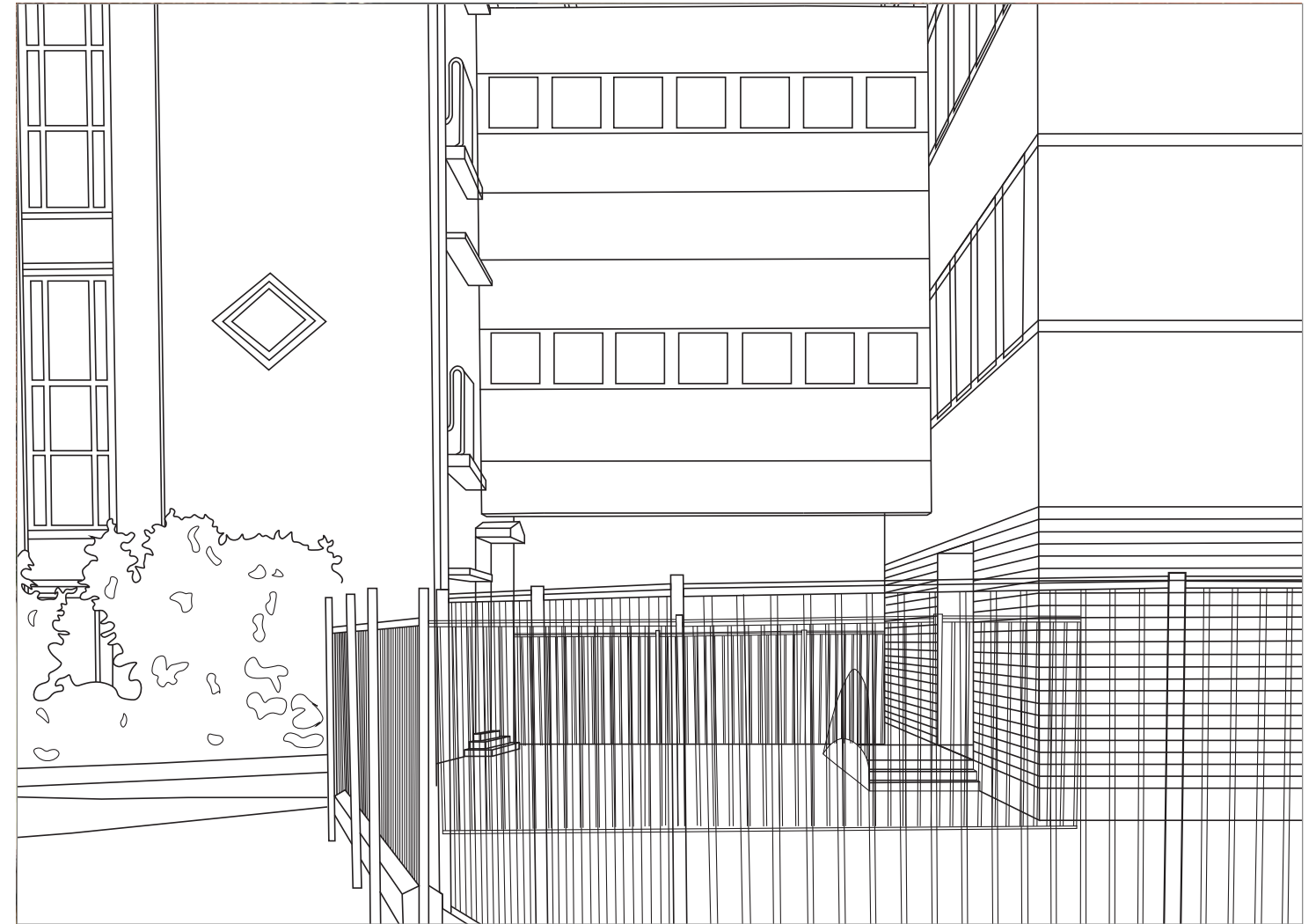
*“Defining and redesigning **the in-between spaces** of the Rotterdam Harbour Police Station”*

RESEARCH APPROACH

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DEFINING THE IN-BETWEEN SPACES

- Three buildings
- Shared transition zones
- Public vs. private



RESEARCH APPROACH

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DEFINING THE IN-BETWEEN SPACES

*“The **in-between** is the common ground where **conflicting polarities** can again become **twin phenomena**.”*

Aldo van Eyck (1955)

RESEARCH APPROACH

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MAIN QUESTION

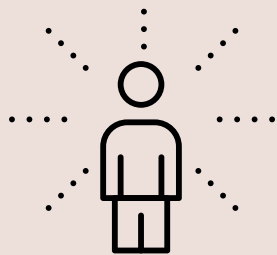
*What is the influence of the **materiality** on **people's perception** of the **in-between spaces** of the Rotterdam Harbour Police Station and how can this be used as input for the redesign?*

RESEARCH APPROACH

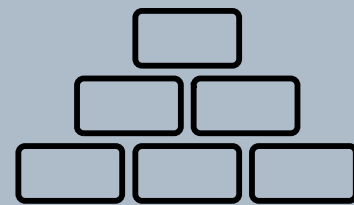
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RESEARCH THEMES

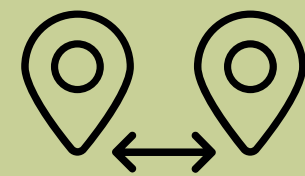
Perception



Materiality



In-between space



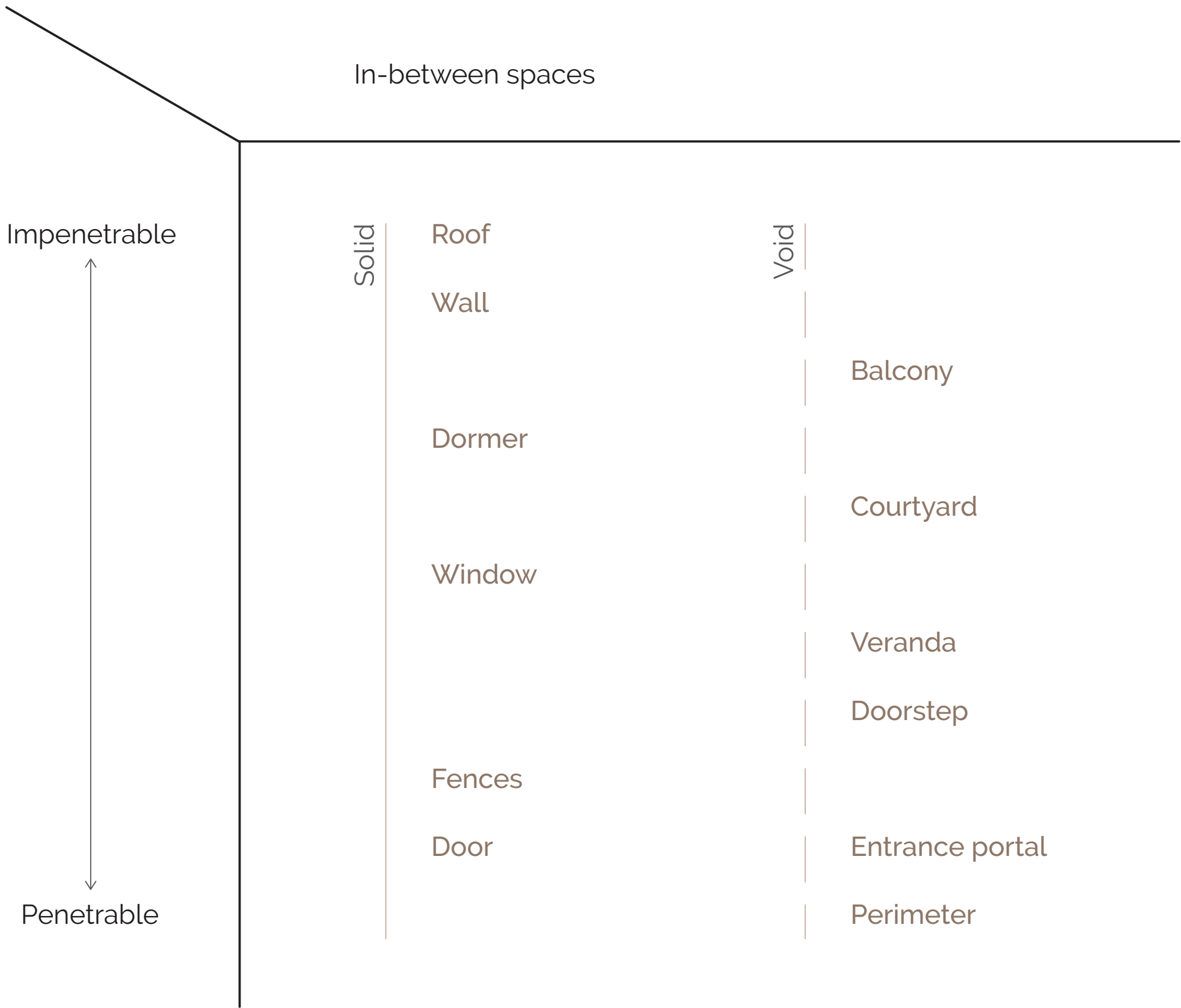
RESEARCH RESULTS

MATERIALS AND DETAILS: ARCHIVE AND OBSERVATIONS

- Brick facades
- Concrete construction
- Wooden & aluminium window frames
- Hardstone sills
- Iron fences



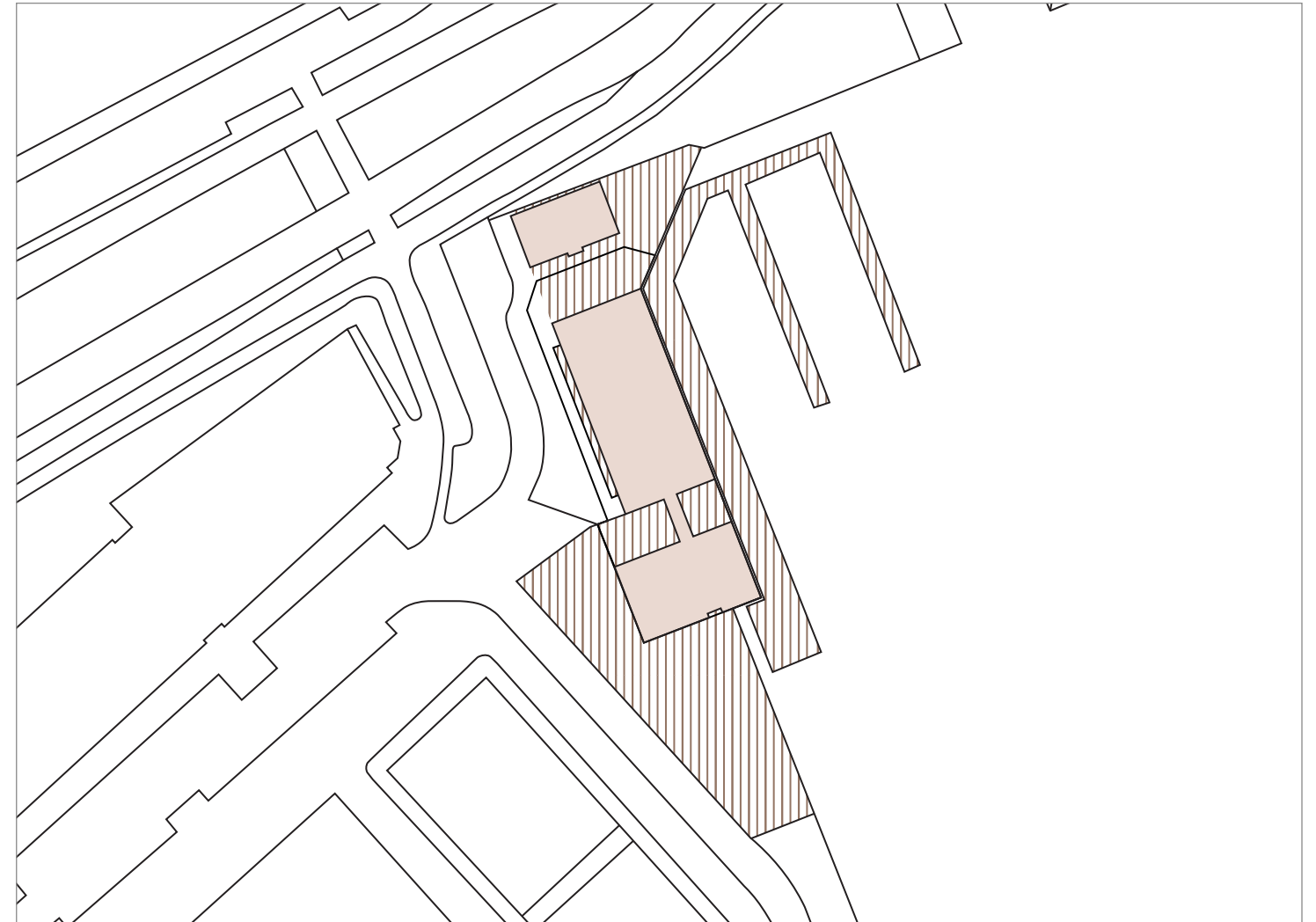
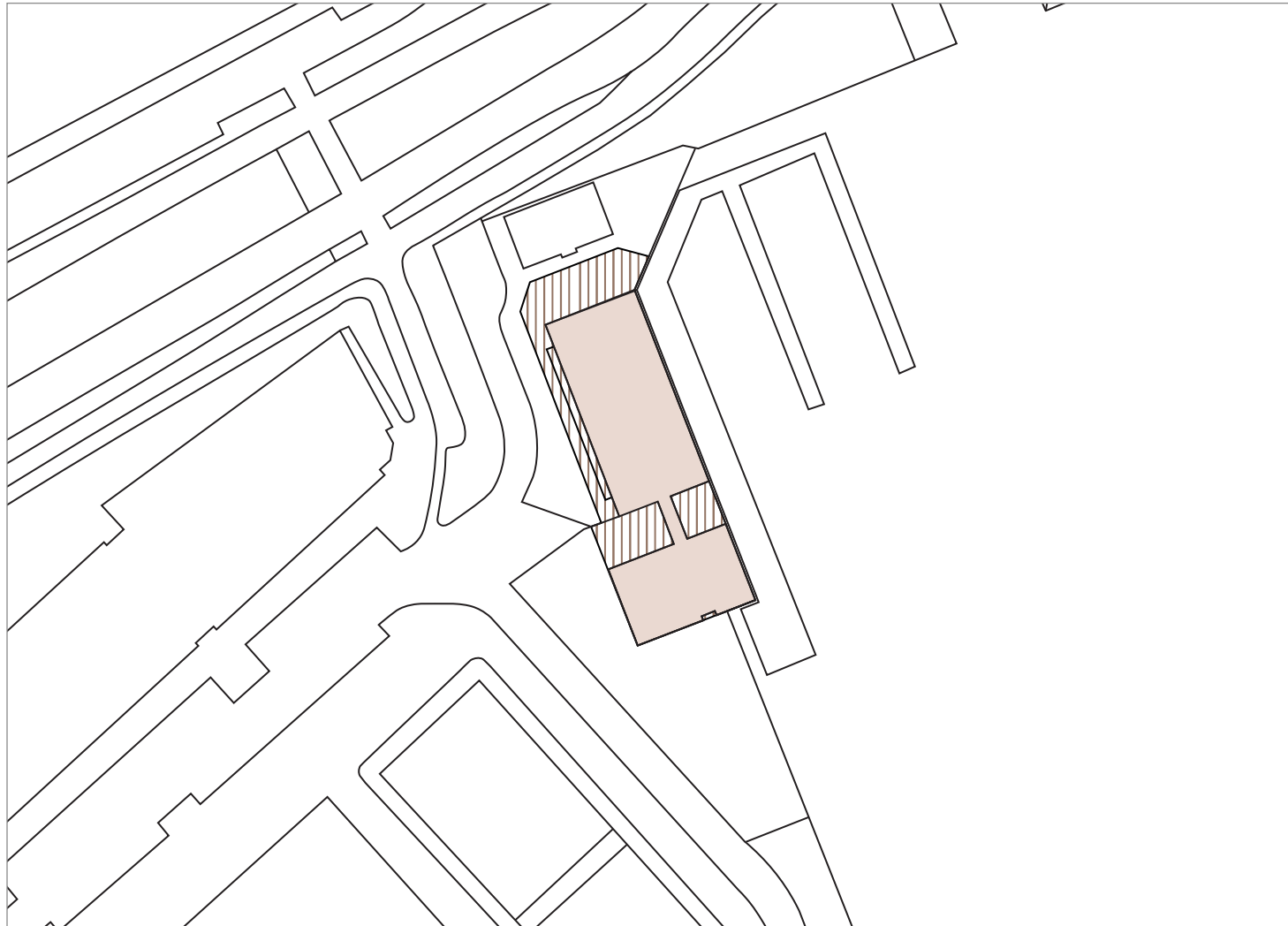
THE IN-BETWEEN SPACE: LITERATURE & OBSERVATIONS



RESEARCH RESULTS

THE IN-BETWEEN SPACE: LITERATURE & OBSERVATIONS

- Original borders as designed in 1933
- Actual borders in the current situation



RESEARCH RESULTS

THE IN-BETWEEN SPACE: LITERATURE & OBSERVATIONS



PERCEPTION: CASE STUDY ANALYSIS

- Descriptive perceptive qualities
- 36 adjectives
- Synonyms and antonyms

Soft	Hard	Fragile	Resistant	Informal	Formal
Smooth	Rough	Open	Closed	Feminine	Masculine
Thin	Thick	Colourful	Monochrome	Friendly	Unfriendly
Flexible	Firm	Shiny	Matt	Pleasant	Unpleasant
Warm	Cold	Frivolous	Sober	Pretty	Ugly
Light	Heavy	Elegant	Dull	Inviting	Obstructing

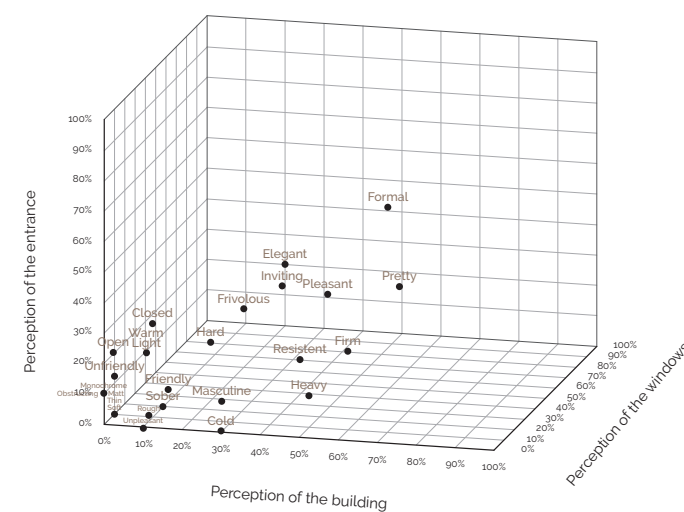
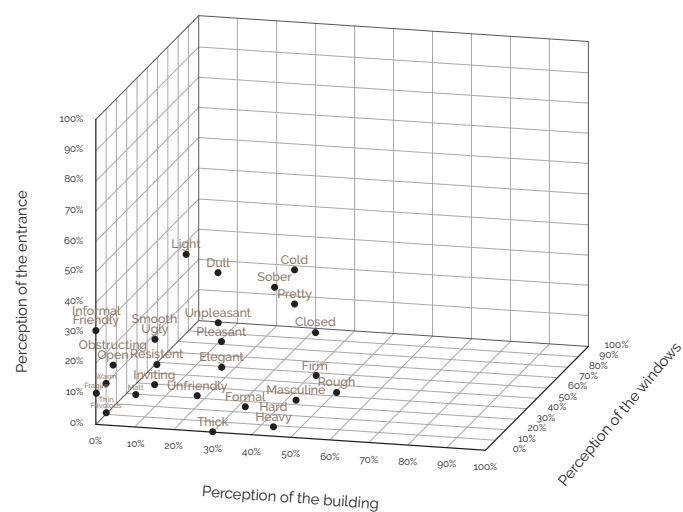
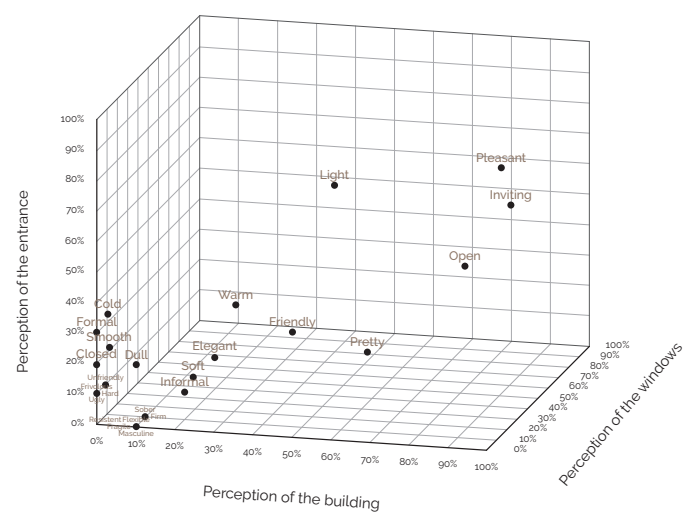
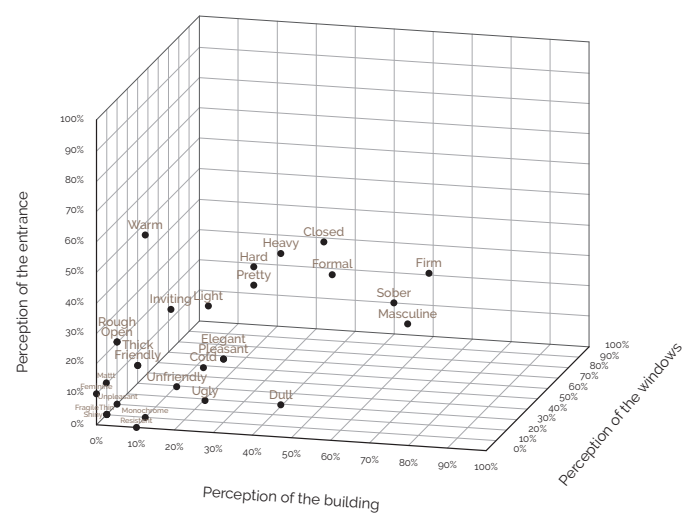
RESEARCH RESULTS

PERCEPTION: CASE STUDY ANALYSIS

- 6 buildings, incl. the Harbour Police Station
- Facades, windows and entrances



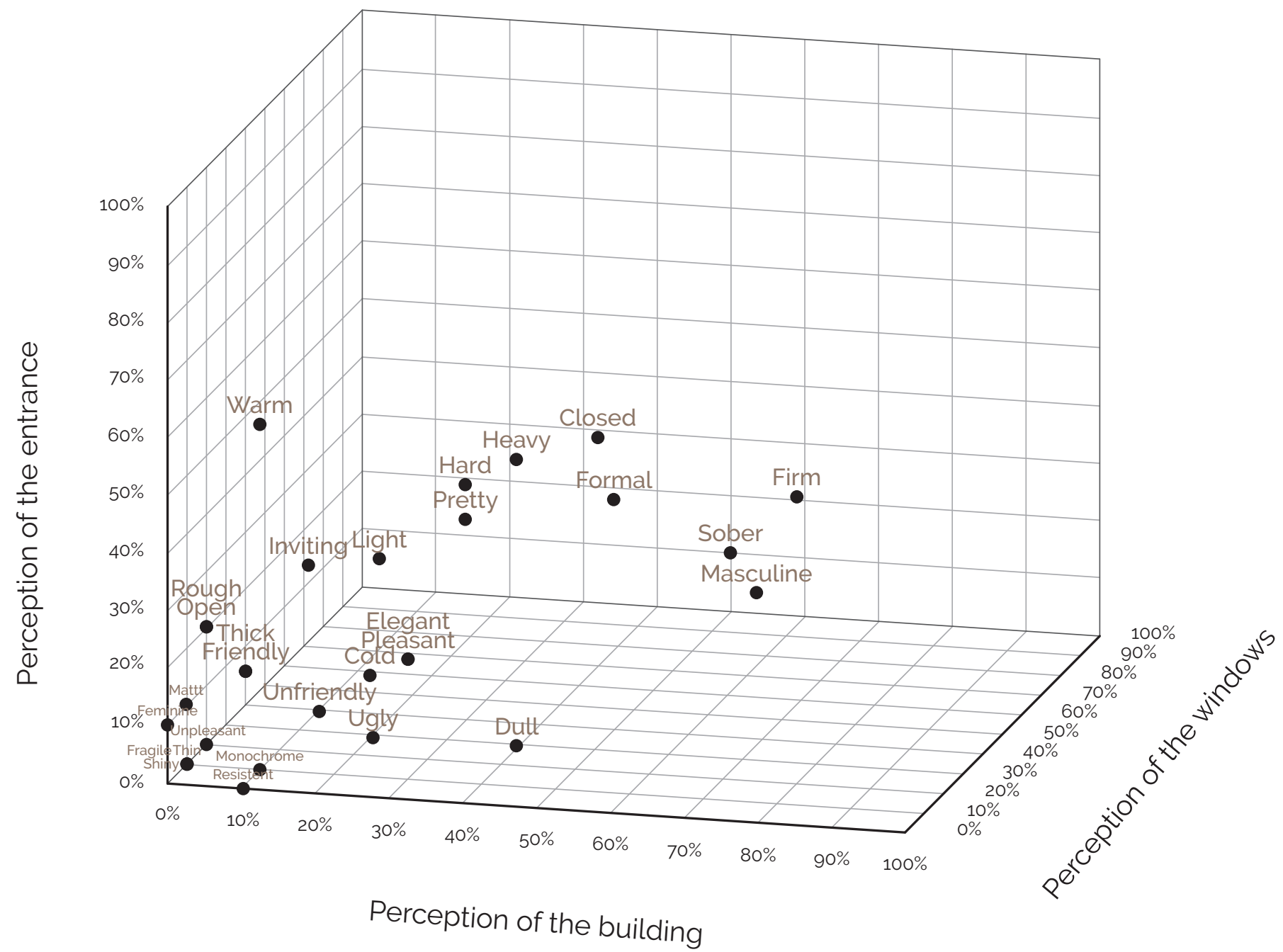
- 6 buildings, incl. the Harbour Police Station
- Facades, windows and entrances



RESEARCH RESULTS

PERCEPTION: CASE STUDY ANALYSIS

- 6 buildings, incl. the Harbour Police Station
- Facades, windows and entrances

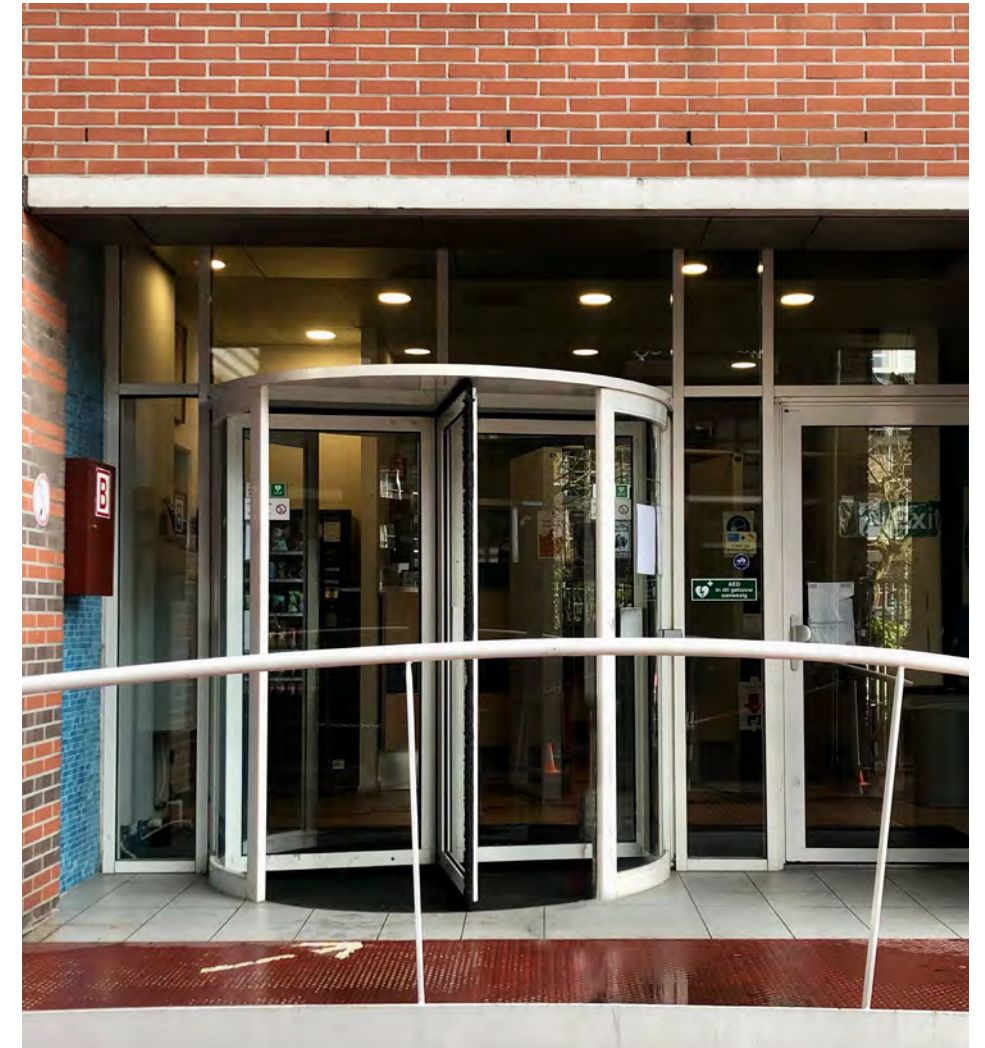


RESEARCH RESULTS

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PERCEPTION: CASE STUDY ANALYSIS

- 1940: dull, informal, closed
- 1933: warm, pretty, inviting
- 1994: ugly, unfriendly, dull



RESEARCH RESULTS

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INVITING PLINTHS

*“**Brown bricks** are warm.”*

“Big aluminium glass doors are unfriendly when they do not open by themselves.”

