Nobel Center, Stadsgårdskajen

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An exploration of the spatial and expressive identity of the Nobel Prize in the form of a public building

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Department of Architecture and Civil Engineering

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Examiner: Mikael Ekegren

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for their economic contribution allowing for study visits at several Swedish public buildings from the 20th century.

Abstract

The Nobel Prize has, since its birth in the beginning of last century, grown to become a vital part of our culture, not only in Sweden, but also in the world. On the one hand it awards those who "*has conferred the greatest benefit of mankind",* and on the other hand it spreads new knowledge to the society. Its vision is to work for the good of humanity. As the subject areas of The Nobel Prize offer a wide range of perspectives, a Nobel Center has the potential in bridging gaps between different disciplines.

Plans on a Nobel Center in Stockholm, a building dedicated to the spirit and whole idea of the Nobel Prize, has been existing ever since the Nobel Prize was founded in the year of 1900. In 2013 a competition was launched for a Nobel Center at Blasieholmen, however in 2018 the far developed work on a Nobel Center at Blasieholmen was appealed and cancelled. In February 2020 it was announced that the new site for the Nobel Center was to be Stadsgårdskajen, Slussen, in Stockholm.

The aim of this master thesis is to explore the spatial and expressive identity of the Nobel Prize in the form of a public building set in an urban context in Stockholm. The Nobel Prize is of both local and global concern. How a future Nobel Center communicates its identity to its local context that is Stockholm as well as its global context that is Sweden and the rest of the world, is crucial.

Within the frames of this master thesis we aim to deepen our understanding of how a materialization of a public building can be made based on the spirit and purpose of that specific institution. Furthermore our aim is to study how a public building being of both local and global concern can be materialized in way that communicates its identity and purpose to both its local inhabitants as well as foreign visitors.

Contents

Part I - Introduction

Student Background

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2018-2021	Nadén Arkitektur, Gothenburg
2018	Master Studies year 2, Chalmers, Gothenburg
2017-2018	Master Studies year 1, Konstfack, Stockholm
2017-2018	Appell Arkitektkontor, Stockholm
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A Collaboration between CTH & KTH

The following thesis project has been executed as a collaboration. A collaboration in terms of a shared project between two students, but also, between two institutions; KTH (Royal Institute of Technology) and CTH (Chalmers University of Technology).

The authors of the thesis, Fabian and Samuel, have in dialogue with respective institution been granted the possibility to work on a shared thesis project. The authors each have their separate tutor at respective faculty and are in the end graded and judged separately according to each schools submission requirements.

This being said, both authors have attended to the tutorials and presentations of both schools, and presented the master thesis project together, as one project.

Main Questions and Objectives

The objective with this master thesis is to participate and contribute to the public debate of what a public building dedicated to the Nobel Prize could be. Furthermore the aim is to revitalize the discussion of what a prominent public building is, how it is materialized and how this is communicated to the people.

With the architectural competition for a Nobel Center that was held in 2013 an intense public debate followed that eventually scratched the plans for a Nobel Center at Blasieholmen. Although the juridical conditions for the new site at Slussen isn't up for debate as the legally bounding document that is the detail plan has been approved, it is hard to imagine that any building to be emerged at Slussen would go without a public debate, even less so a national and international concern that is the Nobel Center. As most Swedes are aware of, Slussen itself has for many years been subject for public debate when it comes to the reconstruction of its 21st century layout.

So, when it comes to the design of a Nobel Center at Slussen the following two questions are being raised:

-How can the spirit of the Nobel Prize be materialized into a public building in the core of Stockholm?

-How should the Nobel Center communicate its identity and purpose to its local and global context?

Method

This Master thesis is being executed through a research by design approach, in the form of studies and iterations in drawings, visualizations, 3d-models and text.

To understand the values and ideas behind the Nobel Prize and the work of the Nobel Foundation, literary studies as well as interviews has been conducted. The core values of the Nobel Prize as well as the profile of the Nobel Foundation of today, has been of interest while laying the ground work for this master thesis.

The literary studies have been complemented with study visits and reference studies of buildings relevant for this thesis.

Delimitations

This thesis aims to design a building that complies with the local regulations of the site, the spatial program specified by the Nobel Foundation, national regulations for accessibility, fire safety and with structural and tectonic feasibility.

As of yet no elaborated building proposal has been made for the site at Slussen, therefore the spatial program has not yet been clearly identified. Due to the size of the site at Slussen there is no ambition from the Nobel Foundation to hold the prize ceremony in the building at Slussen. The spatial program used for this master thesis is a modified version of the spatial program used in the competition for a Nobel Center at Blasieholmen, adapted for the current site at Slussen.

This thesis does not question the choice of site for the Nobel Center, nor does it question the spatial program defined by the Nobel Foundation for the competition at Blasieholmen. It does however approach the site and spatial program in a critical way as part of the design process.

Contact has been kept on a continuous basis with the CEO at the Nobel Foundation, project-coordinator for the New Slussen Project as well as structural engineers at PLU, KTH and Chalmers.

Theory

The theoretical part of this master thesis has its base in two themes: the public building as typology and how its purpose is manifested through its structural system. Used references are on the one hand the three competition proposals that were developed in the second stage of the competition at Blasieholmen, and on the other hand three Swedish public buildings from the second half of the last century; Eslöv Medborgarhus by Hans Asplund, Lund Stadshall by Klas Anshelm and Stockholm Kulturhus by Peter Celsing. The studies have been conducted through drawings, images and site visits.
The second theme, purpose in relation to structural system, has been developed through a continuous dialogue with structural engineers at Chalmers and KTH.

Reading Instructions

The thesis booklet is divided in three parts. In “Part I” the reader is given the background for the thesis; site, program and subject. “Part II” presents the references used in this master thesis. It is a kind of formulation of thoughts on subjects that has been of significance during the design process. The aim with this chapter is to widen the discussion of the posed thesis questions and put them in relation to other built and un-built references. “Part III” presents the developed design proposal. This part is presented by means of drawings, images and diagrams.

The Nobel Prize

The Nobel Prize springs from the last will and testament of the inventor, industrialist and entrepreneur Alfred Nobel. Nobel, the person standing behind multiple patented ideas from the 17th century, dynamite being one example, wrote in his testament that the major part of his fortune was to be used in order to award those who ”had conferred the greatest benefit of mankind”. These awards would be distributed within five different fields; physics, chemistry, physiology or medicine, literature and peace. The Prize in physics and chemistry were to be delivered by the Swedish Royal Academy of Sciences, that in physiology or medicine by Karolinska Institutet, the literature prize by the Swedish Academy and the peace prize through a committee appointed by the Norwegian Stortinget. (Nobelstiftelsen, 2013)

After Nobel’s death in 1986 it took some time before the Nobel Foundation was finally founded in 1900. The objective of the Nobel Foundation was to manage Nobel’s fortune and support the academies and institutes. The first Nobel Prize was awarded on the five year anniversary of Nobel’s death, December 10th of 1901, and has since been awarded every year with a few exceptions. The Nobel Prize and the memory of Alfred Nobel has grown into being an essential part of the Swedish culture and modern history. It is an annual festivity that pays tribute to those who, as Nobel formulated it, ”has conferred the greatest benefit of mankind”. (Nobelstiftelsen, 2013)

Image: Nobel Prize Medal. (Jonathunder, 2008)

A Nobel Center

Ever since the Nobel Foundation was founded in the year of 1900, there has been plans for a building dedicated to the Nobel Prize. A building where the Nobel Prize, the Nobel Prize winners and their accomplishments could be presented to the public. (Nobelstiftelsen, 2013)

In 1911 the prominent architect Ferdinand Boberg was given the commission to investigate how a building dedicated to the Nobel Foundation could be formed on the site ”Ladugårdsberget” on Östermalm, Stockholm. Bobergs proposal was received with acclaim as well as criticism, but the Nobel Foundation found the proposal to be too expensive. (Nobelstiftelsen, 2013)

Instead the Nobel Foundation acquired a property in the early 1920s at Sturegatan 14. After consideration it was decided that the existing building would be demolished for the sake of a more purposive building. This would be the center for the Foundations administrative work. Around the same time it was decided that the Nobel Prize Award Ceremony and banquet would be held in the newly constructed Concert house at Hötorget and/or Stadshuset on Kungsholmen. (Nobelstiftelsen, 2013)

During the hundred years that has passed since Bobergs proposal, sites such as Slussen, Skeppsholmen and Tegelbacken has been on the table. None of which have been further investigated. Since the 1990s there is a Nobel Museum in Gamla Stan. (Nobelstiftelsen, 2013)

In December of 2011, the plans on a new Nobel Center, a platform where administration, museum, festivities and more could be joined under one roof, were once again brought to surface. An agreement was made between the Nobel Foundation and the City of Stockholm regarding a site on Blasieholmen, and the work on an architectural competition begun. (Nobelstiftelsen, 2013)

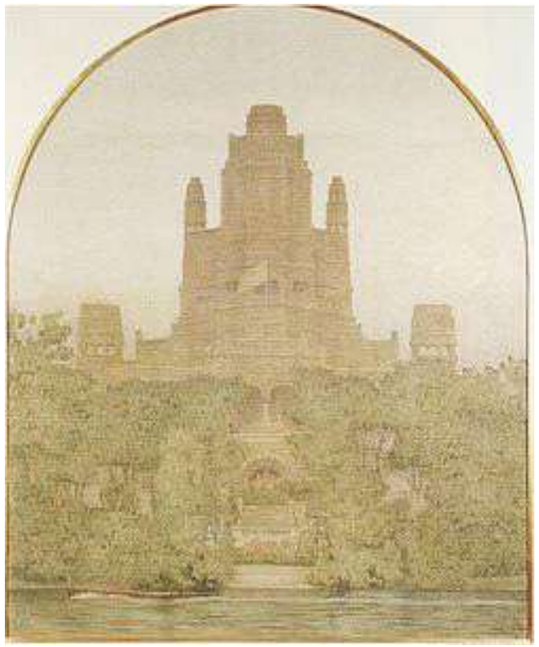
The architectural competition was executed in two steps during 2013. Among the competitors were both larger international offices as well as smaller local ones. The second step of the competition brought forth David Chipperfield Architects proposal ”Nobelhuset” as the winner.

The proposed location at Blasieholmen as well as the size of the proposed building were strongly criticized and by May 2018 Mark & Miljödomstolen ruled against the plans for a detail-plan with the argument that the project would have ”significant damage to the national interest”.

During a joint press conference in February 2020 Stockholm City Planning Office together with the Nobel Foundation announced a new site for the Nobel Center. The proposed site is Stadsgårdskajen, Slussen.

As of this writing, no architect has been chosen for the Nobel Center project at Stadsgårdskajen, nor has the site been thoroughly tested in relation to the spatial program.

Nobelhuset (David Chipperfield Architects, 2014)



Nobelpalatset (Boberg, 1911)

Slussen Through the Ages

The history of Slussen has evolved in close relation to the city of Stockholm: from the birth of the city until present day. The character of the area has always been determined by it's natural conditions and the city's functional demands. The location – in junction between the north-south going road overland and the east-west going waterway – has put Slussen in a position of constant change throughout the centuries. (Stockholms Stad, 2016)

In the early days of the city of Stockholm the Slussen area was populated by fortifications and defence facilities and utilized for customs clearances of shipping trade and ground transportations. The first sluice in the area was built in the year of 1642. Since then Slussen has been reconfigured and reconstructed once every century. (Stockholms Stad, 2016)

In the year of 1755, Christopher Polhems sluice was inaugurated, which in turn was replaced by Nils Ericsson's sluice from 1850. In 1935 the 4th generation solution for Slussen – "Karl-Johansslussen" – was inaugurated. (Stockholms Stad, 2016)

The conjunction between Södermalm and Gamla Stan that is Slussen, and its relation to the surrounding water space has been shaped and configured differently throughout the centuries. Water activities and traffic over the isthmus has always been a central issue for the different solutions. The contemporary circumstances and demands has always been the guiding principle for the character and design of Slussen and its surroundings. This spirit of the time was clearly manifested in the most recent solution "Karl Johansslussen" from 1935 by having a great emphasis put on cars, vehicles and traffic movement. (Stockholms Stad, 2016)

It is now almost a century since Karl Johans-Slussen was inaugurated and it is once again necessary to rebuild and reconfigure Slussen - a work that begun in 2016 and will be finalized around the year of 2025. The development over the last decade shows that the amount of motor vehicles passing the Slussen area daily has dropped till levels around only a third of the maximum levels that was measured in the 60's. This situation has opened up for a transformation of Slussen into a place which has more emphasis put on pedestrians, bicycling and commuter transportation rather than on cars and motor vehicles. The reduction of motor traffic also provides new conditions for the development of a city space that is more available for stay and recreation. (Stockholms Stad, 2016)

Stadsgården, Slussen. (Unknown, ~1800)

Stadsgården, Slussen. (Cronquist, 1925)

Stadsgården, Slussen. (Sundahl, ~1936)

Stadsgården, Slussen. (Mostphotos, ~1974)

New Slussen: Reconstruction

In the year of 2007 an architectural competition for a reconfiguration of Slussen and its surroundings was held. Foster + Partners together with Berg arkitektkontor won the competition with their competition entry ”strömmar”. After some adaptation of the original proposal, their scheme served as a basis for the new detail plan that won legal force in the year of 2013. Construction work begun 2016 and will be in progress until 2025.

The ambition of the new design of Slussen area is to create a new effective and safe hub for pedestrians, bicycles and commuter transportation. The area is also intended to become one of Stockholm’s most attractive meeting places with park life, entertainment, culture, restaurants and cafés. The new sluice will have 5 times greater capacity than before to release water from Mälaren out to Saltsjön - which will secure the water supply for the approximately two million people receiving their drinking water from Mälaren. (Stockholms Stad, 2016)

In short, the main parts that will be reconfigured and that plays important roles in the creation of the New Slussen is:

1. **New Bridges** that connects Gamla Stan and Södermalm.

2. **A new sluice** between Mälaren and Saltsjön.

3. **Slusstorget** will be a new central meeting place adjacent to the sluice. Low pedestrian- and bicycle bridges will frame two basins, together forming a square.

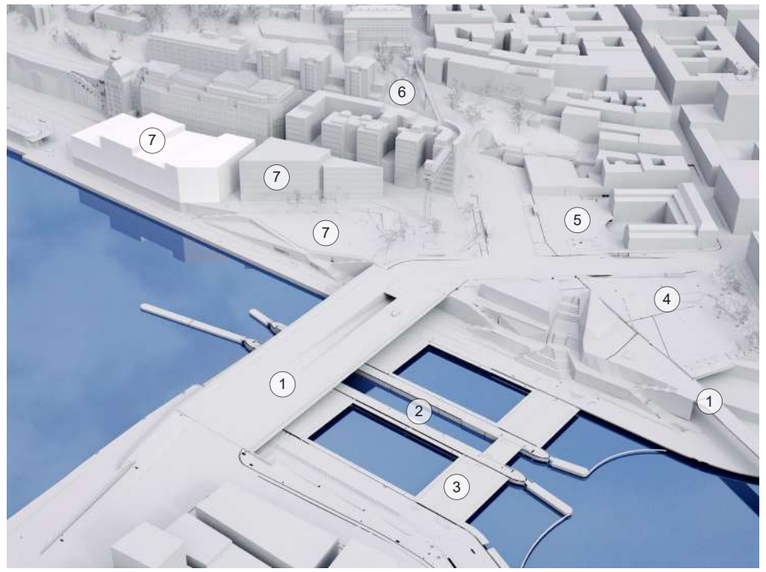
4. **Södermalmstorg** will be a new place for experiences and meetings. A new pavilion with a transparent facade will be erected. The pavilion is intended for restaurants or cultural activities.

5. **Ryssgården** will largely retain it’s current design, but be put in a new context as it is the beginning of a route that stretches via Katarinaparken down to the water.

6. **A new bus terminal** in Katarinaberget is planned. Here, a hub is created for all commuters from Nacka / Värmdö. The terminal is being built together with the Saltsjö Line and the metro so that passengers can move smoothly indoors between buses, trains and the metro.

7. **Stadsgårdsleden** will be covered and overbuilt with a new park on the west side of Katarinahissen. The Park will have views towards Saltsjön and Skepsholmen. The park will terminate with terraces down towards Stadsgårdskajen. Adjacent to the park there will be new office buildings with ground floors programmed with public functions such as restaurants, cafés and shops. (Stockholms Stad, 2016)

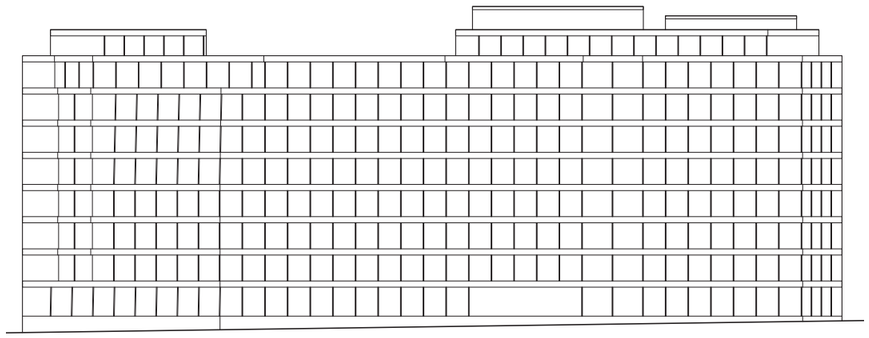
Nya Slussen, Plan



Nya Slussen, Birds Eye

Surrounding Buildings

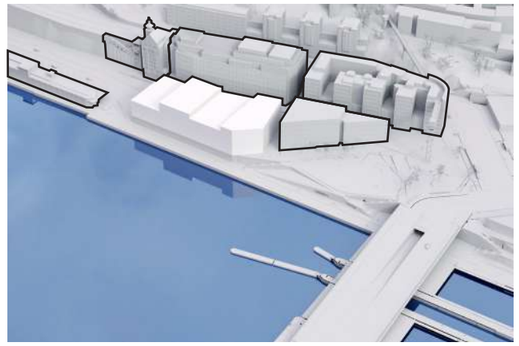
Sjömansinstitutets Hus, 1914



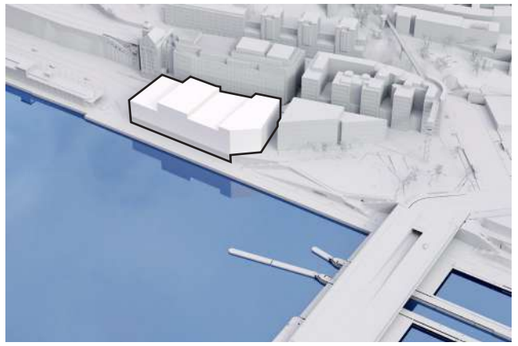
Glashuset, 1974

KF-Huset, 1912, 1936

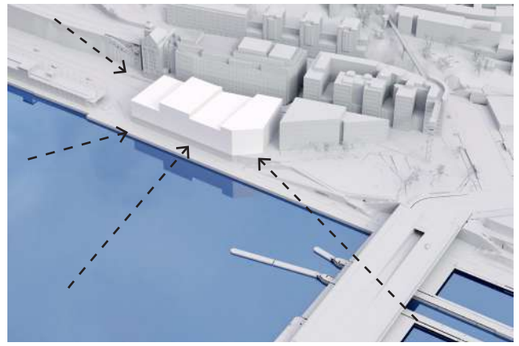
Site Analysis



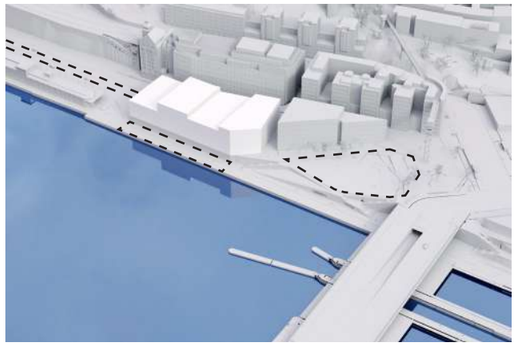
1. Surrounding buildings.



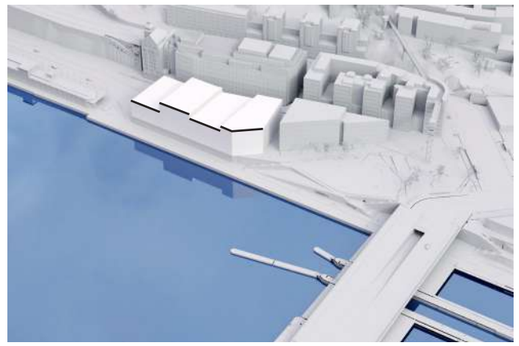
2. Plot.



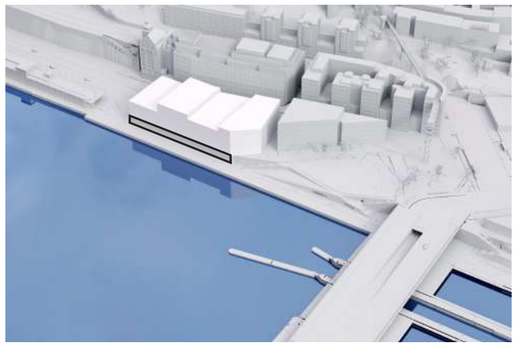
3. Visibility.



