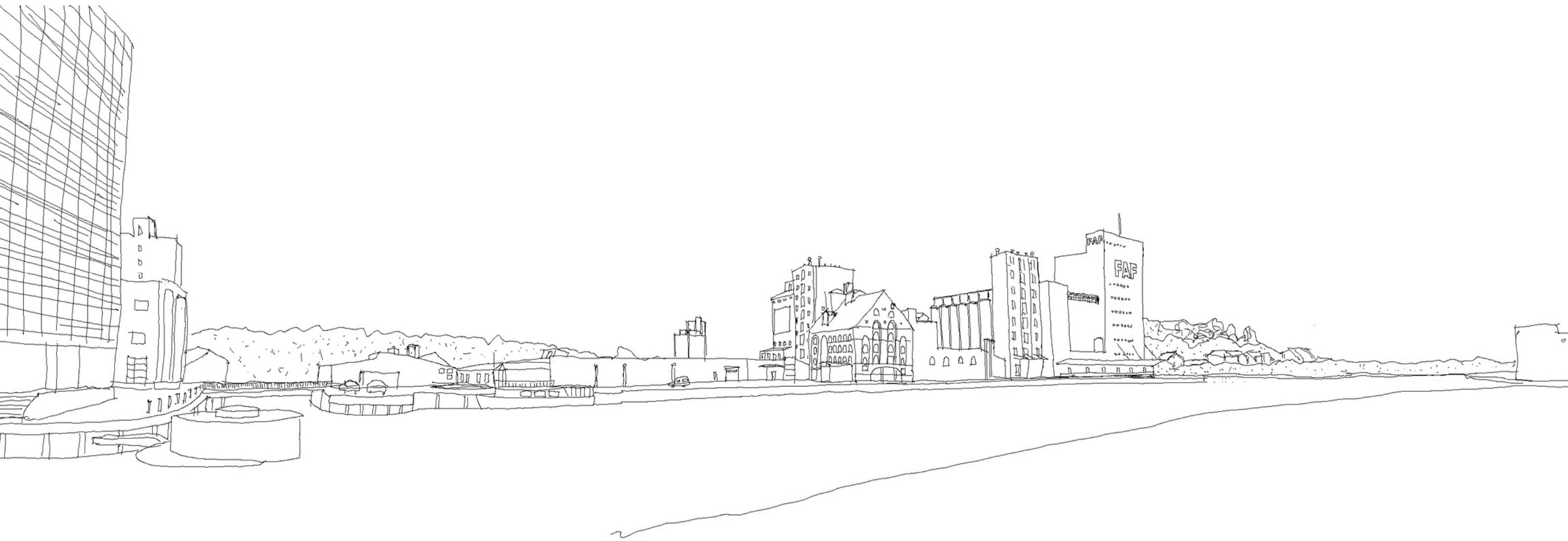


# SUSTAINABLE TRANSFORMATION AND RENOVATION OUTLINE PROPOSAL FOR MUUS PAKHUS AND ODENSE HAVN



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Andrea Caruso  
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CLIENT: CHRISTIAN SYVERSEN  
LOCATION: ENGLANDSKAJ 6, 5000 ODENSE HAVN

ATCM/ BYOiE211

06th of October 2023

# MUUS PAKHUS AND ODENSE HAVN - BACKGROUND HISTORY AND AWAITED CHANGE

## THE HARBOR

Odense Harbor was founded in 1803, and from the 1880s was expanded with a new channel, deepened and aimed at the English trade. Along the harbor, a densely built-up environment emerged with warehouses, coal yards and silos – and one of the country's largest steel shipyards. Large parts of the built environment are still intact. With all this industrial background and imposing buildings that have been since many years solely empty, this noble area of the city was since long laid to rest.

It is an industrial and historical site in the central area in Odense, close to public transport, museums, and all the life that the city can offer within a relatively short walking distance. Today, Stykgodskajen has been cleared of historic harbor buildings, and new office buildings are being built.

Given its powerful and outstanding location, it has become common sense that a renovation of this area needs to take place.