“When I see curtains behind a window, I know it has a private function.”

*“Because of the fact that you can **look into the building**, you know what happens there and that it is fun. I makes me curious.”*

*“It is more inviting if the inside is **lit**, so you can peek.”*

*“Because the windows are **set back** behind the bricks, a warm appearance is created.”*

*“**Windows with a touch** are pleasant and inviting to see.”*

*“An **open structure** is inviting, pleasant and friendly”*

“It is inviting that you can see where you are going.”

*“Its **openness and lightness** invites me.”*

“I think it is pleasant and inviting that the windows have a pattern, it makes it everythink but dull.”

“Large patio doors feel inviting, because entering is an experience in itself.”

*“**Multiple windows** create an inviting appearance. A lot of light causes a spacious and open feeling.”*

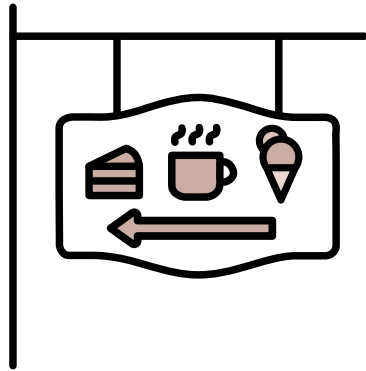
“Slim windows are elegant, but not necessarily inviting as they do not contribute to transparency.”

*“**Big windows** create an open and light character, I like that.”*

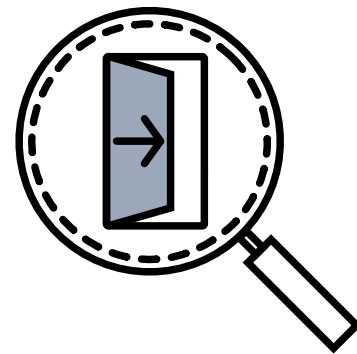
RESEARCH RESULTS

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INVITING PLINTHS



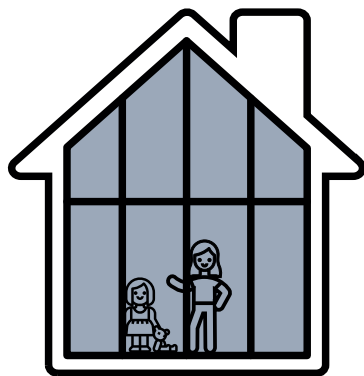
Evidency of public program



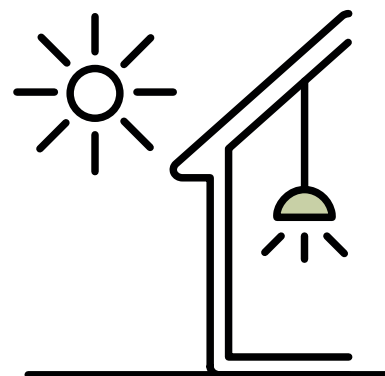
Clearly visible entrance



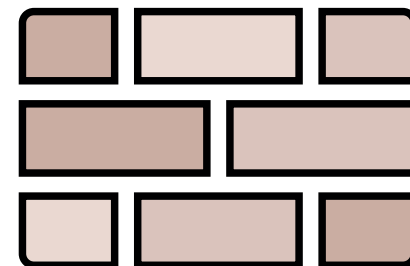
Easy entering



Transparency & openness



Good lighting



Warm colours & materials

RESEARCH RESULTS

REFLECTION

- 1933: warm, pretty, inviting
- Jumps in the facade, transparency, warm material

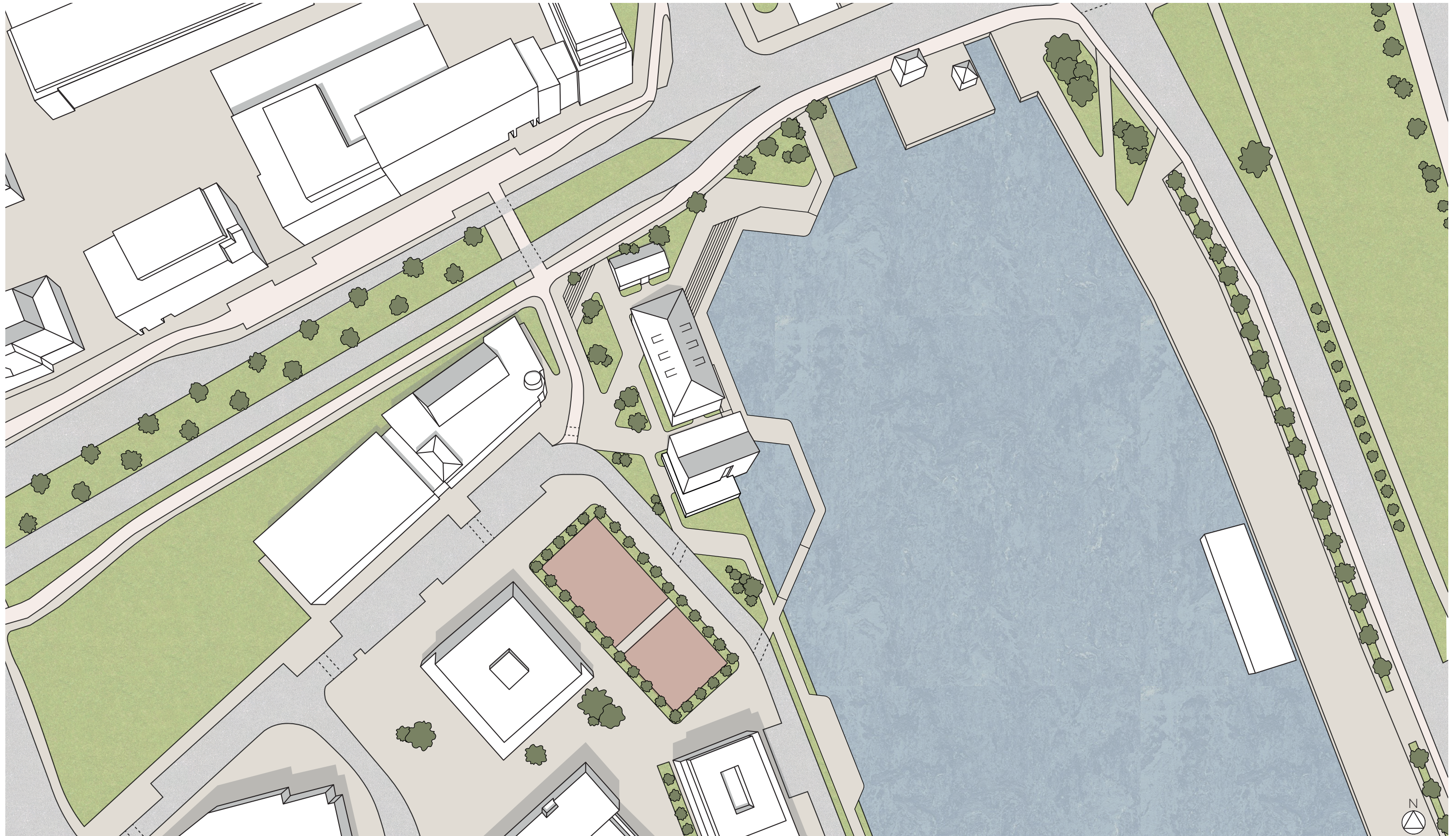


DESIGN

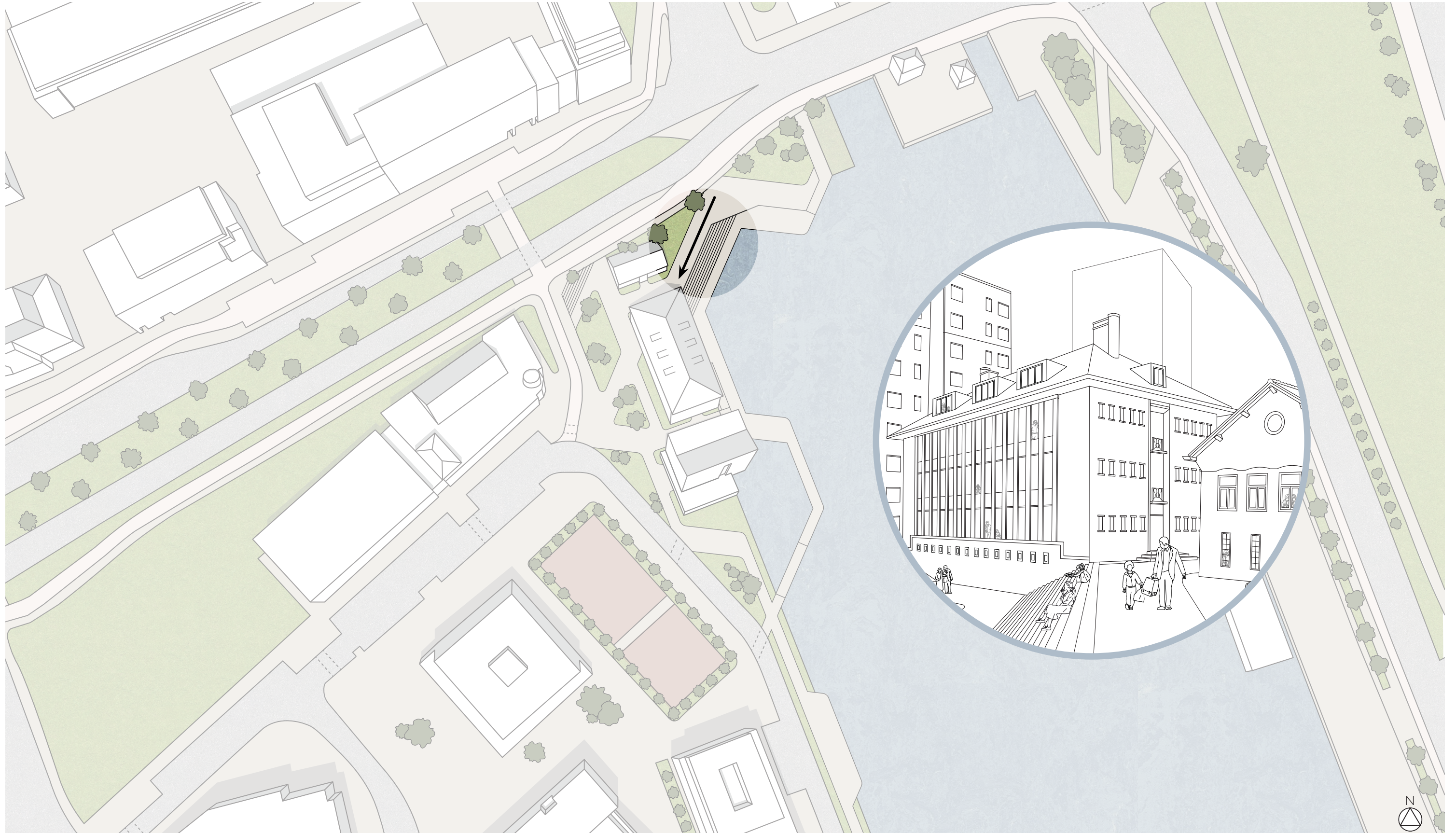
URBAN MASTERPLAN

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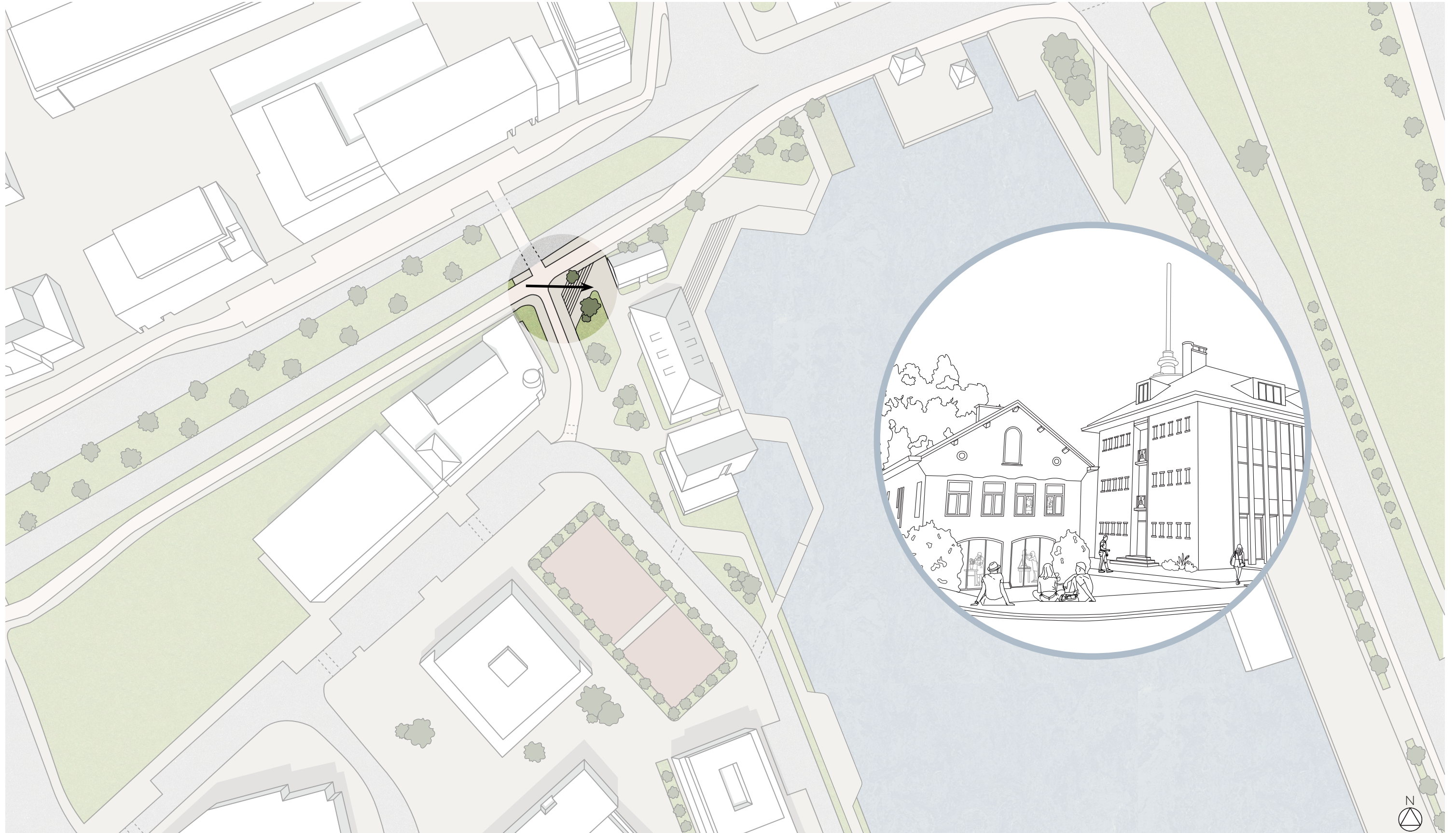
ENTRANCE AREA SCHIEMOND