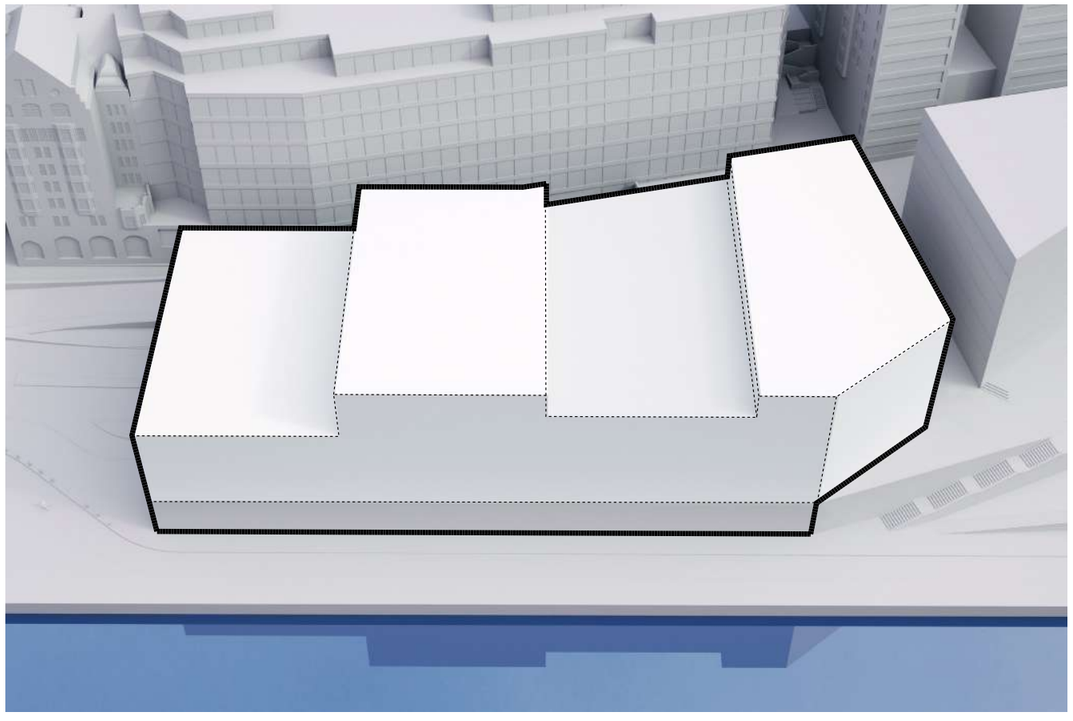
4. Stadsgårdsleden, Boardwalk, Katarina park



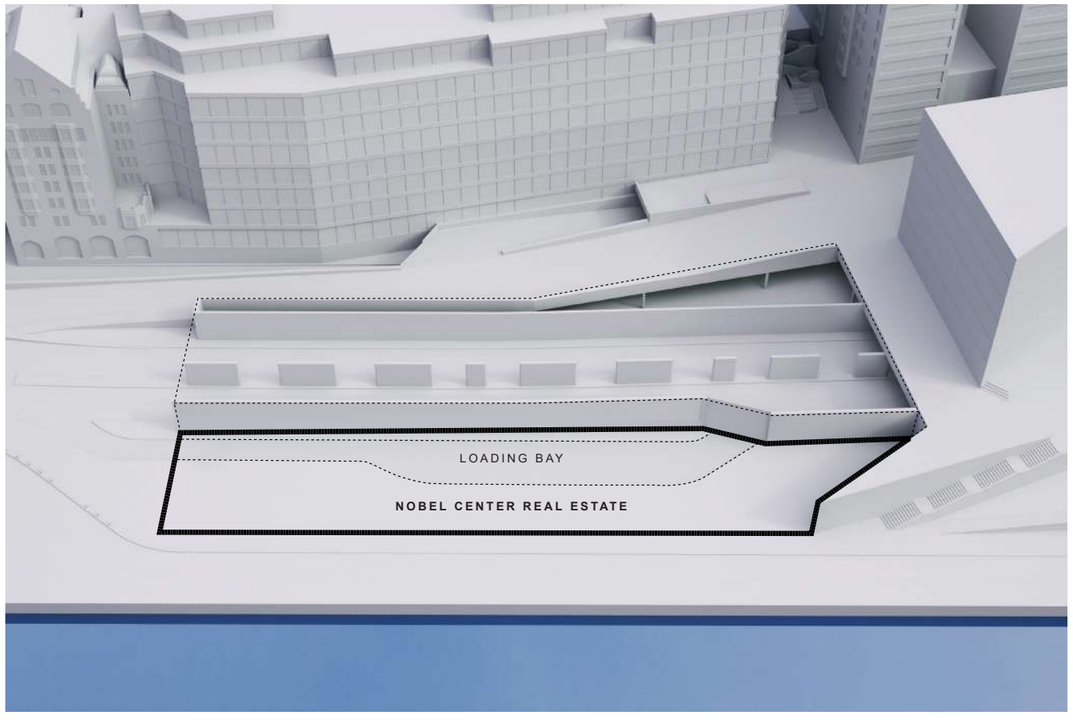
5. Heights regulated by detail plan.



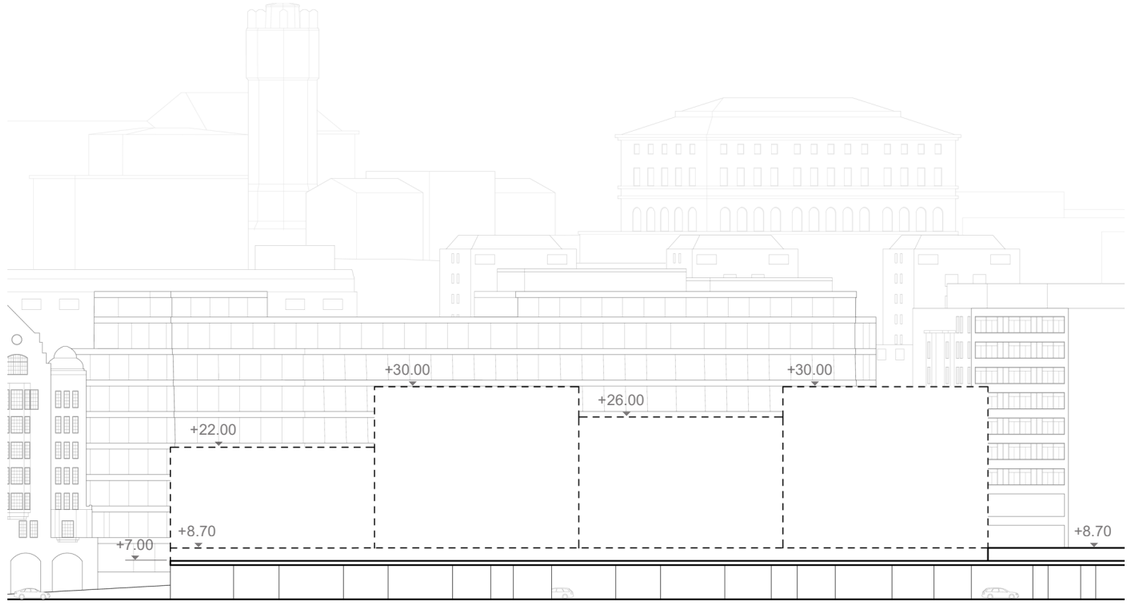
6. Articulated plinth regulated by detail plan.



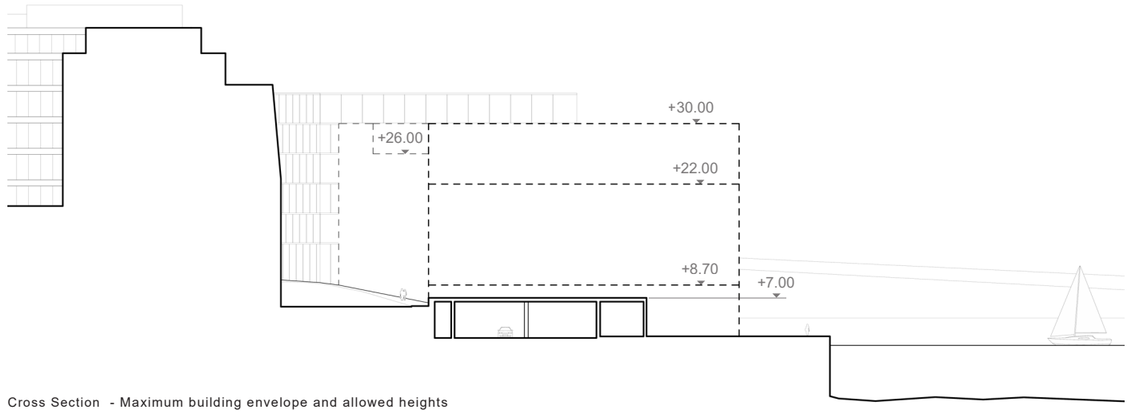
Plot - Maximum building envelope



Plot - Quay level



Long Section - Maximum building envelope and allowed heights



Cross Section - Maximum building envelope and allowed heights

Summary

Entrance	620m2
Café	290m2
Shop	200m2
Exhibitions	3500m2
Education	350m2
Library	200m2
Conference	700m2
Auditorium	1990m2
Office	990m2
Restaurant	1030m2
Back Office	110m2
Other Rooms	220m2
Technique, etc.	2500m2

Space	m2	Amount
Shop	200	
Shop	110	
Office	14	
Cloakroom	3	
Toilet	3	
Storage	70	
Entrance	620	
Entrance hall	320	
WC	110	
Cleaning room	10	
Cloakroom	160	
Resting room	20	
Café	290	
Café/bistro area	40	
Café area (part of entrance)	200	
Information desk	10	
Cash register	30	
Back office / service	110	
Changing room women	30	
Changing room men	30	
WC	6	
Break room	20	
Cash room	10	
Storage (entrance - hall)	10	
Copy room (entrance-hall)	5	
Permanent exhibitions	1 980	
Permanent exhibits	1 860	
Local storage	80	
Technical equipment	45	
Flexible exhibitions	1 490	
Visiting exhibit 1	600	
Visiting exhibit 2	600	
Local storage	300	
Education	350	
Laboratory	120	
Classroom / studio	60	
Lunch room	75	
Material storage	45	
Sabbatical research / work spaces	45	
Library	200	
Library area	105	
Archive - images and original documents	30	
Book storage	30	
Archive - artefacts	30	

Space	m2	Amount
Conference	700	
Smaller meeting room 12-20p	40	2
Medium meeting room 25-50p	100	2
Meeting room 120p	120	1
Lobby Café	160	
WC	30	
Kitchen	40	
Technical equipment room	10	
Furniture storage	130	
Auditorium / conference	1 990	
Auditorium	1 150	
Foyer	250	
Technical equipment area	50	
Stage area	165	
Furniture storage	290	
Restaurant	1 030	
Kitchen and ancillary space incl. dry storage and cold storage	485	
Dining soom	490	
Cloakroom and WC	55	
Office	990	
Central office space	760	
Quiet room / small meetings	30	3
Resting room	6	
WC	20	
Break room / kitchenette	60	
Meeting room, 6ppl	20	
Workshop / model studio located close to offices	30	
Storage / media equipment	30	
Representative meeting room	40	
Other rooms	220	
Caretaker	20	
Exhibit production	20	
Goods handling - unpacking	20	
Goods reception - loading	35	
Furniture storage	30	
Other storage	40	
Waste disposal	20	
Cleaning	35	
Server room	20	
Technique, staires, etc.	2 500	
Total (net):	12 670	
Total (gross)	16 250	

Part II - References

Local Livingroom or Global Icon

The architectural competition for a new Nobel Center held in 2013 resulted in eleven building proposals, out of which three were selected for stage two. After the executed competition a few aspects were pointed out by the jury as curcial for the final building proposal of the Nobel Center.

“The building will naturally be perceived as a symbol of the Nobel Prize and other Nobel Activities. At the same time the building should attract the curious, be inviting and represent openness. The building’s ability to attract visits - spontaneous or planned - is of crucial importance to the project.”
(Nobel Center Architectural Competition Jury, 2013)

So, according to the 2013 jury, the Nobel Center should on the one hand be a representation of the Nobel Prize and all the activities that is associated with it, and on the other hand be an open and inviting public building characterized by openness and curiosity. Attracting a global as well as local audience, high-end events as well as everyday life.
(Nobel Center Architectural Competition Jury, 2013)

Looking at the three stage two proposals one can see different interpretations of how to materialize these crucial aspects of what a Nobel Center should be. While the winning proposal that is *Nobelhuset* (1) is perhaps the most elegant and Noble of the three, *A Room and a Half* (3) expresses a higher degree of openness and curiosity, hooking on to a tradition of Swedish public buildings from the past century such as *Stockholm Kulturhus* (8) and *Eslöv Medborgarhus* (5). These public buildings are, rather than closed up institutions, perceived as a kind of public living-room, a shared space for public interaction characterized by openness and easiness.

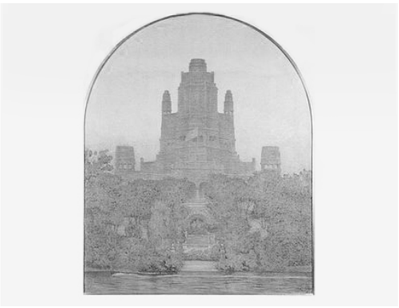
In contrast to *Nobelhuset’s* (1) character of dignity and nobility one can see a perhaps more bold and progressive architectural expression in *The Nobel Snowflake* (2), possibly more in line with The Nobel Prize as progressive movement in moving the world forward. This approach is something that can also be seen in projects like the *Guggenheim* (7) in Bilbao or *Centre Pompidou* (8) in Paris where the whole idea of what a building is is somewhat questioned in its architectural composition. Furthermore these types of expressive buildings has proven to have the ability of a kind of global magnet, an iconic building, that in its existence as built object attracts a wider audience.

Although now over hundred years old, Ferdinand Bobergs proposal for a Nobel Center, *Nobelpalatset* (4), shows yet another interpretation of what a Nobel Center could be. In line with its historical context it is a proposal rather characterized by a monumental National Romanticism, with a high degree of nobility and authority, rather than innovation. In a way both global and local in a more literal sense.

1. Nobelhuset. (David Chipperfield Architects, 2014)

2. The Nobel Snowflake. (Wingårdhs Arkitektkontor, 2014)

3. A Room and a Half. (Johan Celsing Arkitektkontor, 2014)



4. Nobelpalatset. (Ferdinand Boberg, 1911)

5. Eslöv Medborgarhus, Hans Asplund

6. Centre Pompidou, Renzo Piano a.o.

7. Guggenheim Bilbao, Frank Gehry

8. Stockholm Kulturhus, Peter Celsing

Swedish 20th Century Public Buildings

The heritage of public buildings in Sweden from the post war era of the 40s and 50s until the economical crisis by the end of the 70s, are all examples of how spaces for public interaction can be materialized into built form. Though varying in style they convey a certain kind of openness and generosity, from the refined richness illustrated in Eslöv Medborgarhus, to the more industrially composed buildings like Stockholm Kulturhus. (Edström, M. 2017).

It was during the caotic time of the post-war era that thoughts of a more active, engaged and educated nation emerged. Several buildings for civic use such as “Folkets hus” and “Medborgarhus” emerged around Sweden who’s purpose was to make room for larger gatherings of people, lectures, dance, theatre, exhibitions and more, one of these being Eslöv Medborgarhus. (Edström, M. 2017). The decades to come also included buildings with a shared spatial program such as the Kulturhuset complex in Stockholm and Stadshallen in Lund. Though different in scale, site conditions and program the three share a common purpose directed to both private initiatives as well as open public events.

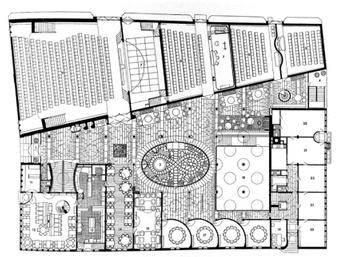
Common conditions for the three is the combination of open flexible spaces, auditorium spaces and more enclosed secondary spaces such as offices, back-office, wc, and more.

In the case of Eslöv Medborgarhus the overall programmatic scheme is divided in three; the office block, the auditorium spaces, and the public spaces. The open spaces can be seen as a kind of glue that holds the other spaces together, an in-between space, carefully taken care of with the support of materiality, structure, light and form. As you enter the main-entrance of the building this is the first space you encounter as a visitor. The larger auditorium spaces are organized on the left side with the largest auditorium closest to the entrance and the smallest furthest away, creating a straight wall set in an angle. As an additional layer this wall has been complemented with smaller spaces like telephone booths and fixed seating areas. This wall creates a kind of spine for the rest of the entrance hall. Though clear in overall distinction between different programmatic spaces, materialized in the tripartite volume, this entrance space also reveals a certain pragmatic approach, handled with great care. The combination of vertical load bearing circular mushroom columns and circular light shafts generates a light and free handling of structure.

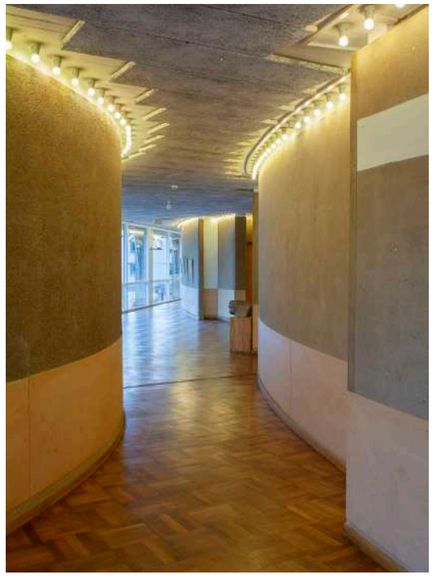
Looking at Klas Anshelms Stadshall in Lund one can see a similar programmatic approach, though with a different formal expression. The building is divided in two blocks where one contains the buildings office units in the form of a narrow block, and the other in a more triangular form containing the buildings public spaces. In this triangular block Anshelm divides the program in two, one of a more enclosed character, and the other of a more open character, much like in Eslöv creating this inbetween-space allowing for a free movement around the building.

When it comes to Celsings Kulturhuset in Stockholm the program is of a more complex character, as it is part of a larger urban scheme including the national bank and Stadsteater. However, looking at the facade of Kulturhuset facing the public spaces, one can see how Celsing chooses the glazed facade as a way of exposing the cultural activities of the interior on to the public space of the exterior.

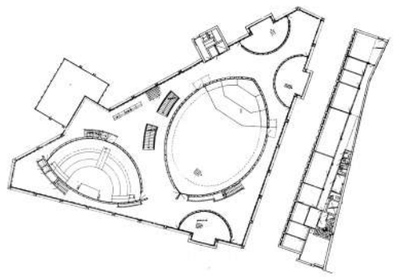
1. Eslöv Medborgarhus, Hans Asplund



Plan (Asplund, 1957)

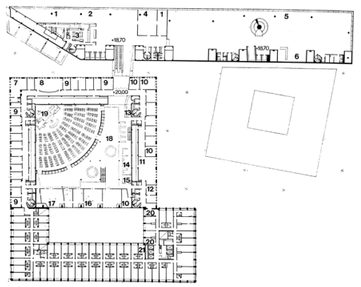


2. Lund Stadshall, Klas Anshelm



Plan (Anshelm, 1968)

3. Stockholm Kulturhus, Peter Celsing



Plan (Celsing, 1974)

Birds eye view

Project description

The following proposal for a Nobel Center at Stadsgårdskajen Slussen, strives to position itself somewhere between the 20th century Swedish tradition of public buildings and the aspect of innovation that the Nobel Foundation represents. It is a matter of a three level building, with a quay level below, and a roof terrace on top, with a load bearing structure of wood.

The building is characterized by its four solid cylinders and its open floor plans, a formal answer to site regulations, site conditions and program. The spatial program, including exhibition spaces, educational areas, office, conference, auditorium, café, restaurant, and more, has been divided in two categories; enclosed non day-lit spaces, and open day-lit spaces. The non-day lit spaces are enclosed within the four cylinders, and the day-lit spaces take place in an open relation in-between the cylinders, allowing for visual connections between the different parts of the building.

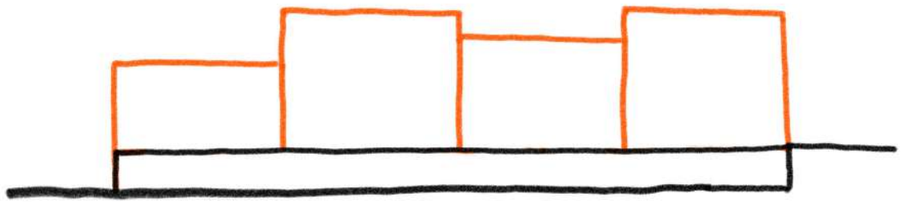
The buildings vertically load bearing structure is constituted out of solid wood columns in the facade together with the four cylinders piercing through the building. The cylinders are composed of vacuum pressed CLT-elements, a new technique mainly tested in the production of wooden wind mills and in smaller one-storey buildings. The slabs are constructed out of CLT rib-deck elements. Due to the large spans the slabs are complemented with hollow steal beams, allowing for air distribution in a perpendicular direction to the rib-deck elements. The rib-deck elements are stabilized with a concrete topping.

The wooden columns along the facade stand disengaged from the horizontal bands of glass. Instead the glass is held by exterior aluminium profiles. Apart from holding the glass in place these aluminium profiles also include external and internal sunscreen guide-rails as well as rain water pipes. The glazed facade exposes the content of the building to the public spaces that surrounds it.

As a more durable alternative to wood, the floor slabs have an external cladding of pre-fabricated concrete elements. The horizontal surfaces of these elements are cast against a steel surface, as a prolongation of the ceiling and floor, whilst the vertical surface is cast against a wooden surface, reflecting the buildings structural material.

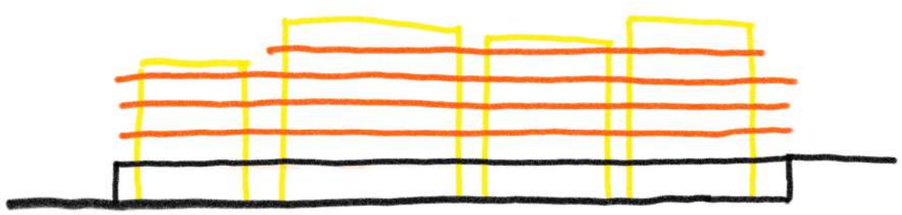
The interior space reflects the structural system of the building. The cylinders have a cladding of a vertical oak-panel and the floor is the exposed concrete topping in the form of a light grey terrazzo. The rib-decks are manifested by drop down profiles of solid birch, visualizing the form and direction of the rib decks. In-between these lay circularly perforated birch plywood panels. These panels cover the ventilation ducts and technical equipment running between the glulam beams of the rib deck panels. As a secondary spatial divider the interior is complemented with an atrium in the north as well as glazed walls. Electricity, lighting, fixtures and more are accessible through holes in floor and ceiling.

Exterior - view from Katarinavägen towards Blasieholmen

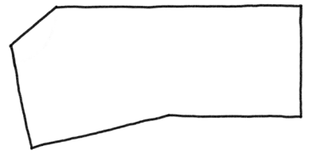


1. Site regulations: Quadri-partite volume, maximum heights & defined plinth.

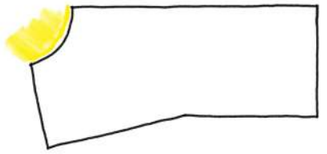
2. One volume: Continuous roof line & recessed upper volumes



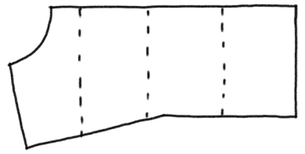
3. Transparency and character: Solids & slabs.



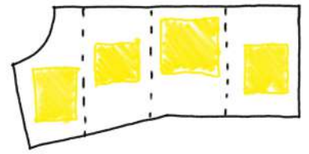
1. Allowed footprint



2. Entrance



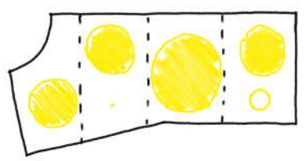
3. Height regulations from Detail plan.



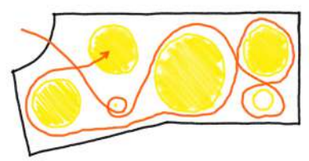
4. Cores of non-daylit spaces.

5. Back wall of quay level.

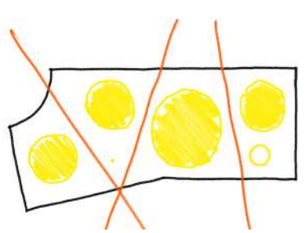
6. Cores position adapted to quay level.