## MUUS PAKHUS

Elias B. Muus' warehouse was built in 1885. Englandskaj got its name when DFDS (Det Forenede Dampsksibs-Selskab - a Danish shipping company) sailed from here to Newcastle in 1886.

The large warehouse is of red stone with a slate roof and six stories high. The building has a heavy timber construction, because a warehouse had to be able to bear a lot of weight. The warehouse was built at the same time as the Odense Havn was expanded.

The building's condition are poor, with a significant portion of the bricks on its facade requiring repair. Additionally, the floors, ceilings and most windows frames need to be replaced due to their deteriorating state.

The structure north of the building is in ruins due to a fire, and the structure to the west is in terrible conditions. The west facade was ignored when the silo that is connected to it was built.

# ODENSE HAVN - THE SUSTAINABLE FOCUS

- To bring life back to the area, both during the day and night
  - Buildings will be given different uses that promote the traffic of people in different hours of the day, for example living spaces, co-working offices that are open 24h, shops, restaurants, services and leisure areas, creating a new small center with life of its own.
- To respect its history, to preserve and to reuse the existing buildings or their foundations as much as possible as part of the revitalization of the harbor
  - Buildings will only be built when the ones standing there cannot be reused according to the building codes after careful examination. The maximum height level of what will be built, will take into consideration the highest building in the island, and the new buildings will alternate in height in order to create natural light and ventilation for all spaces, old and new.
- To connect the islands and its users and passersby closer together
  - The creation of bridges will improve the access around and through the islands, as well as the connection to the city. Because of the proximity to the central station, the public transport in this area will be unnecessary.
- To create green belts that permeate the entire area
  - The climate change needs to be addressed, and the more green areas, the less heat emerging from the ground. They prevent the glaring from the water in harbor, and also provide shade and shelter for different sorts of life, bring wildlife closer to the city and improve the life quality for all.
- To promote access to public
  - The city must be given back to its users, and the different uses of areas and creation of easier access in a welcoming environment will allow that to happen and help bring life back to the harbor. Apartments dedicated to social housing for an affordable price will make sure all classes manage a place in this area, thus avoiding gentrification.
- To reuse materials and elements found in the area and its buildings that can no longer remain standing
  - The idea is to use new materials only when strictly necessary, and to reuse what there is already available in the area, preventing the waste of physical and financial resources.