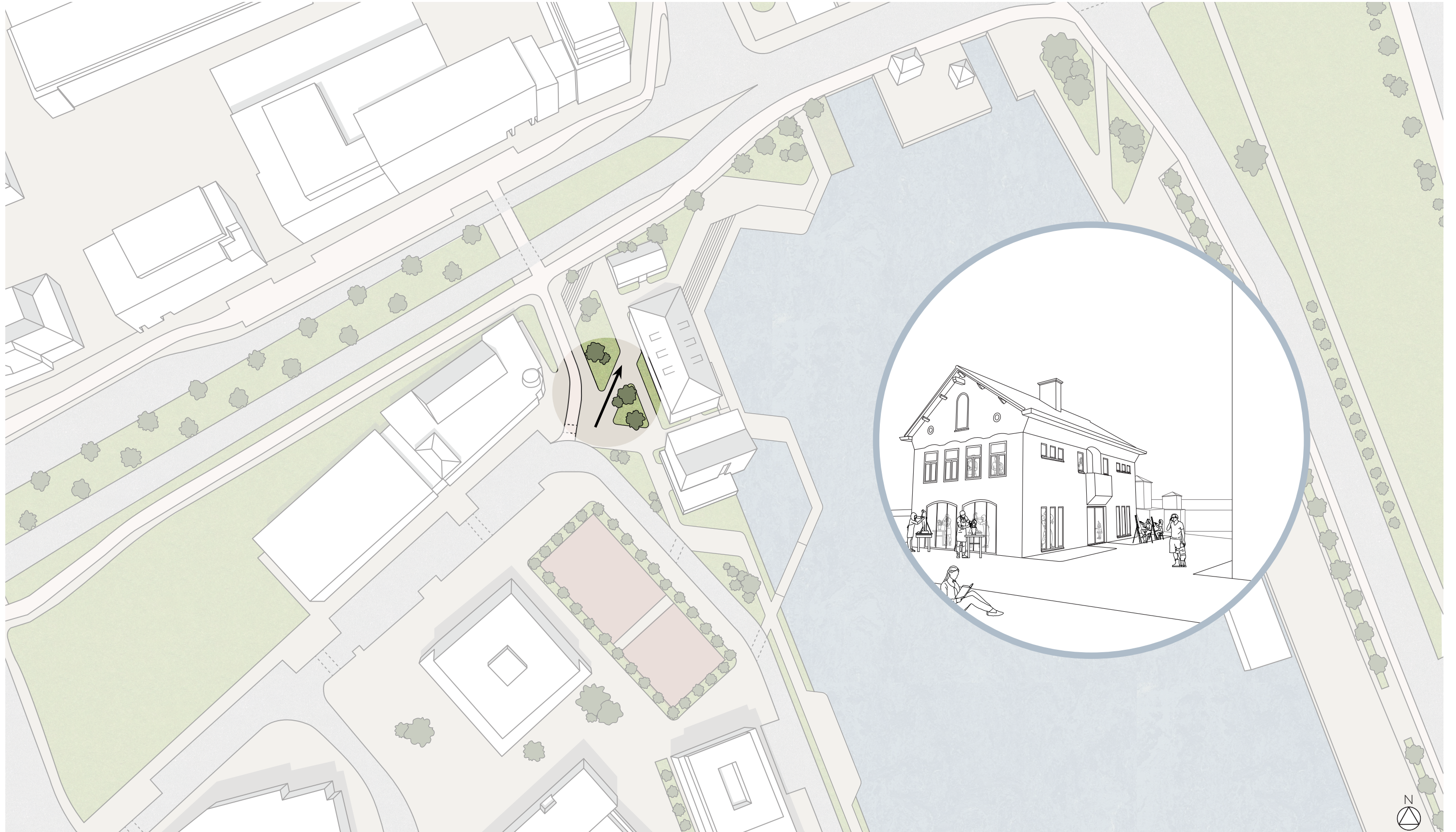
ENTRANCE AREA SCHIEMOND



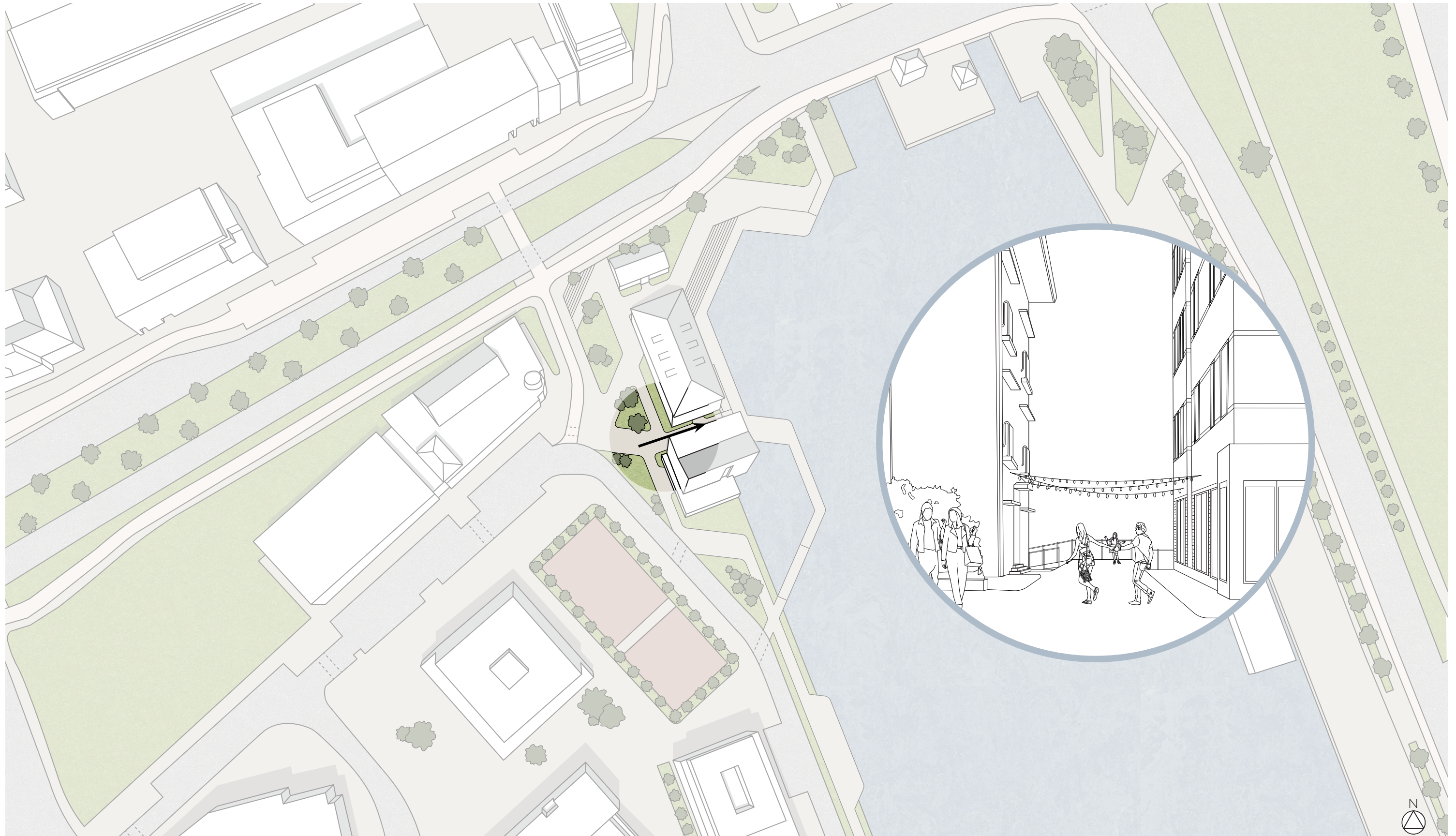
ENTRANCE AREA SCHIEMOND



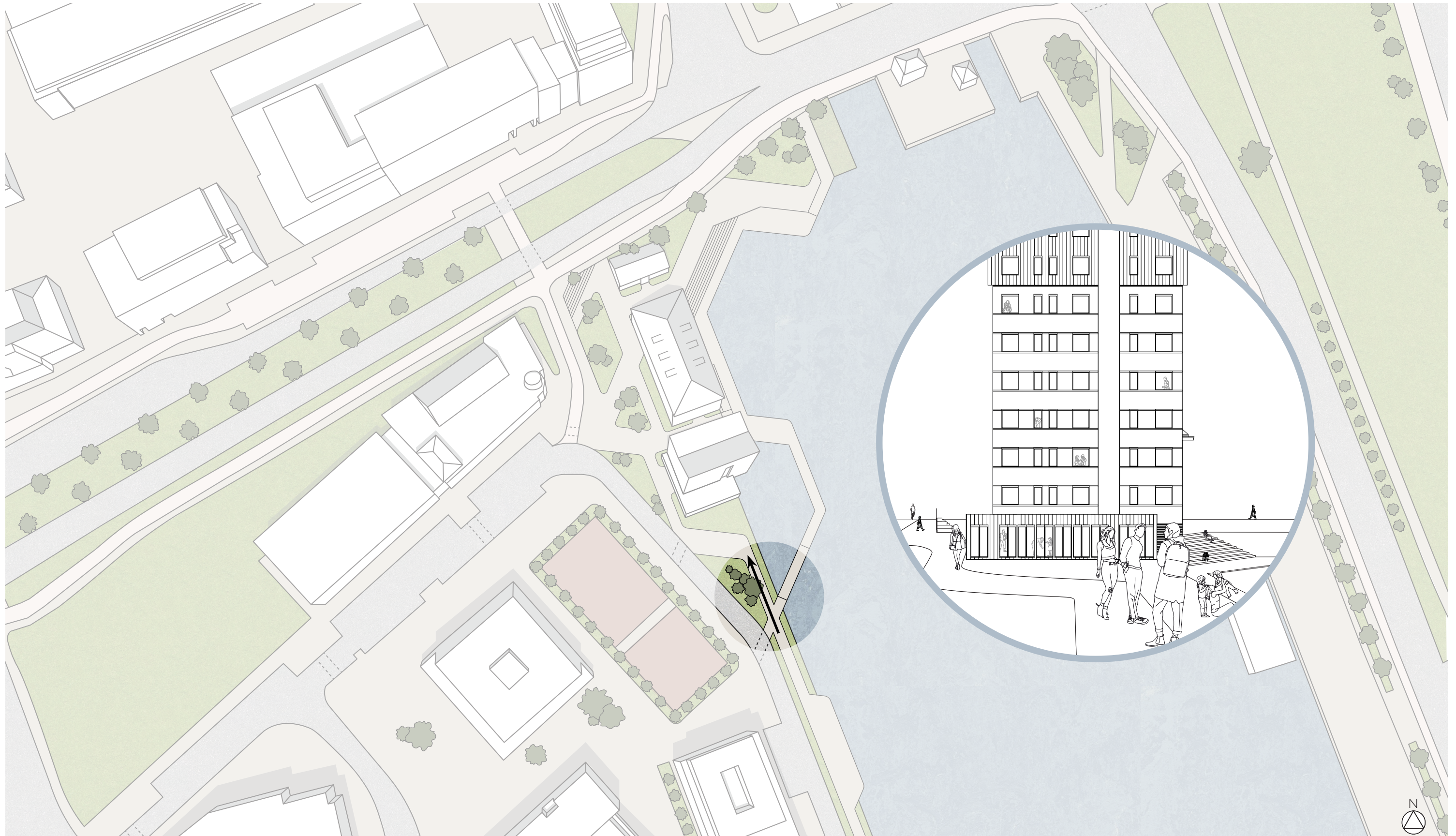
ENTRANCE AREA SCHIEMOND



ENTRANCE AREA SCHIEMOND



ENTRANCE AREA SCHIEMOND



FLOOR PLAN

GROUND FLOOR



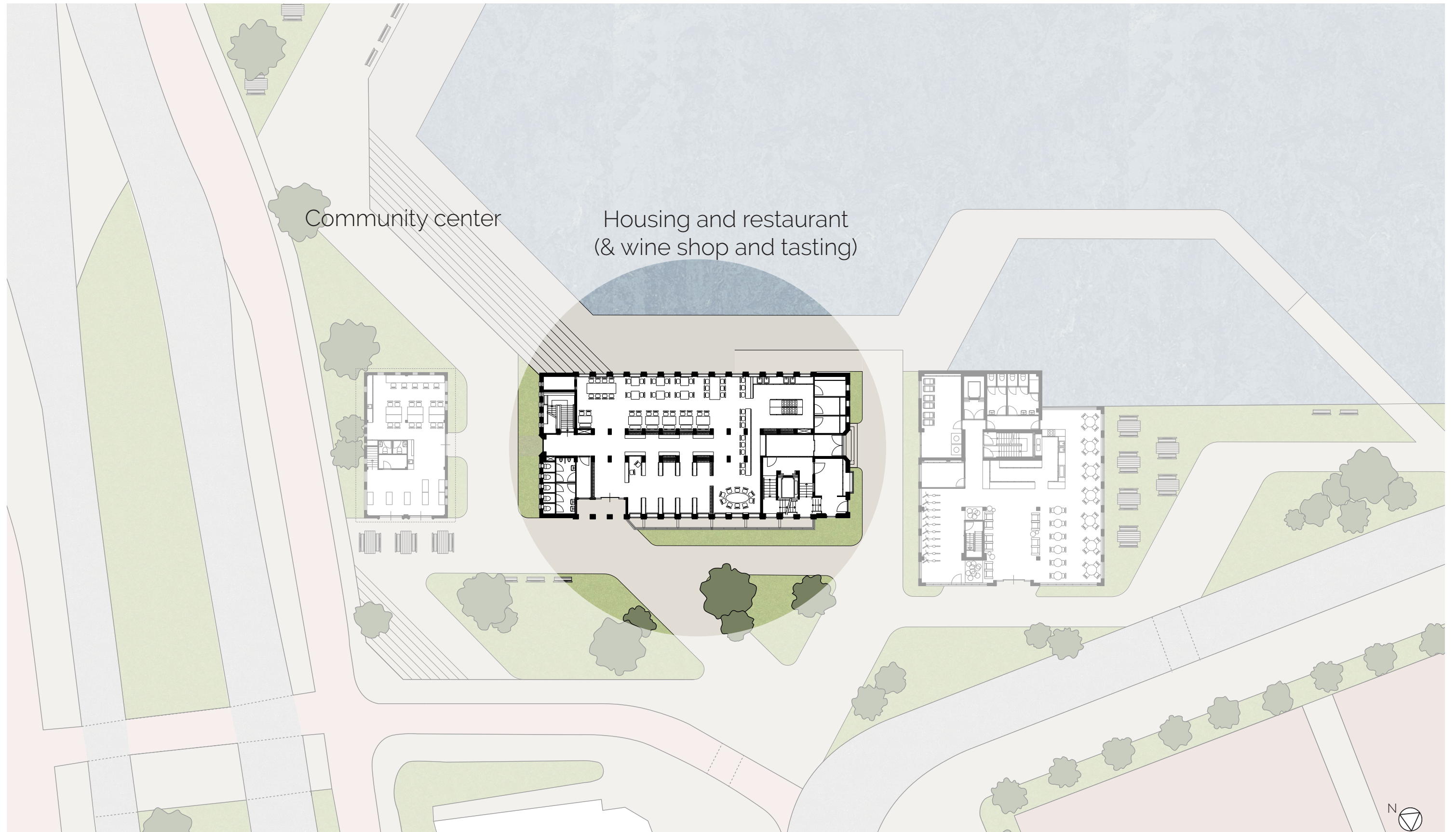
FLOOR PLAN

GROUND FLOOR



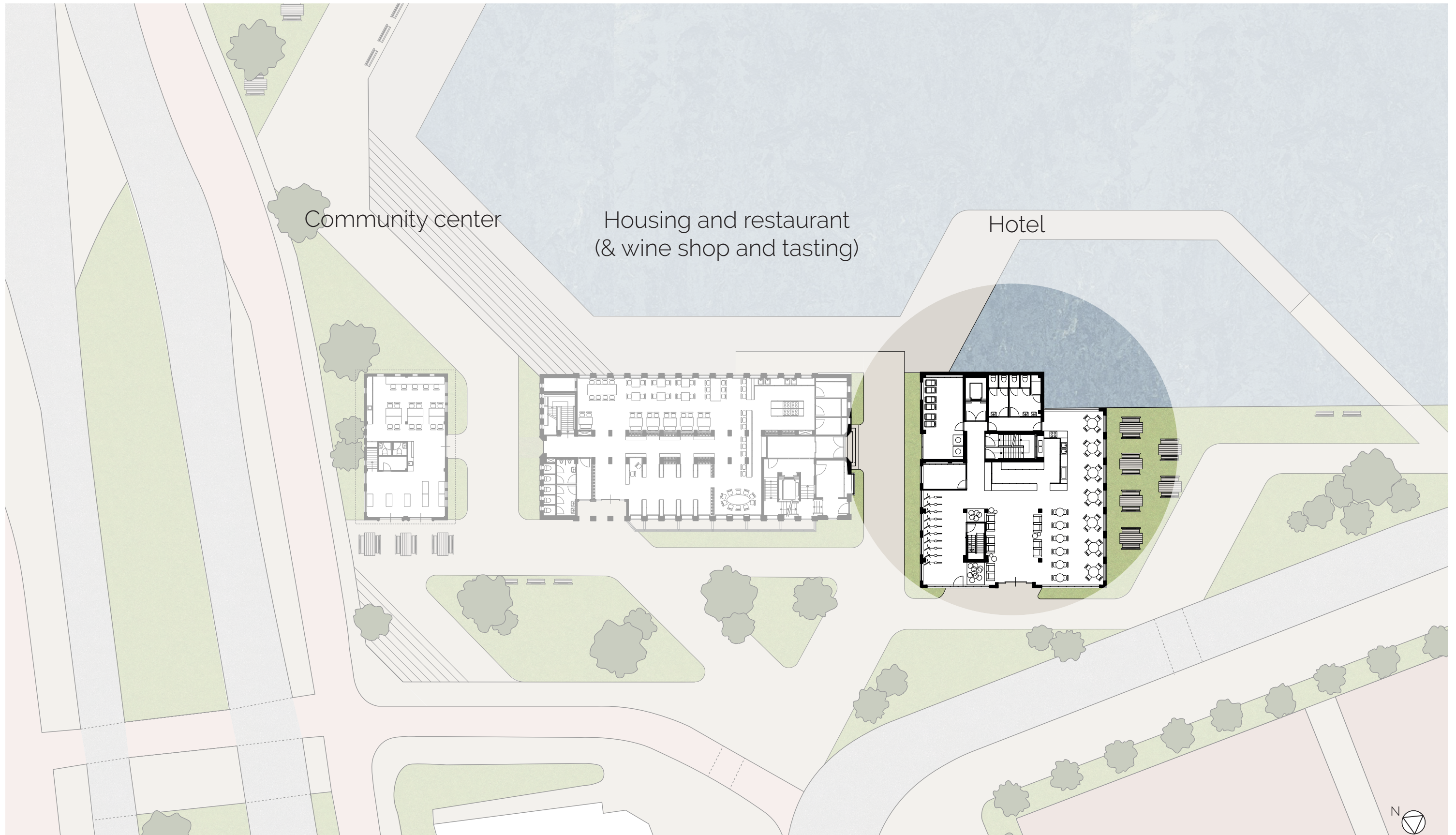
FLOOR PLAN

GROUND FLOOR



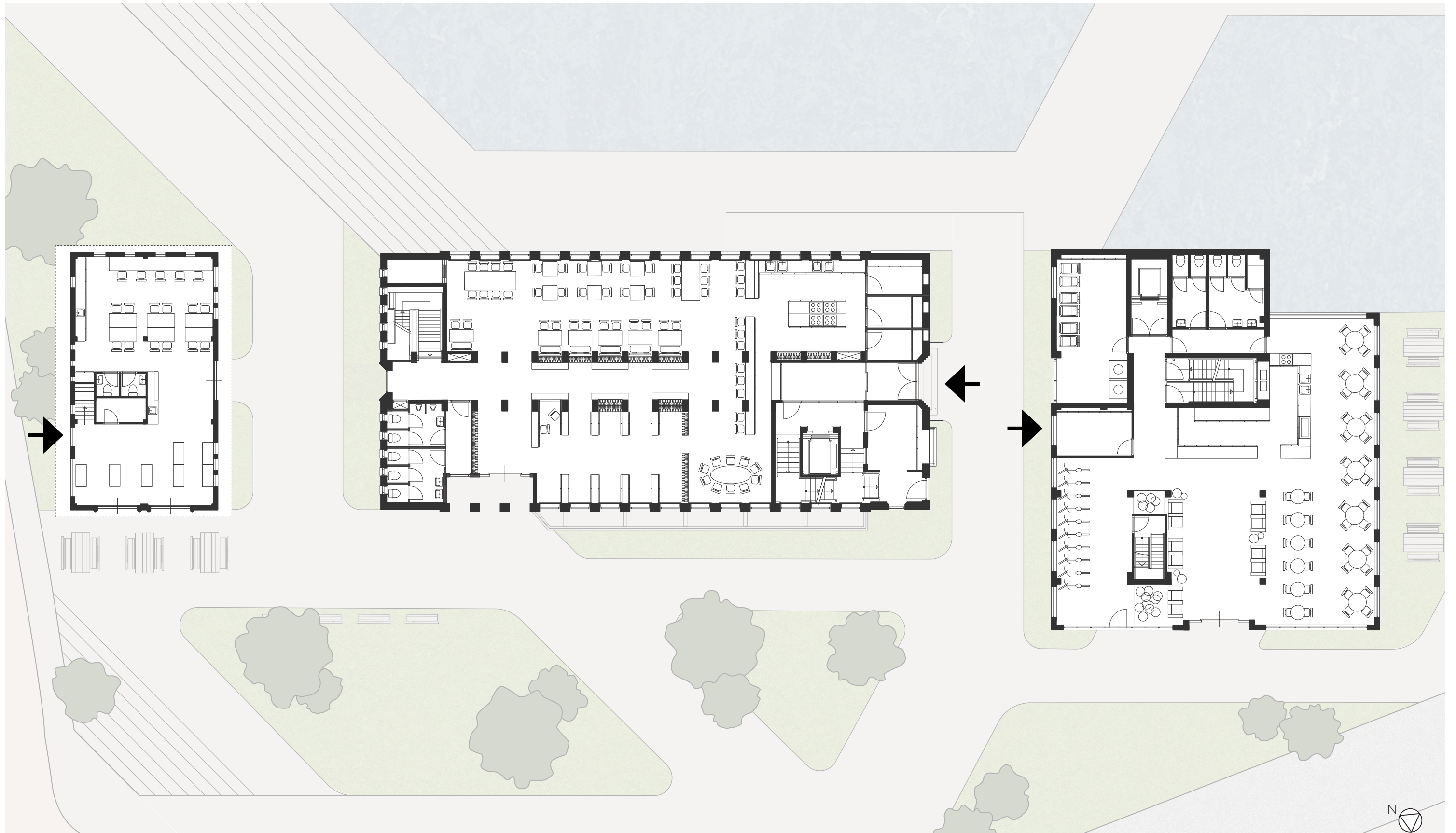
FLOOR PLAN

GROUND FLOOR



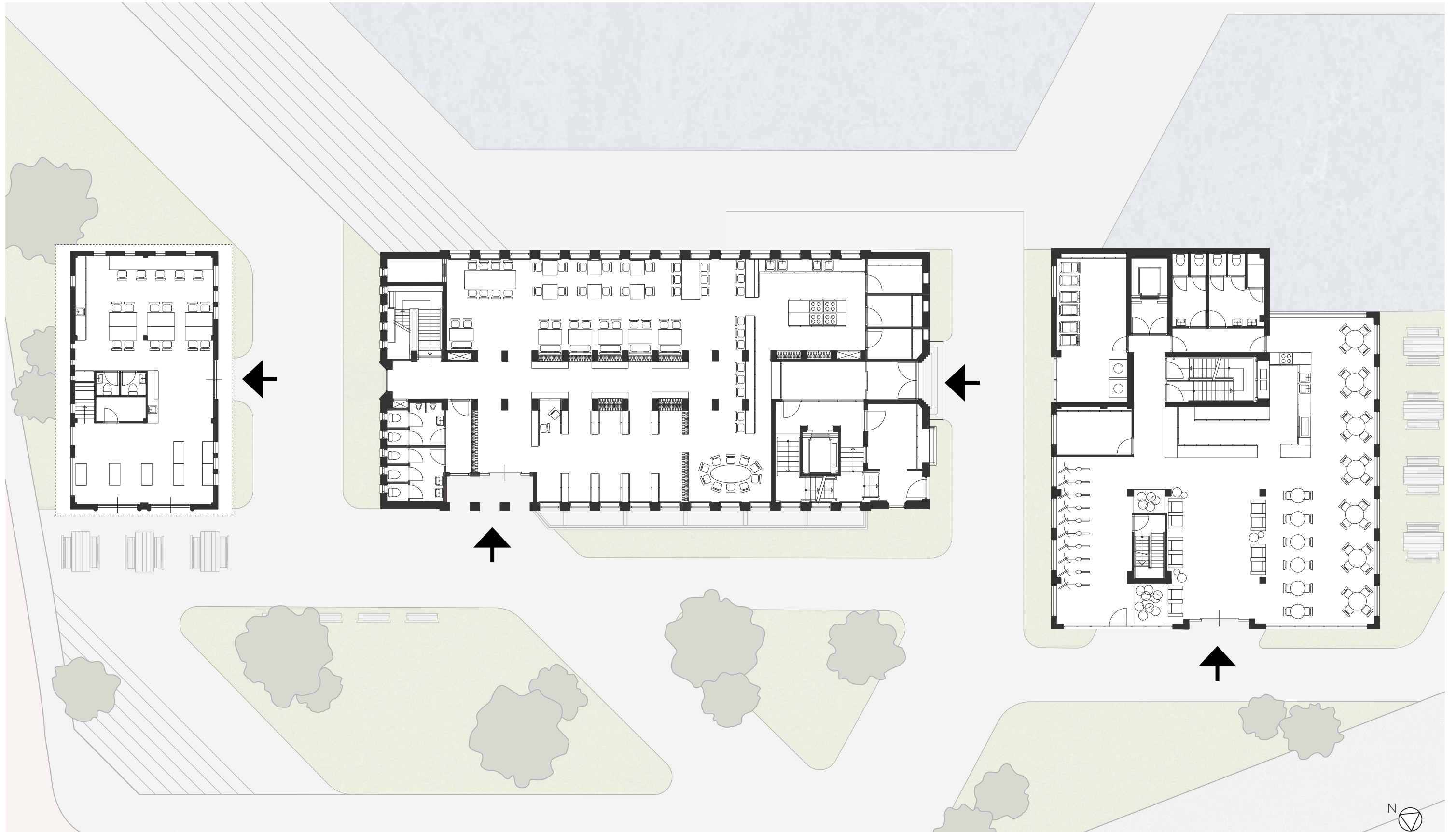
FLOOR PLAN

EVALUATING EXISTING ENTRANCES



FLOOR PLAN

CREATING NEW ENTRANCES



FLOOR PLAN

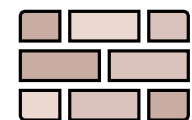
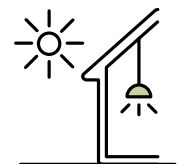
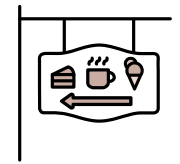
CREATING NEW ENTRANCES



ENTRANCE

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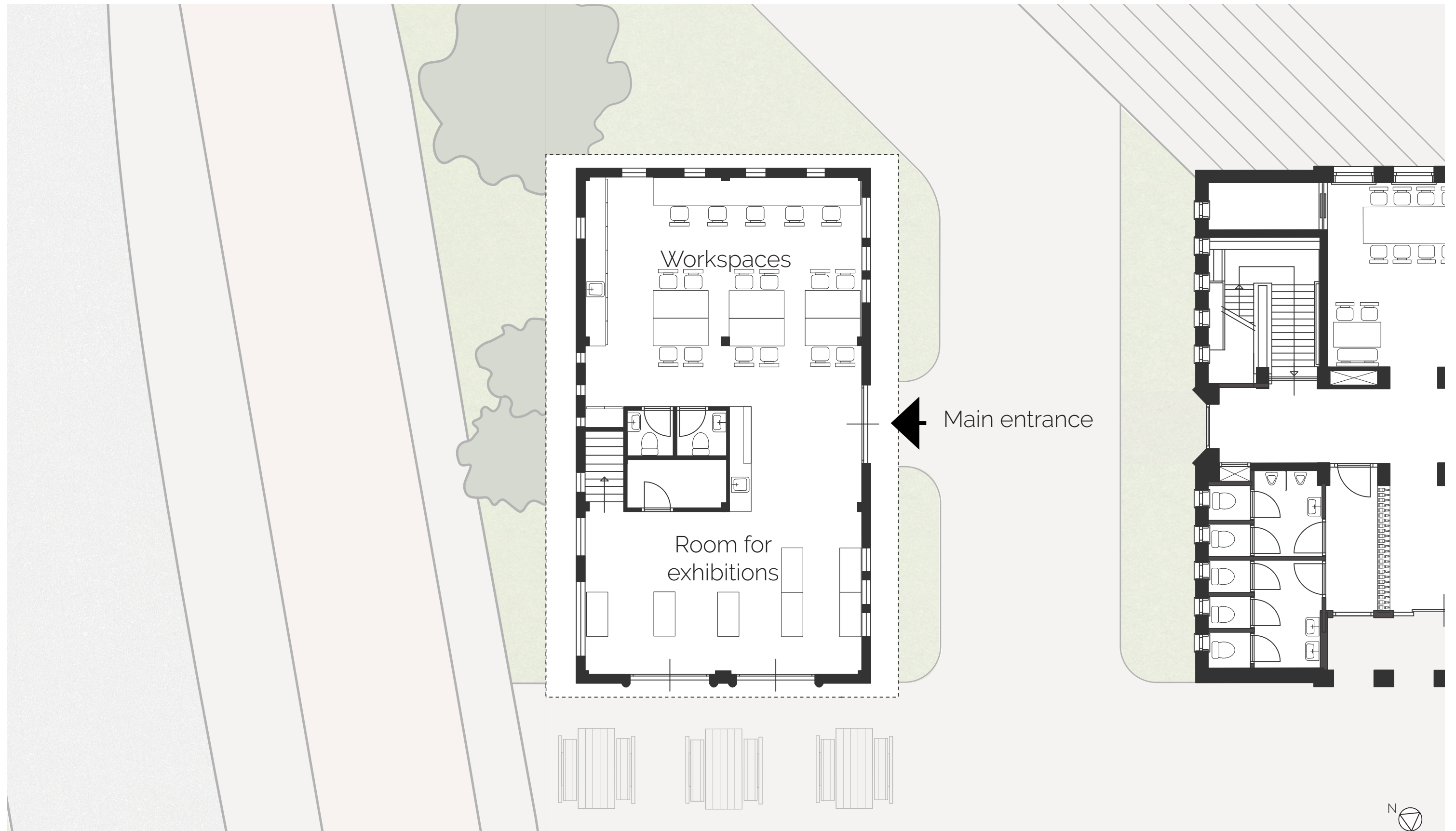
1940 BUILDING



FLOOR PLAN

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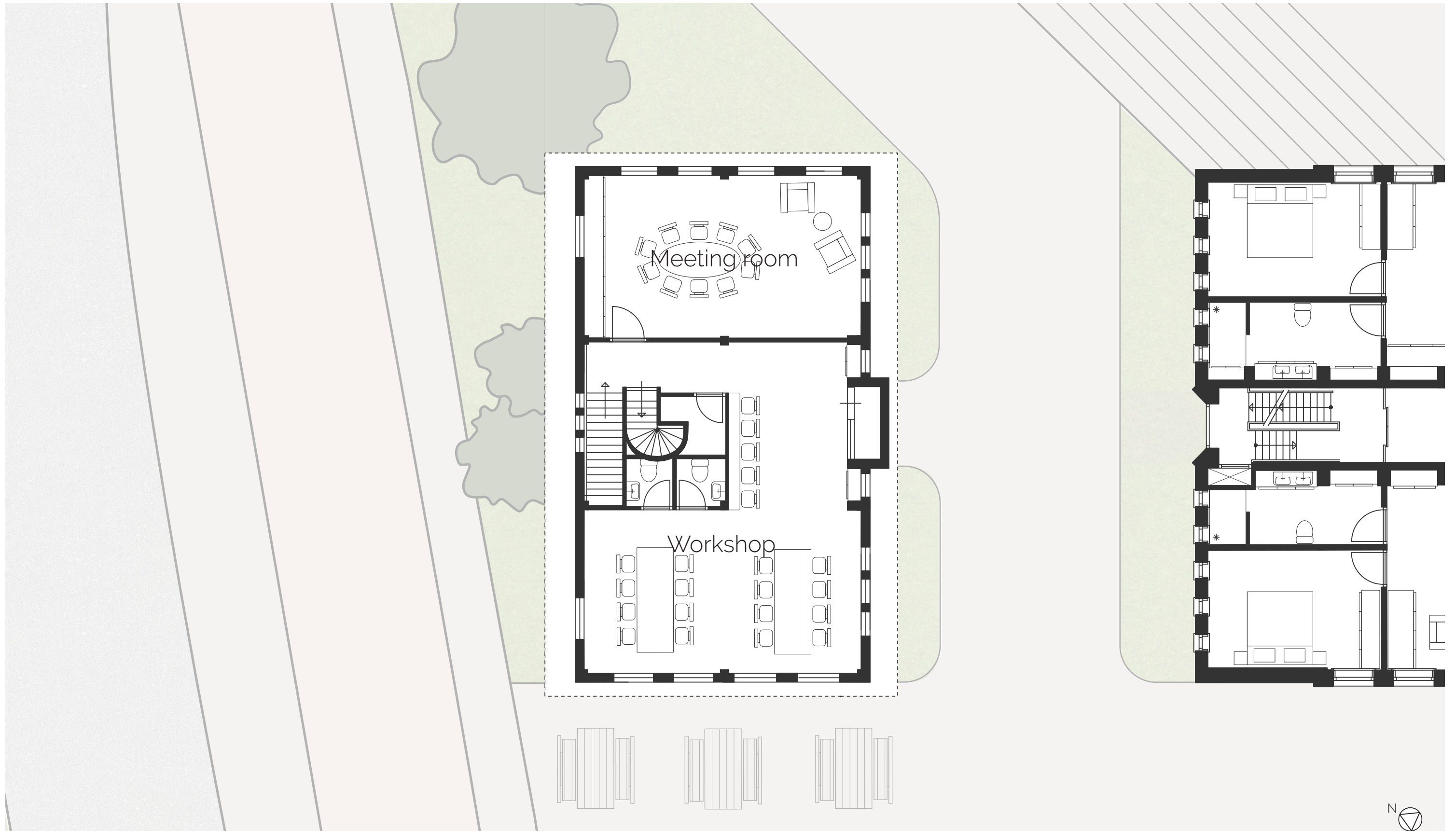
GROUND FLOOR 1940



FLOOR PLAN

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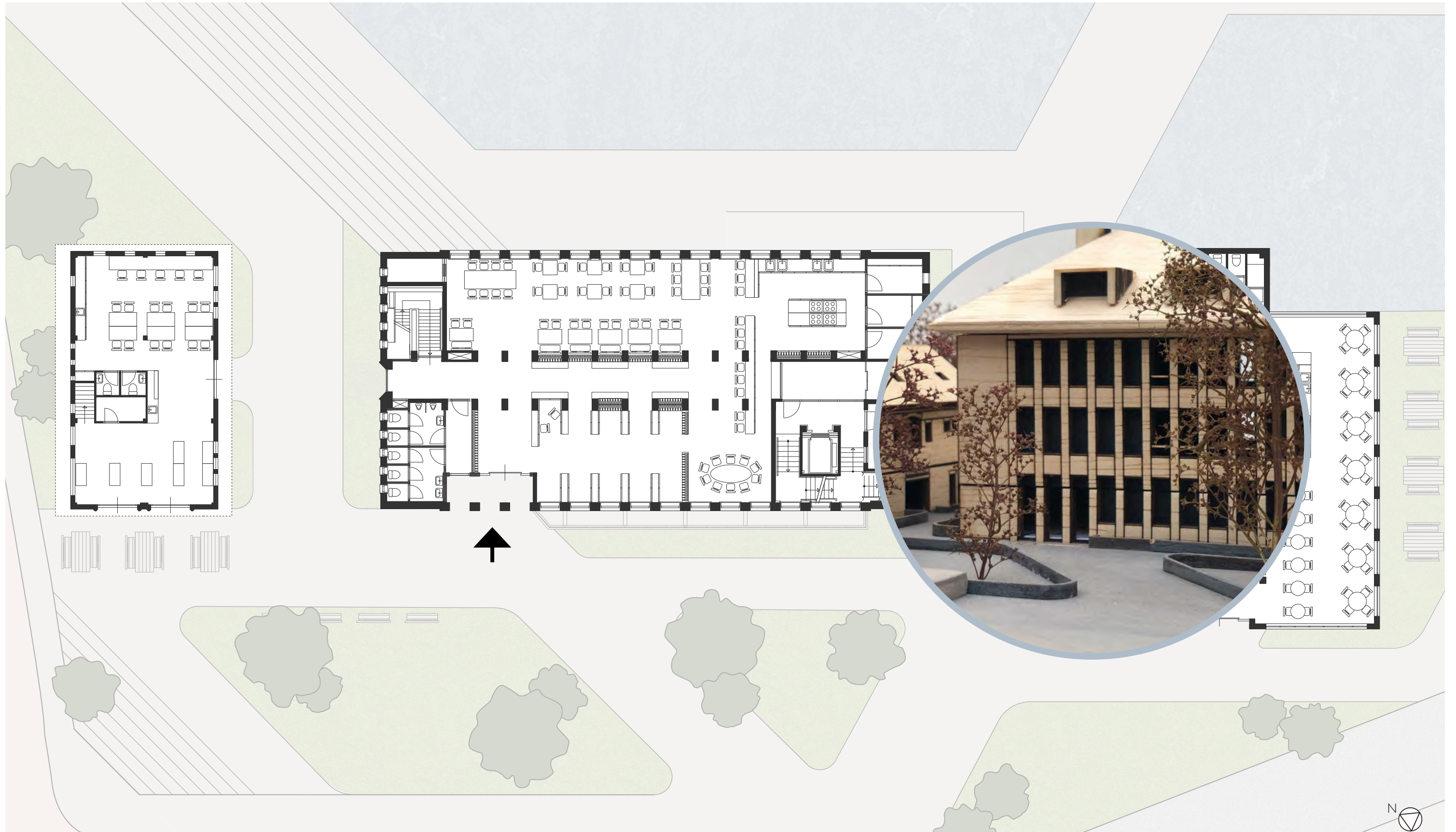
FIRST FLOOR 1940



FLOOR PLAN

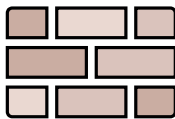
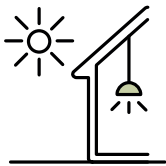
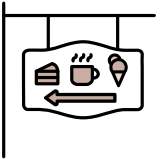
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CREATING NEW ENTRANCES