7. Round cores for continuous space.



8. Movement.



9. Transparency.

10. Public space.

View from the Golden Bridge

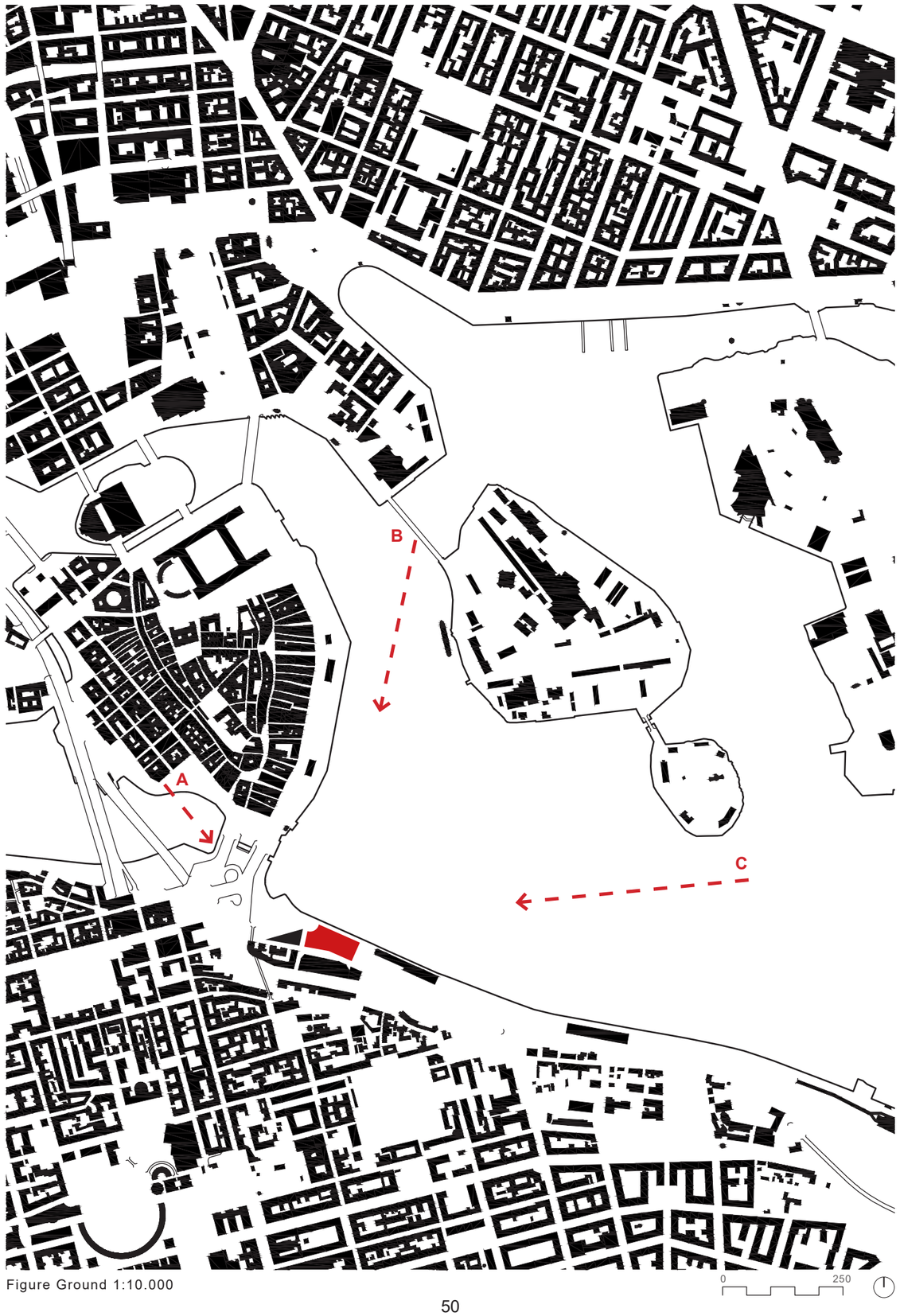
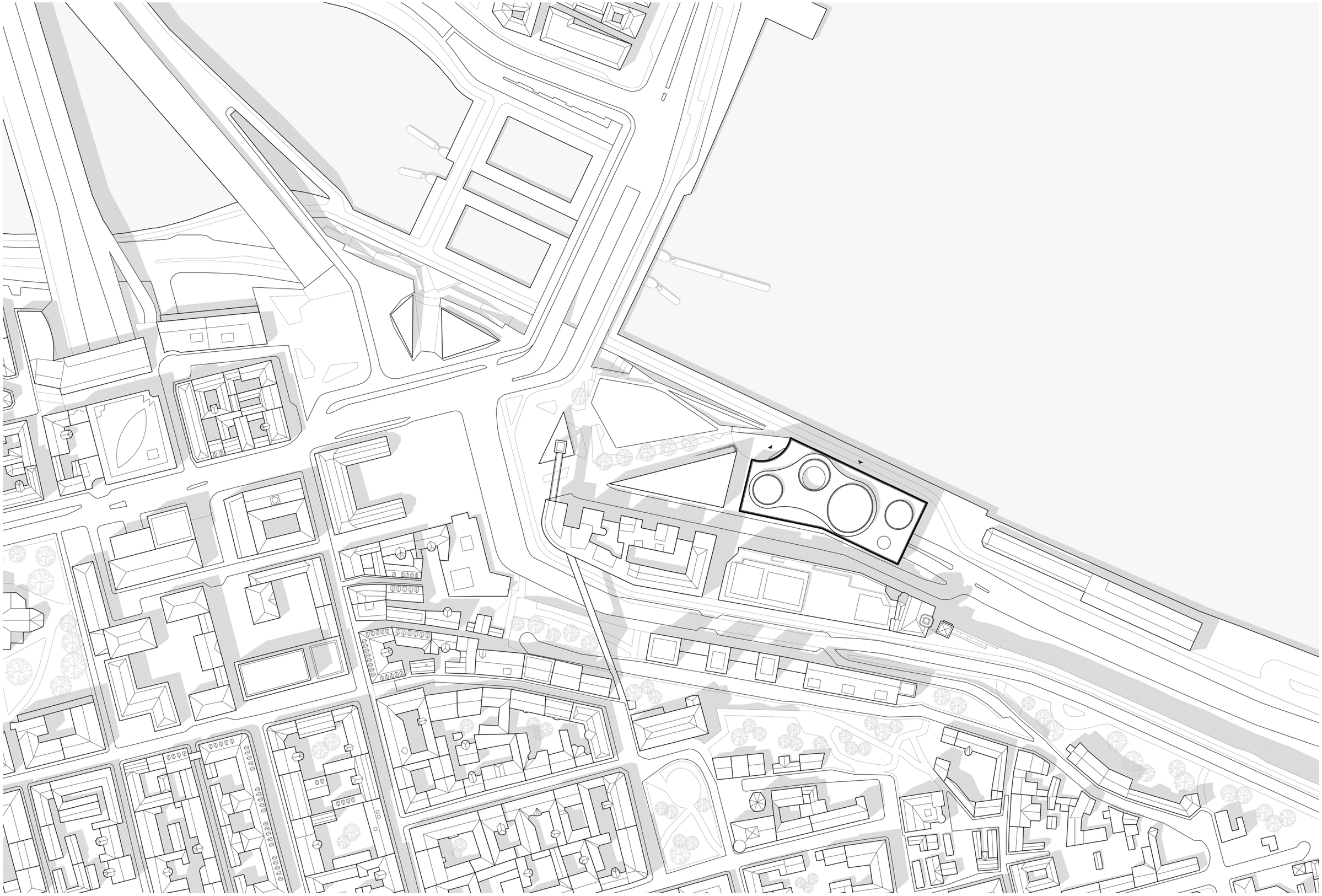


Figure Ground 1:10.000

A. Gamla Stan

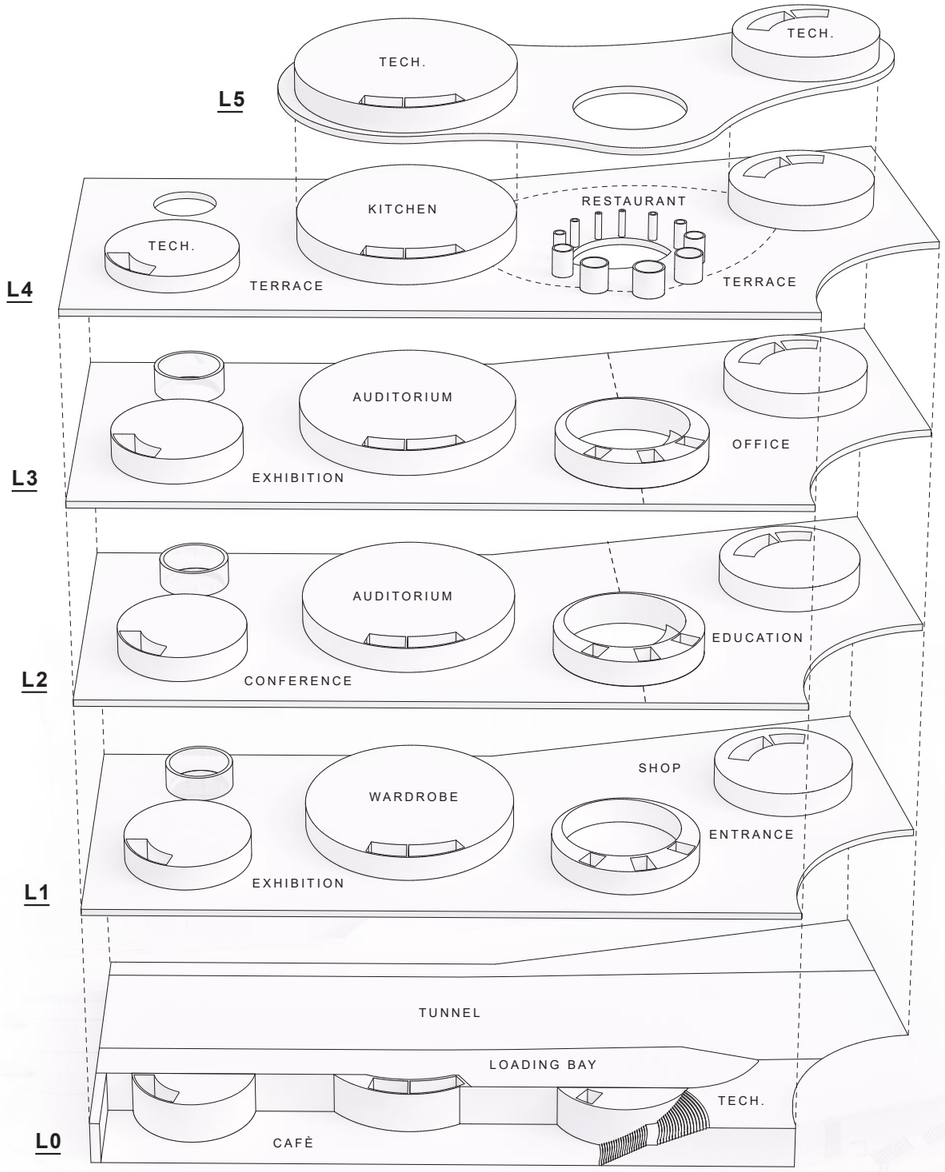
B. Skeppsholmsbron

C. Vaxholmsbåten

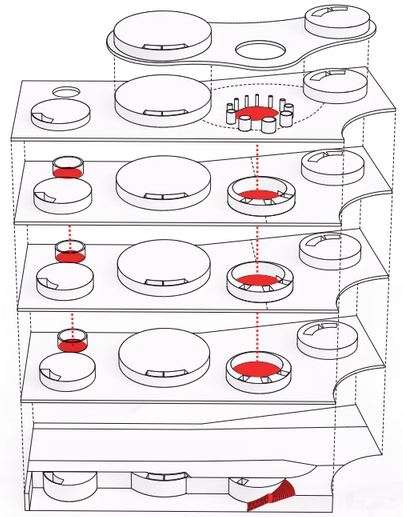


Site Plan 1:2000

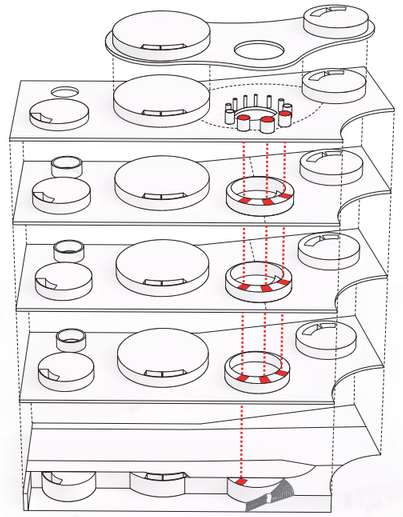
Waterview, Day



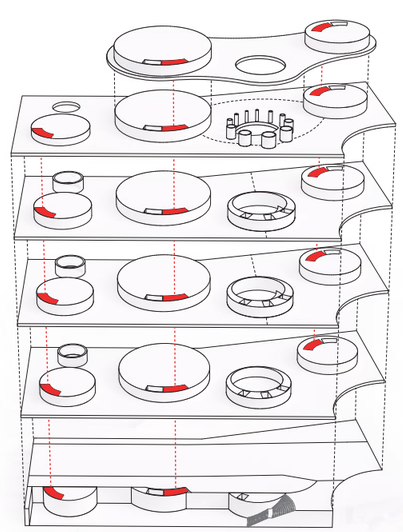
Program disposition



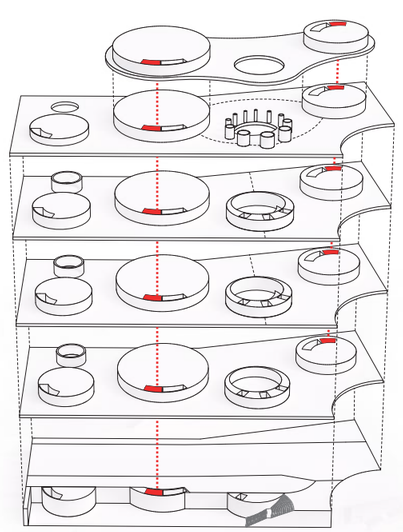
Public stairs



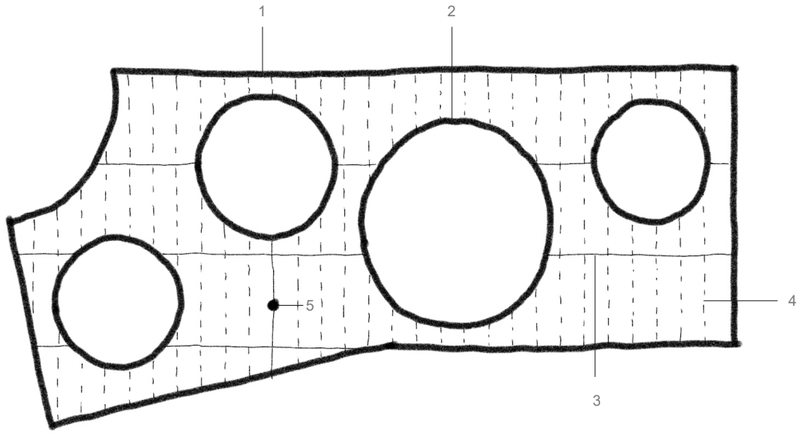
Public elevators



Internal stairs

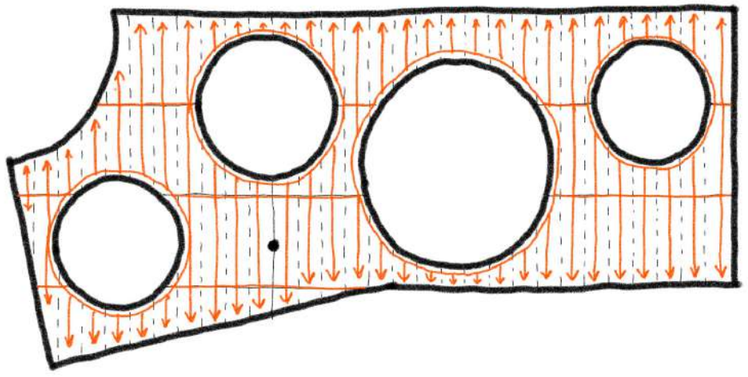


Internal elevators



1. Load bearing facade, wooden columns
2. Load bearing cylinders made of vacuum pressed CLT panels
3. Longitudinal primary horizontal structure, hollow steel beam
4. Transversal secondary horizontal structure, CLT Rib deck panels
5. Steel column

Structural Diagram



HVAC Channels, horizontal distribution

1. Wooden column, turned oak

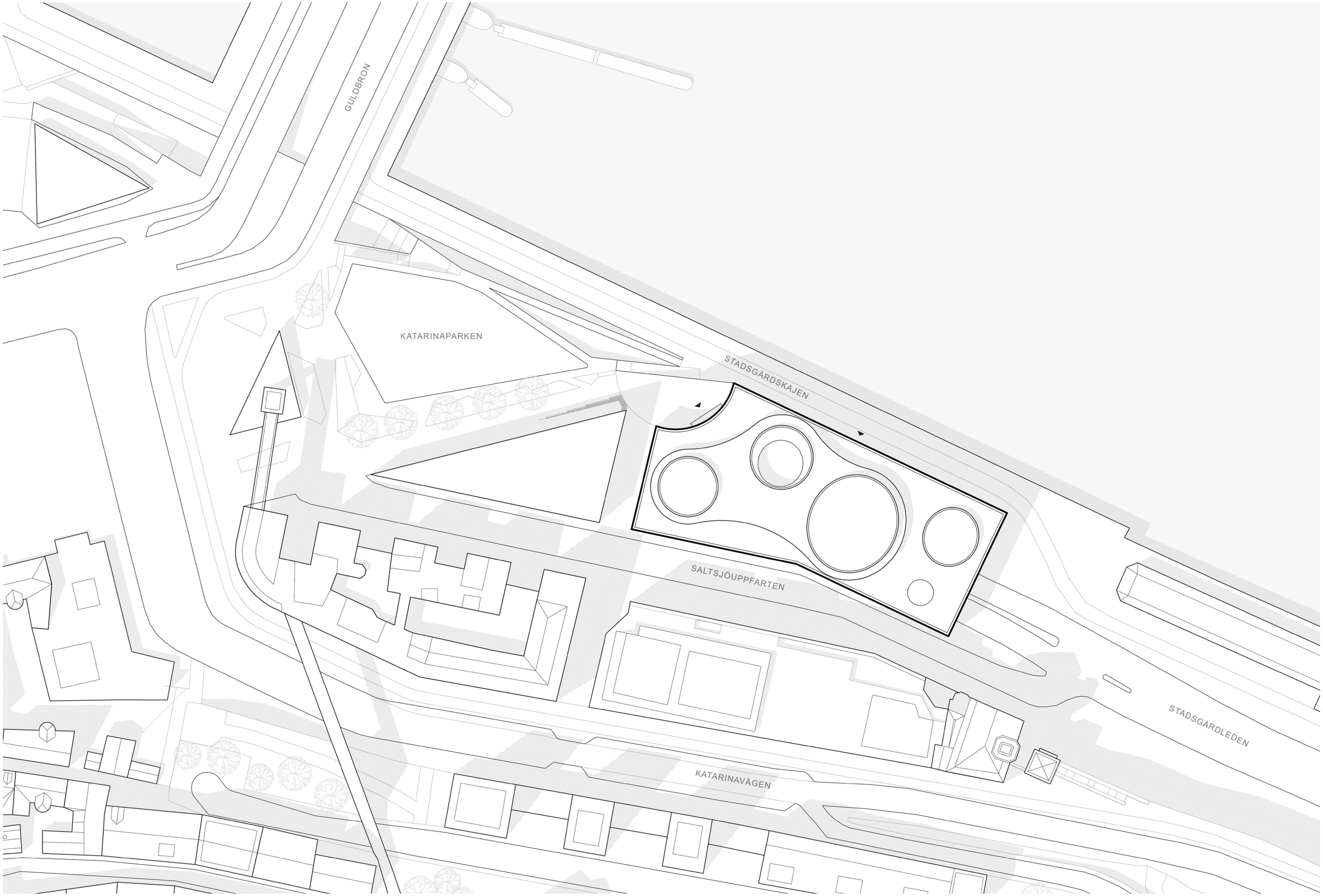
2. Vacuum pressed CLT panel

3. Hollow steel beam

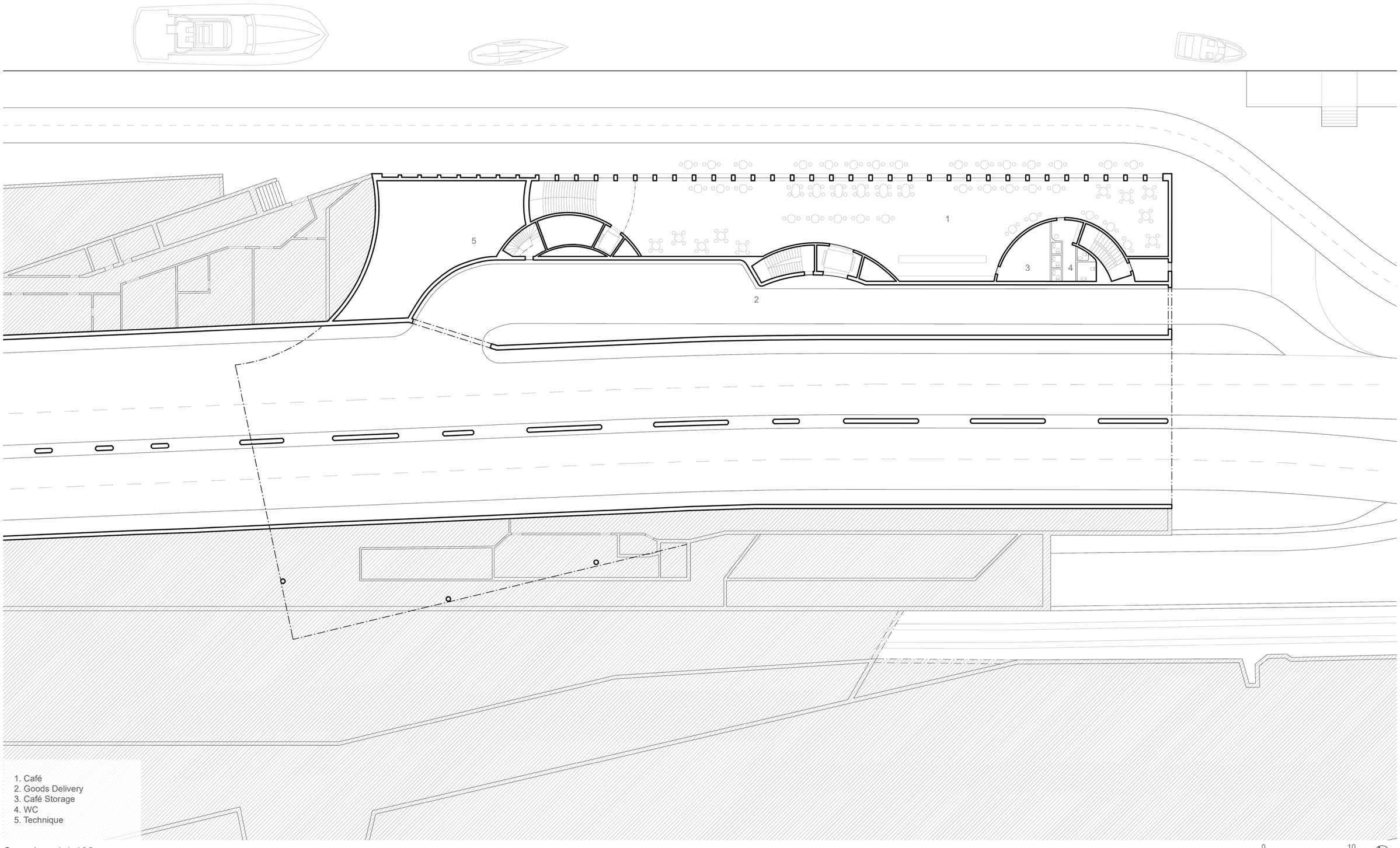
4. CLT Rib deck panel with terrazzo topping