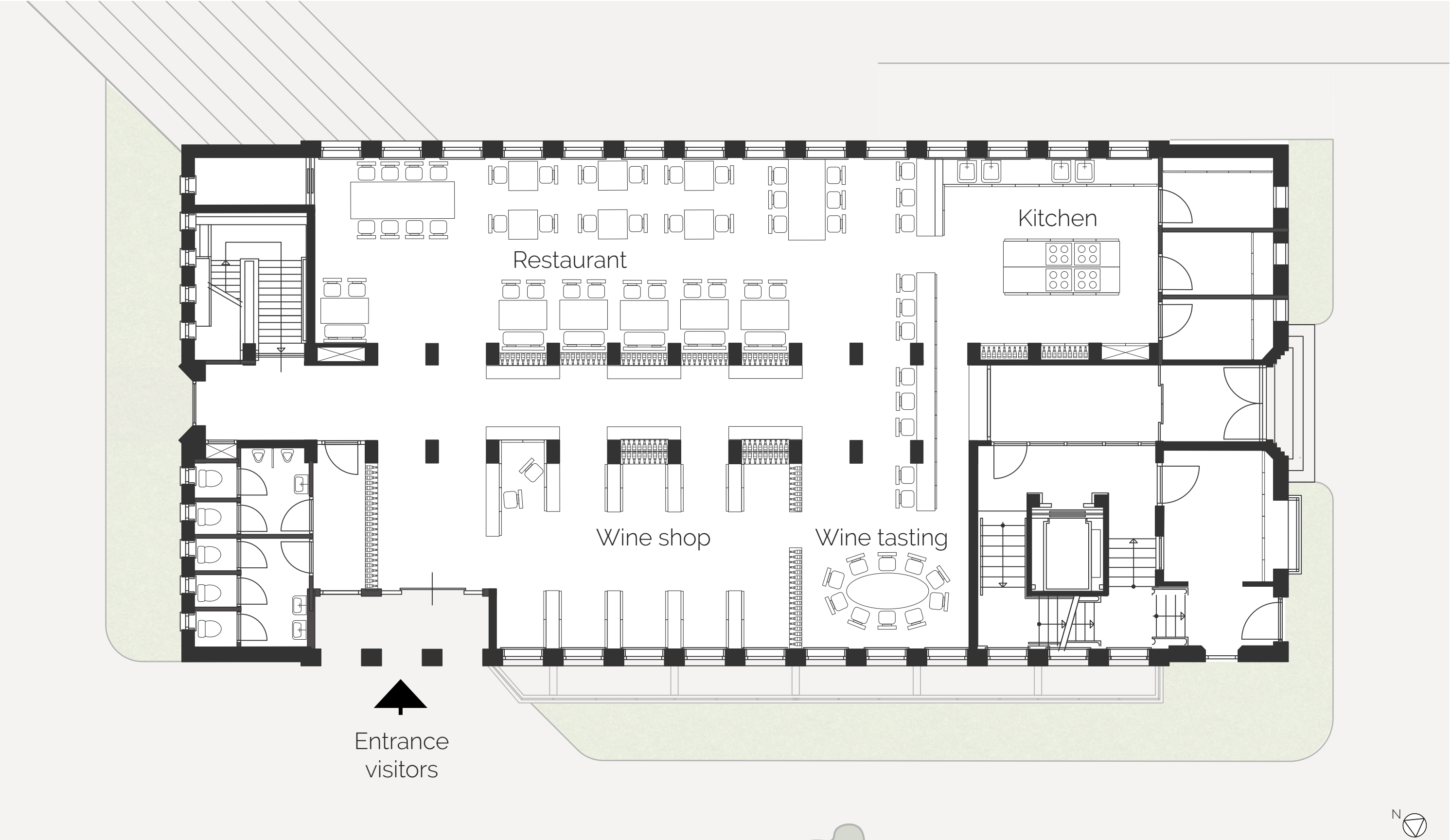
ENTRANCE

1933 BUILDING



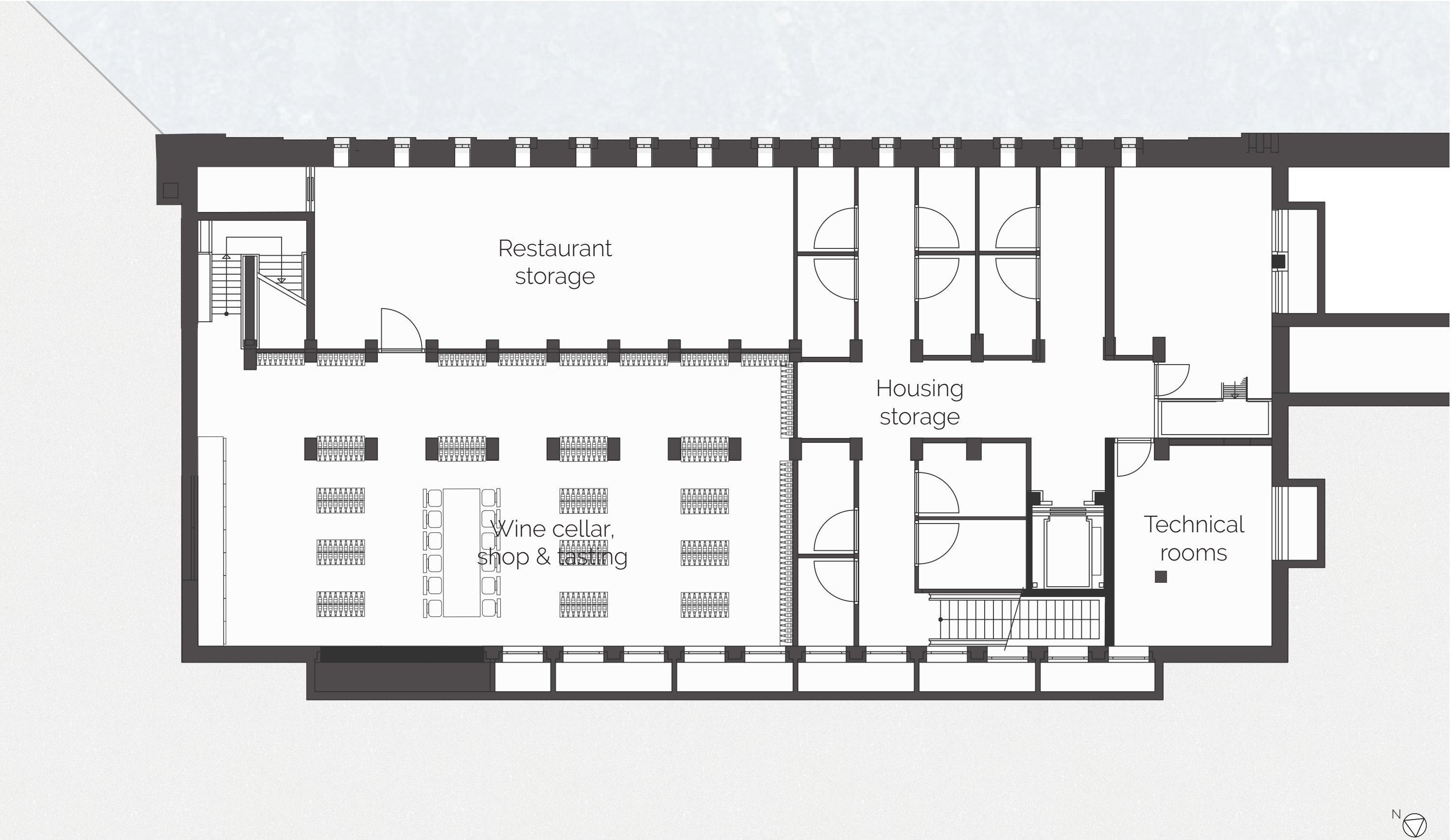
FLOOR PLAN

GROUND FLOOR 1933



FLOOR PLAN

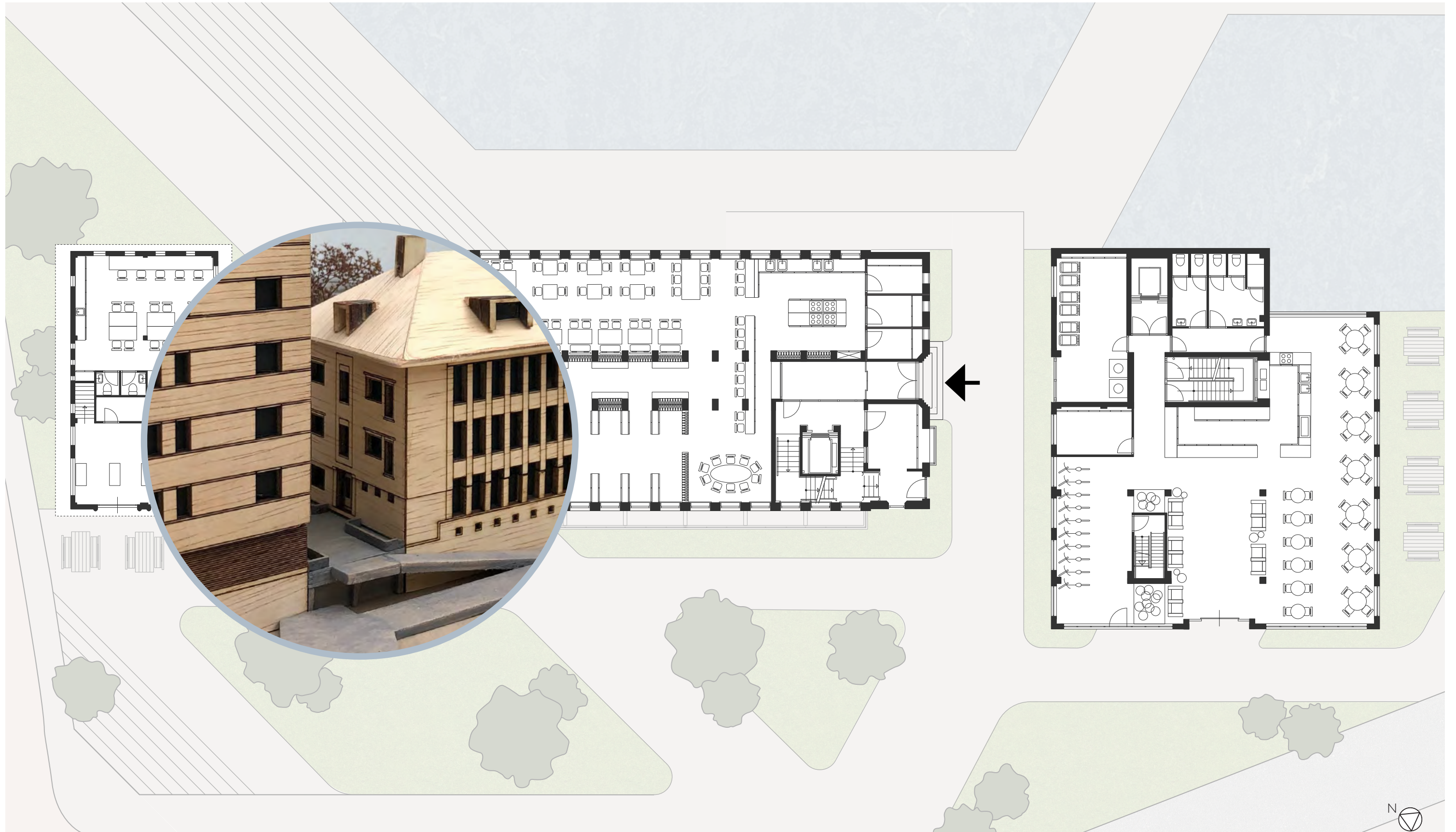
BASEMENT 1933



FLOOR PLAN

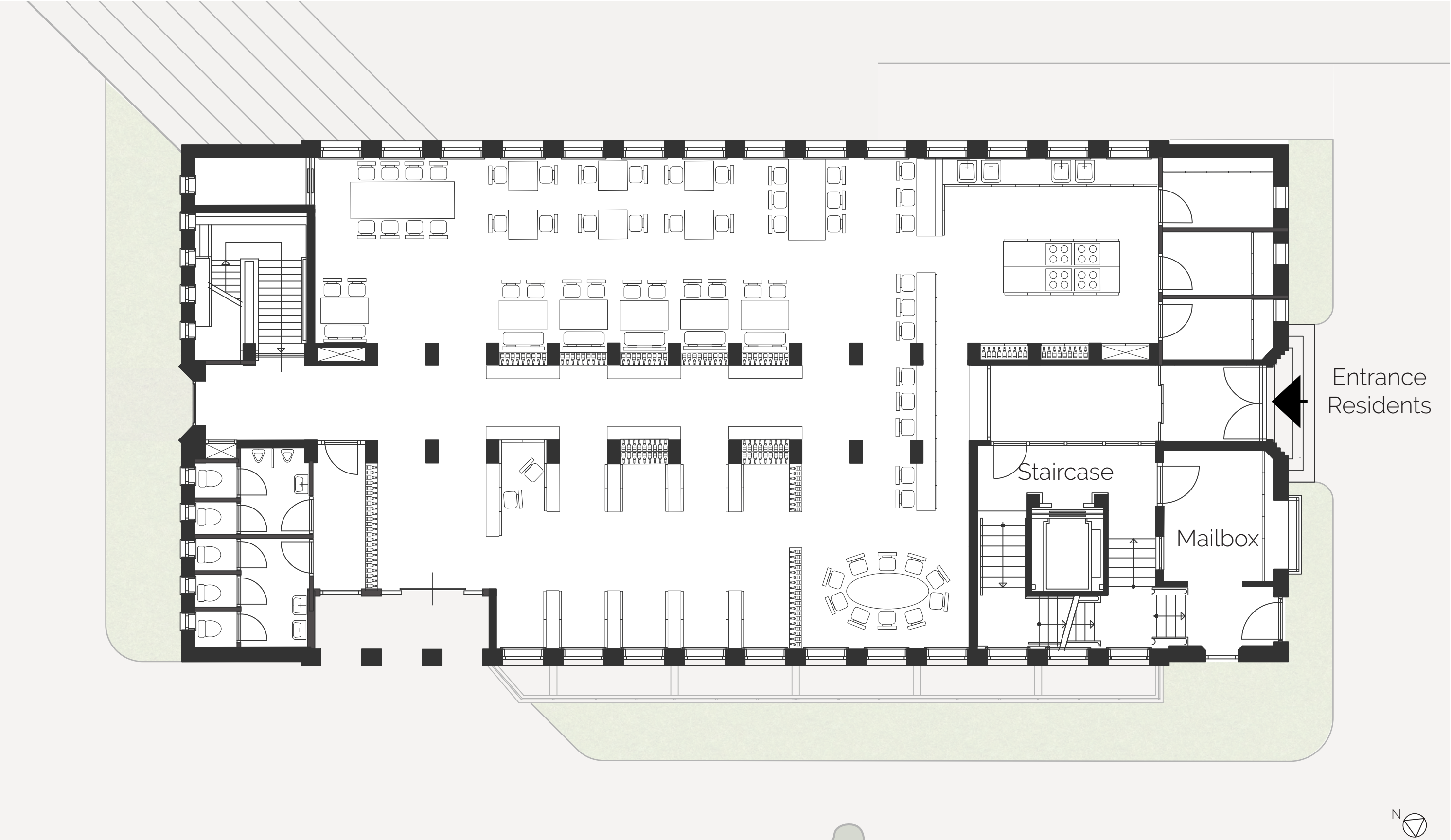
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PRESERVING EXISTING ENTRANCE



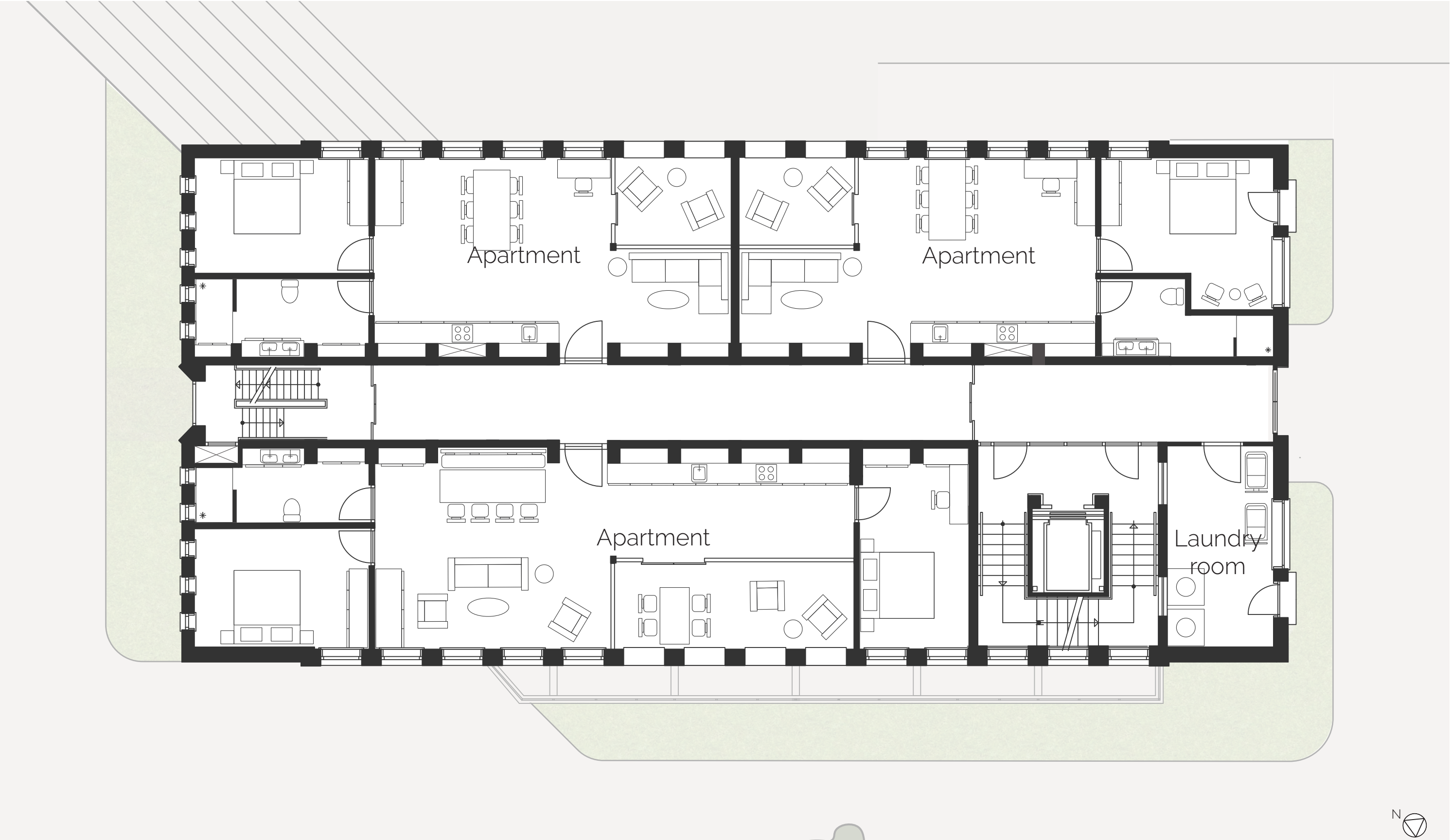
FLOOR PLAN

GROUND FLOOR 1933



FLOOR PLAN

FIRST FLOOR 1933



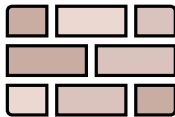
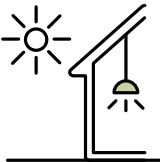
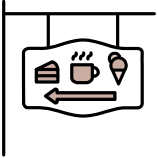
FLOOR PLAN

CREATING NEW ENTRANCES



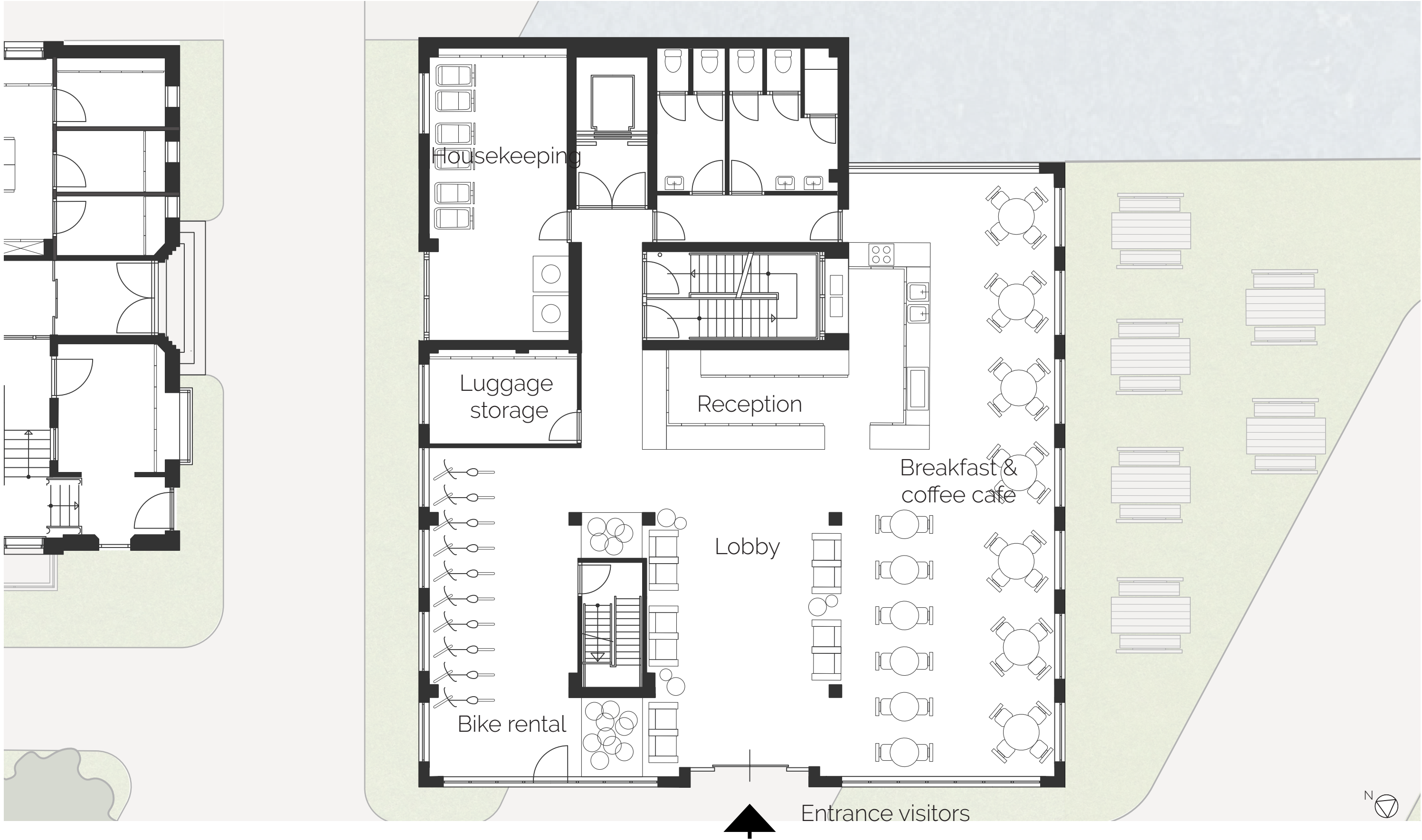
ENTRANCE

1994 BUILDING



FLOOR PLAN

GROUND FLOOR 1994

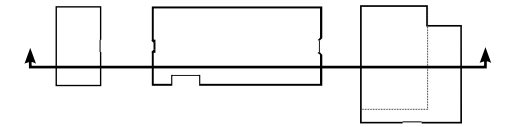


FLOOR PLAN

FIRST FLOOR 1994



SECTION



NORTH - SOUTH

1940

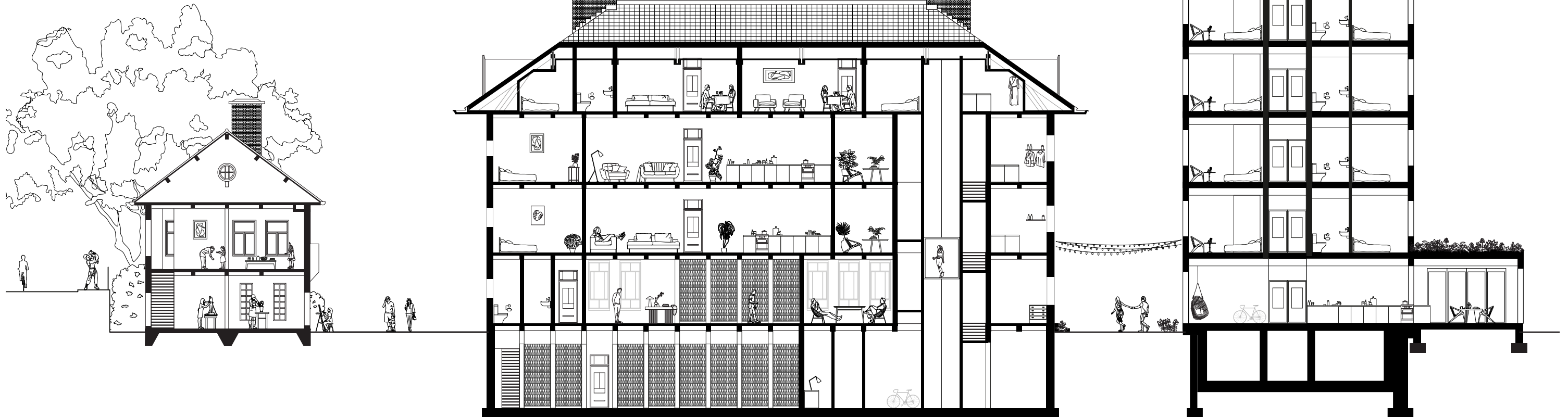
- Community center
- Workshop & gallery

1933

- Housing (10 apartments)
- Restaurant
- Wine import, shop & tasting

1994

- Hotel (48 rooms)

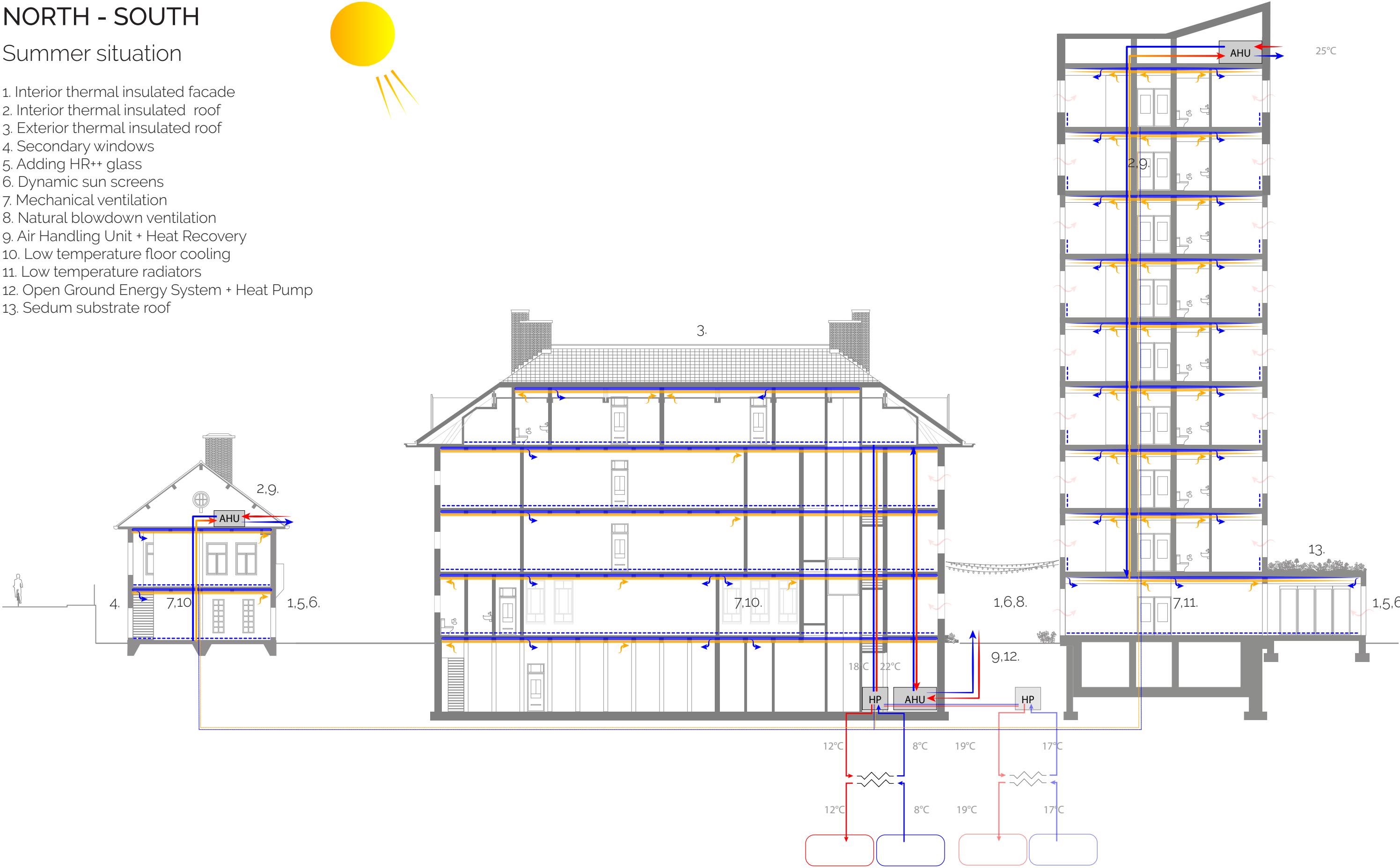


SECTION

NORTH - SOUTH

Summer situation

- 1. Interior thermal insulated facade
- 2. Interior thermal insulated roof
- 3. Exterior thermal insulated roof
- 4. Secondary windows
- 5. Adding HR++ glass
- 6. Dynamic sun screens
- 7. Mechanical ventilation
- 8. Natural blowdown ventilation
- 9. Air Handling Unit + Heat Recovery
- 10. Low temperature floor cooling
- 11. Low temperature radiators
- 12. Open Ground Energy System + Heat Pump
- 13. Sedum substrate roof