1. Oak column
2. CLT Cylinder
3. Hollow beam
4. CLT Rib deck panel
5. Terrazzo topping

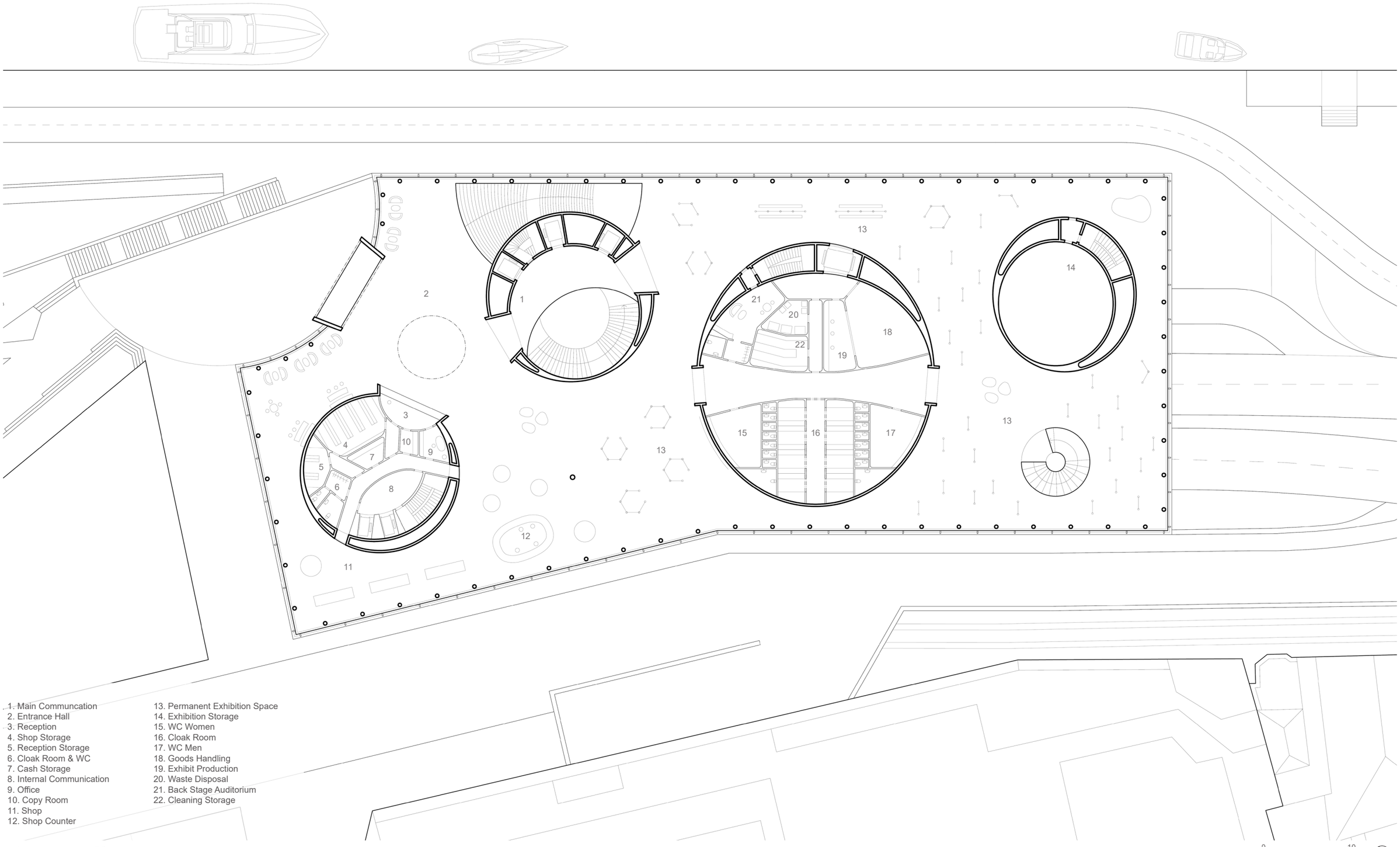
Structural model



Site Plan 1:1000

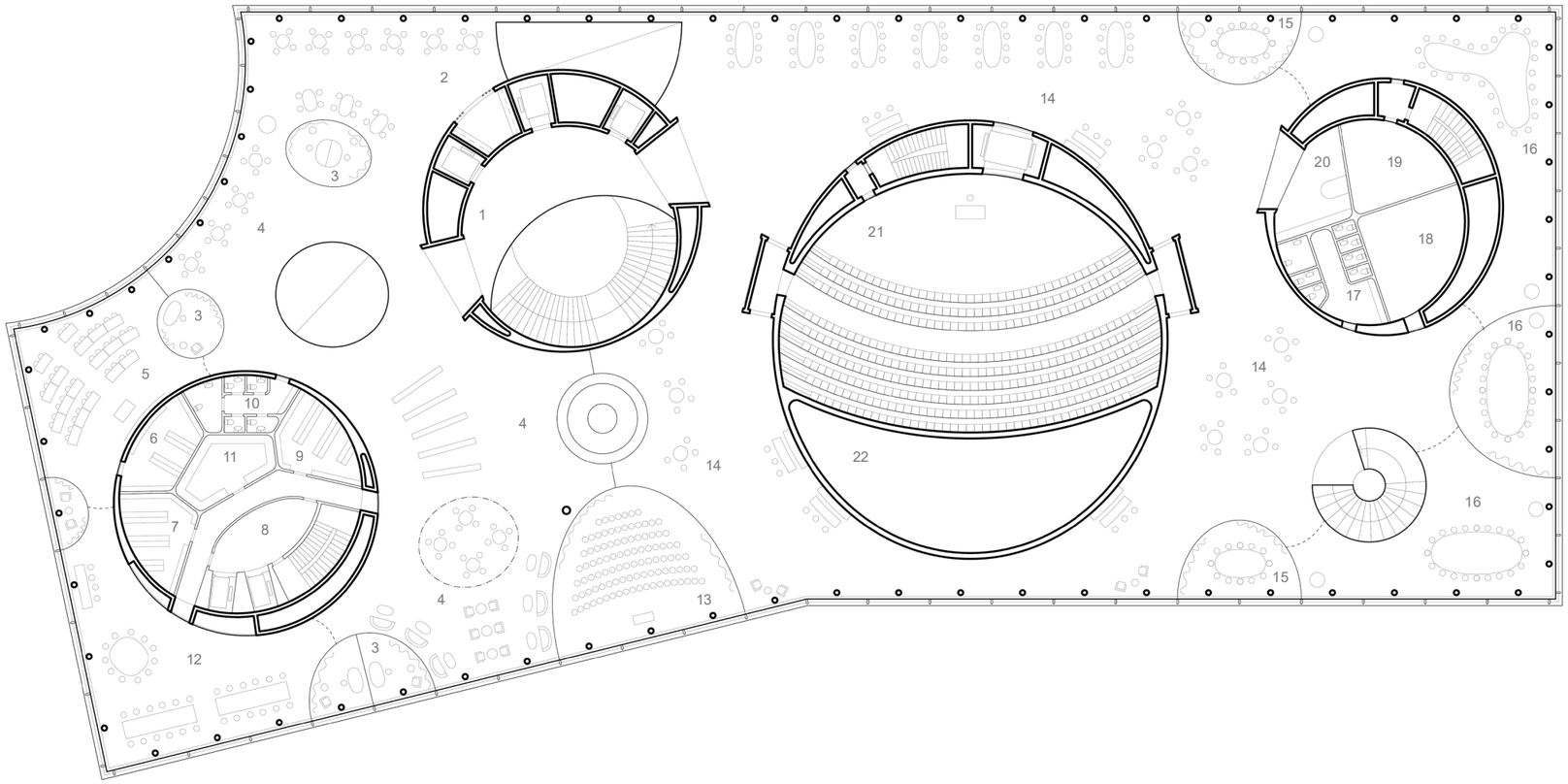


Quay Level 1:400



1. Main Communcation
2. Entrance Hall
3. Reception
4. Shop Storage
5. Reception Storage
6. Cloak Room & WC
7. Cash Storage
8. Internal Communication
9. Office
10. Copy Room
11. Shop
12. Shop Counter
13. Permanent Exhibition Space
14. Exhibition Storage
15. WC Women
16. Cloak Room
17. WC Men
18. Goods Handling
19. Exhibit Production
20. Waste Disposal
21. Back Stage Auditorium
22. Cleaning Storage

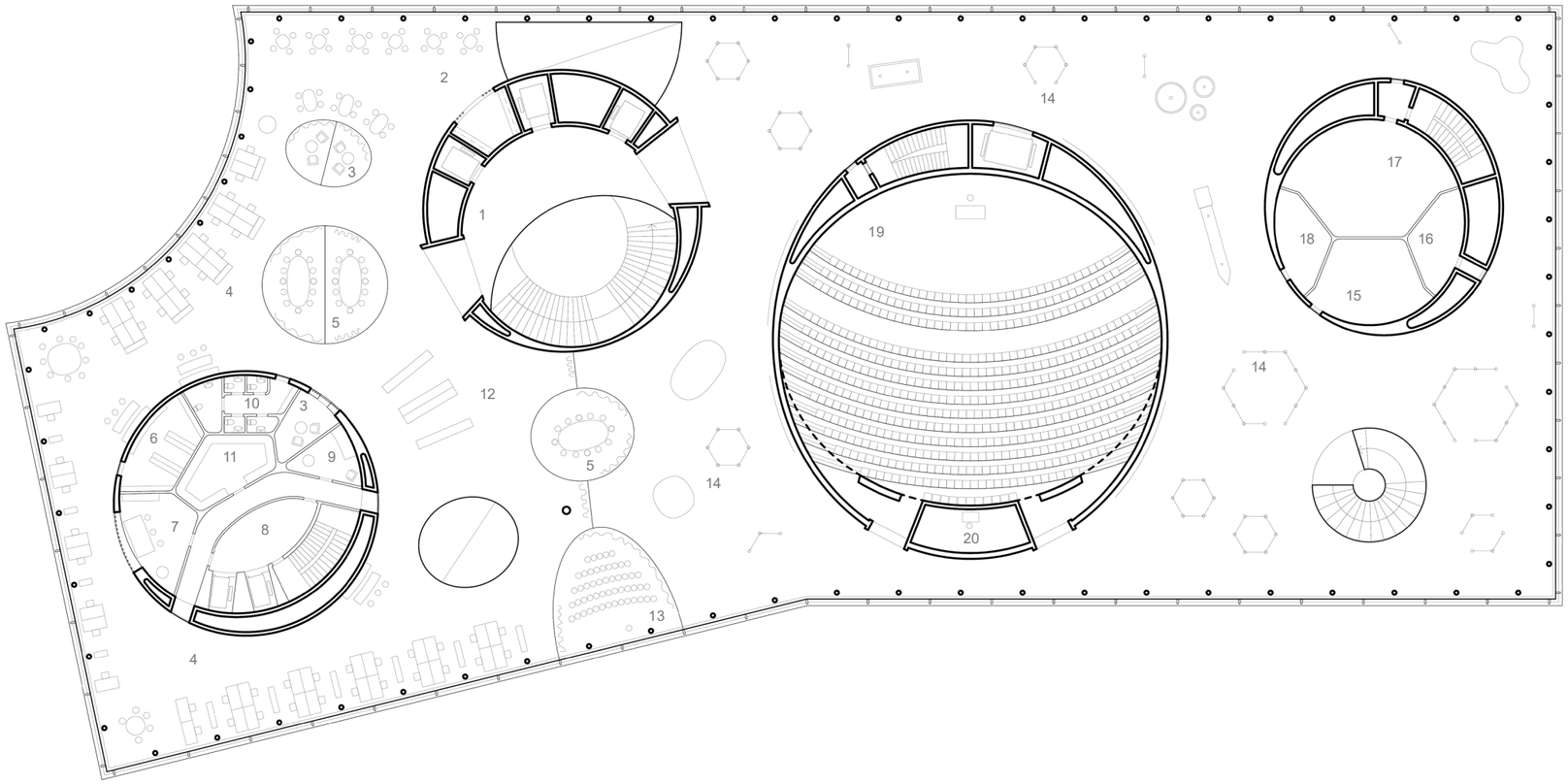
Entrace Level 1:400



1. Main Communcation
2. Break Room
3. Research Room
4. Library
5. Classroom / Studio
6. Material Storage
7. Artefact Storage
8. Internal Communication
9. Book Storage
10. WC
11. Document Storage
12. Laboratory
13. Meeting Room Large
14. Conference Lobby Space
15. Meeting Room Small
16. Meeting Room Medium
17. WC
18. Furniture Storage
19. Technical Equipment
20. Café Kitchen
21. Auditorium
22. Furniture Storage

First Level 1:400

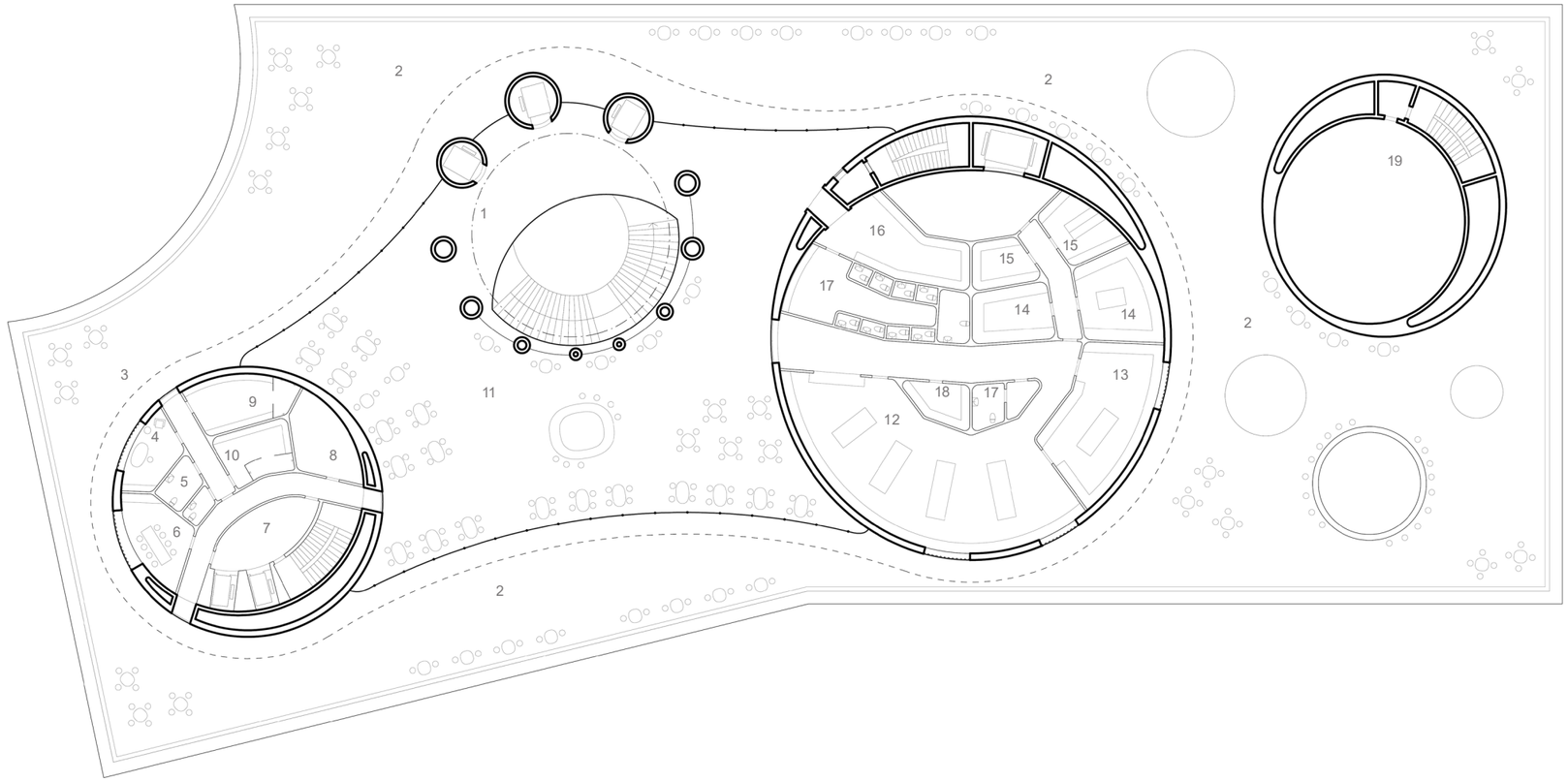
0 10



1. Main Communcation
2. Break Room
3. Quiet Room
4. Open Office Space
5. Meeting Room
6. Material Storage
7. Workshop
8. Internal Communication
9. Rest Room
10. WC
11. Media Storage
12. Wardrobe
13. Meeting Room Large
14. Flexible Exhibition Space
15. Technical Equipment
16. Storage
17. Exhibition Storage
18. Server Room
19. Auditorium
20. Controll Room

Second Level 1:400

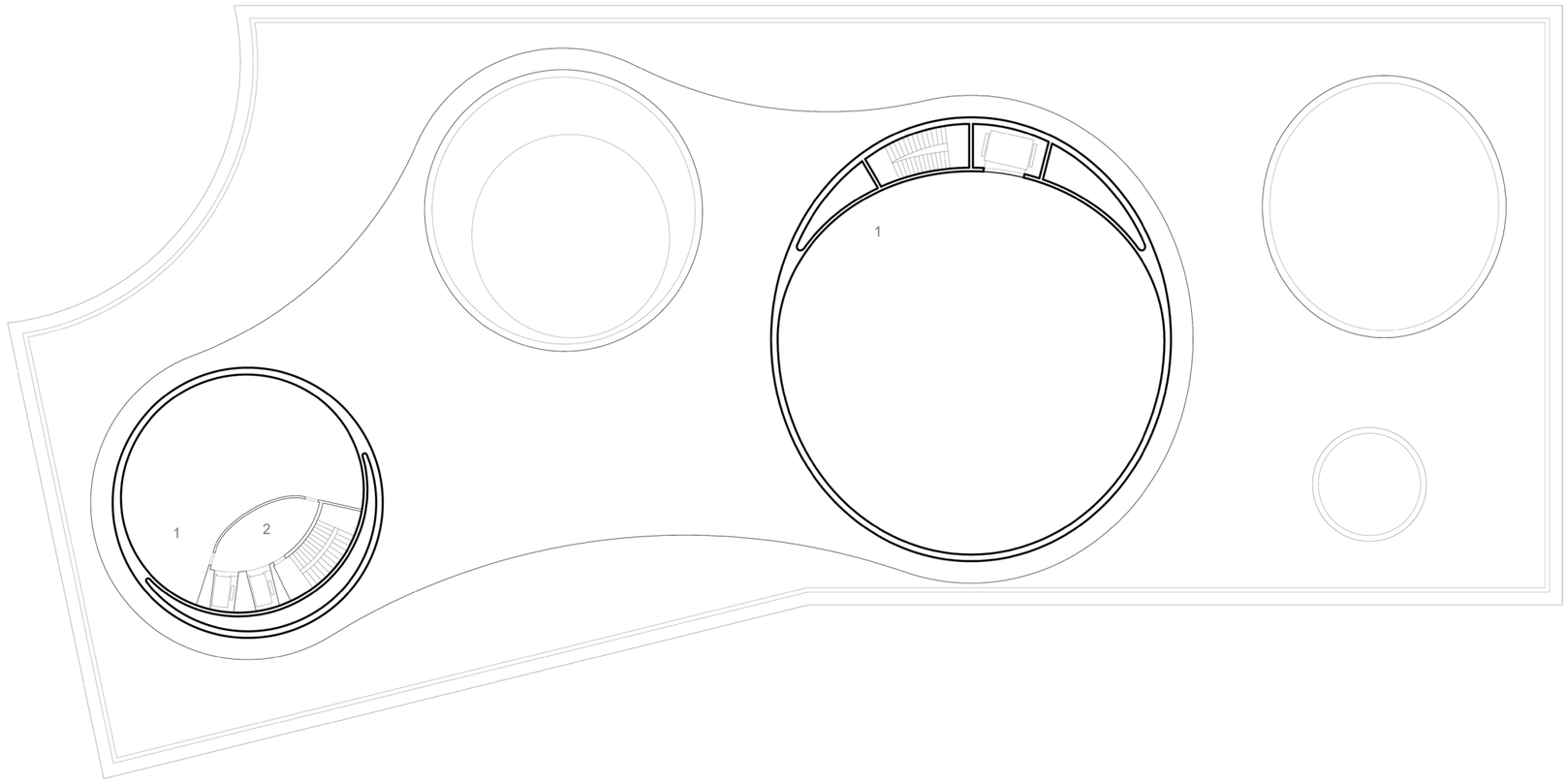
0 10



1. Main Communcation
2. Public Terrace
3. Employee Terrace
4. Caretaker Office
5. WC
6. Break Room
7. Internal Communication
8. Furniture Storage
9. Dressing Room - Men
10. Dressing Room - Women
11. Restaurant
12. Kitchen
13. Washing Room
14. Cold Storage
15. Dry Storage
16. Cloak Room
17. WC
18. Liquor Storage
19. Technique