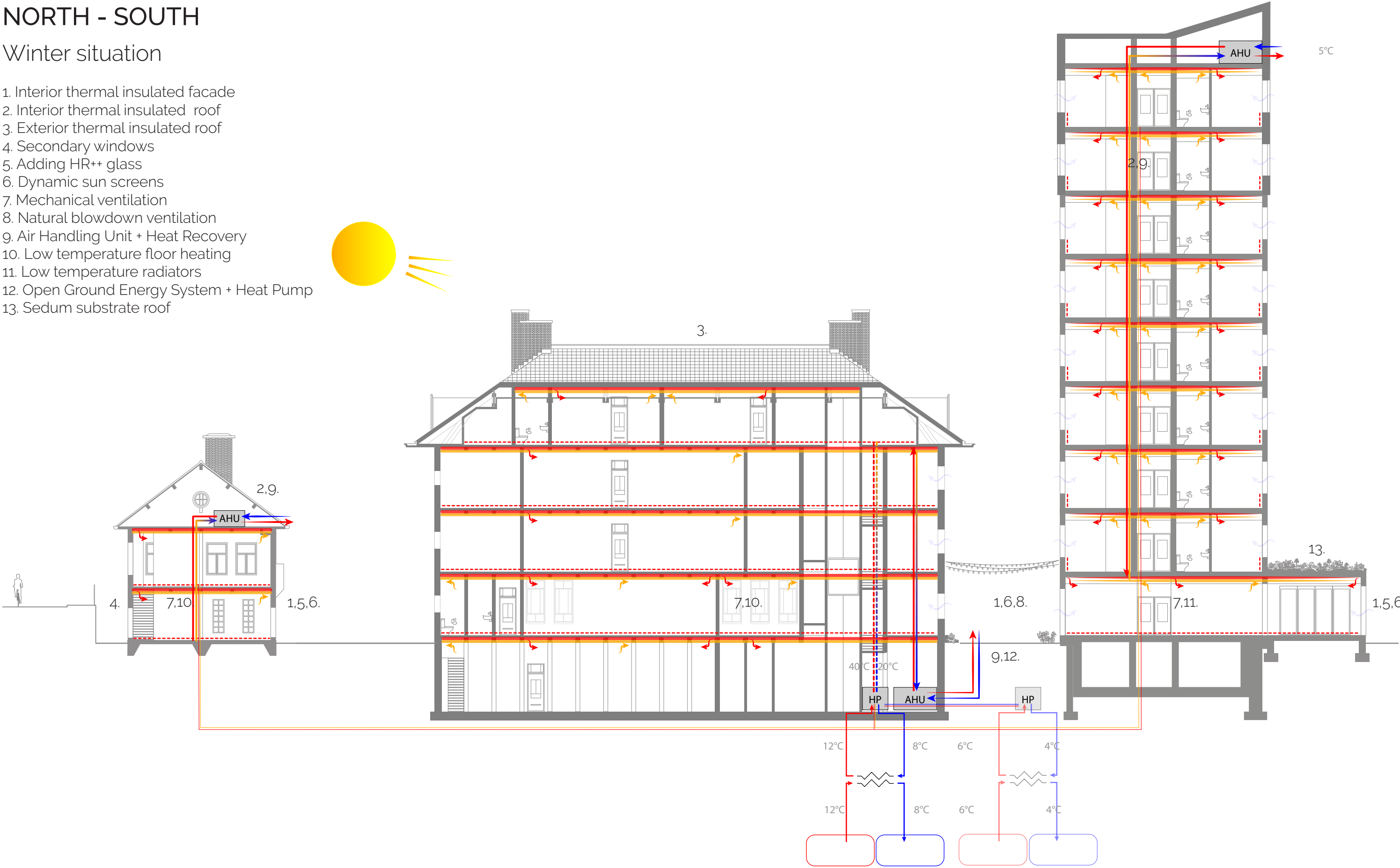


SECTION

NORTH - SOUTH

Winter situation

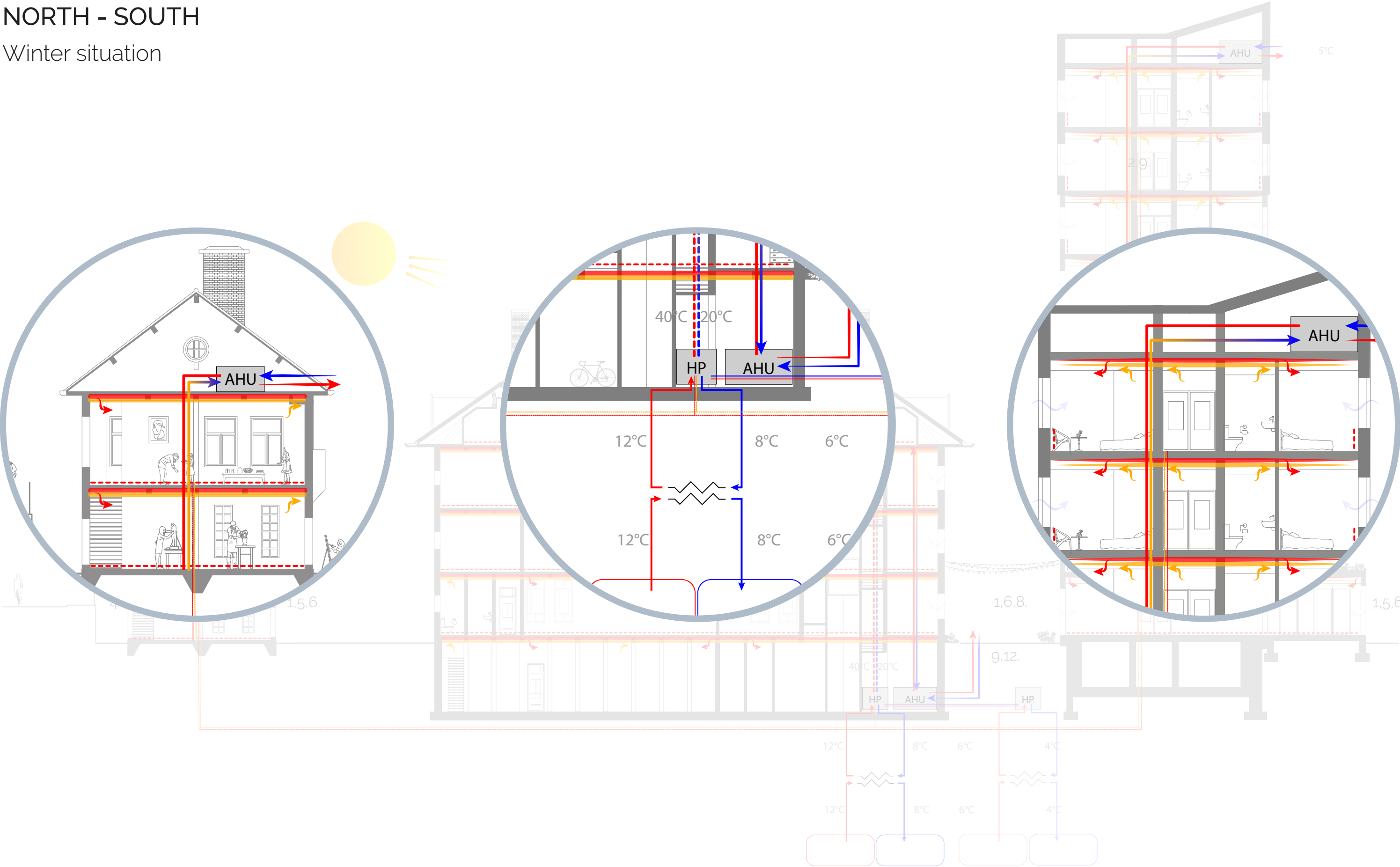
- 1. Interior thermal insulated facade
- 2. Interior thermal insulated roof
- 3. Exterior thermal insulated roof
- 4. Secondary windows
- 5. Adding HR++ glass
- 6. Dynamic sun screens
- 7. Mechanical ventilation
- 8. Natural blowdown ventilation
- 9. Air Handling Unit + Heat Recovery
- 10. Low temperature floor heating
- 11. Low temperature radiators
- 12. Open Ground Energy System + Heat Pump
- 13. Sedum substrate roof



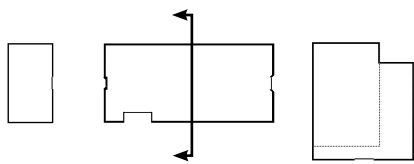
SECTION

NORTH - SOUTH

Winter situation



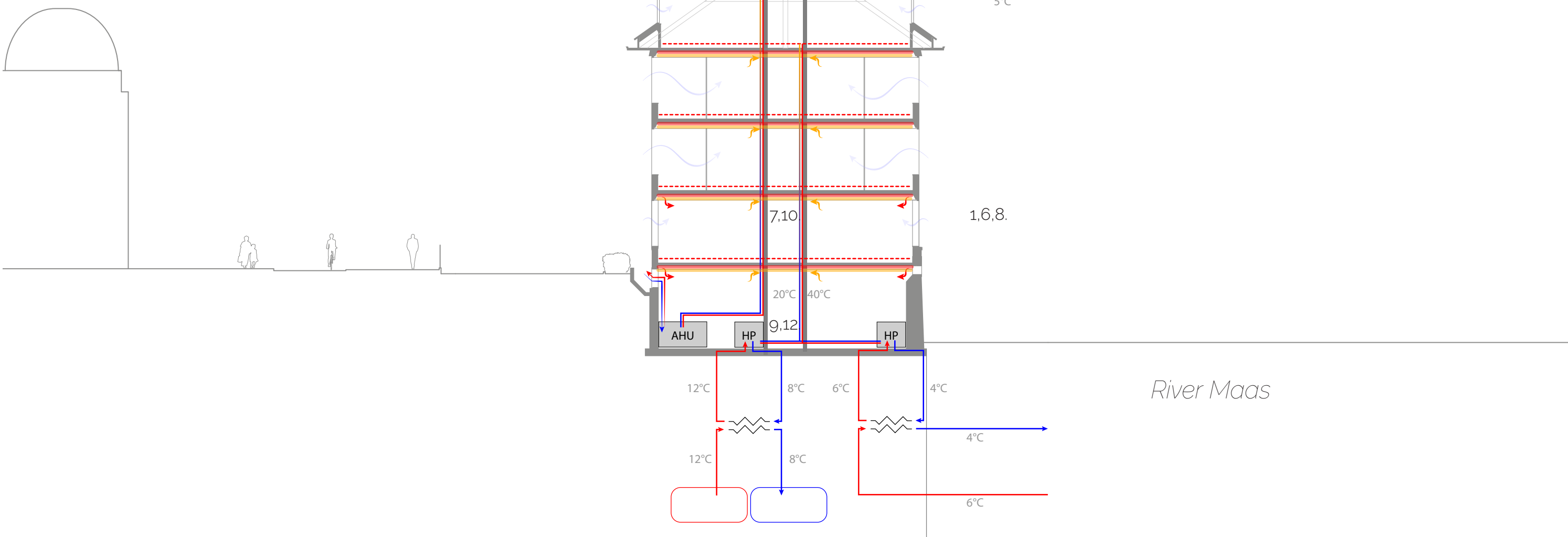
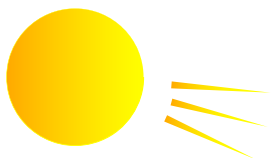
SECTION



WEST - EAST

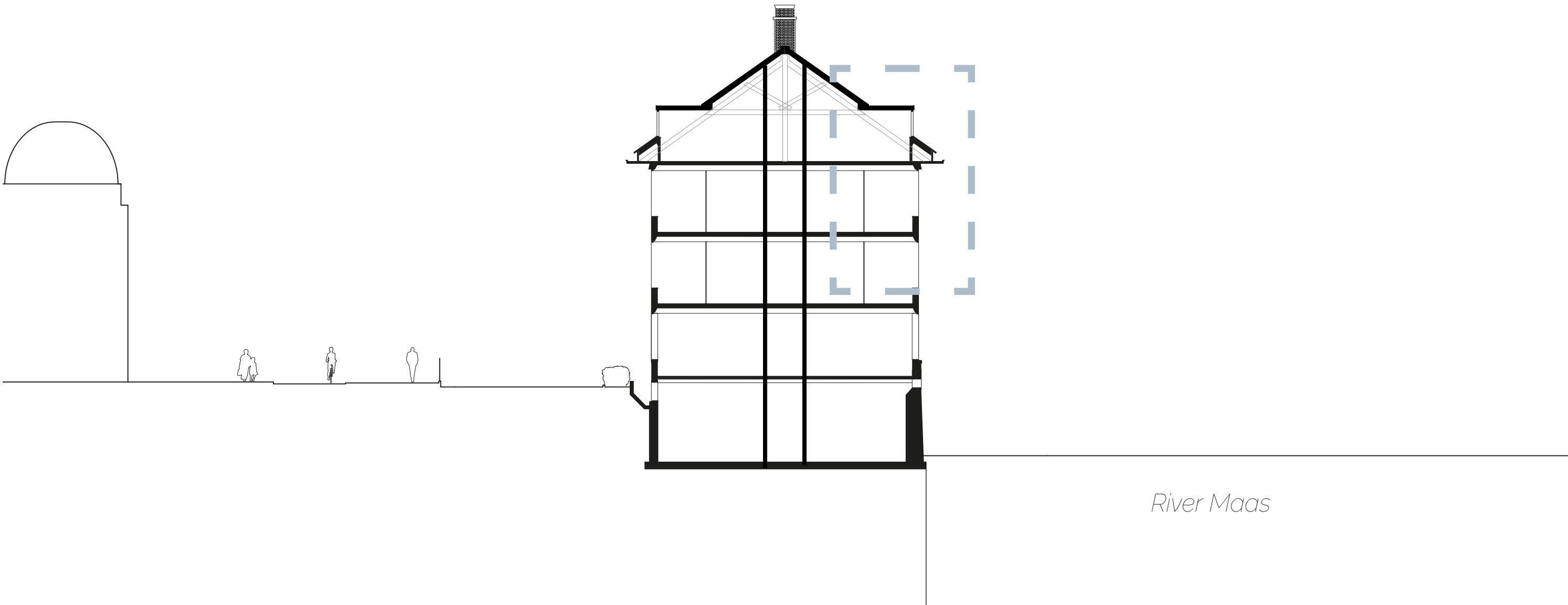
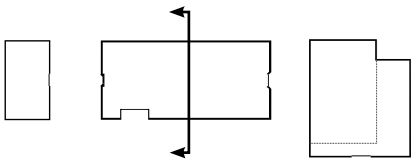
Winter situation

- 1. Interior thermal insulated facade
- 2. Interior thermal insulated roof
- 3. Exterior thermal insulated roof
- 4. Secondary windows
- 5. Adding HR++ glass
- 6. Dynamic sun screens
- 7. Mechanical ventilation
- 8. Natural blowdown ventilation
- 9. Air Handling Unit + Heat Recovery
- 10. Low temperature floor heating
- 11. Low temperature radiators
- 12. Open Ground Energy System + Heat Pump
- 13. Sedum substrate roof

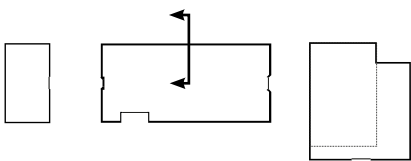


SECTION

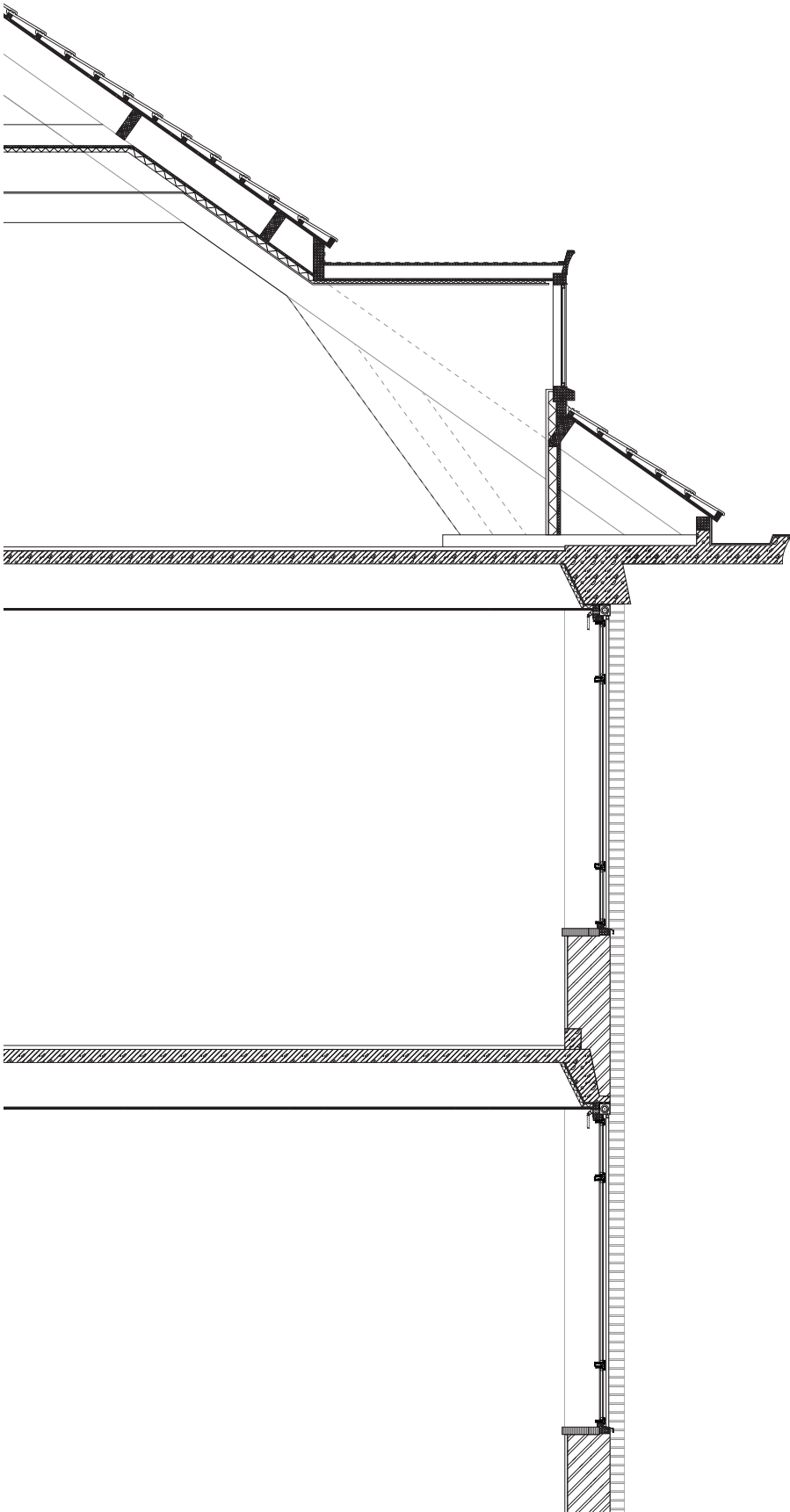
WEST - EAST



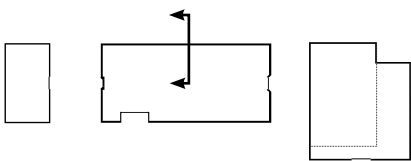
SECTION & ELEVATION



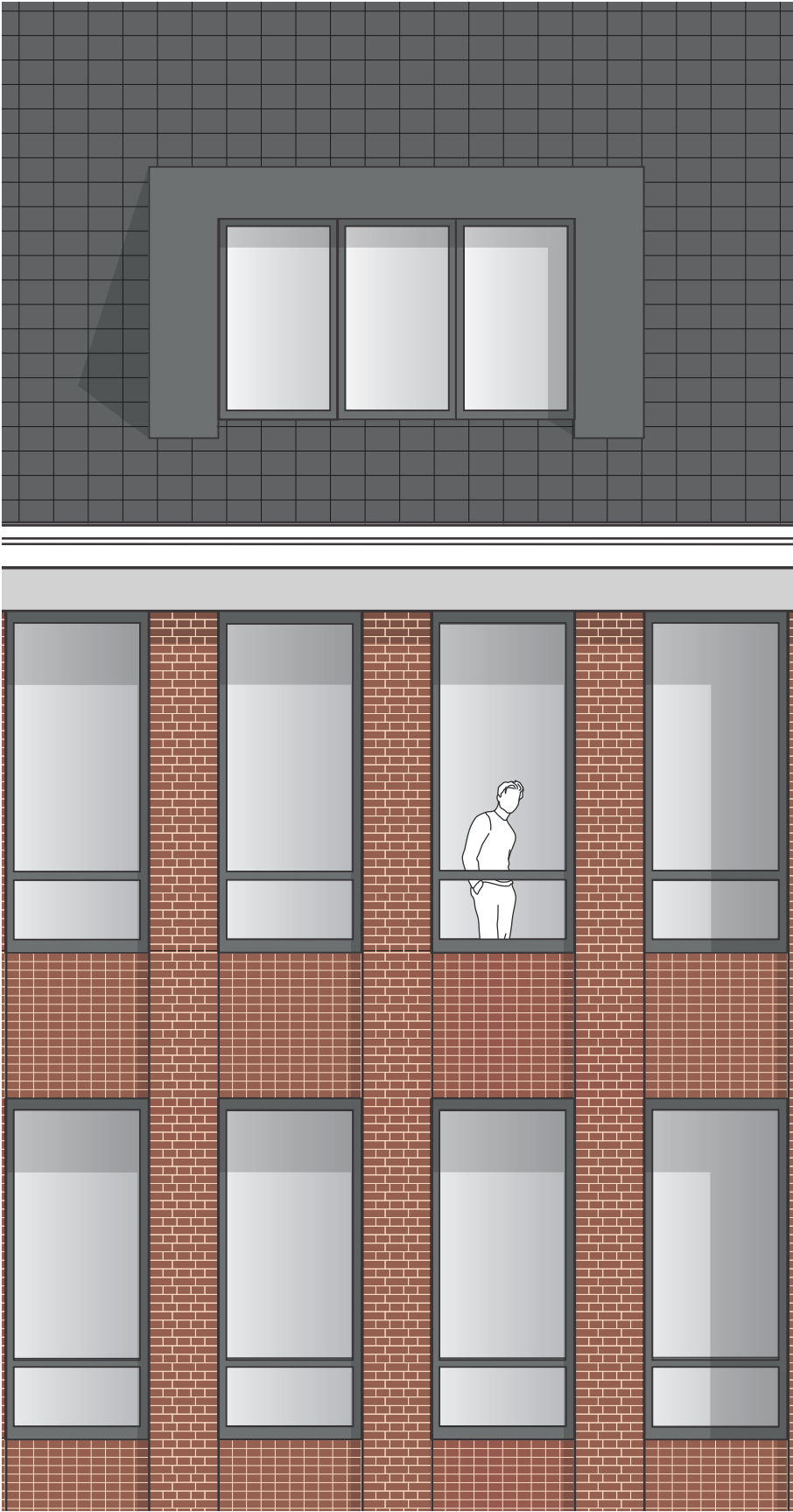
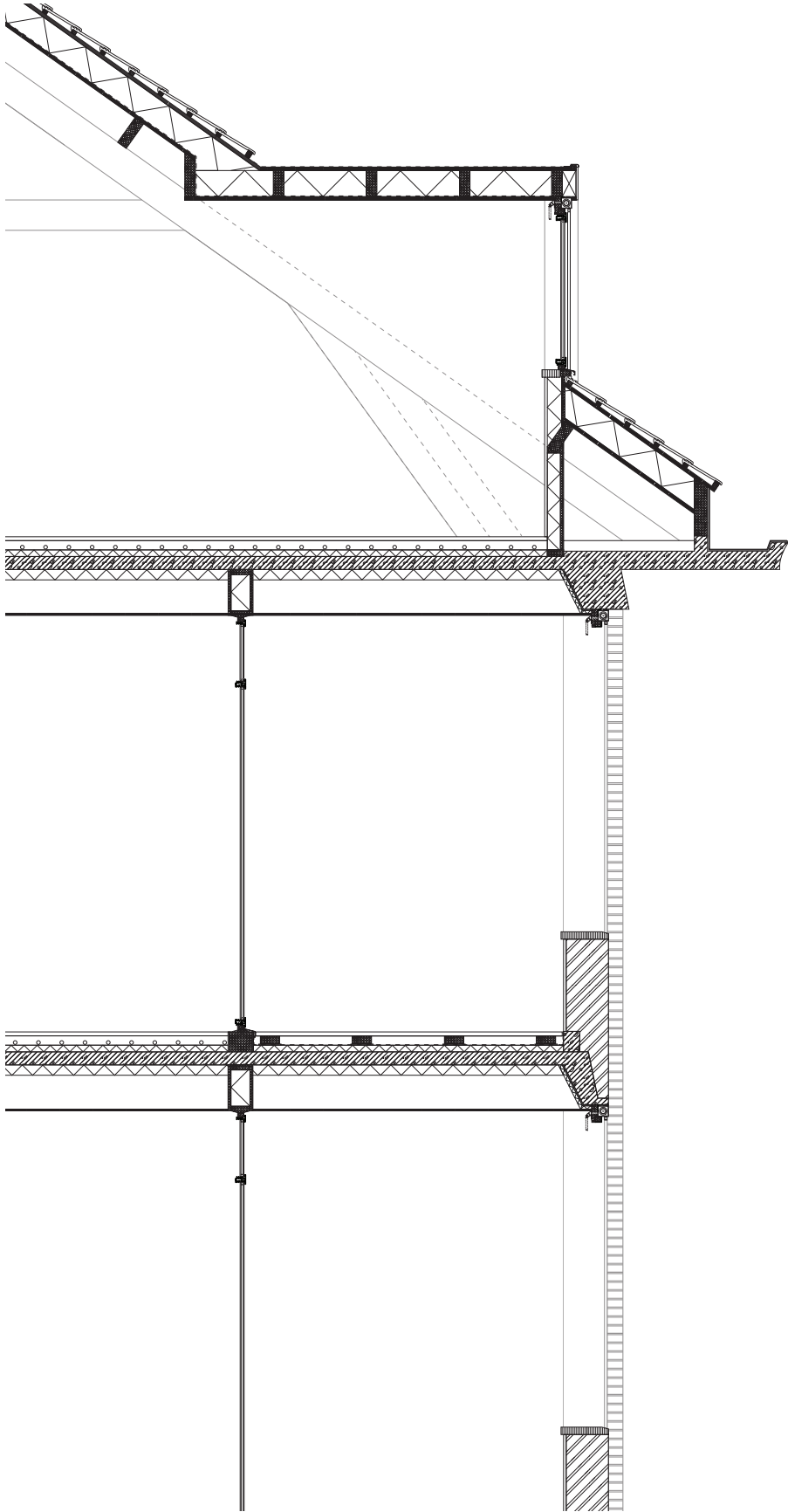
CURRENT SITUATION



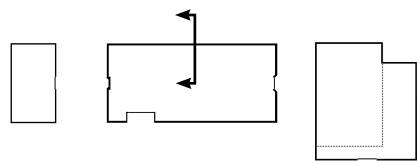
SECTION & ELEVATION



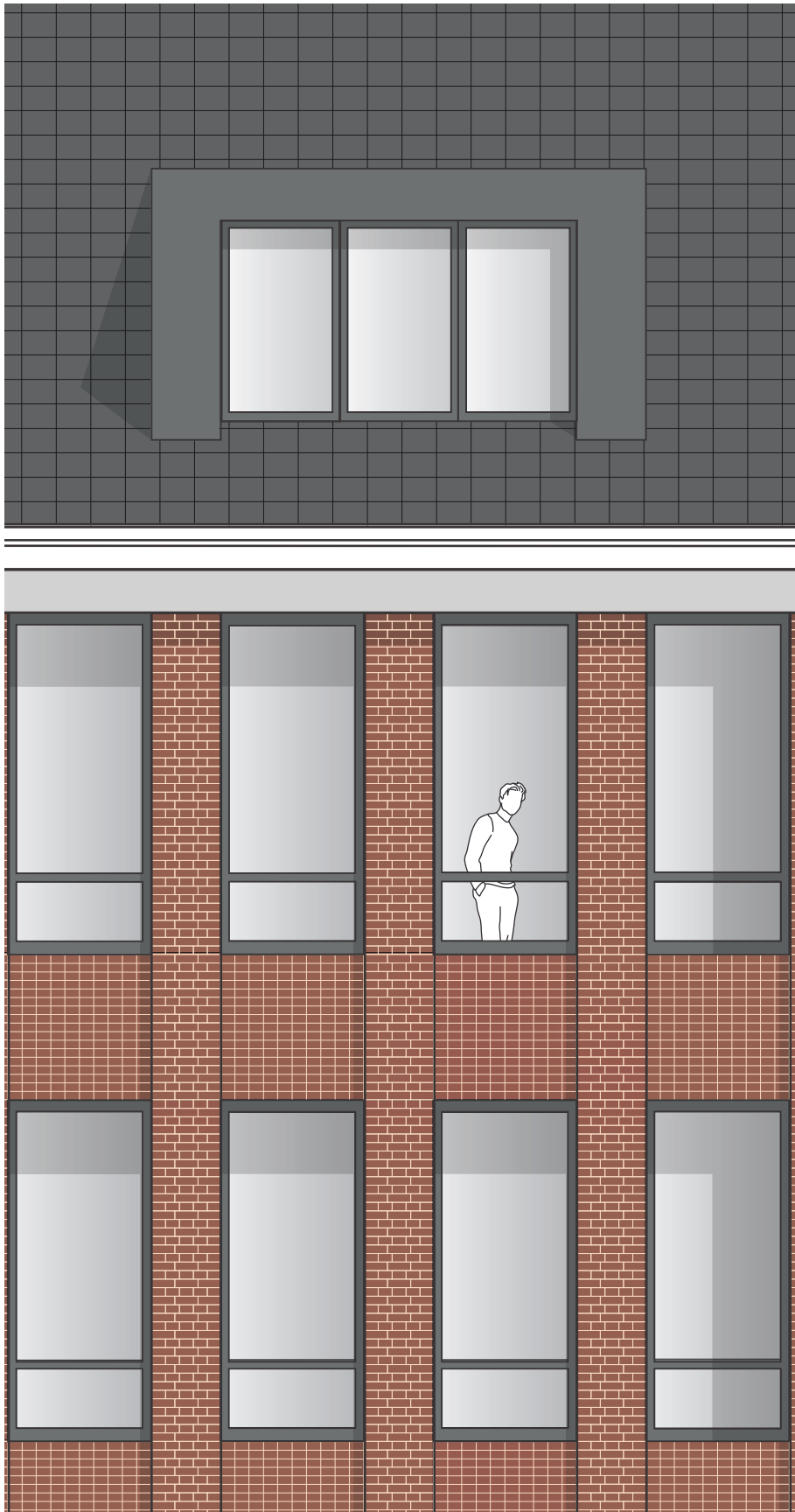
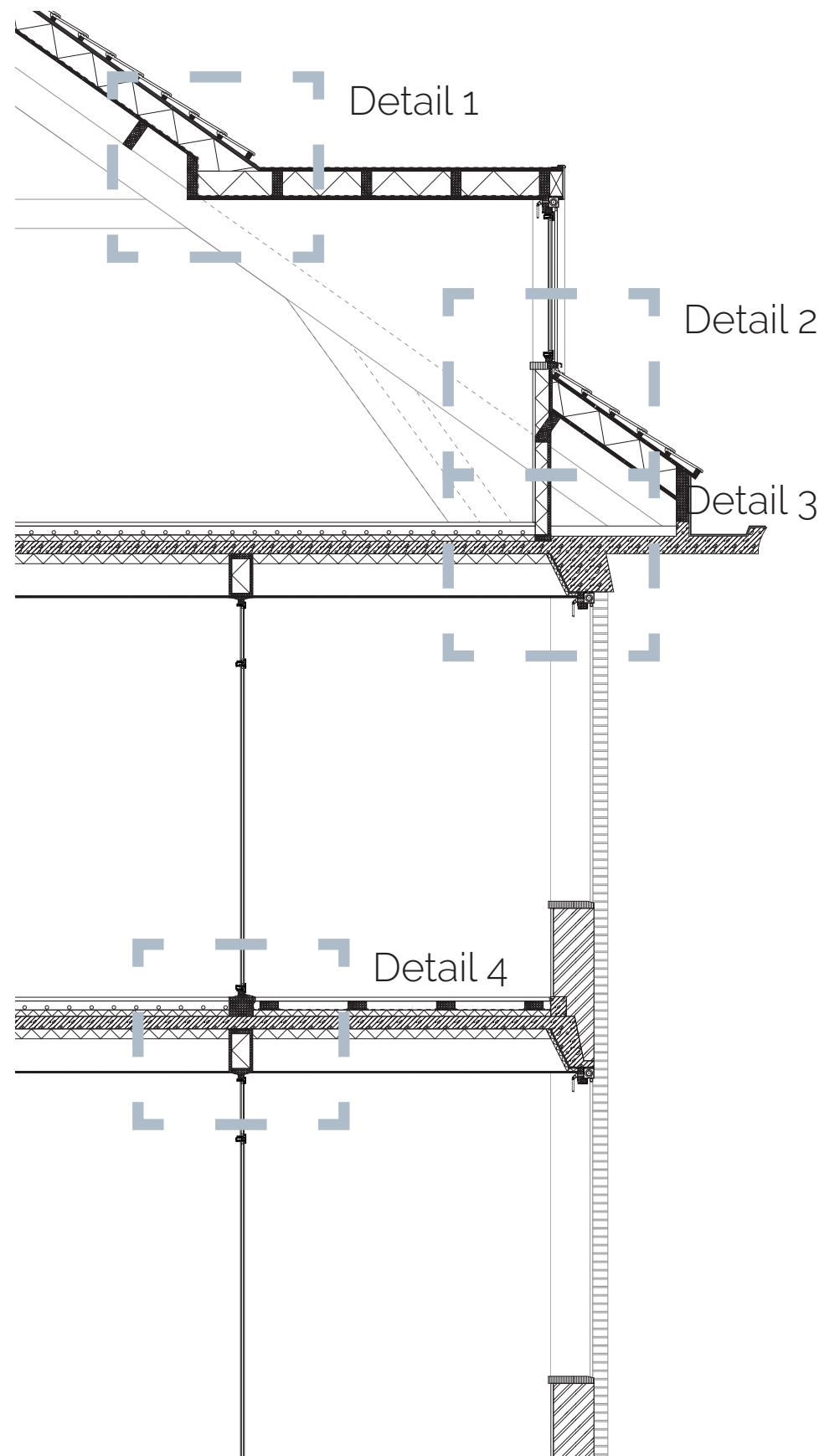
NEW SITUATION

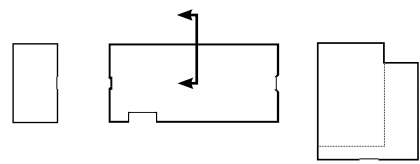


SECTION & ELEVATION

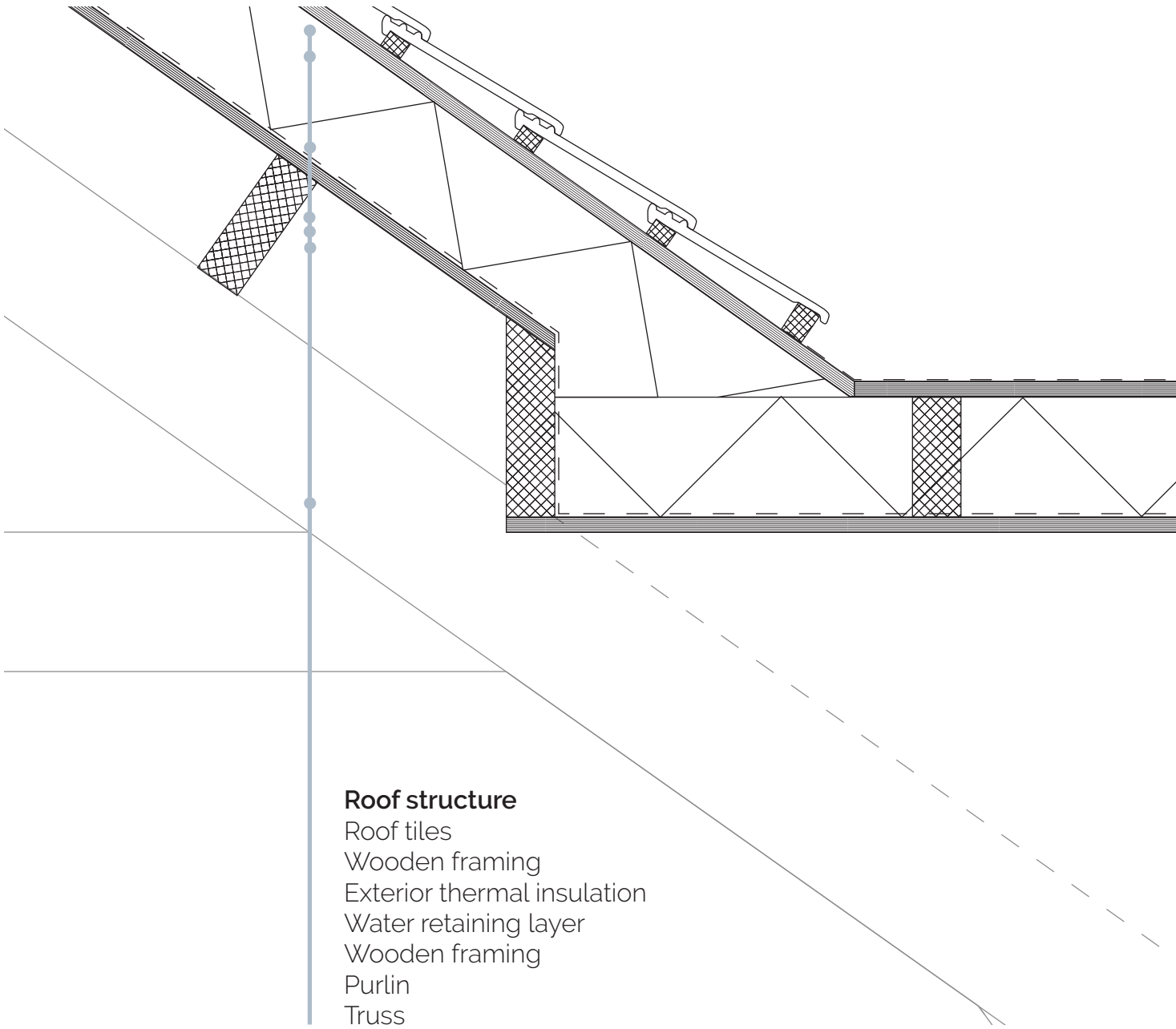
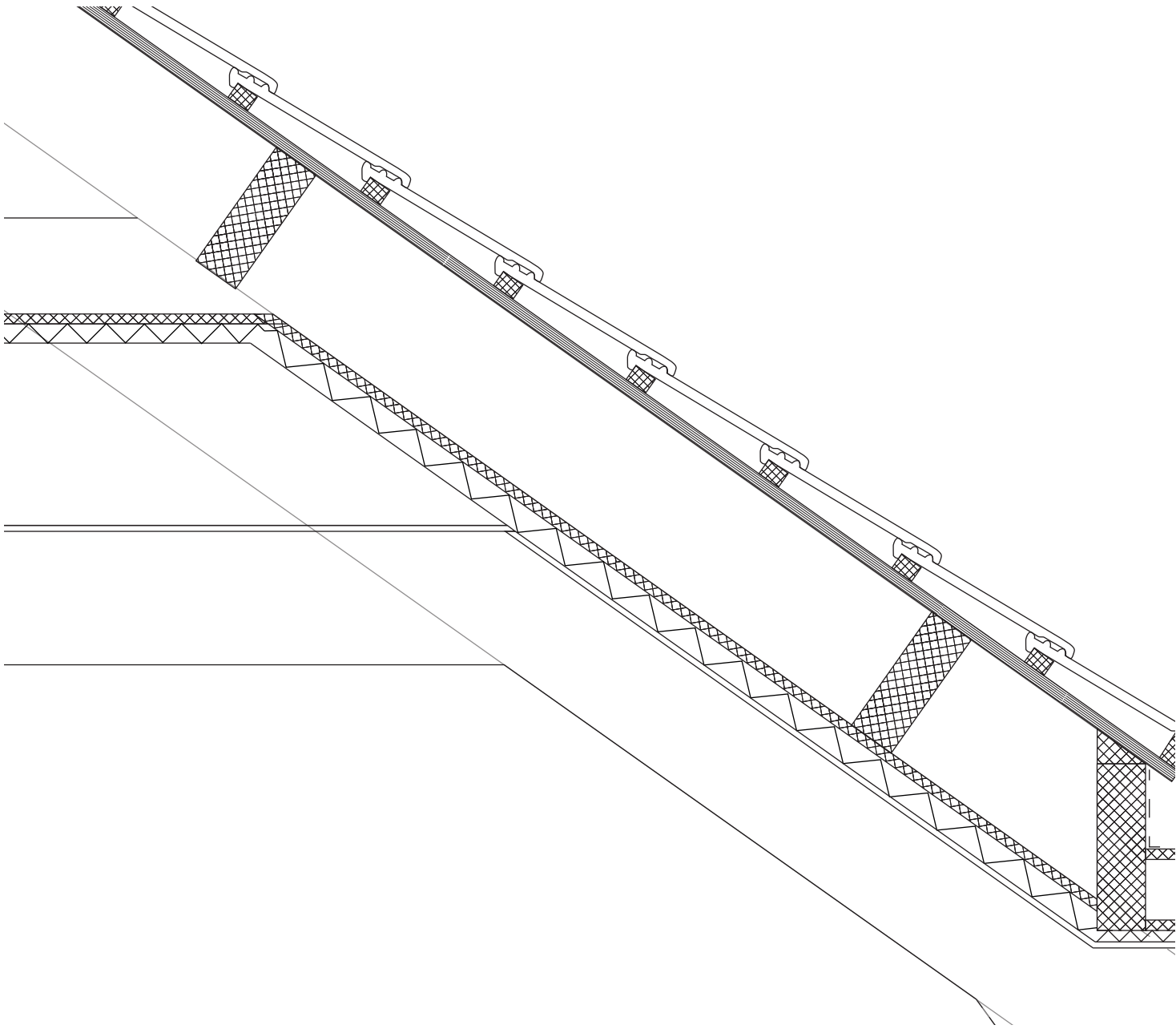


NEW SITUATION

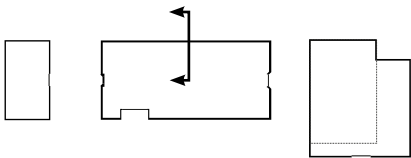




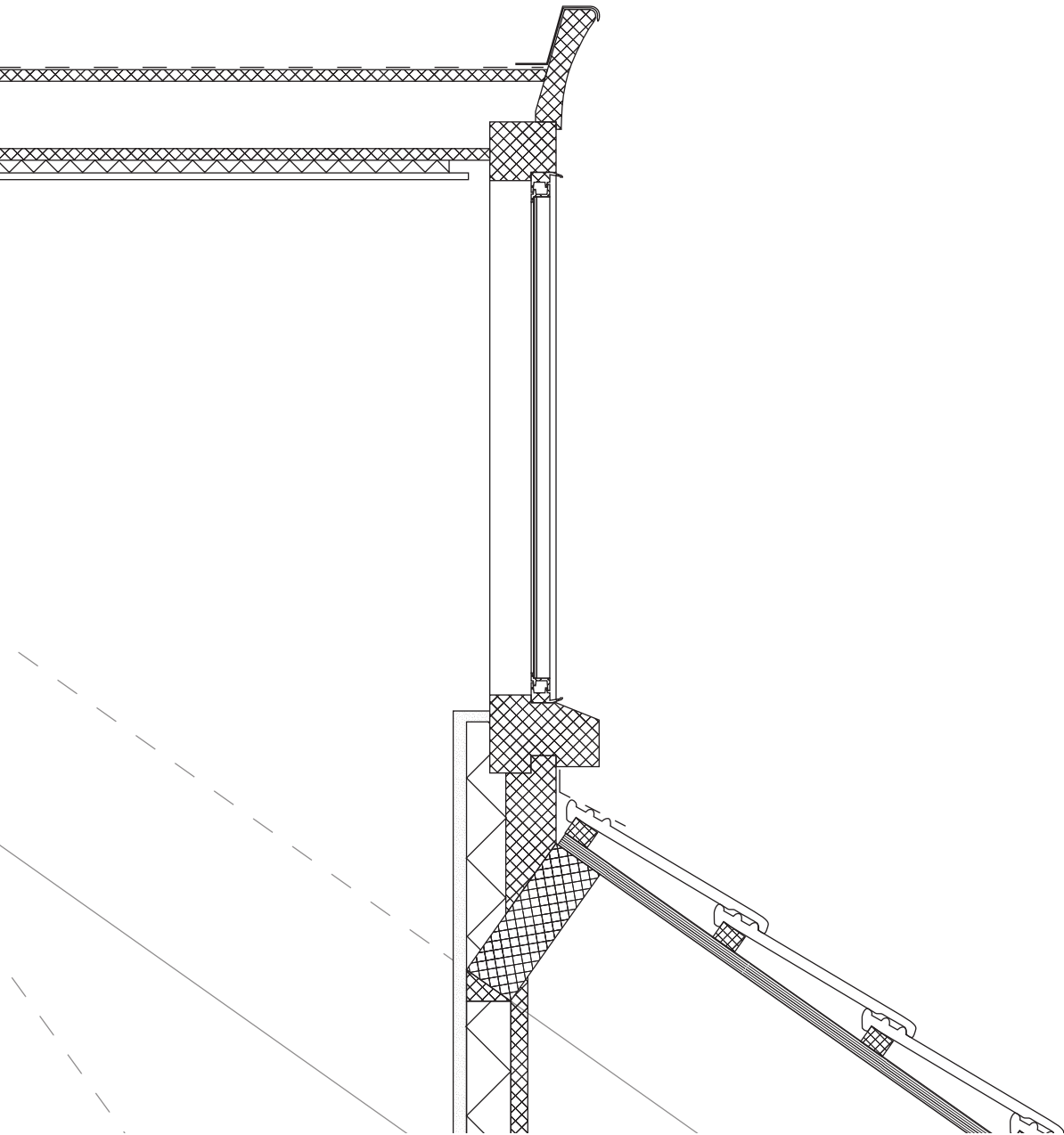
DETAIL 1



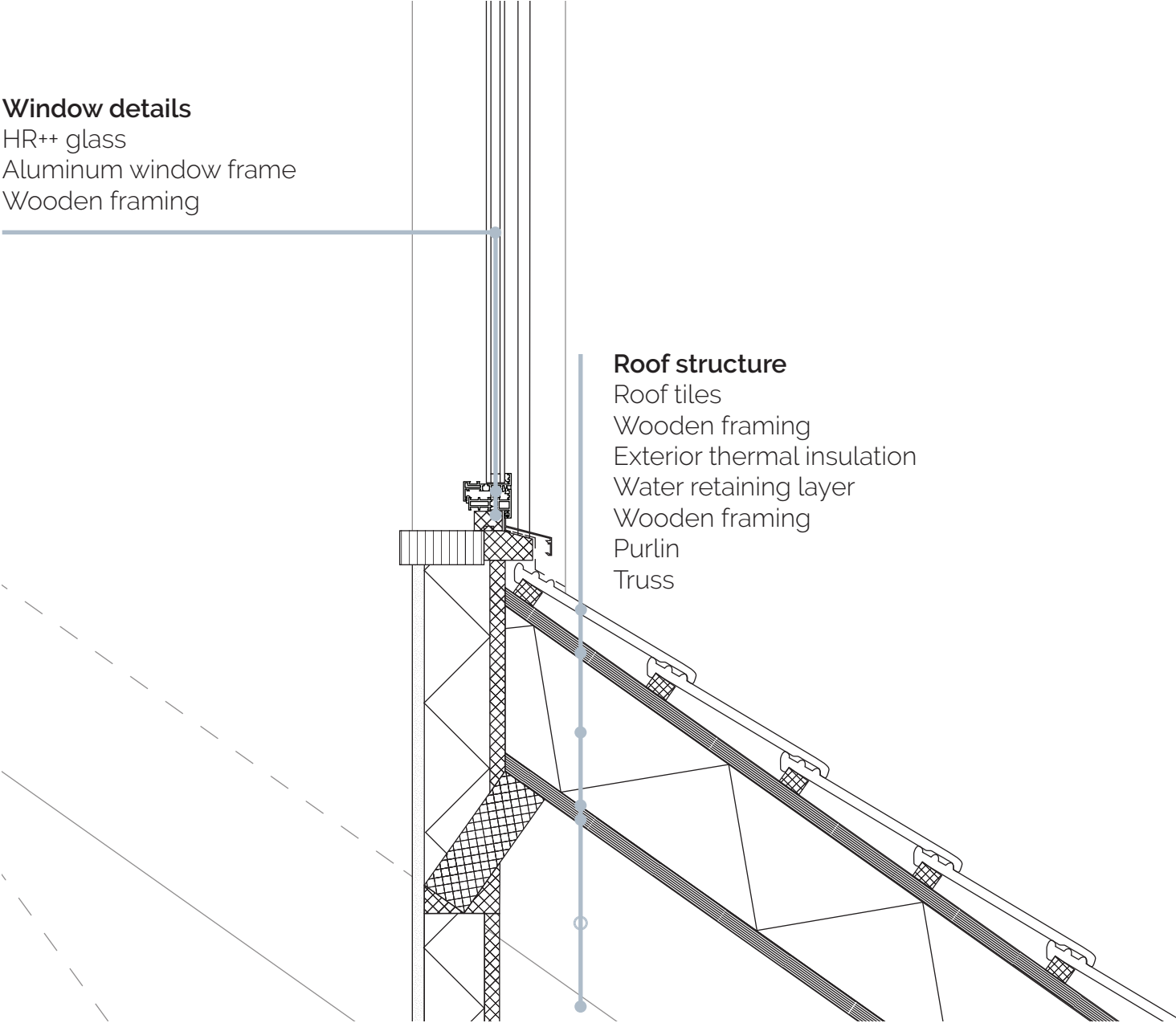
- Roof structure**
- Roof tiles
 - Wooden framing
 - Exterior thermal insulation
 - Water retaining layer
 - Wooden framing
 - Purlin
 - Truss



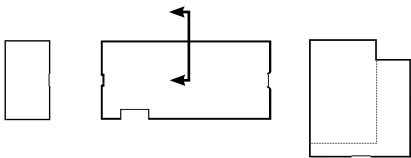
DETAIL 2



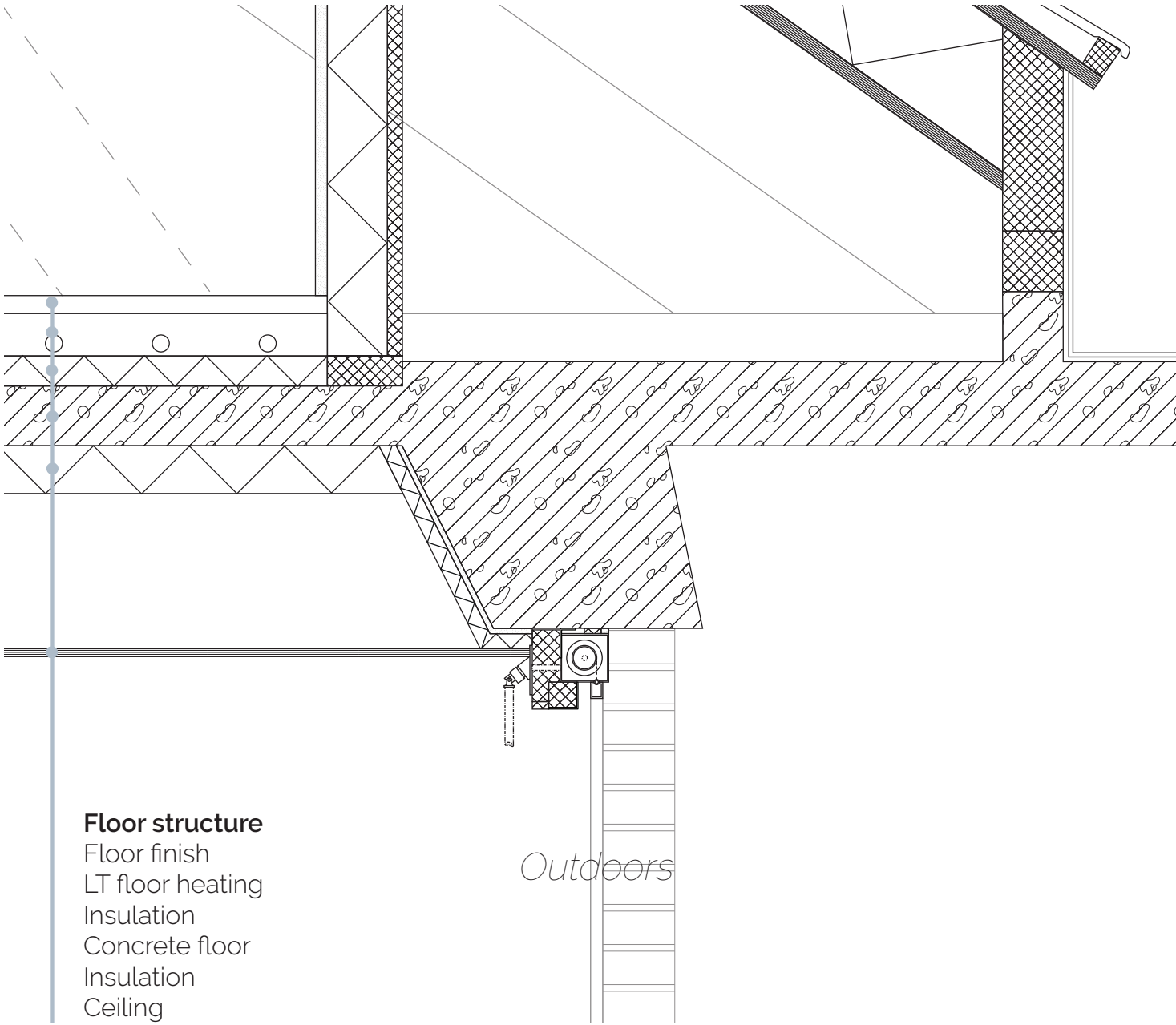
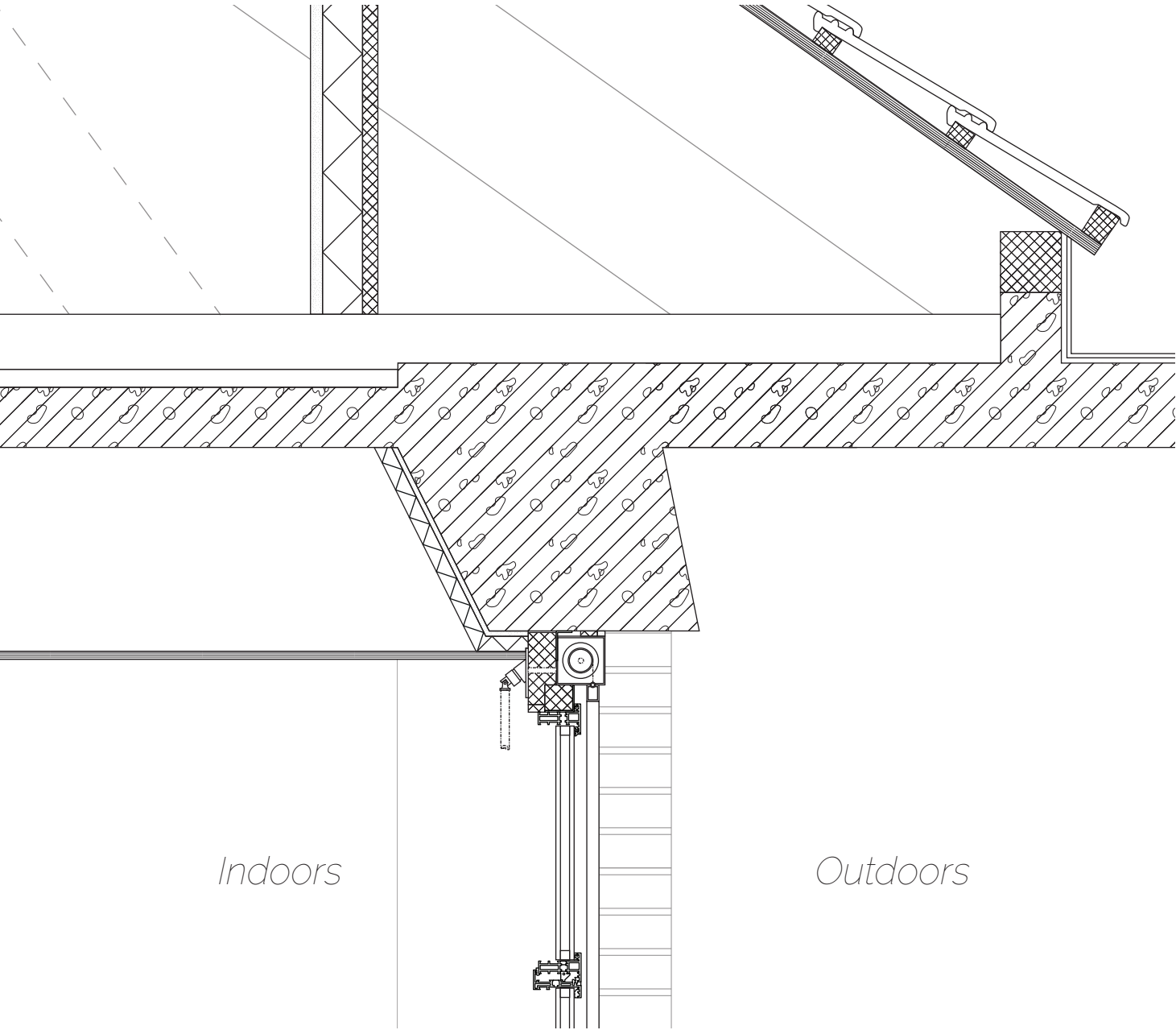
Window details
HR++ glass
Aluminum window frame
Wooden framing