Roof Terrace 1:400

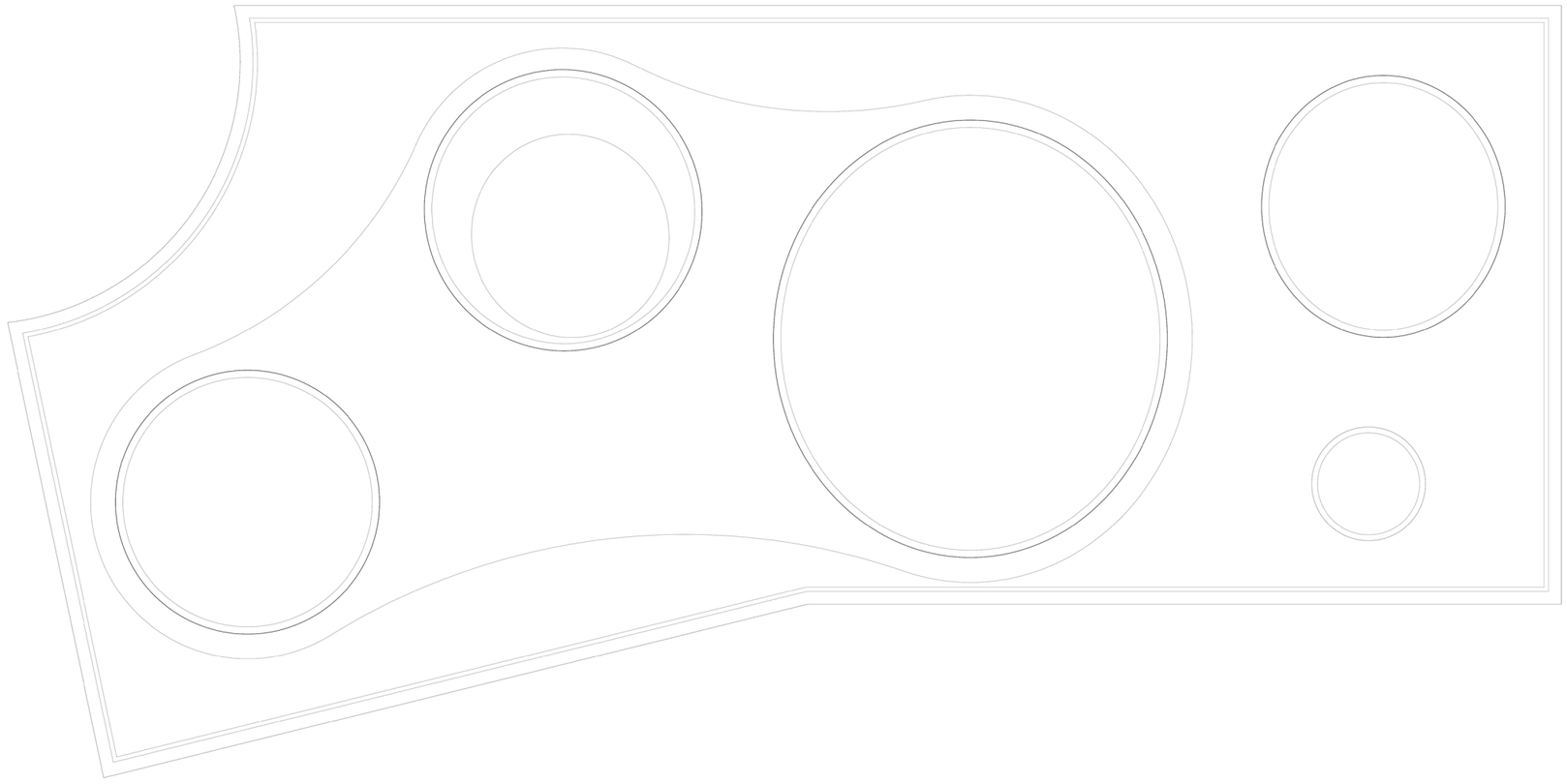
0 10



1. Technique
2. Internal Communication

Roof Level 1:400

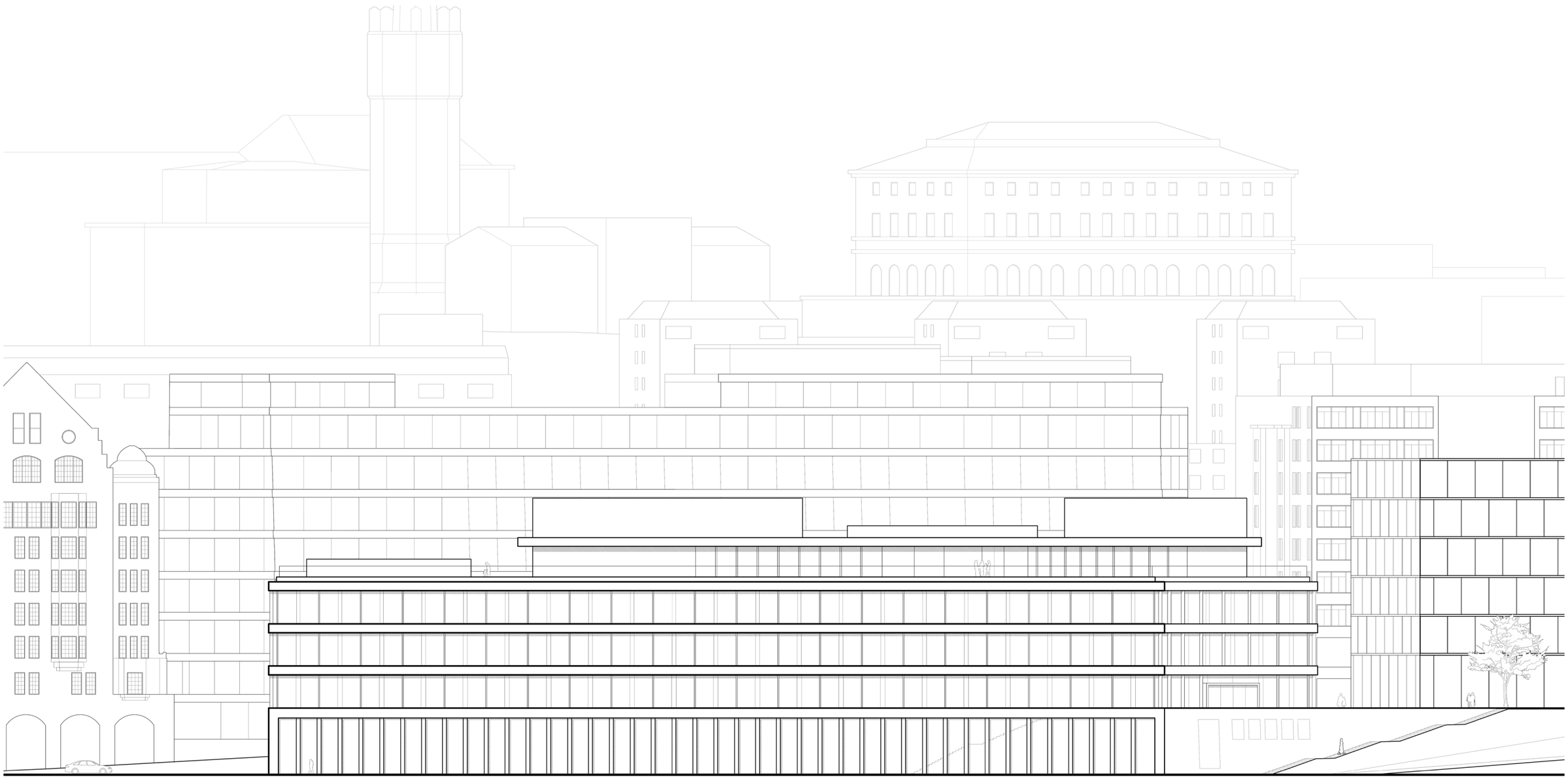
0 10



Roof Level 1:400

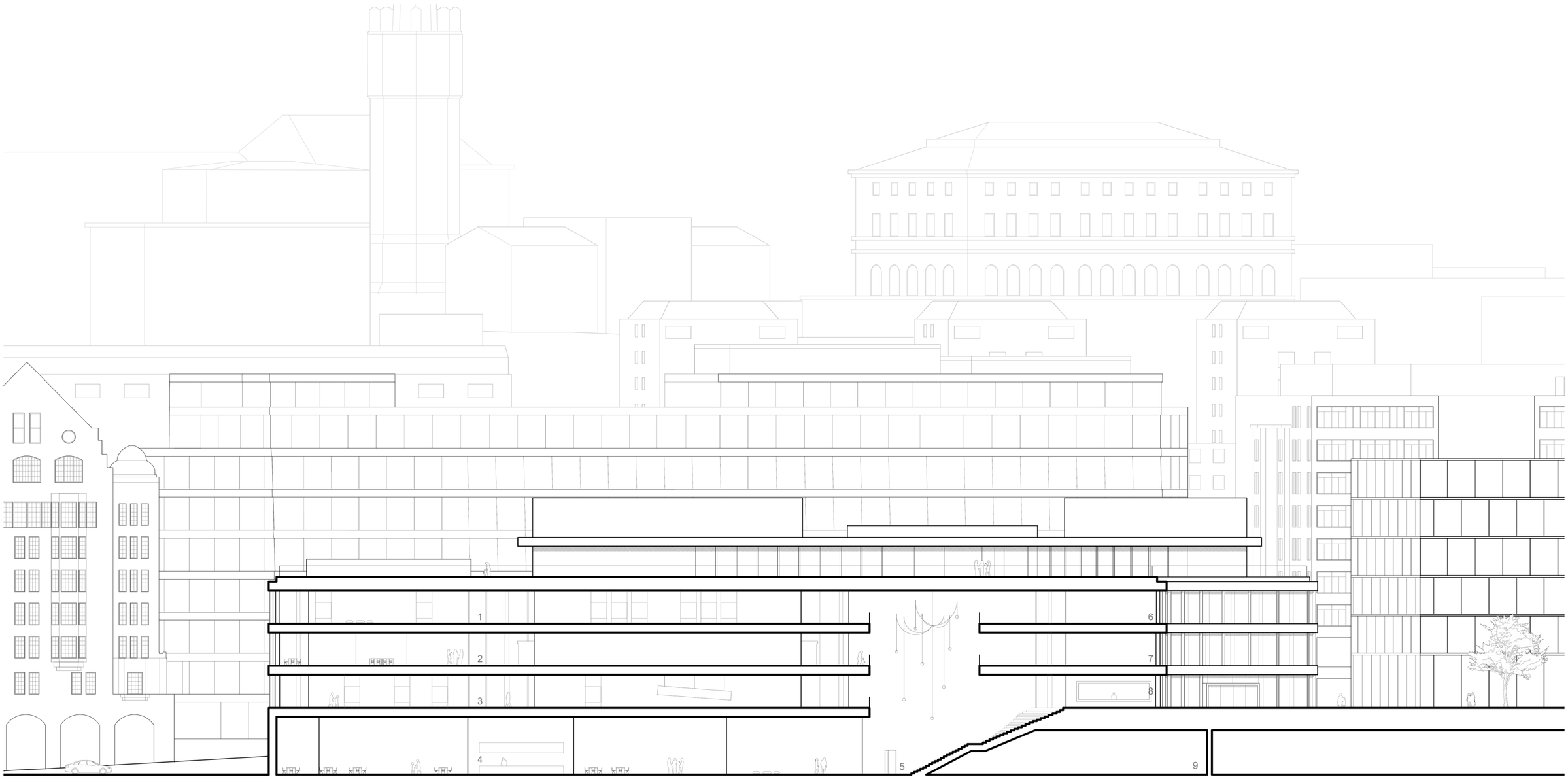
0 10

Waterview, Night



Facade North 1:400

0 10

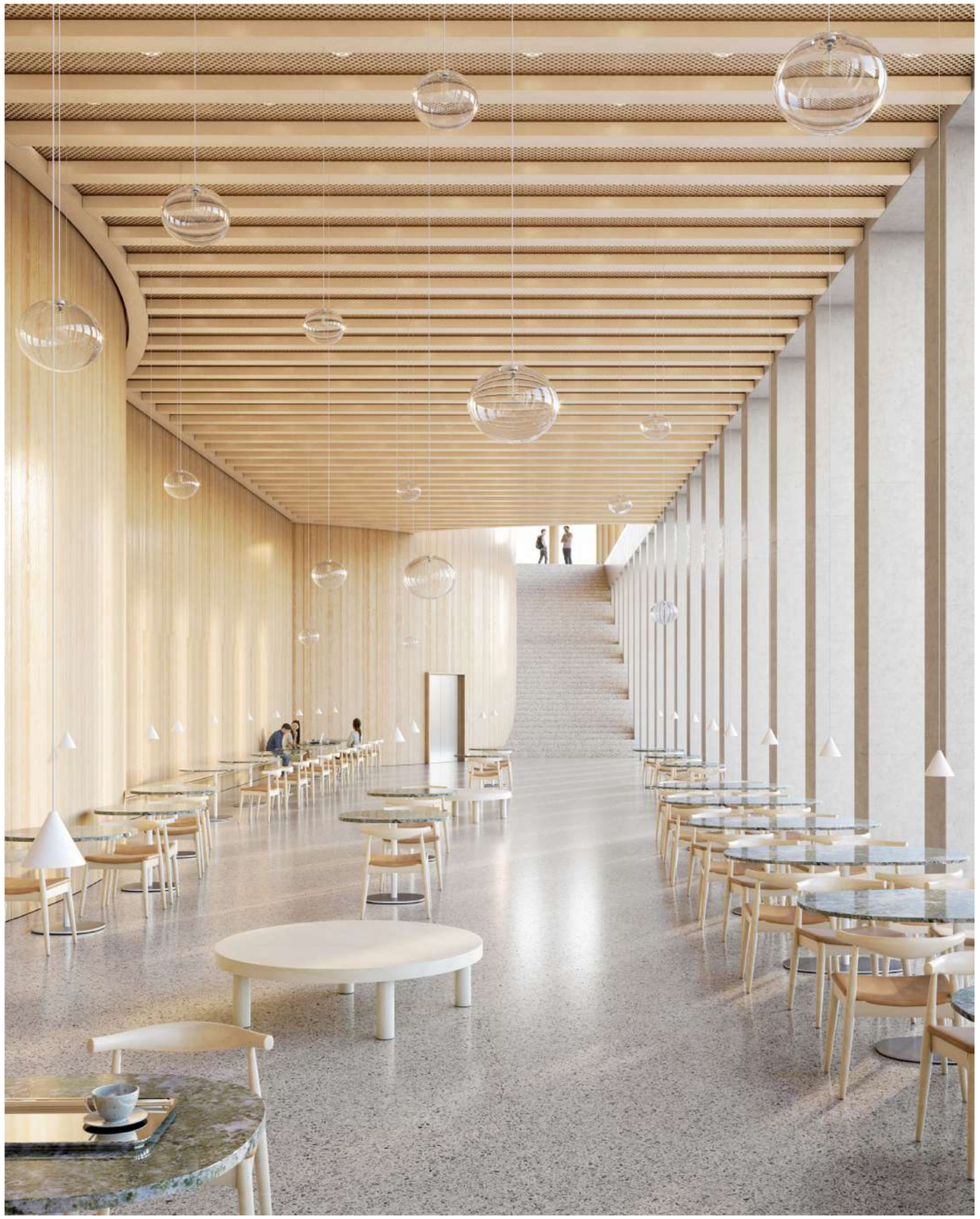


1. Flexible Exhibition
2. Conference Area
3. Permanent Exhibition
4. Café
5. Atrium
6. Office
7. Education
8. Main Entrance
9. Technique

Section East-West 1:400

0 10

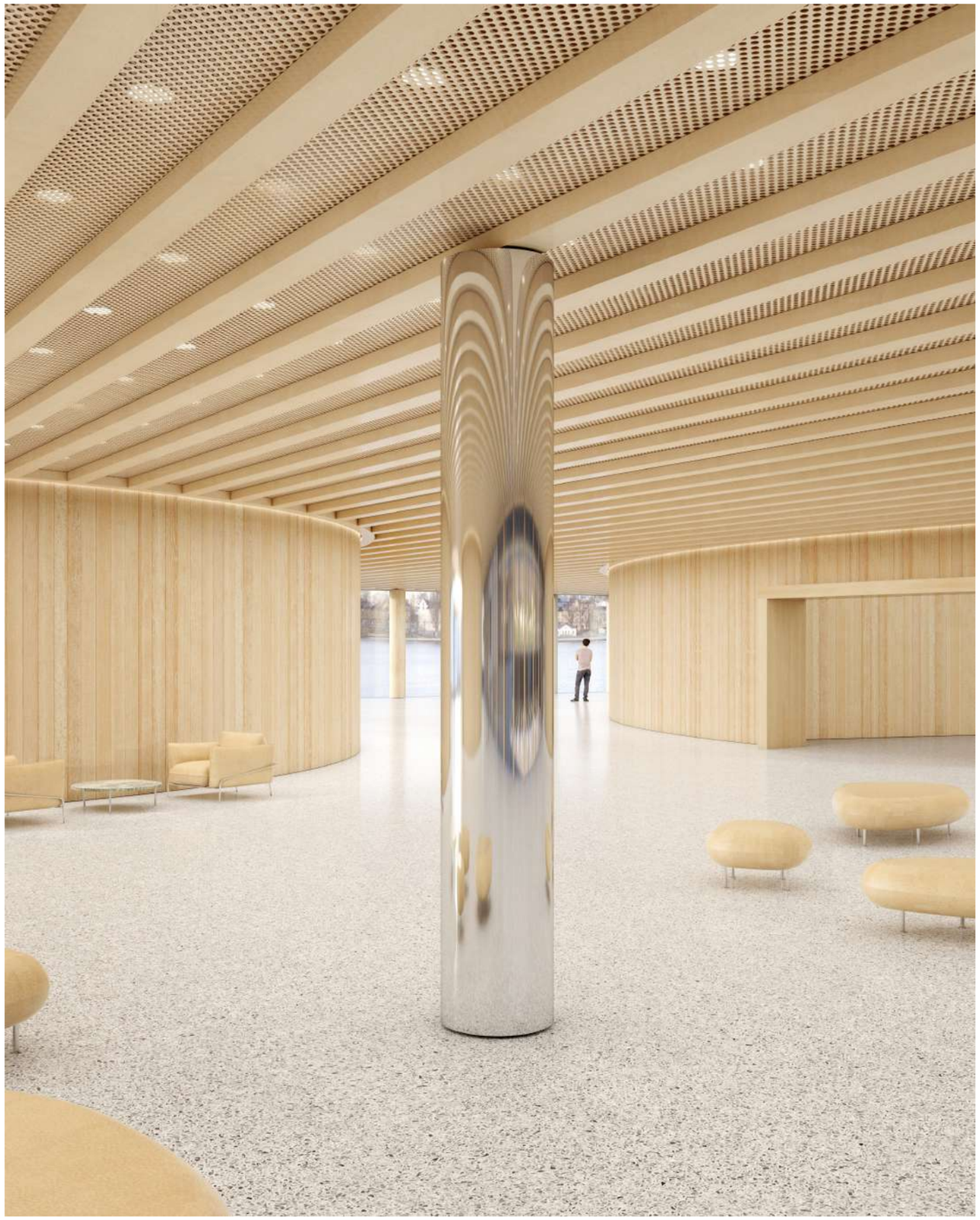
View from Entrance Square



Café

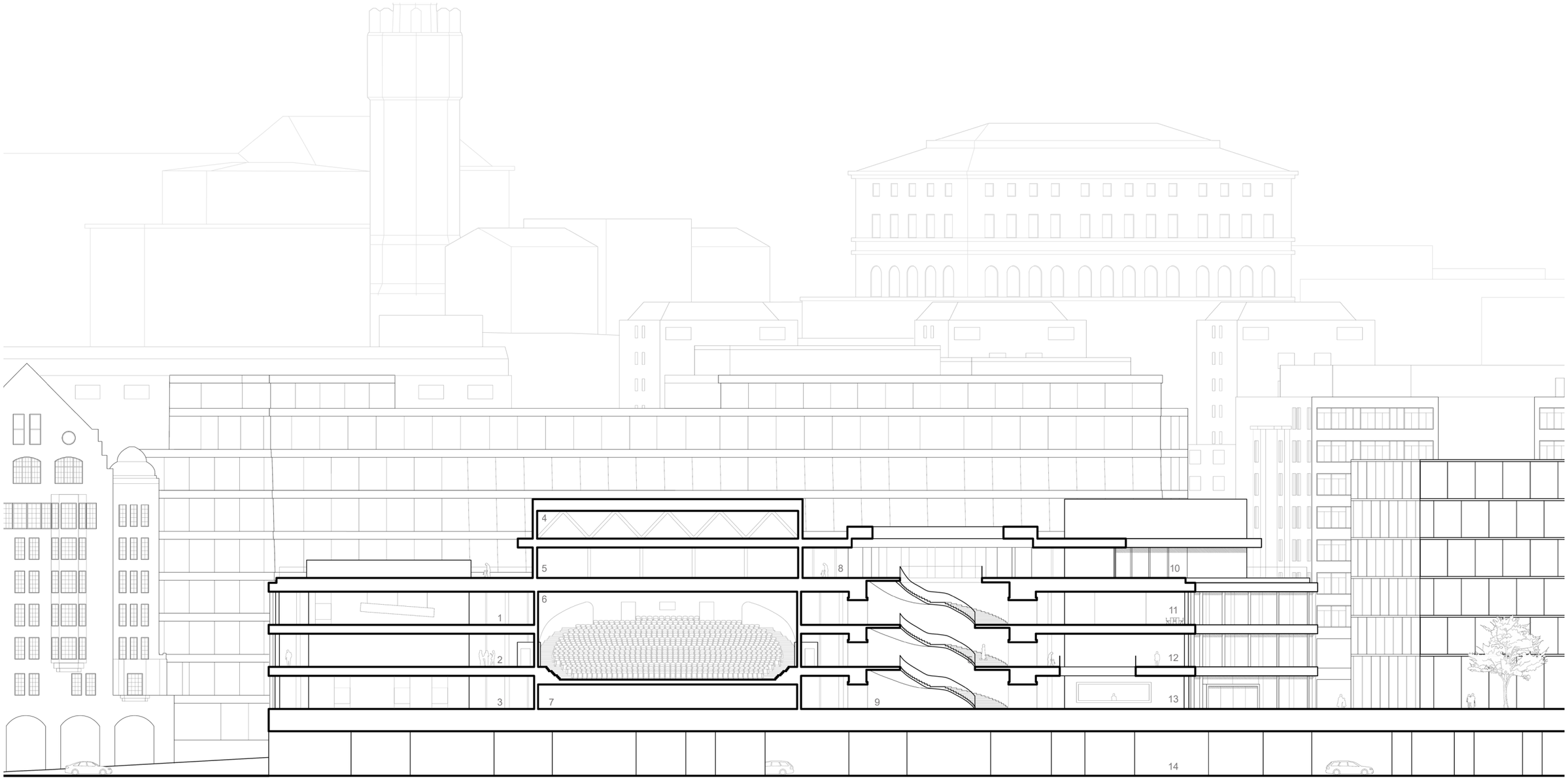
Model - Entrance

Model - Entrance



Steel Column

Atrium



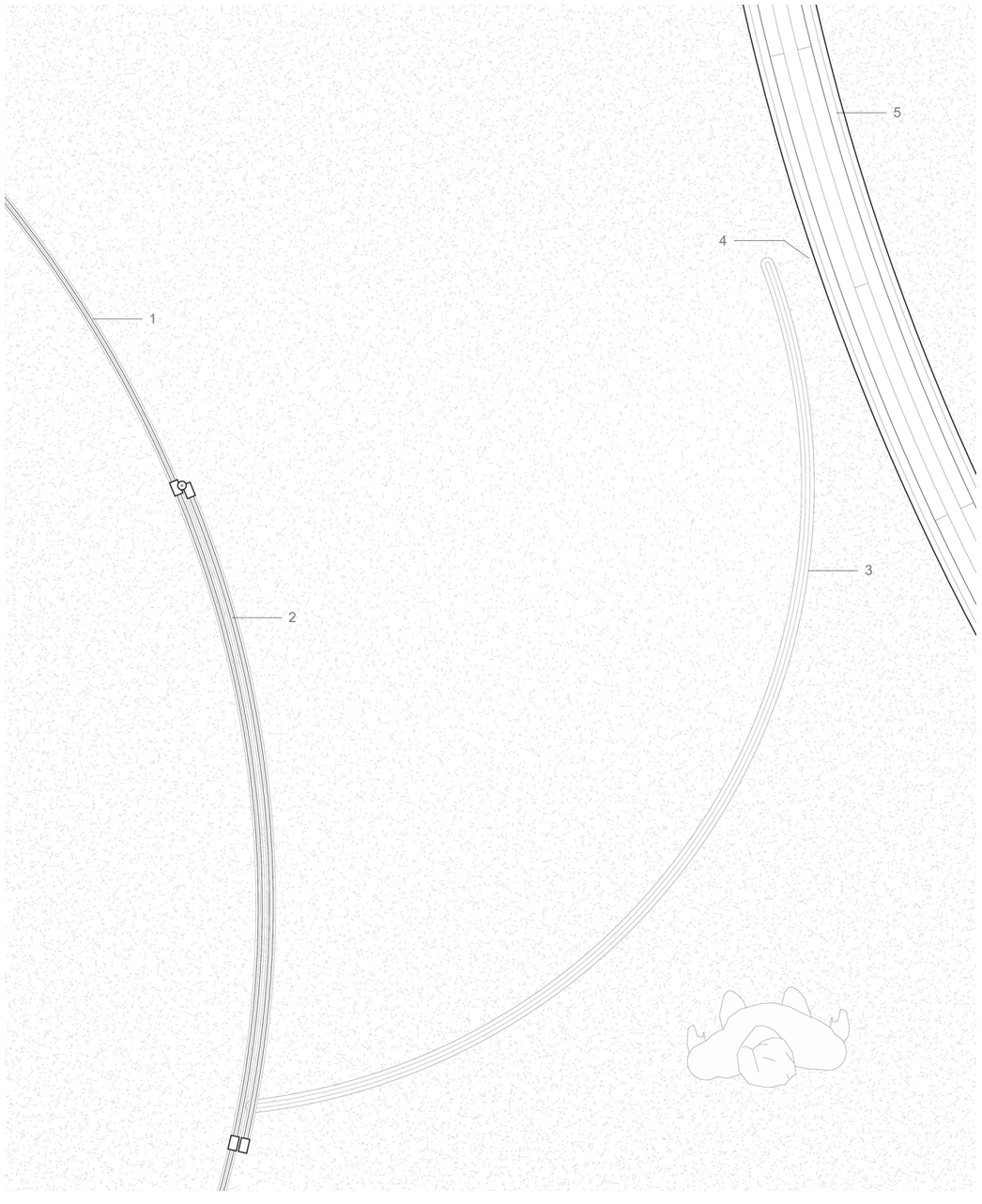
1. Flexible Exhibition
2. Conference Area
3. Permanent Exhibition
4. Technique
5. Restaurant Kitchen
6. Auditorium
7. Cloak-Room & WC
8. Restaurant
9. Main Communication
10. Terrace
11. Office
12. Education
13. Entrance
14. Stadsgårdsleden