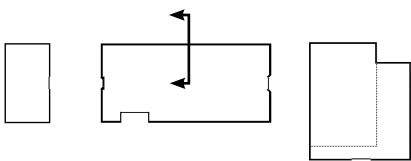


Roof structure
Roof tiles
Wooden framing
Exterior thermal insulation
Water retaining layer
Wooden framing
Purlin
Truss

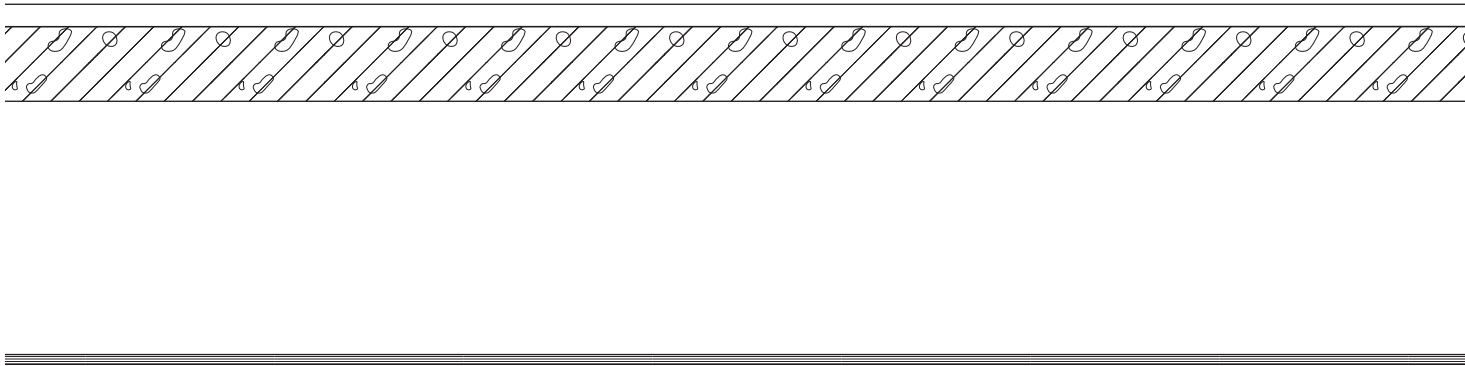


DETAIL 3



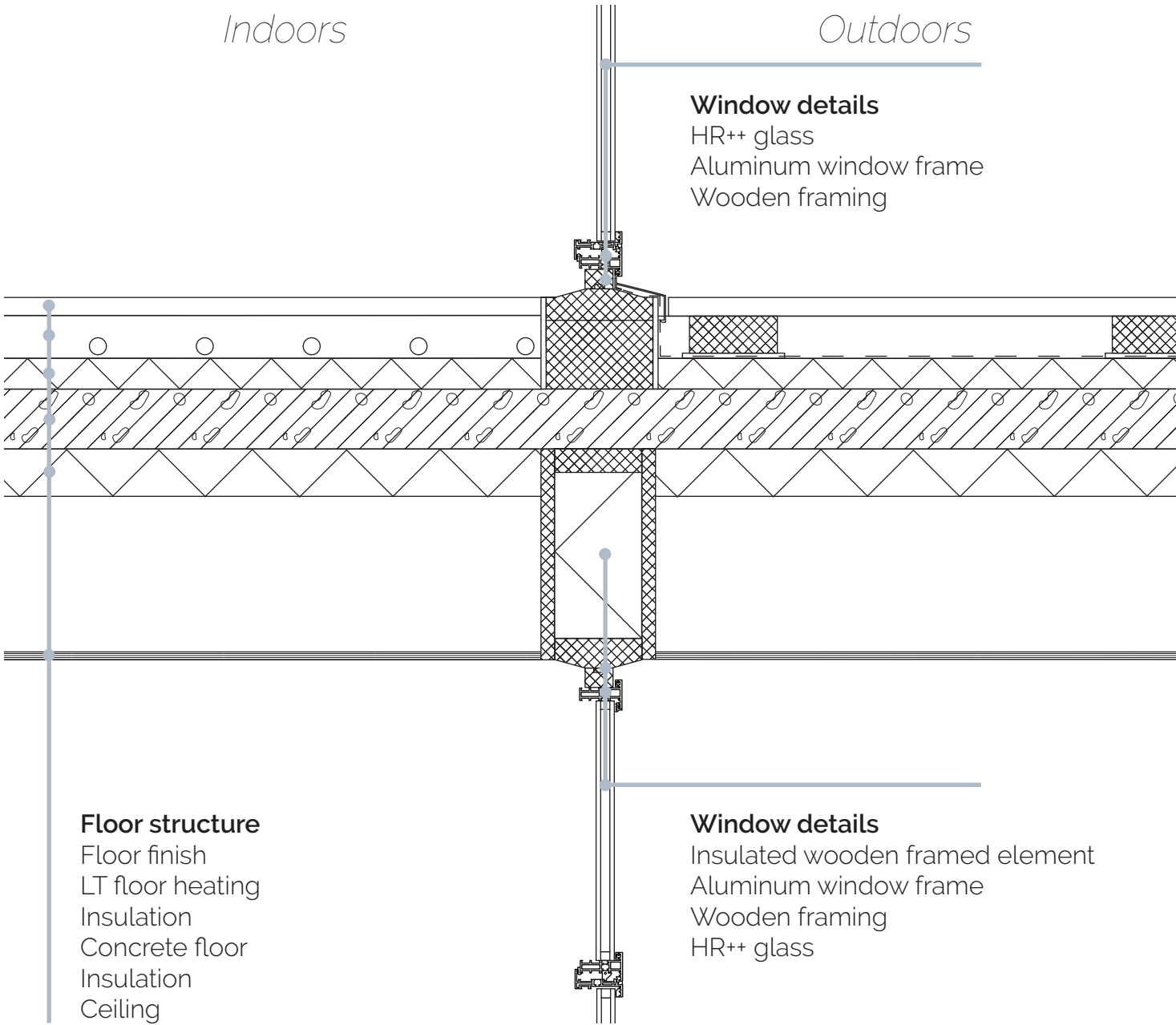


Indoors



Indoors

Outdoors



Floor structure
Floor finish
LT floor heating
Insulation
Concrete floor
Insulation
Ceiling

Window details
Insulated wooden framed element
Aluminum window frame
Wooden framing
HR++ glass

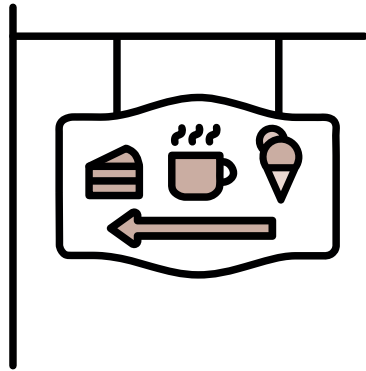
CONCLUSION

MAIN QUESTION

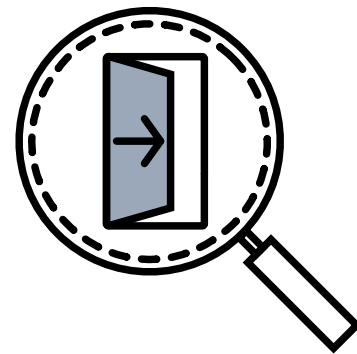
*What is the influence of the **materiality** on **people's perception** of the **in-between spaces** of the Rotterdam Harbour Police Station and how can this be used as input for the redesign?*

CONCLUSION

INVITING PLINTHS



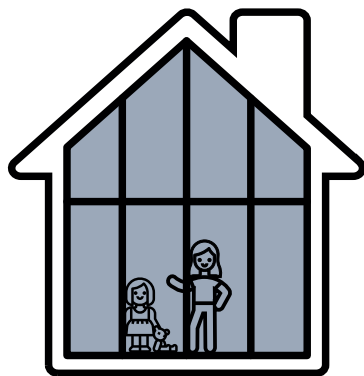
Evidency of public program



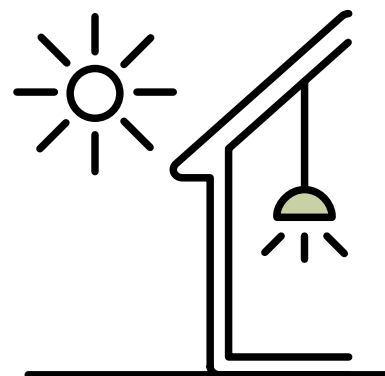
Clearly visible entrance



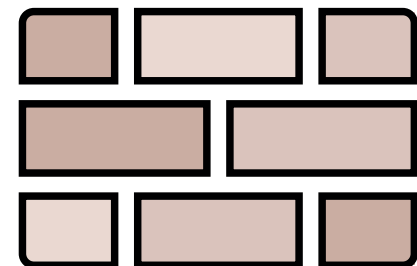
Easy entering



Transparency & openness



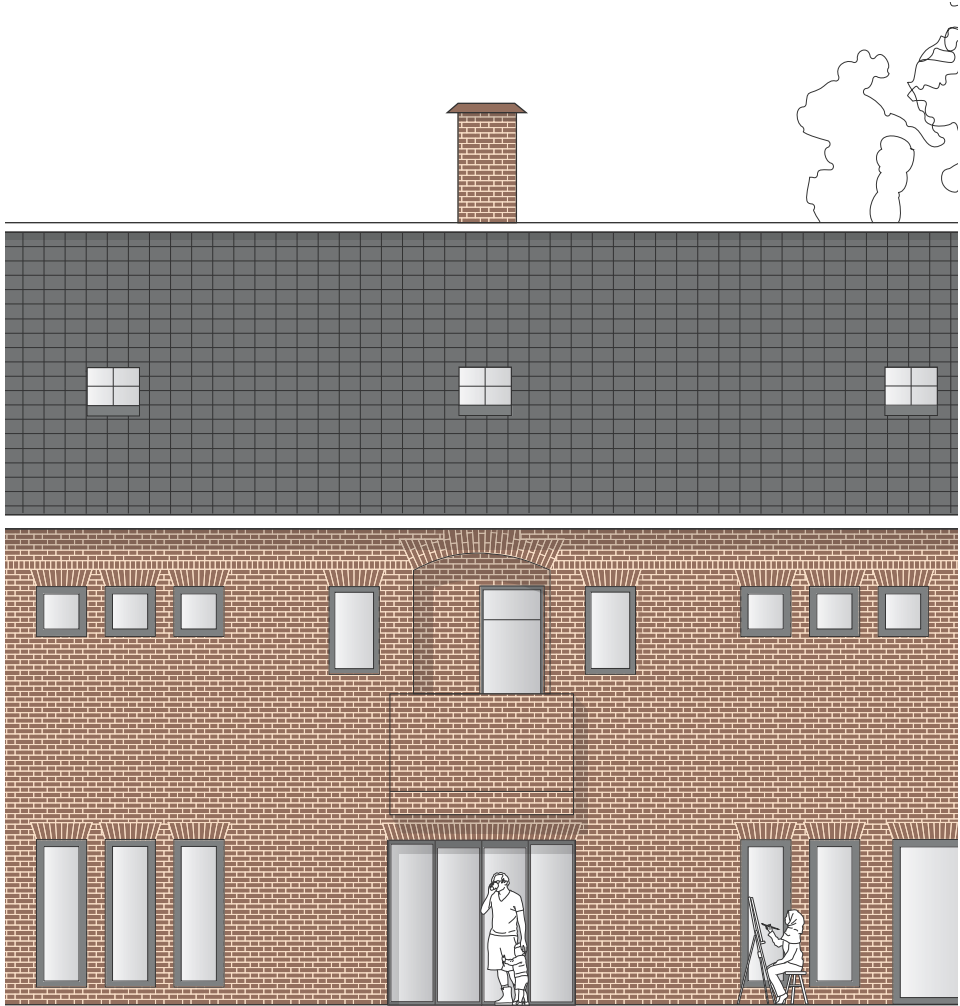
Good lighting



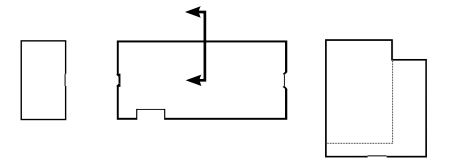
Warm colours & materials

CONCLUSION

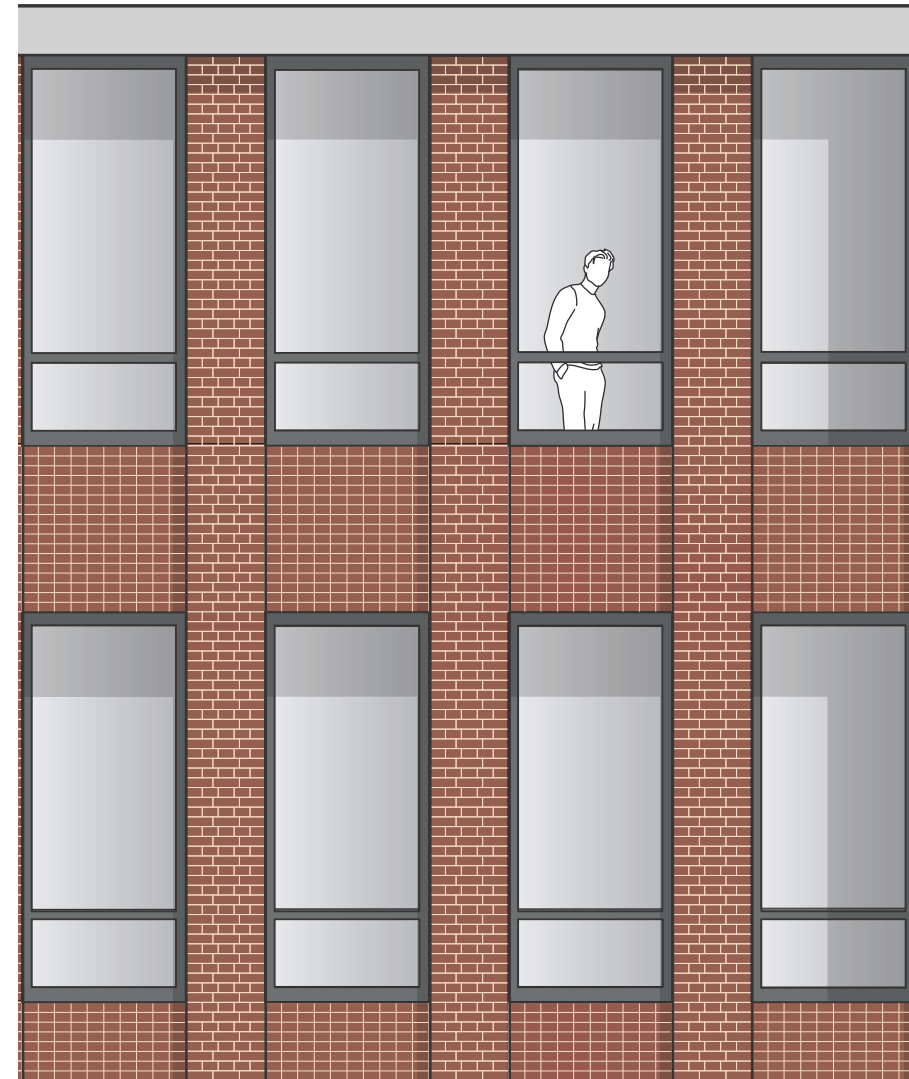
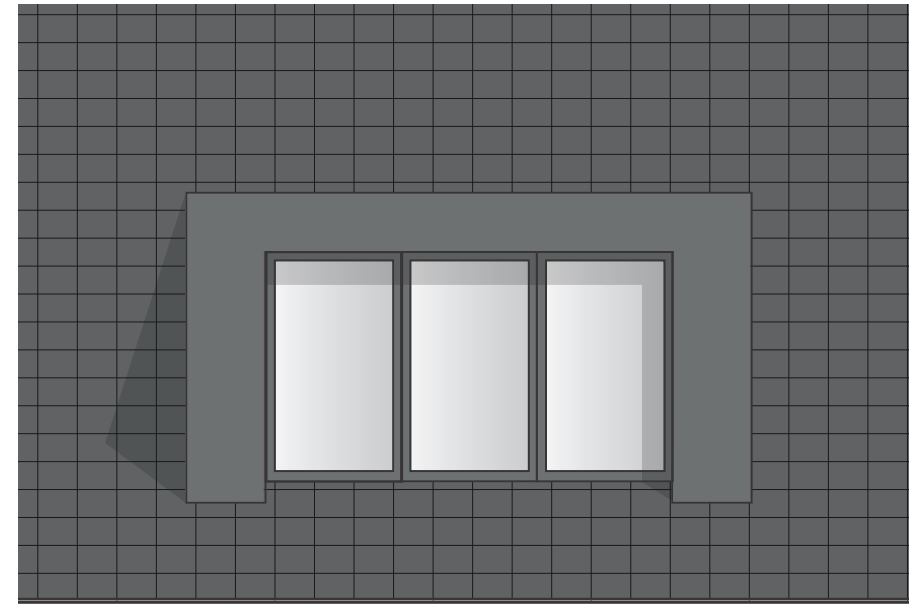
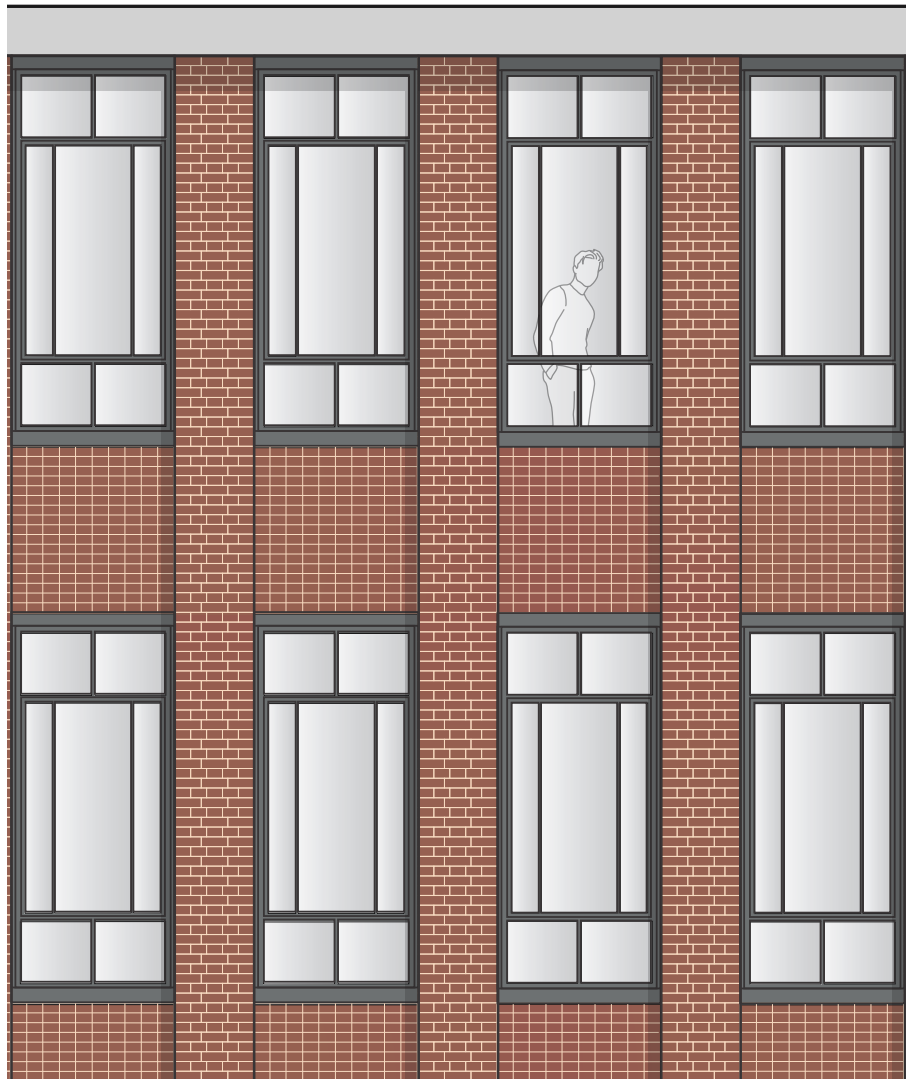
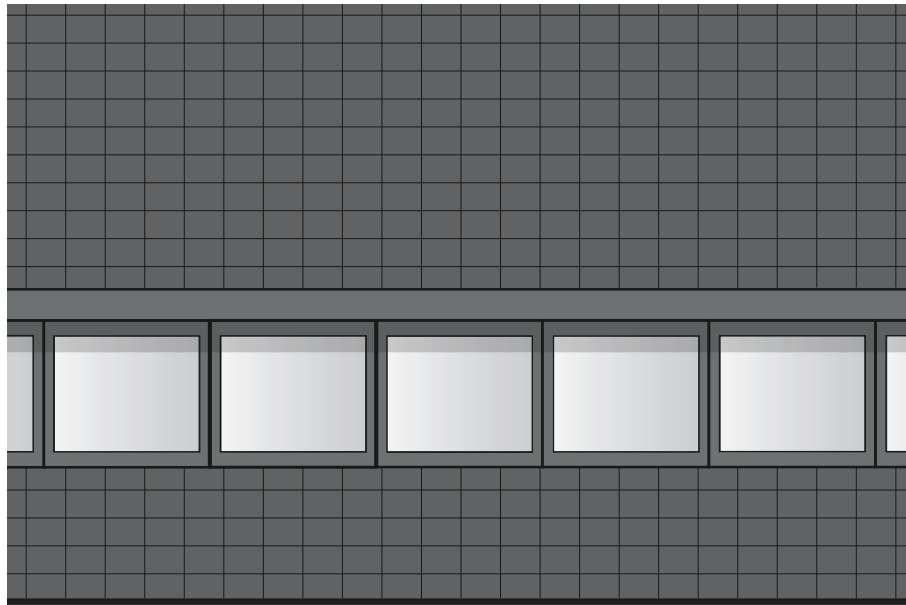
INVITING PLINTHS