Section East-West 1:400

0 10

Auditorium

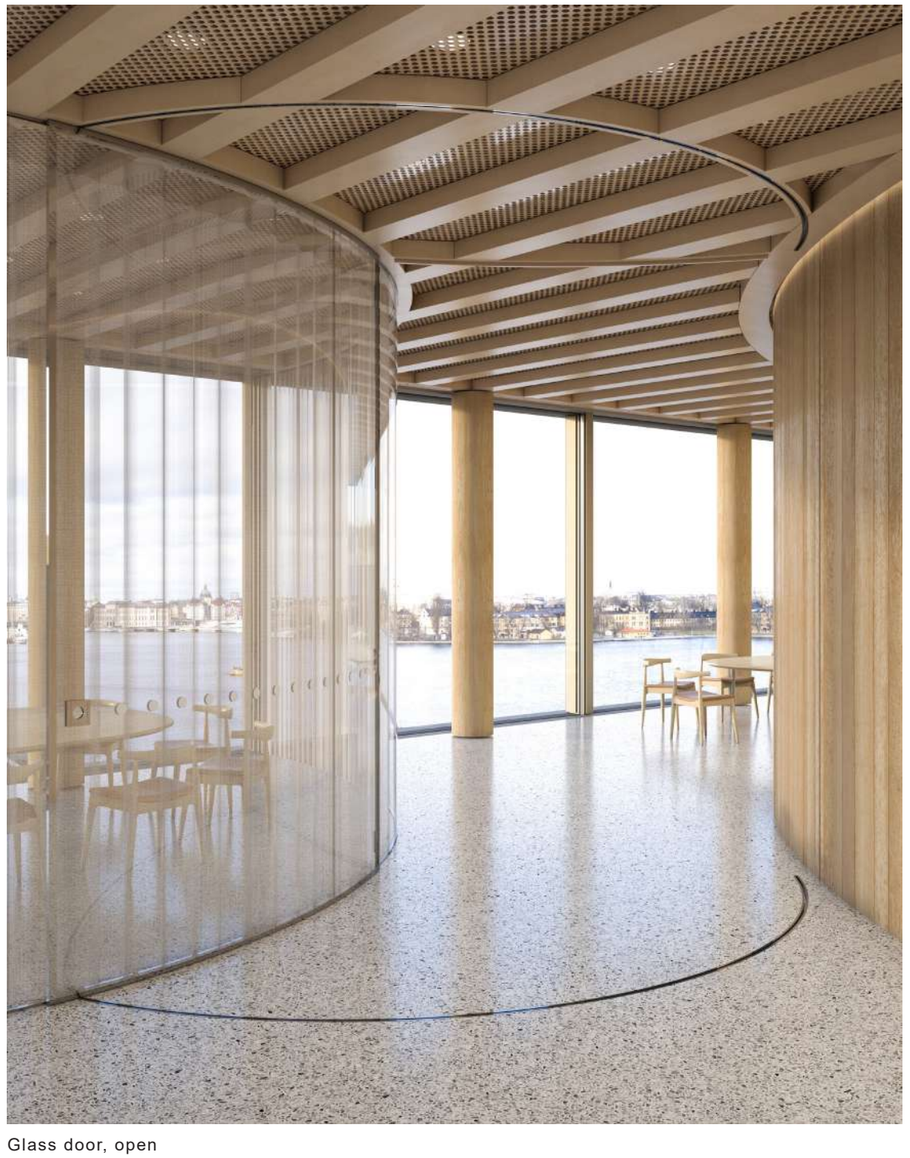
Meeting room



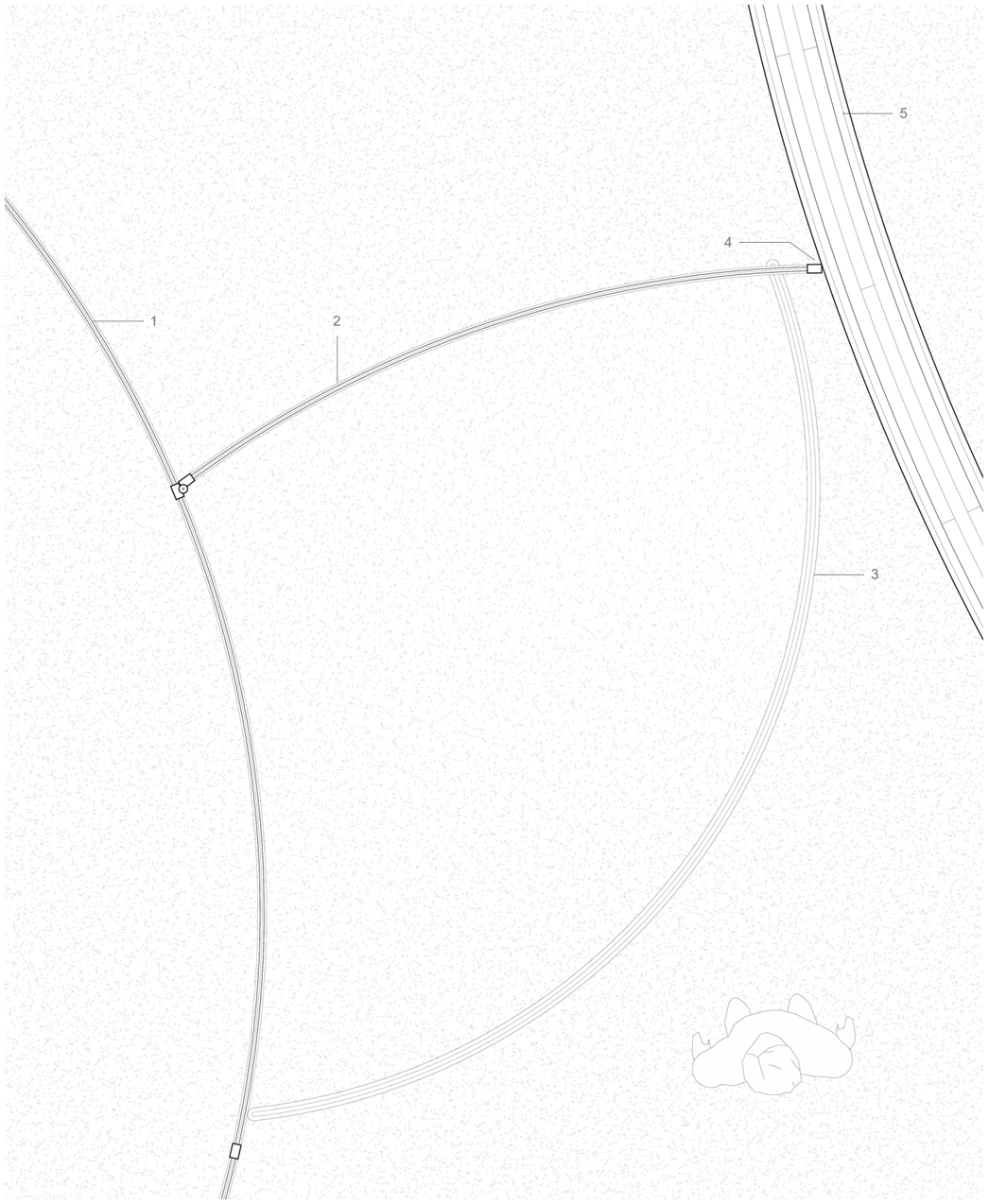
1. Arched glass wall
2. Arched glass door
3. Floor rail
4. Door stop
5. Wooden cylinder

Glass door plan, open 1:20

0 0,5



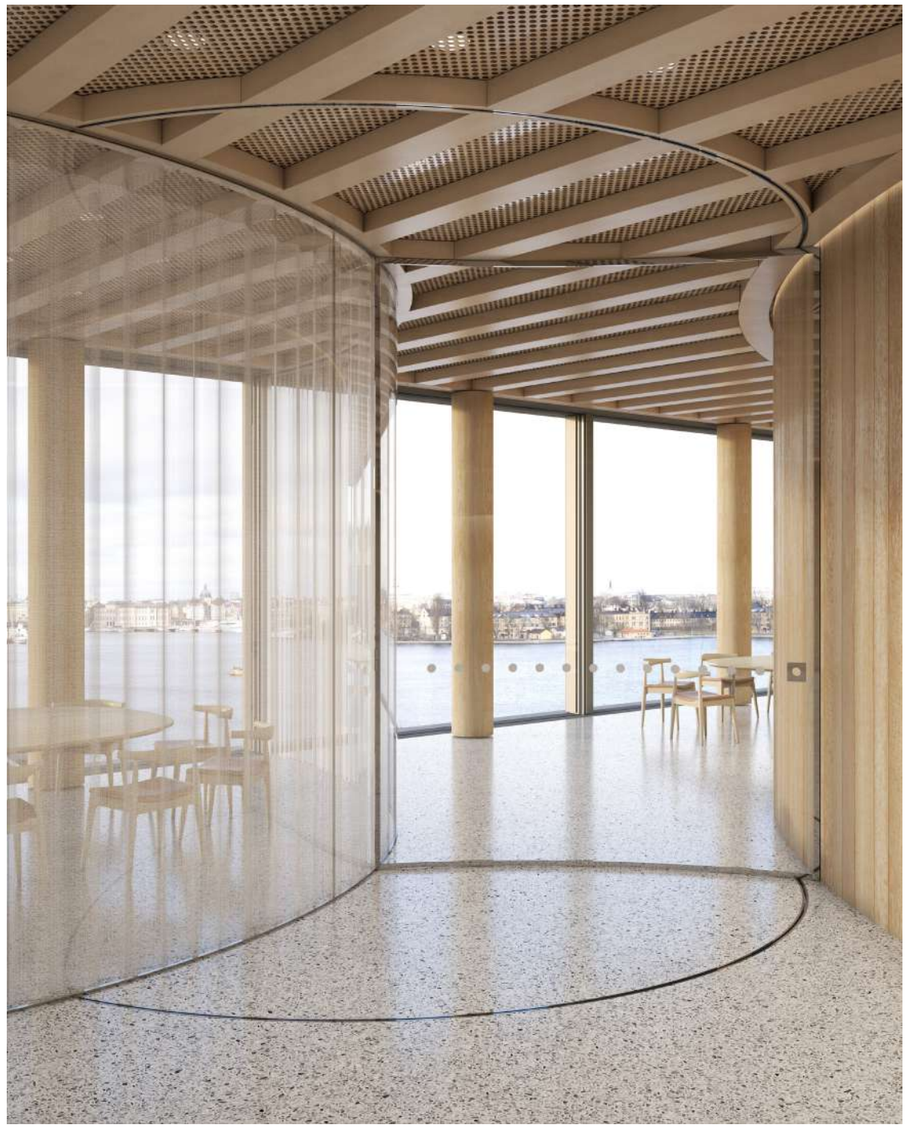
Glass door, open



1. Arched glass wall
2. Arched glass door
3. Floor rail
4. Door stop
5. Wooden cylinder

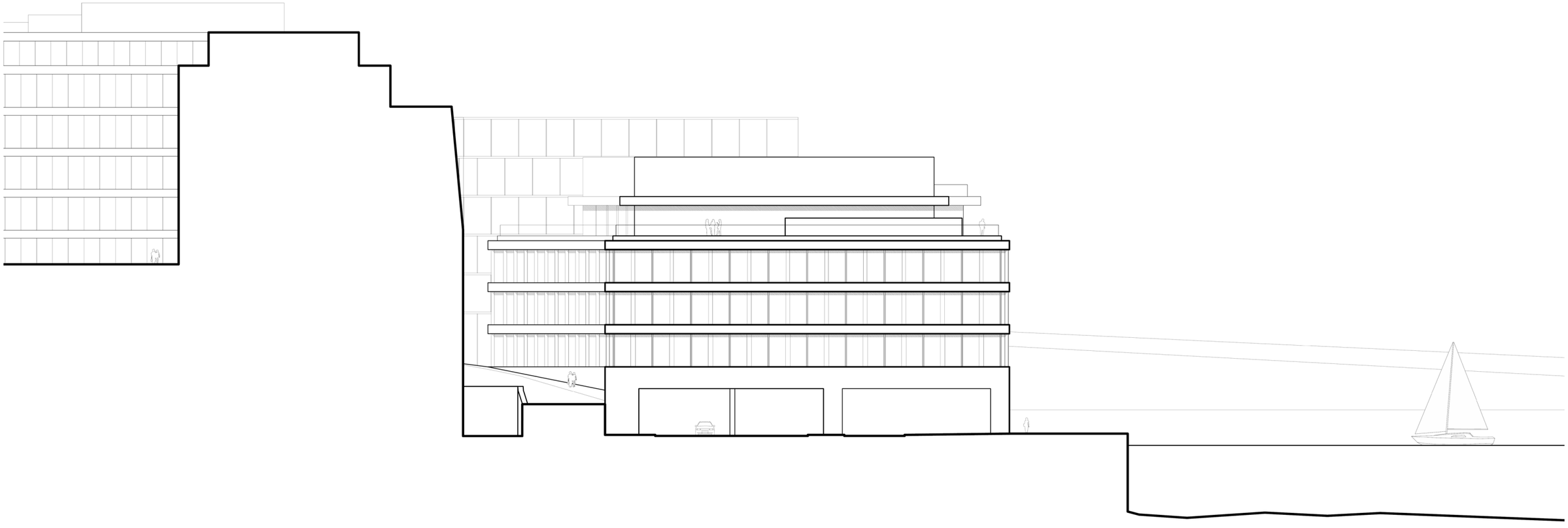
Glass door plan, closed 1:20

0 0,5



Glass door, closed

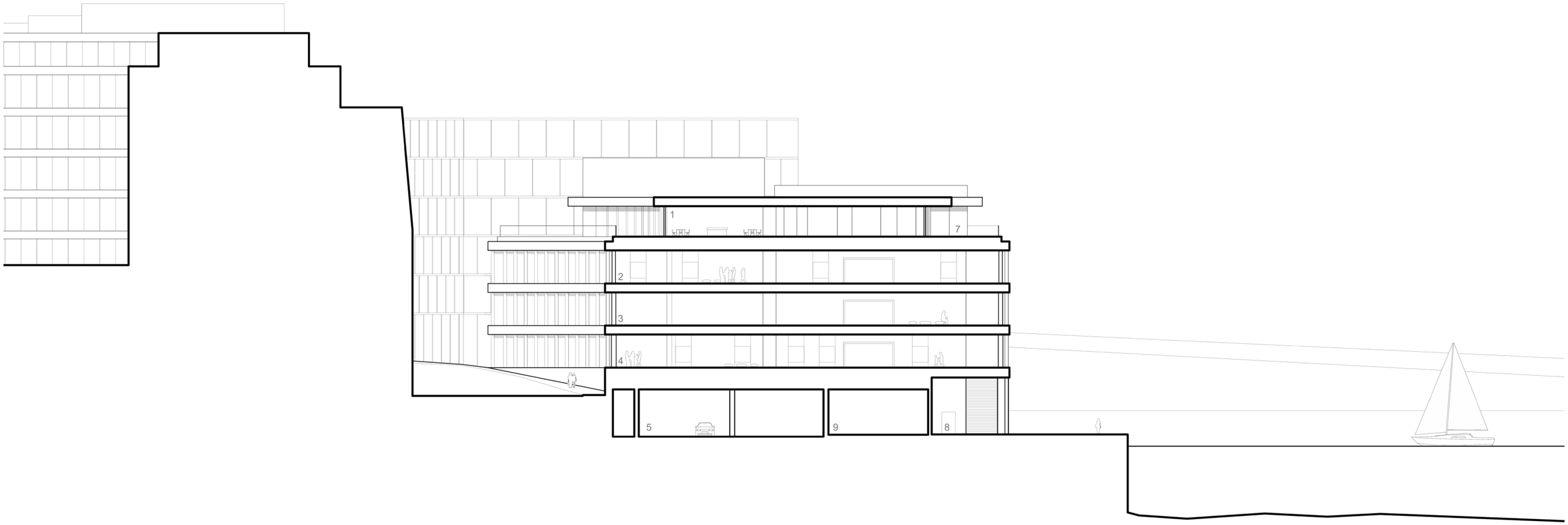
Education area



Facade East 1:400

0 10

View from Saltsjöleden

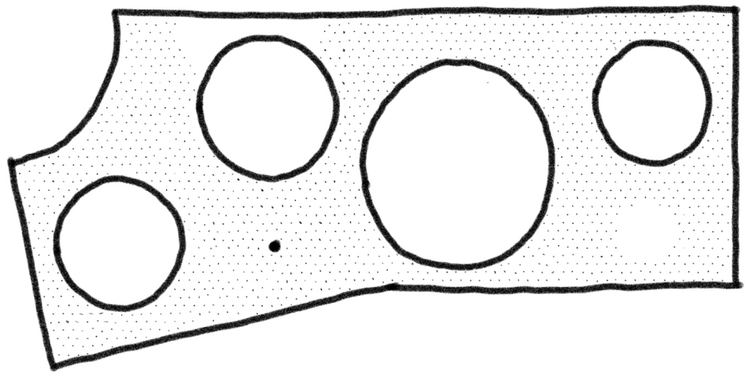


1. Restaurant
2. Flexible Exhibition
3. Conference Area
4. Permanent Exhibition
5. Stadsgårdsleden
6. Main Communication
7. Terrace
8. Café
9. Goods Delivery