CONCLUSION



STRENGTHENED INDOOR-OUTDOOR RELATION



REVITALISING THE PLINTH

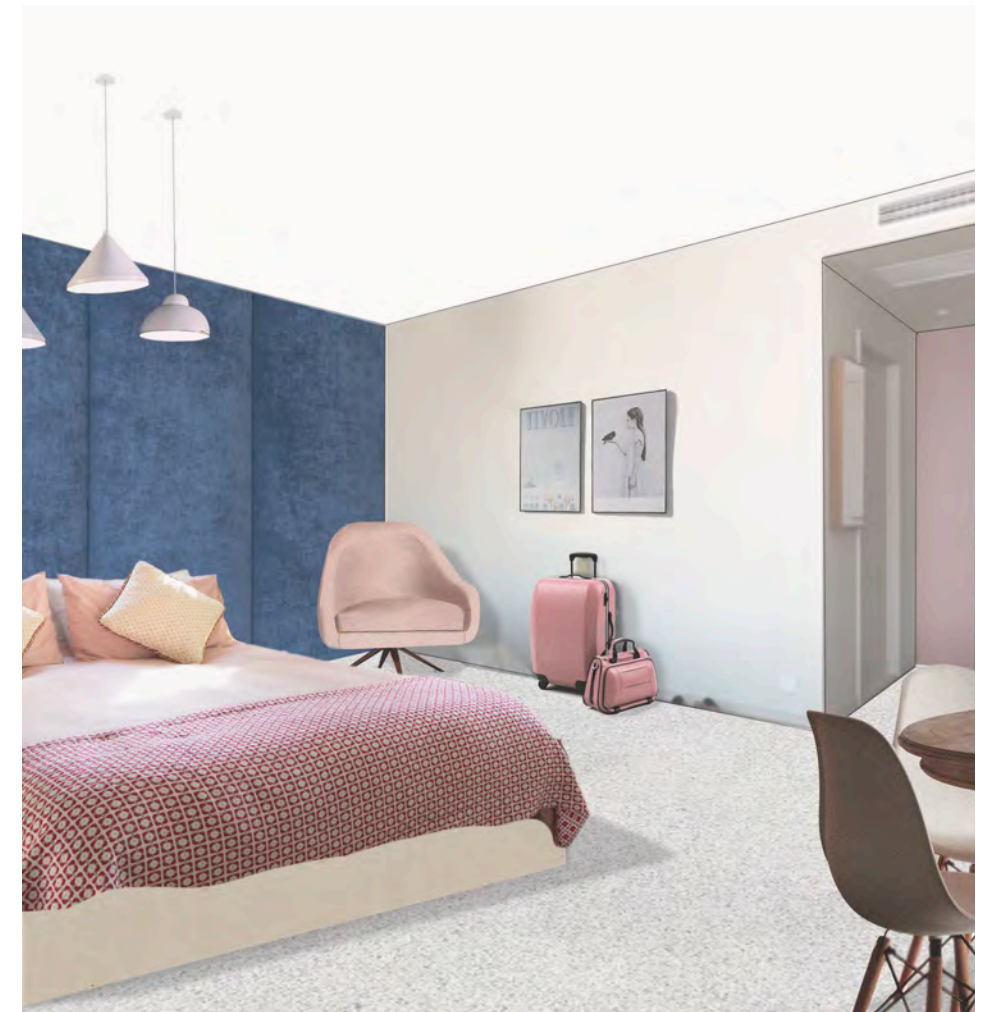
THANK YOU



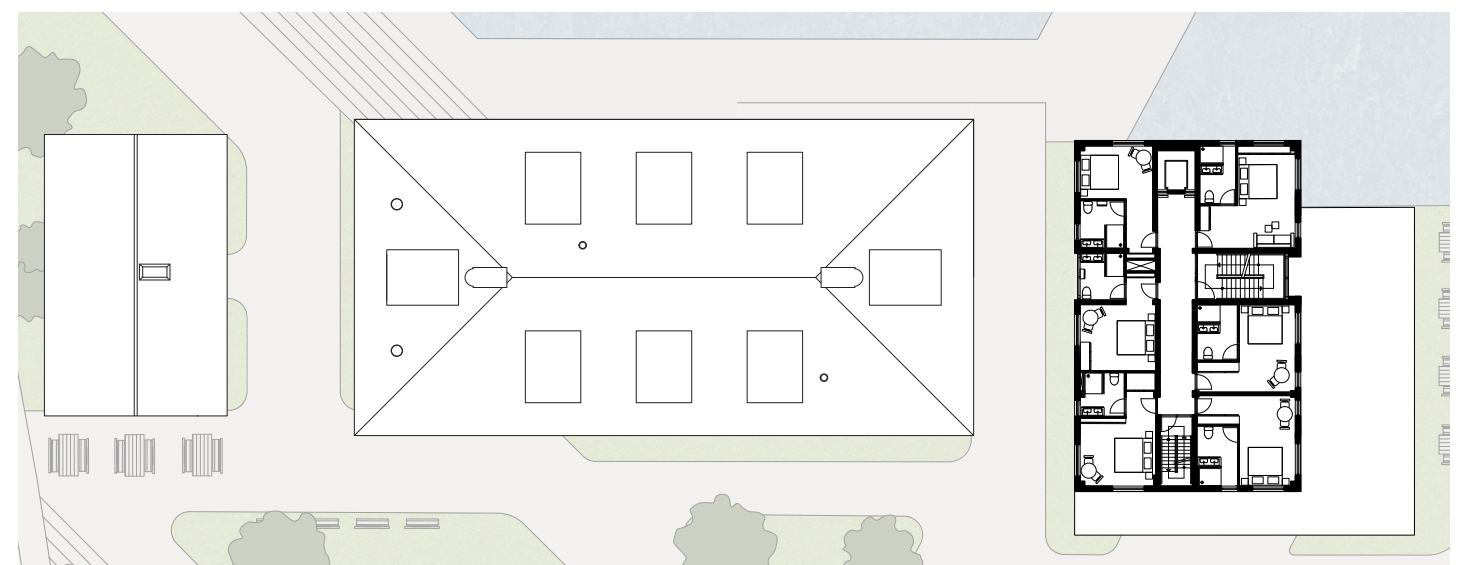
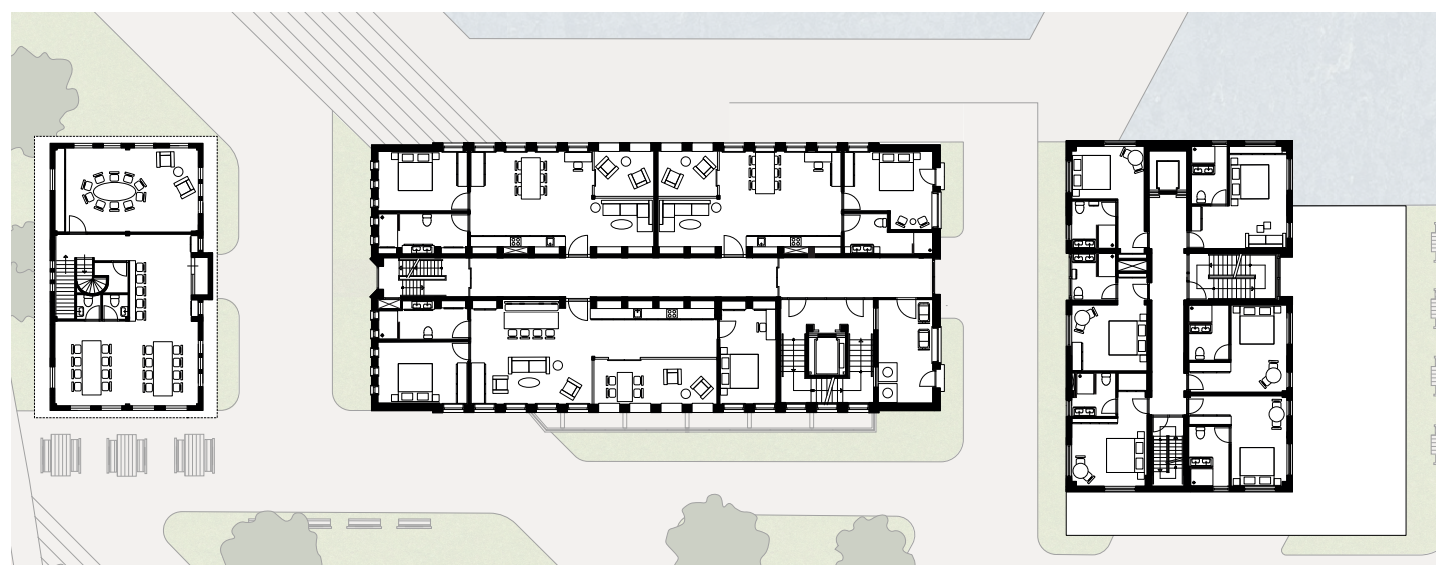
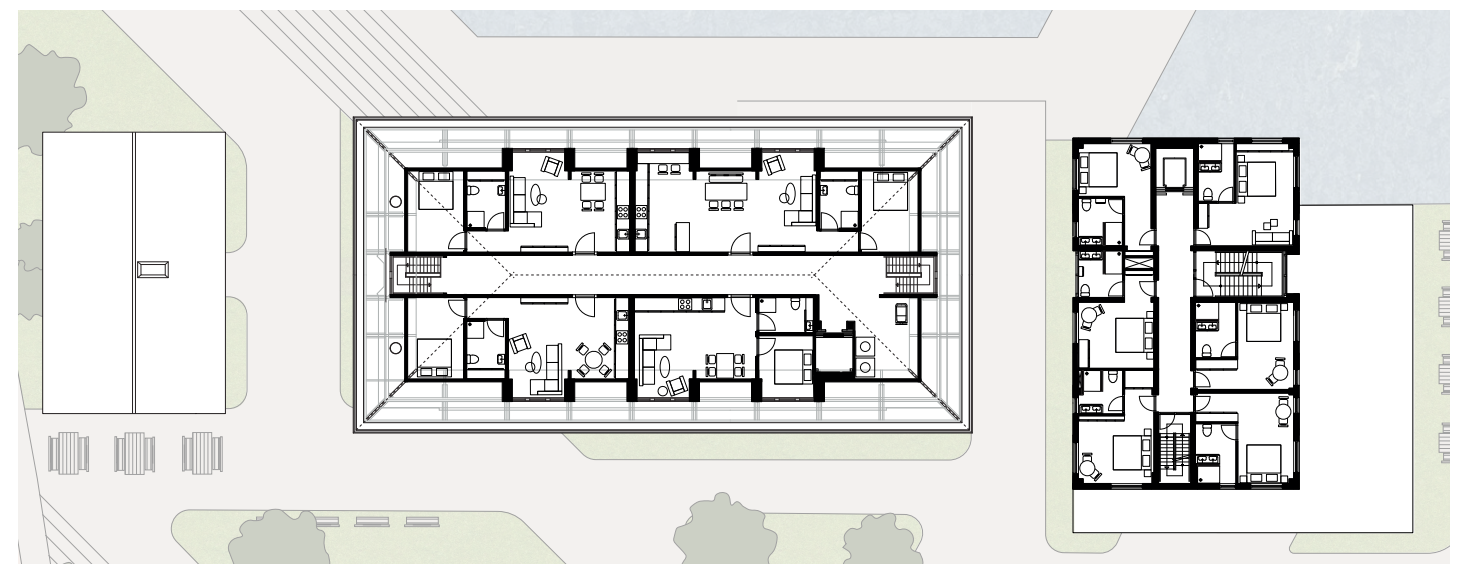
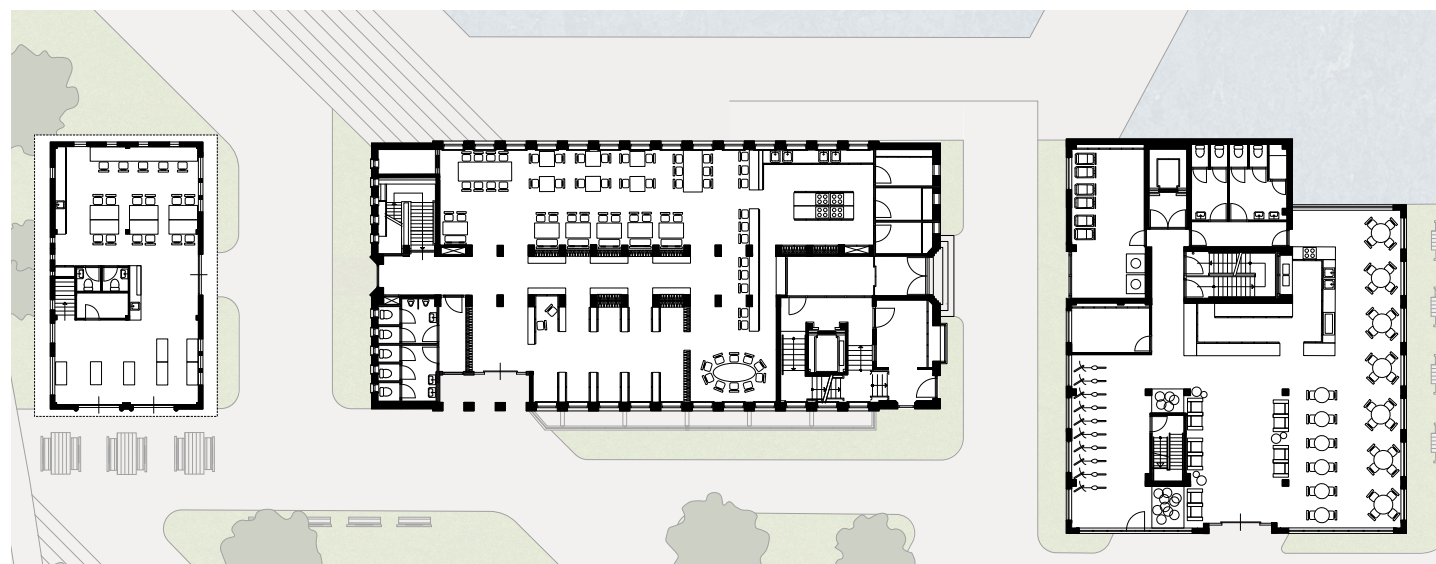
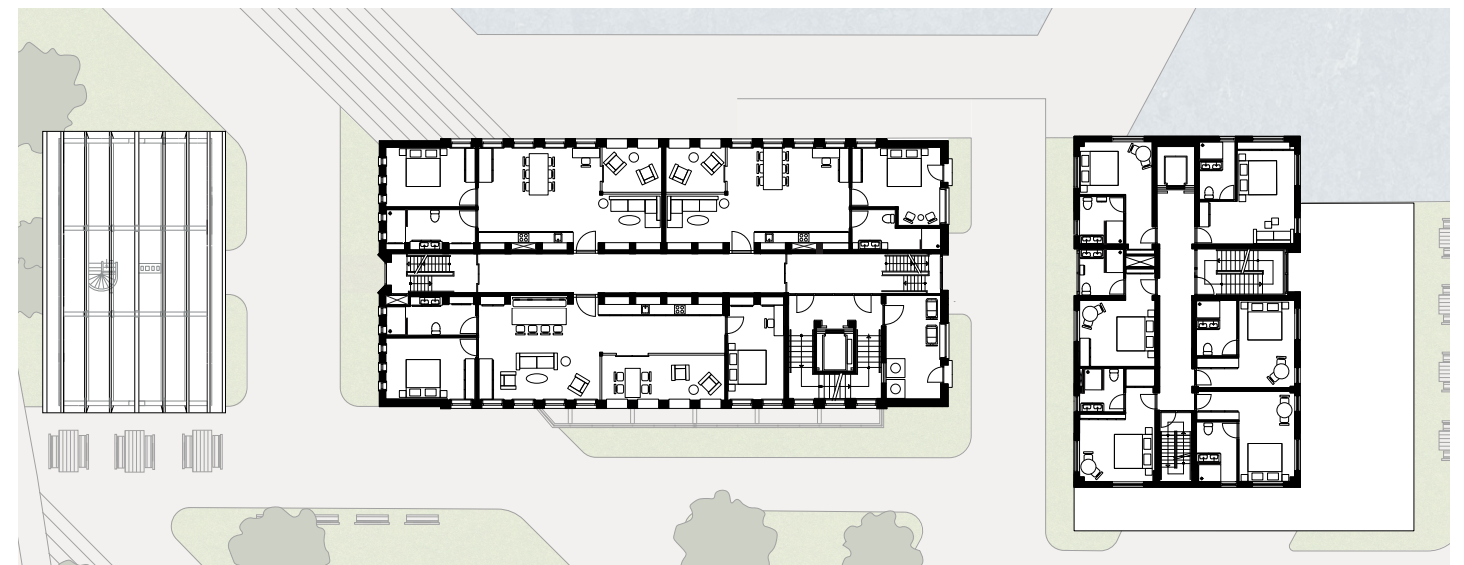
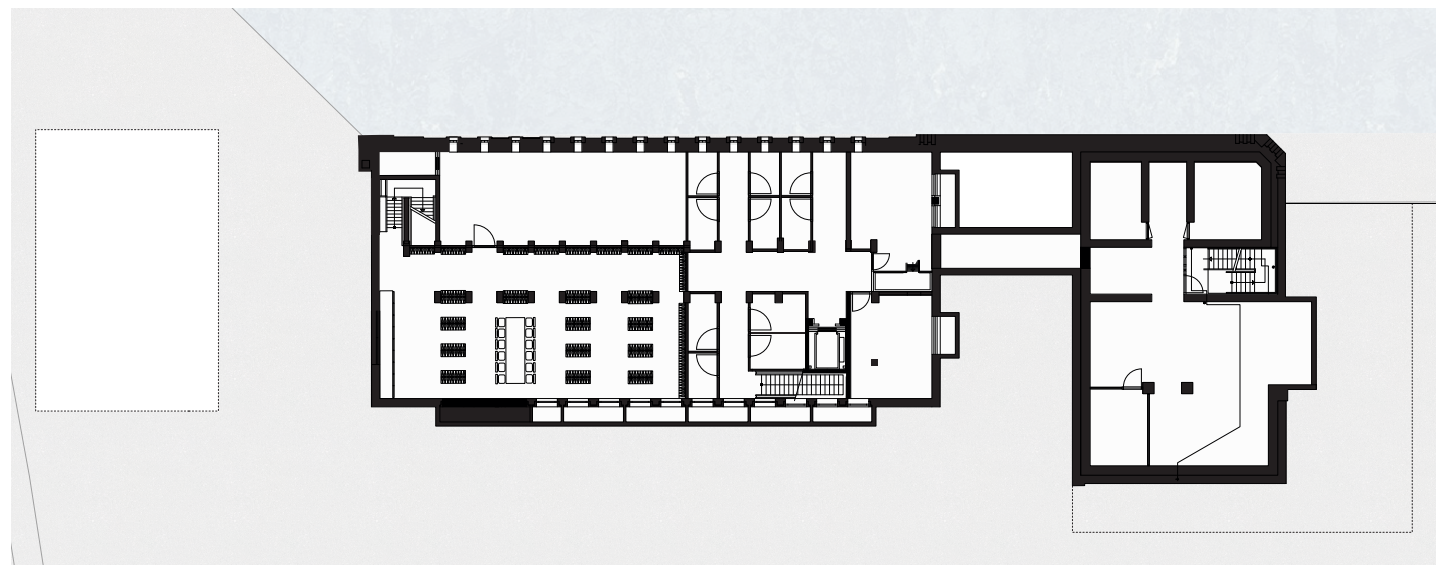
ADDITIONAL SLIDES

INTERIOR

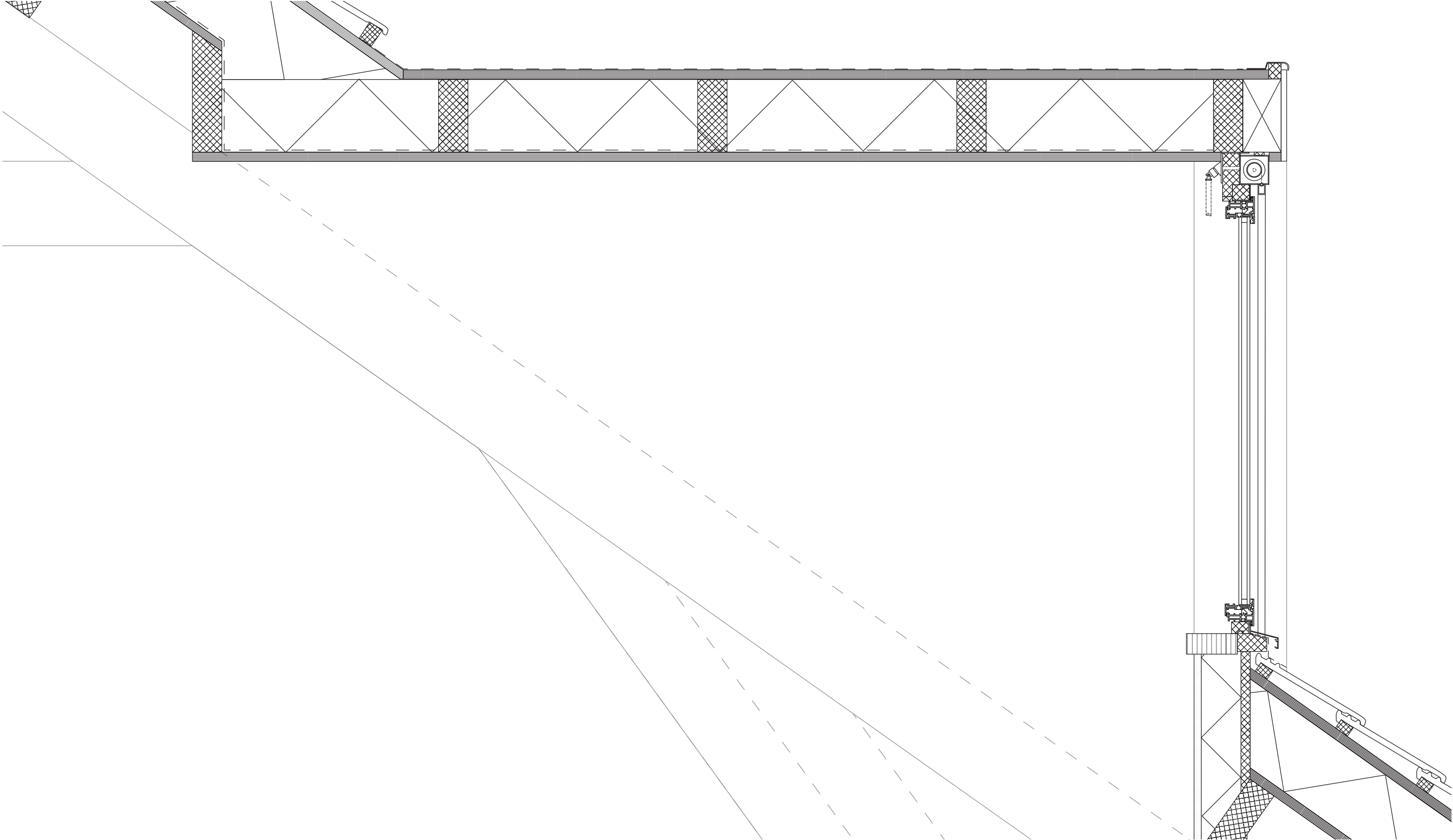
IMPRESSIONS

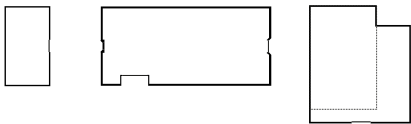


FLOOR PLANS



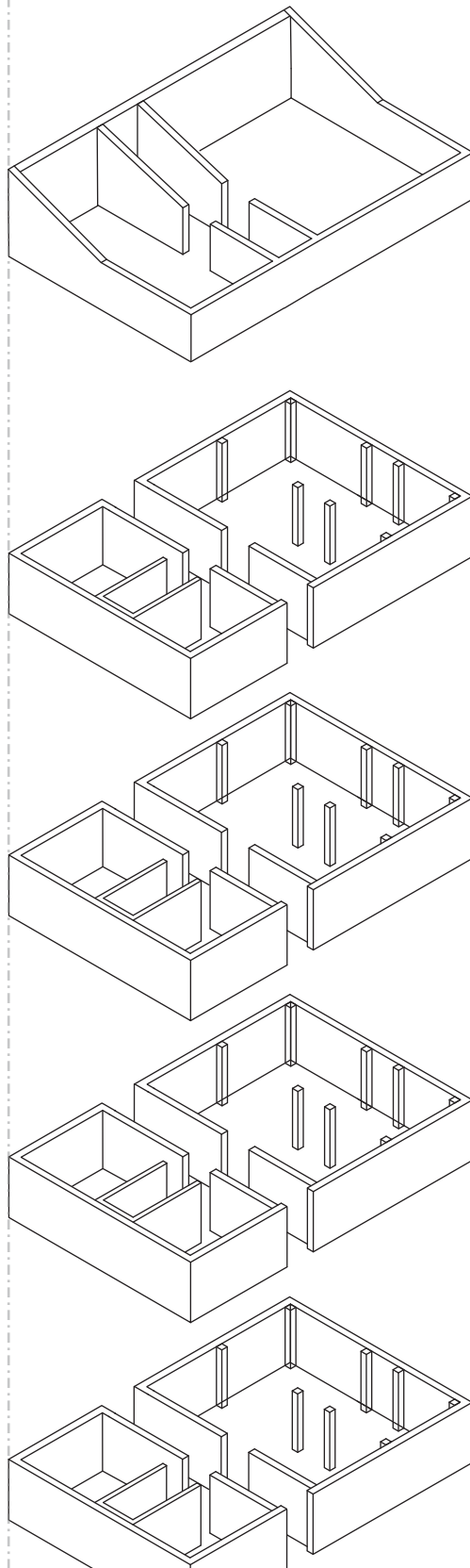
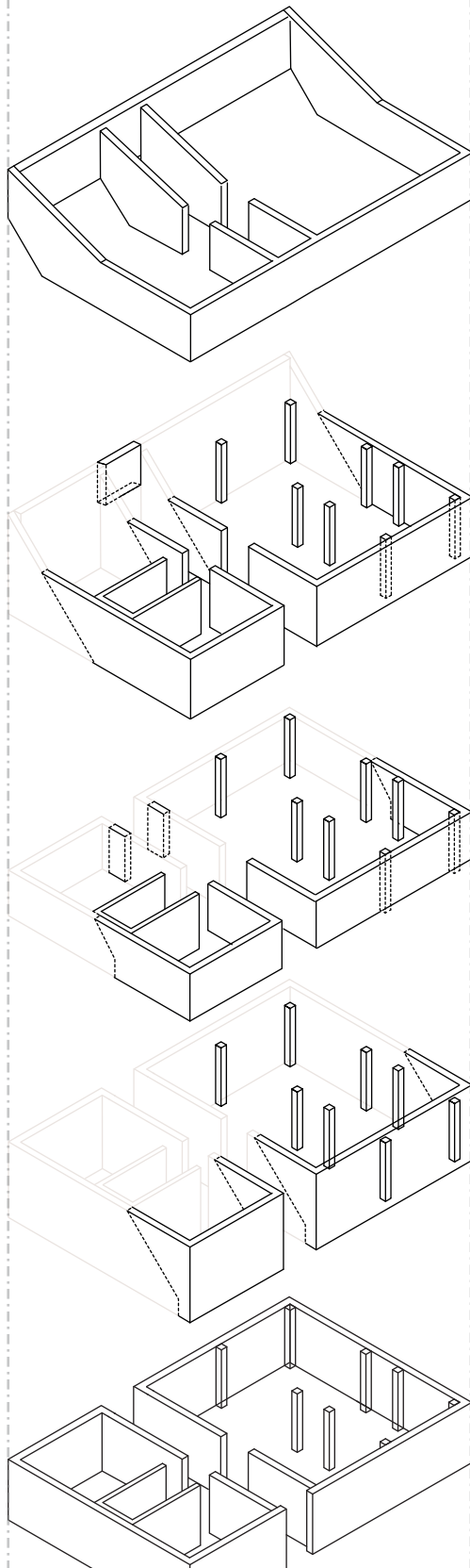
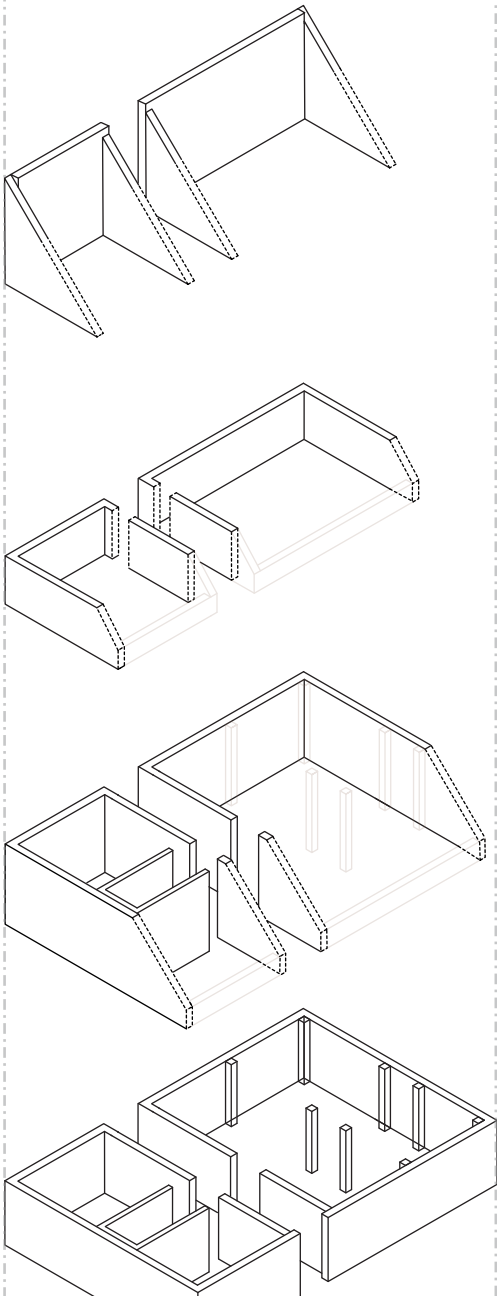
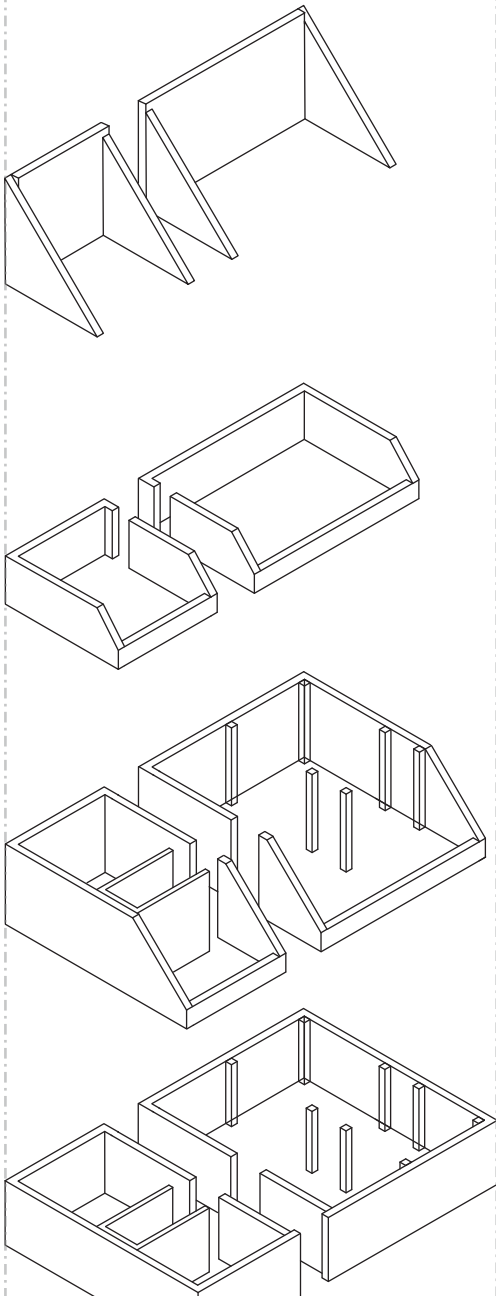
DETAIL 1 + 2





1994 TOP EXTENSION

- 1. Current situation
- 2. Removal of elements
- 3. Added construction
- 4. New situation



URBAN MASTERPLAN REFERENCES

ENTRANCE AREA SCHIEMOND