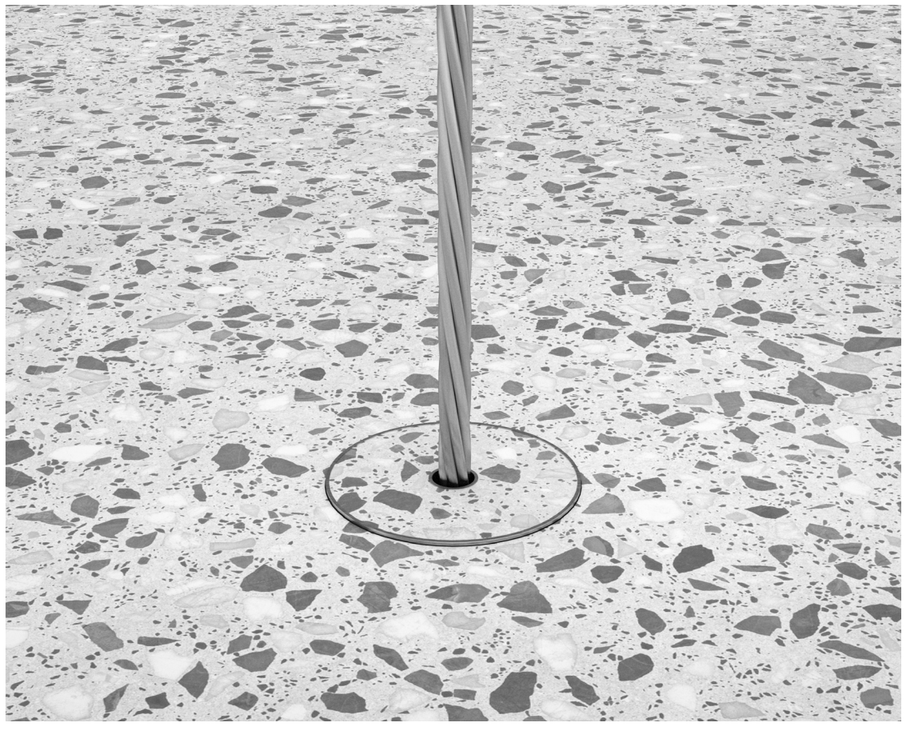
Section South-North 1:400

0 10

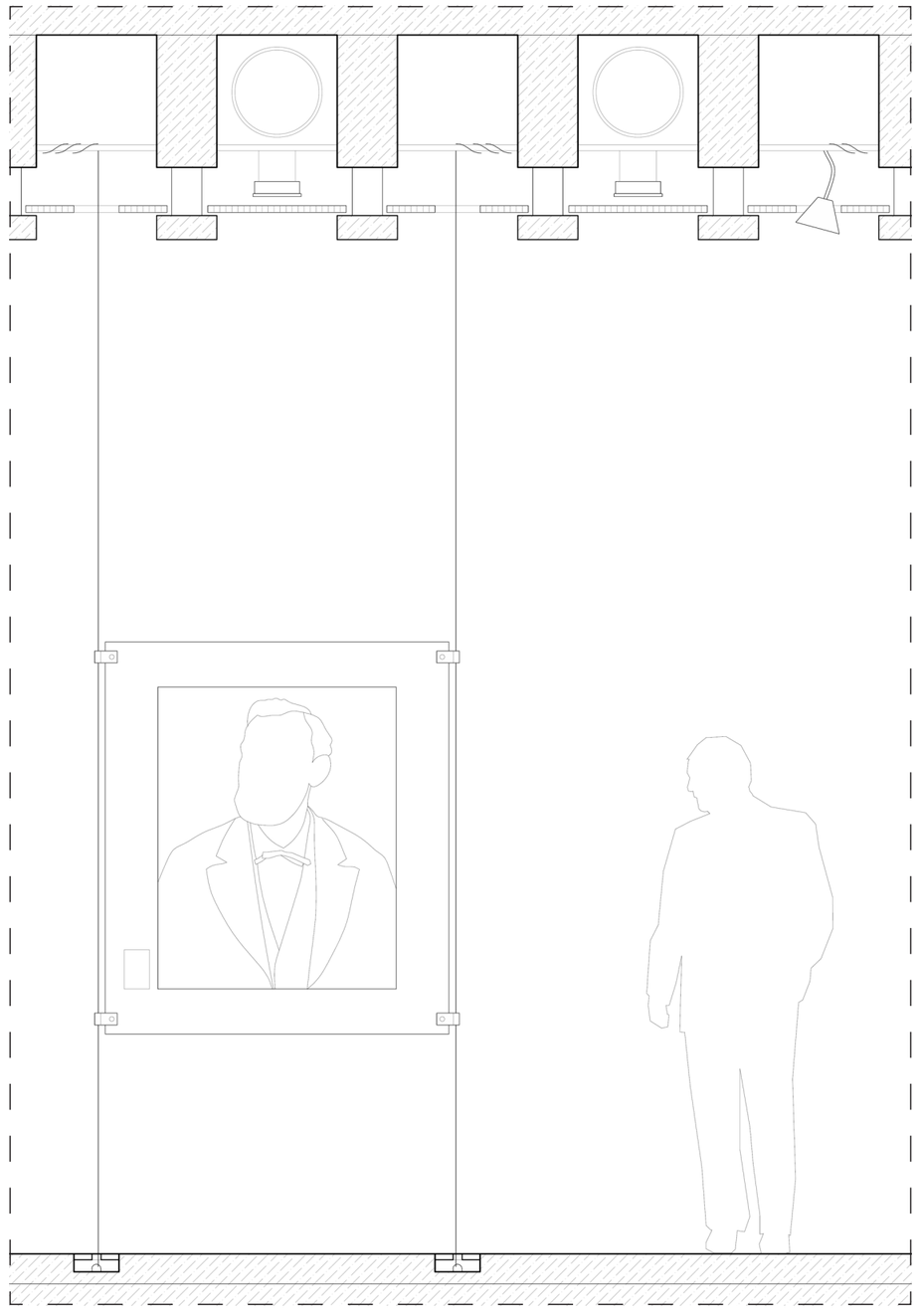
Exhibition



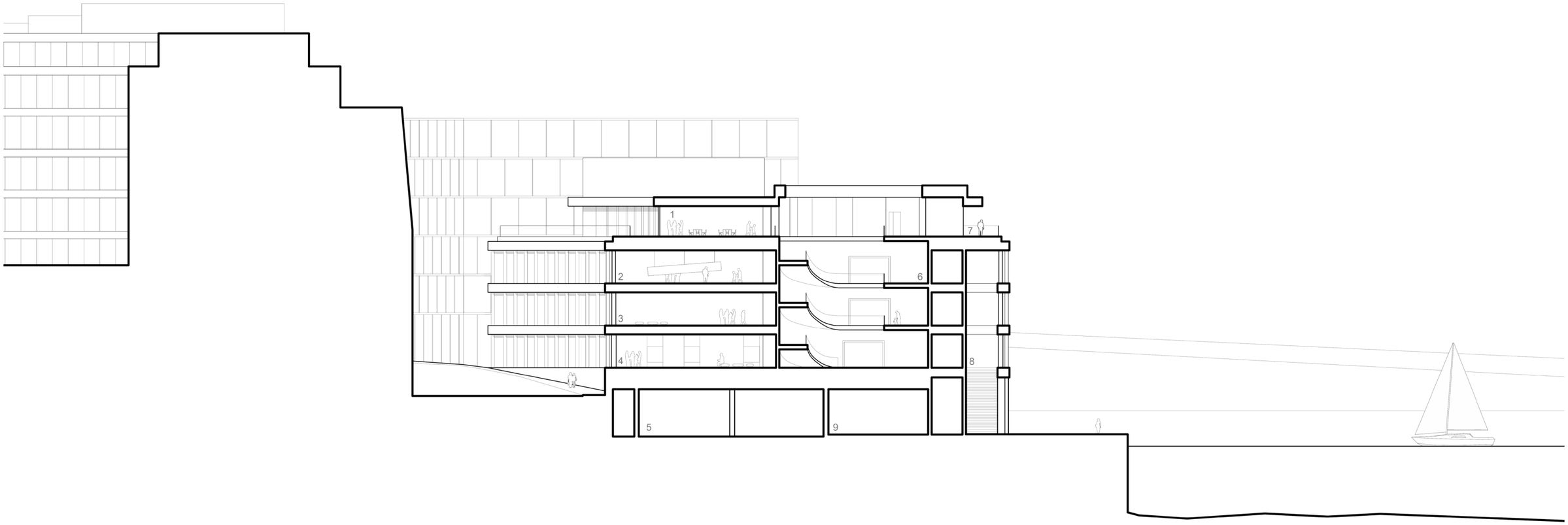
Nodes for suspension of exhibition screens



Floor detail



Section 1:30

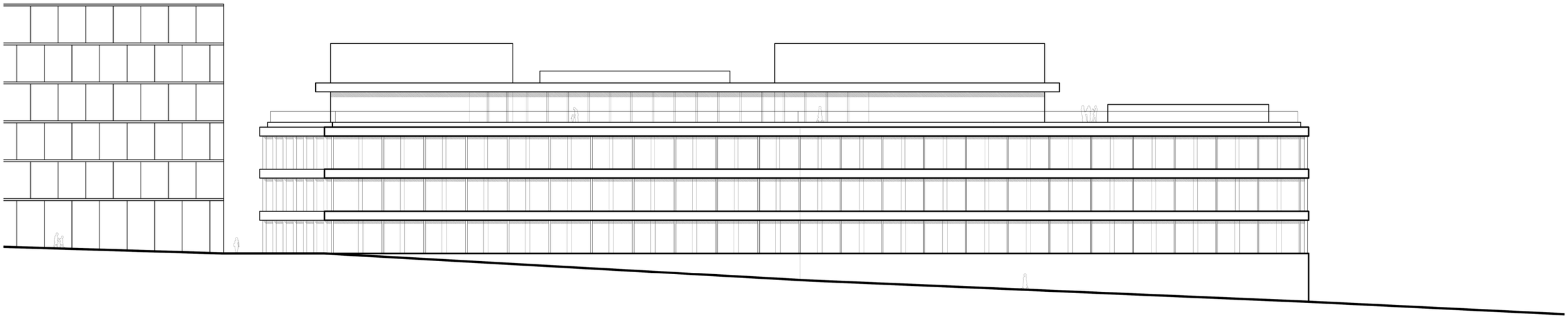


1. Restaurant
2. Flexible Exhibition
3. Conference Area
4. Permanent Exhibition
5. Stadsgårdsleden
6. Main Communication
7. Terrace
8. Atrium
9. Goods Delivery

Section South-North 1:400

0 10

Main Communication



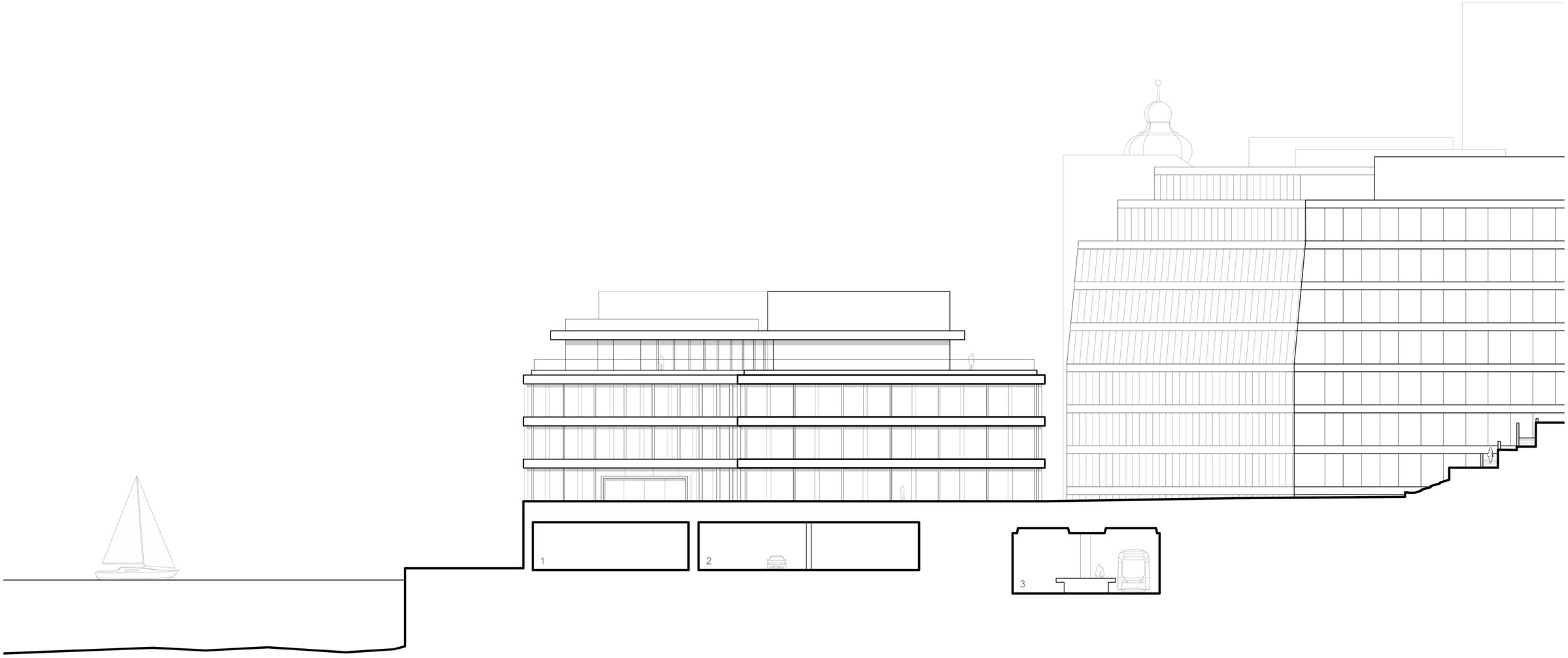
Facade South 1:400

0 10

View from Katarinavägen

Office

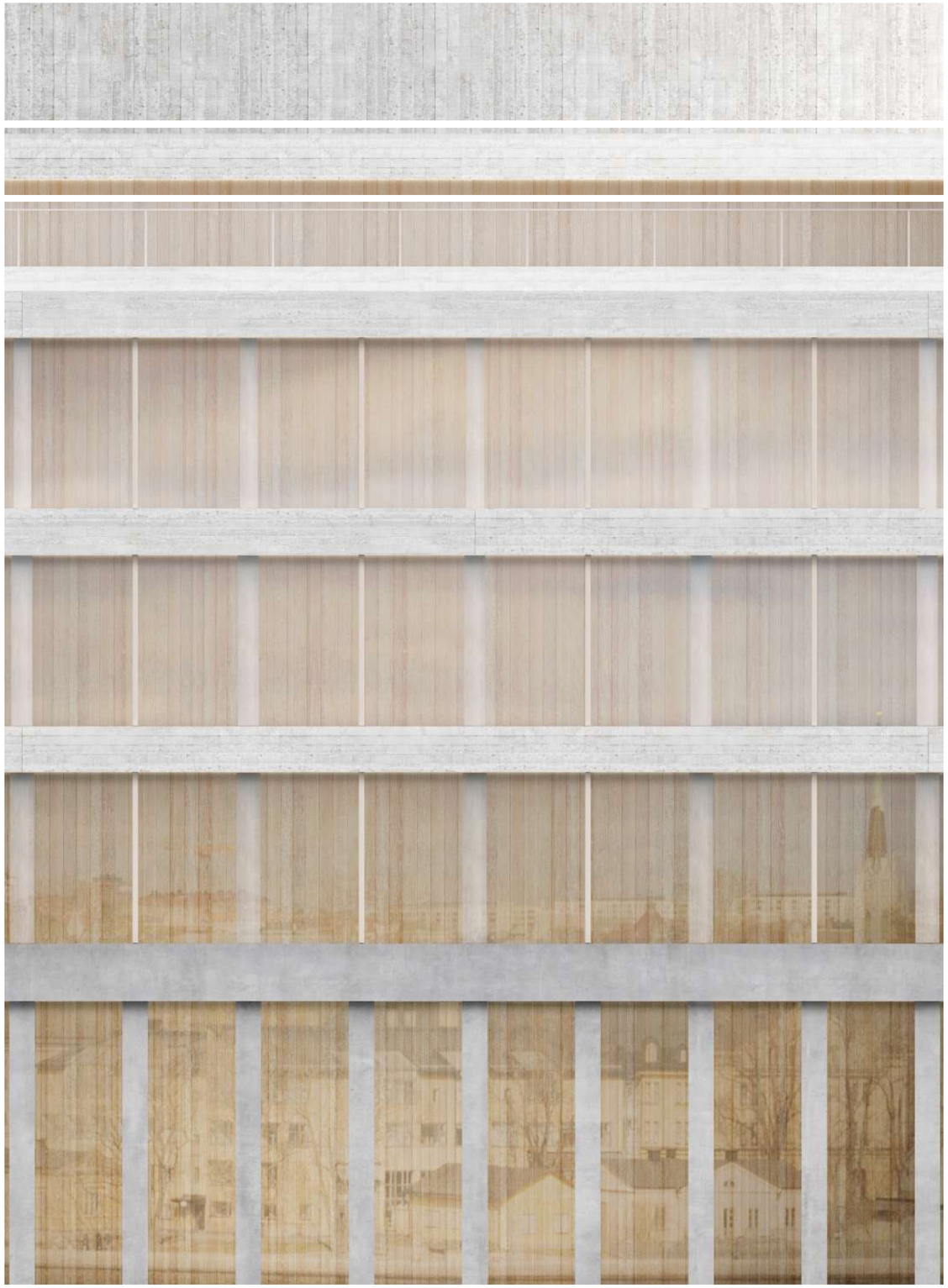
View from Saltsjöuppfarten



1. Technique
2. Stadsgårdsleden
3. Saltsjöbanan

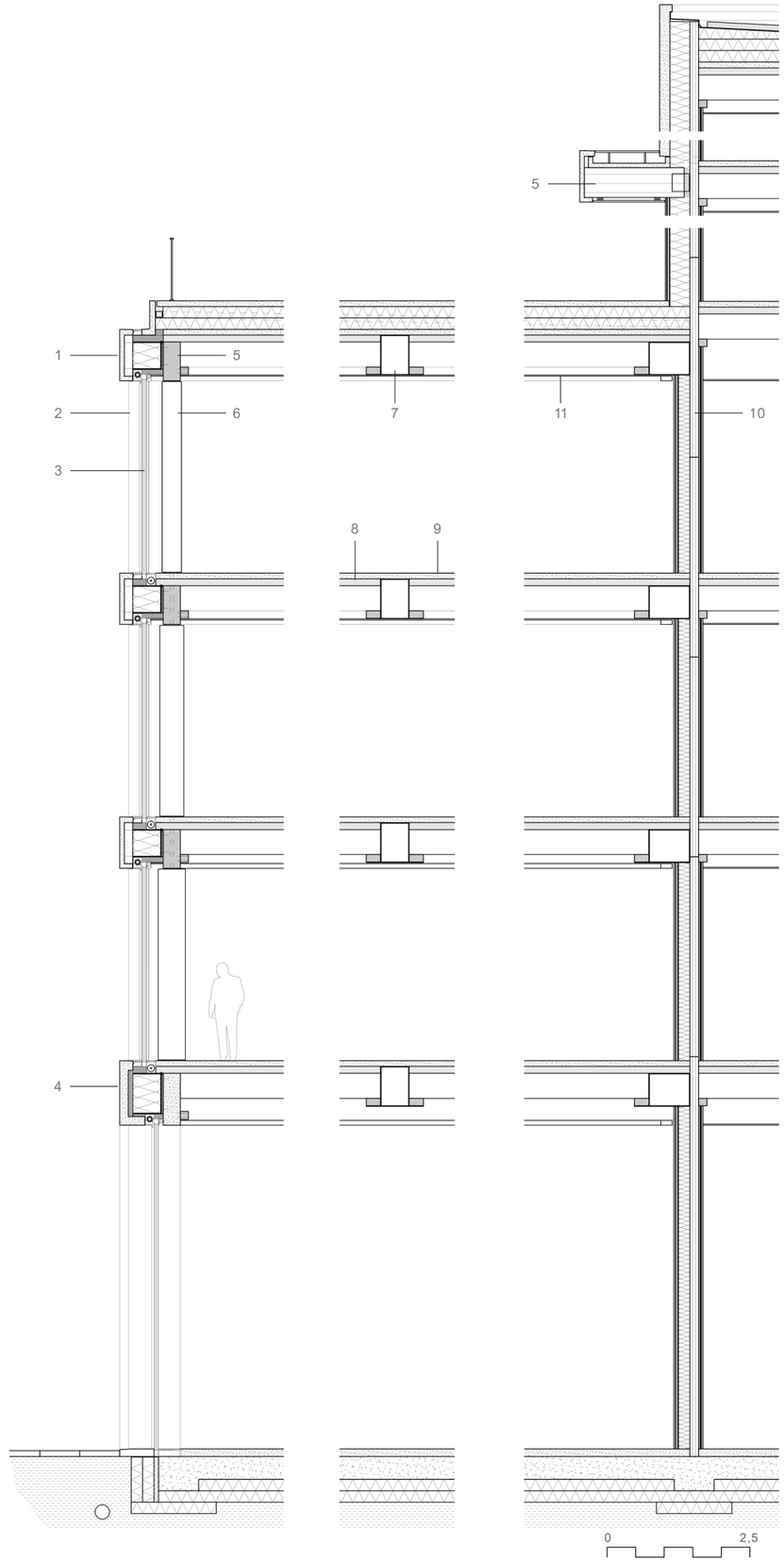
Facade East 1:400

0 10



Facade Elevation 1:100

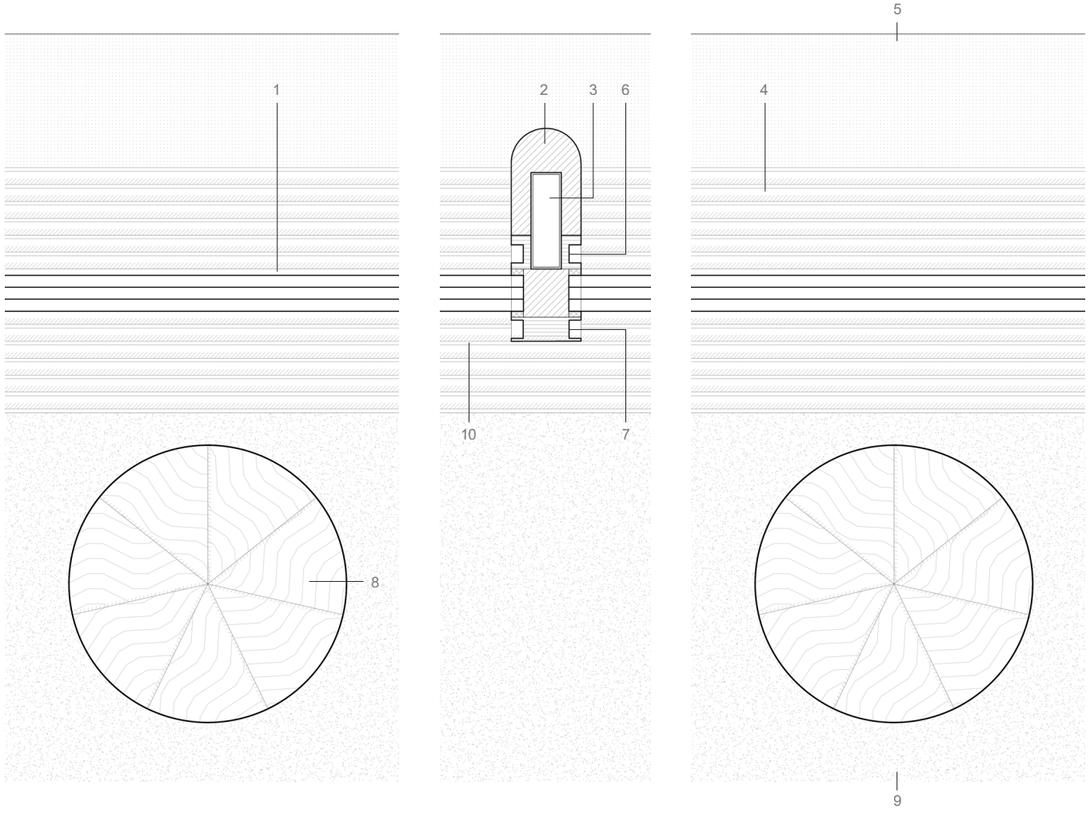
0 2,5



1. Horizontal facade panel, precast concrete, board form surface
2. Aluminium profile, champagne, cc about 4200 mm
3. Triple glazing
4. Plinth facade, precast concrete, steel form surface
5. Glulam beam
6. Oak column, cc about 4200mm
7. Hollow beam (HVAC channel)
8. CLT rib deck panel
9. Concrete topping, terrazzo
10. Cylinder wall, 150mm curved CLT, vacuum pressed
11. Suspended ceiling, perforated wooden panels

Principle Section 1:100

0 2,5

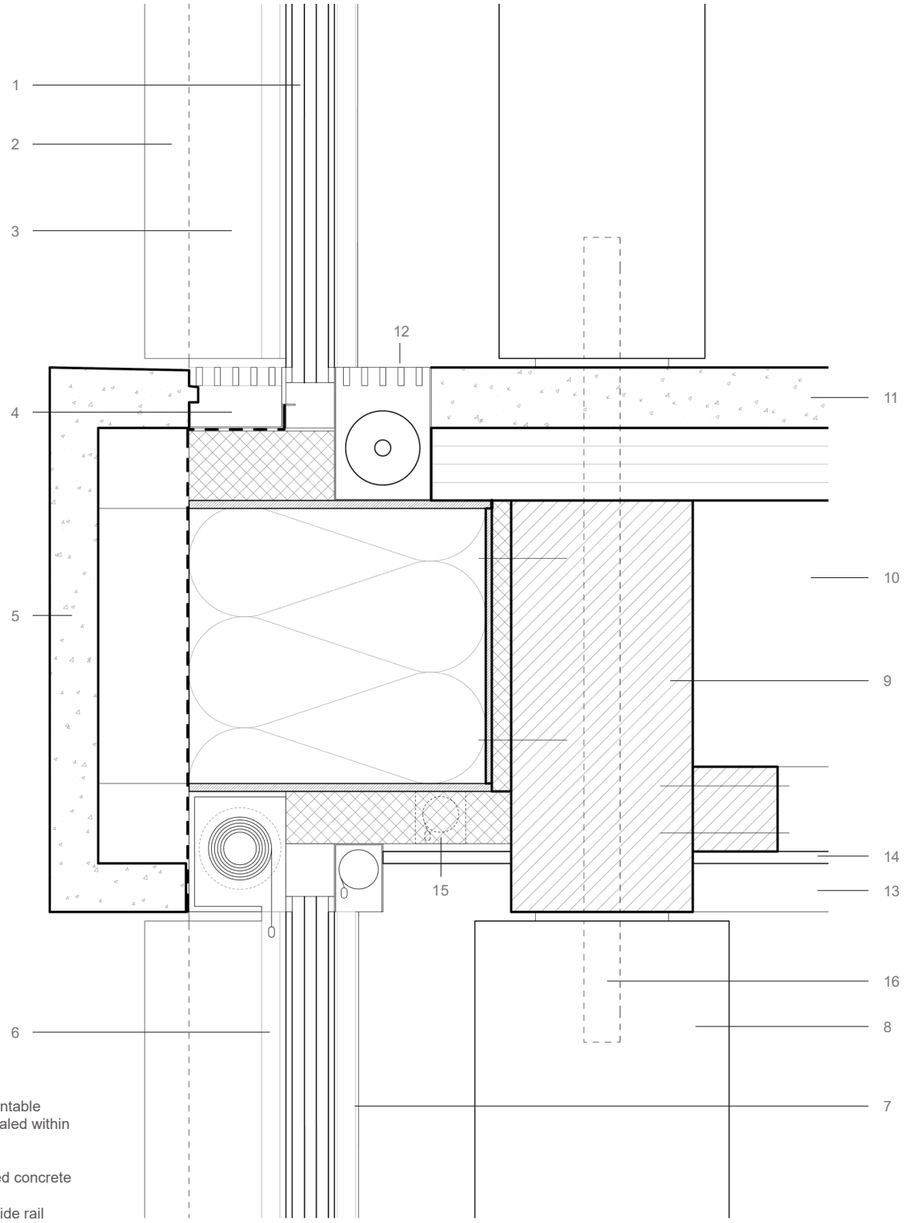


1. Triple glazing
2. Facade profile, demountable
3. Rain water pipe concealed within facade profile
4. Water drainage rail
5. Horizontal prefabricated concrete element
6. External sunscreen guide rail
7. Internal anti-glare screen guide rail
8. Wood column, oak, turned, Ø 320 - 500 mm
9. Terrazzo 100mm
10. Radiator grill

Facade detail, section 1:10

0 0,25

Facade detail, interior



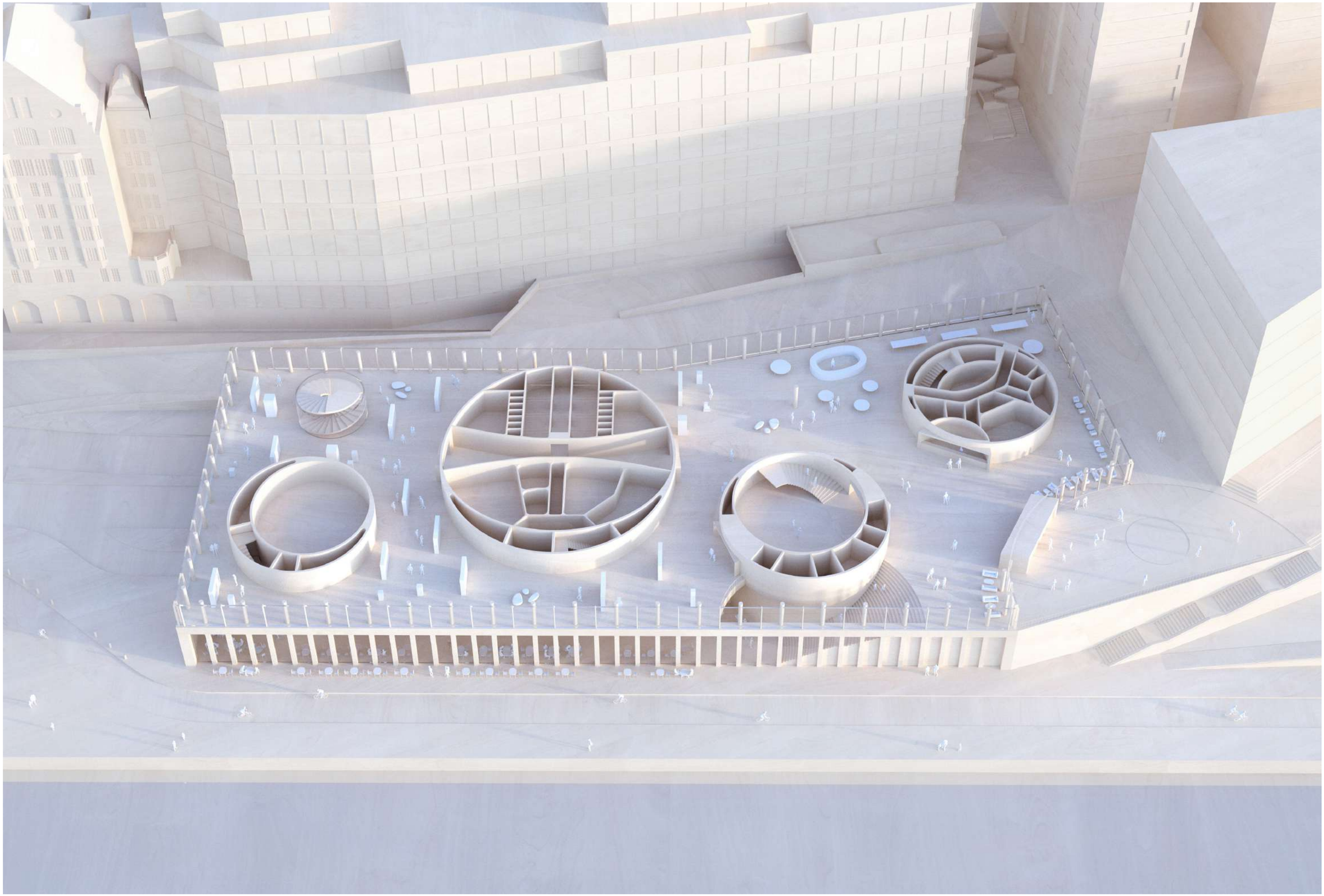
1. Triple glazing
2. Facade profile, demountable
3. Rain water pipe concealed within facade profile
4. Water drainage rail
5. Horizontal prefabricated concrete element
6. External sunscreen guide rail
7. Internal anti-glare screen guide rail
8. Wood column, oak, turned, Ø 320 - 500 mm
9. Glulam beam
10. CLT rib deck panel
11. Concrete topping, terrazzo 100mm
12. Radiator grill
13. Suspended birch stud
14. Perforated wooden panel
15. Possible position for projector screen
16. Steel rod

Facade detail, section 1:10

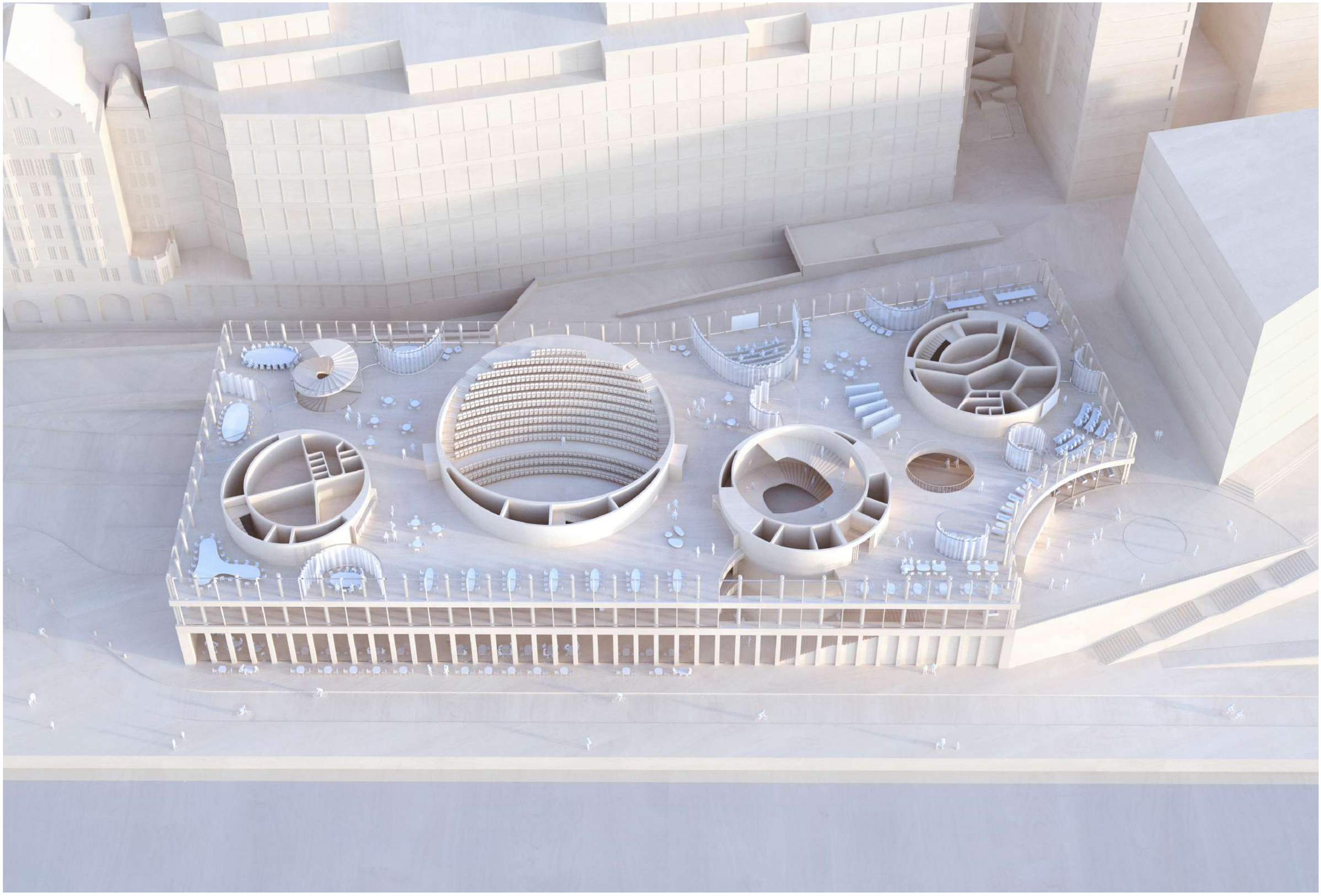
0 0,25

Facade detail, Exterior

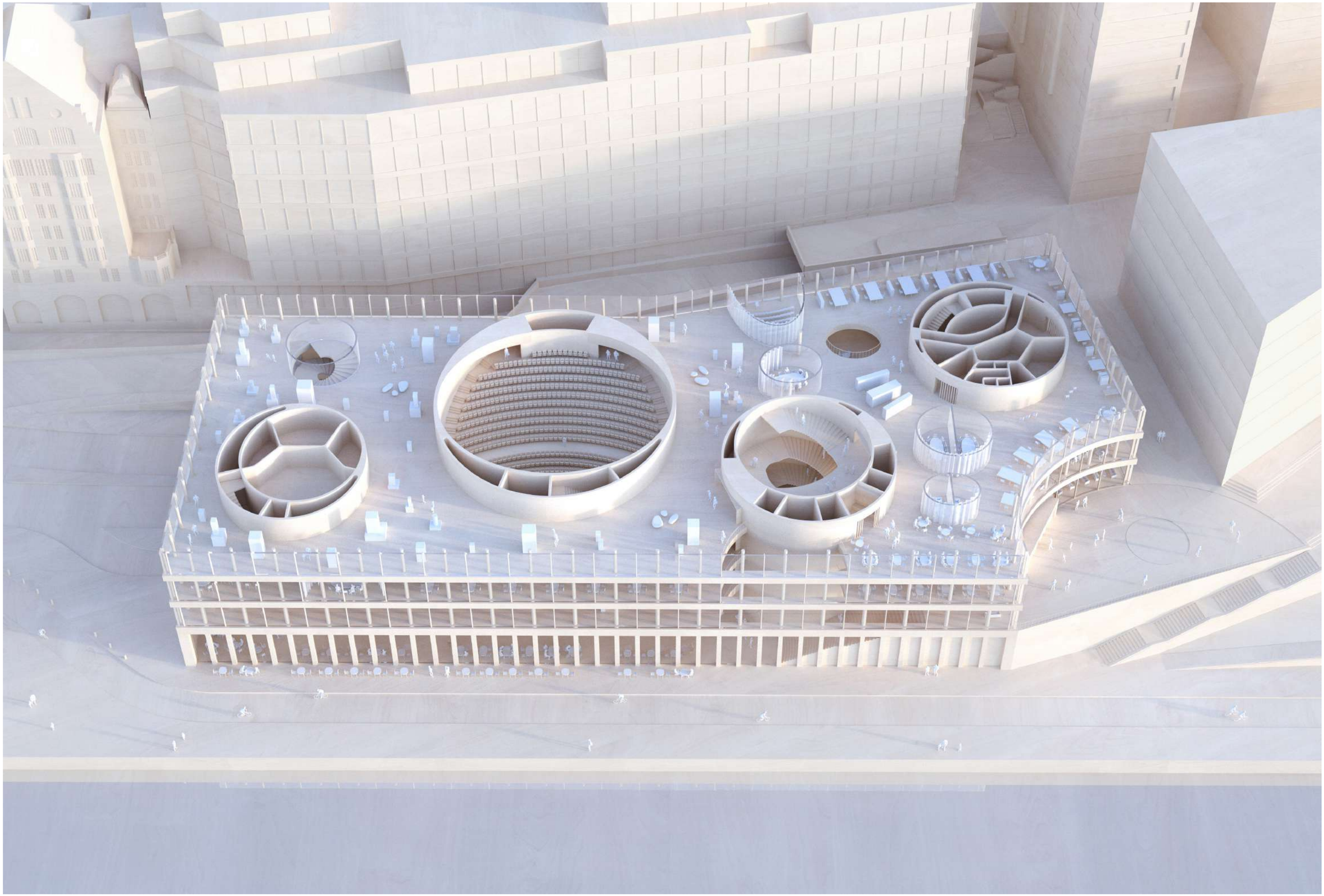
Modelview - Quay Level



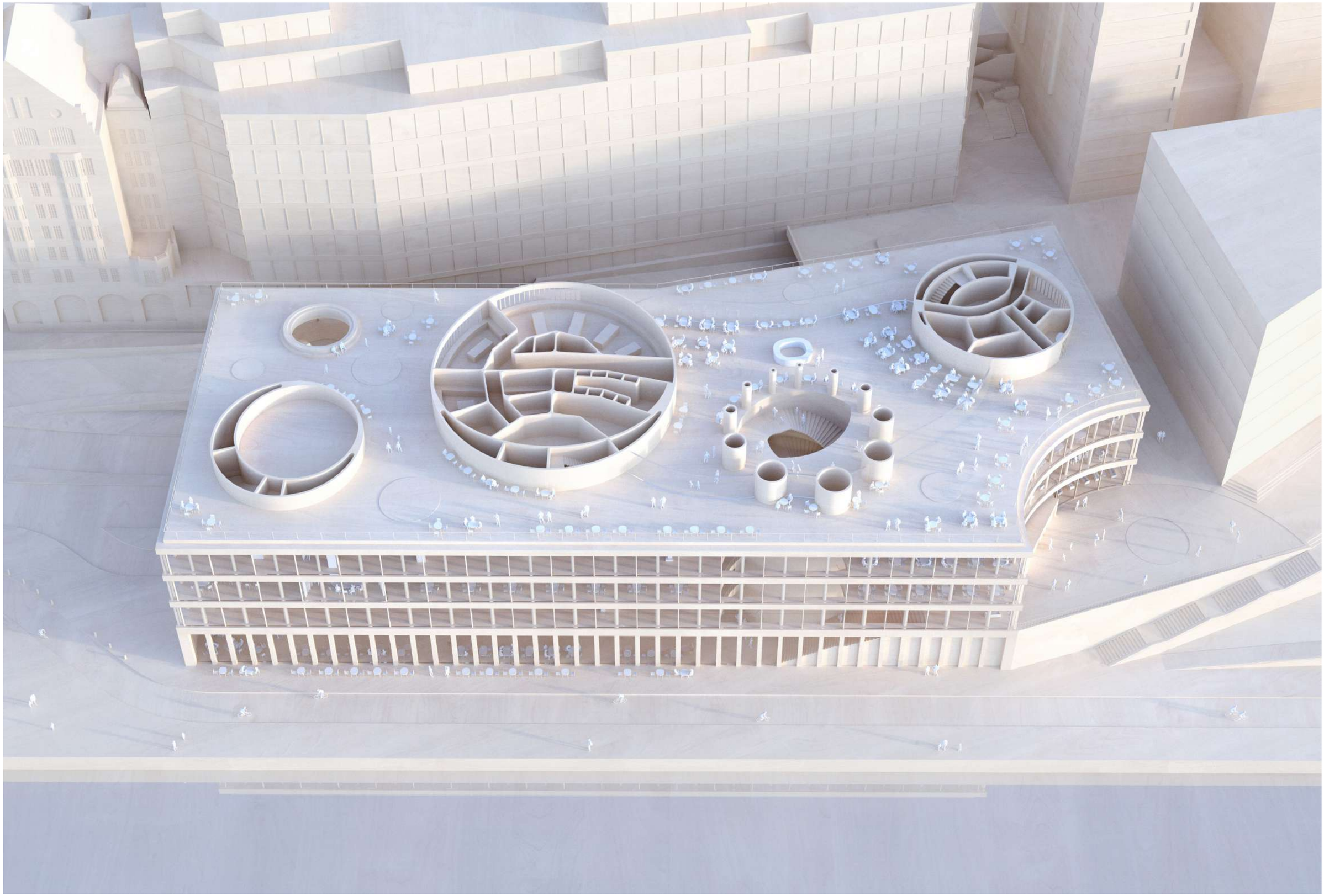
Modelview - Entrance Level



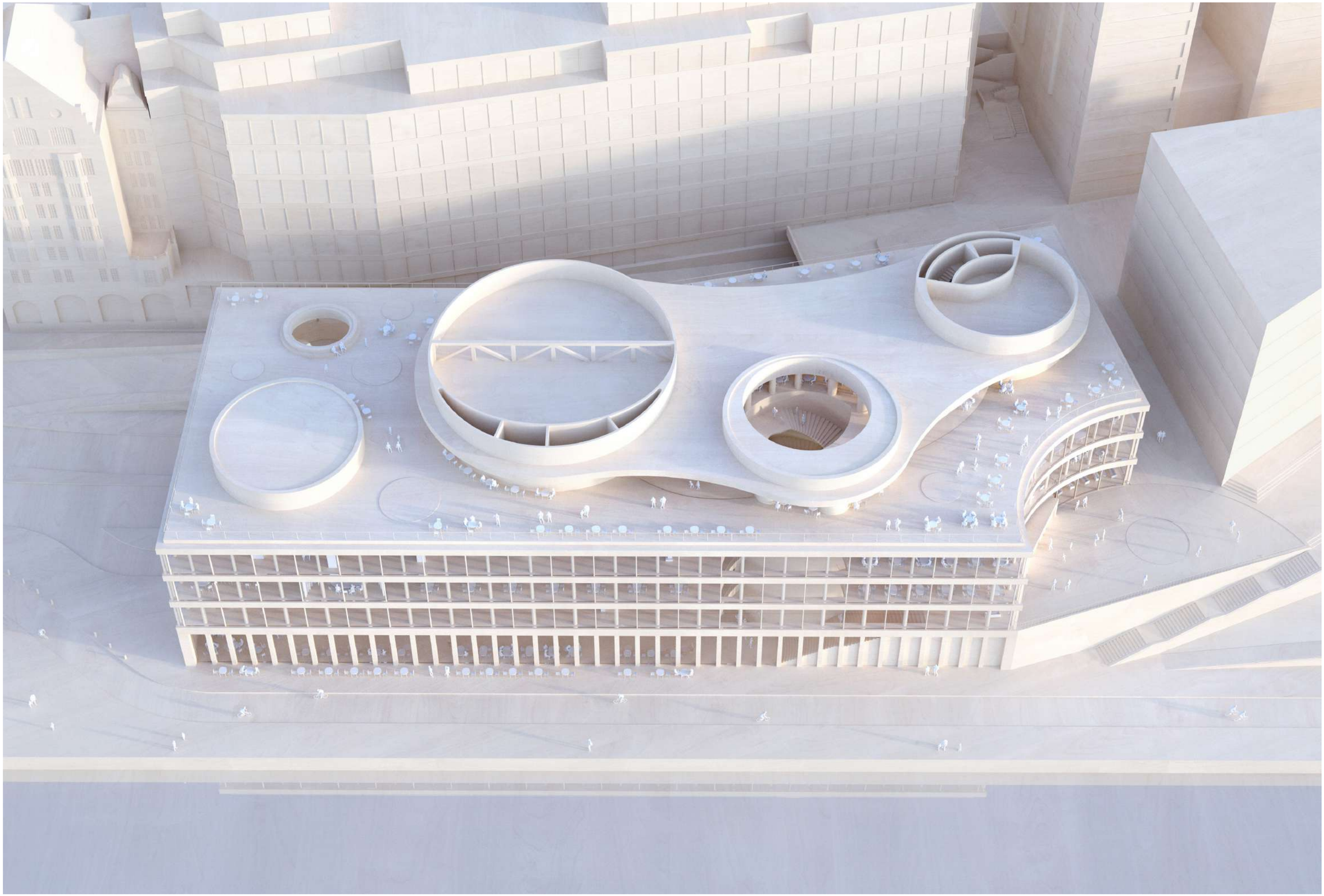
Modelview - Level 1



Modelview - Level 2



Modelview - Level 3



Modelview - Level 4

Modelview - Roof Level

Modelview - terrace

Discussion

The choice of site at Stadsgårdskajen, Slussen, must inevitably be seen in light of the past decade's work on a Nobel Center at Blasieholmen. That a prominent building such as a Nobel Center is to be conceived within the limits of detail-plan created for an office building rather than developing a detail-plan based on a suitable proposal for the site and program, is questionable. However, looking at the process at Blasieholmen the choice of site at Stadsgårdskajen is understandable.

Now, looking back at the two thesis questions:

-How can the spirit of the Nobel Prize be materialized into a public building in the core of Stockholm?

-How should the Nobel Center communicate its identity and purpose to its local and global context?

It goes without saying that the proposal developed within the frames of this thesis is just one of many ways in which a building dedicated to the Nobel Prize can be materialized at Stadsgårdskajen. Putting the site regulations aside, two aspects has been important when developing the proposal; the formal language, and the structural material.

Developing the proposal from both a tectonic and spatial perspective in relation to the spirit of the Nobel Prize initiated the thought of circular formed wooden constructions, both in terms of vacuum pressed CLT elements, but also round columns in solid wood. An idea that has been developed together with engineers at Chalmers and KTH and influenced other parts of the building.

Wood, as any material, has shown to have its limitations, both in terms of spans, weather resistance and more. However, combined with other materials it has the potential of being a buildings primary building material. Transversal steel beams permits larger spans, prefabricated concrete allows for a more durable facade and concrete topping on slabs gives a greater stability.

Apart from the spatial and tectonic values it is our impression that the value of the formal language and mode of construction has the potential to communicate to both the local and global inhabitants as well as the building sector. This thesis suggests that it is possible to construct large public buildings in wood, without compromising on the spatial and expressive qualities of a building. At least within an academic framework.

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