# MUUS PAKHUS AND ODENSE HAVN - EXISTING CONDITION



ODENSE HAVN - VIEW FROM NÆSBYHOVED SKOV

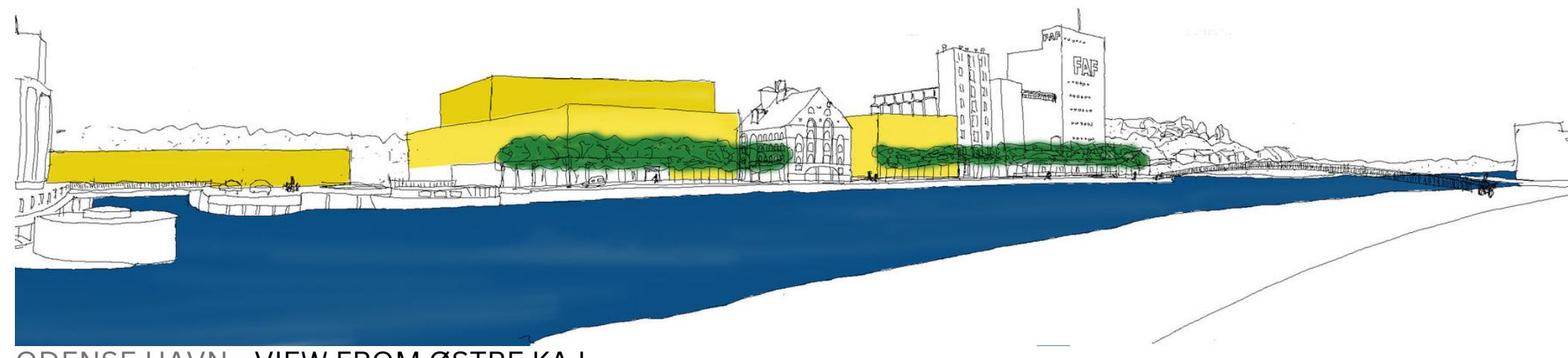


ODENSE HAVN - VIEW FROM ØSTRE KAJ

# MUUS PAKHUS AND ODENSE HAVN - PROPOSAL

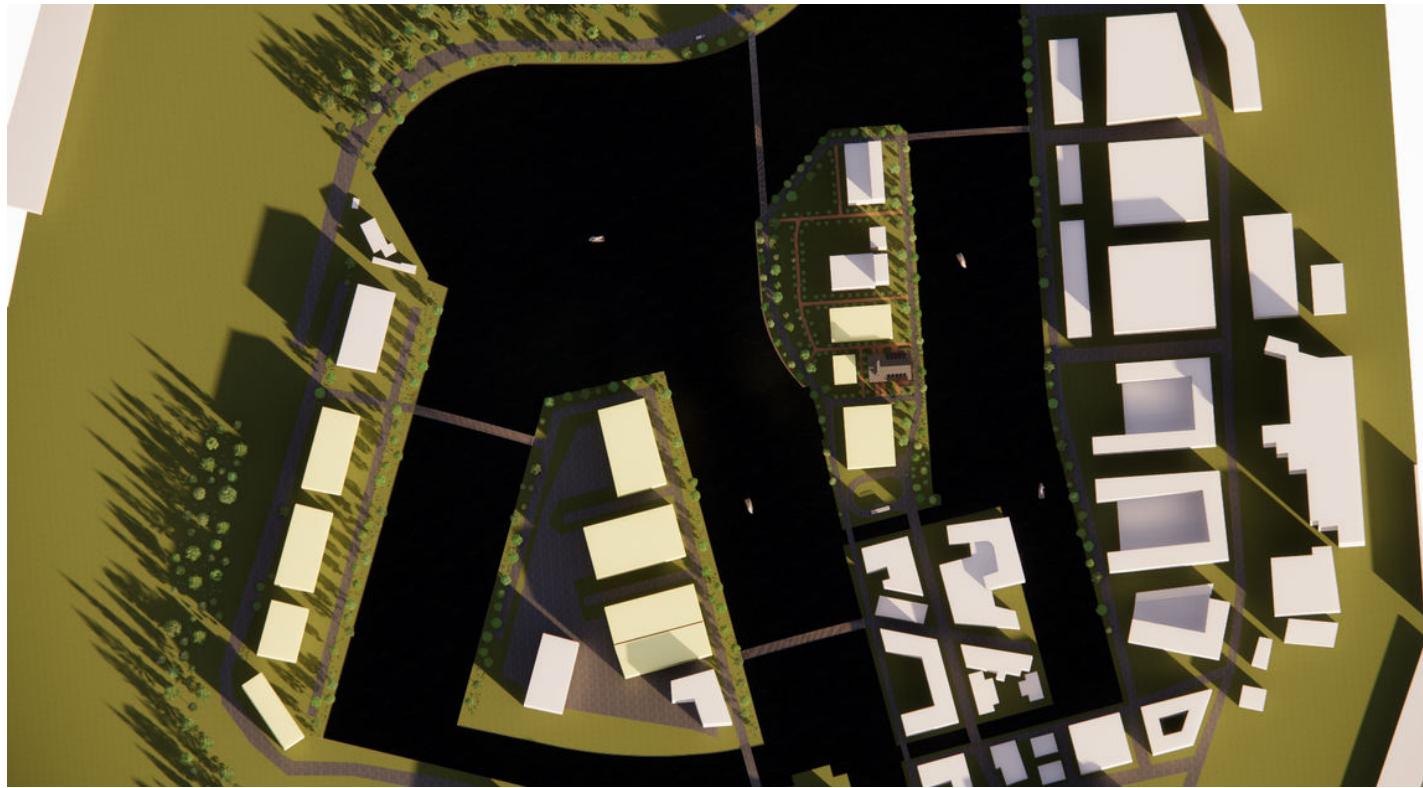


ODENSE HAVN - VIEW FROM NÆSBYHOVED SKOV



ODENSE HAVN - VIEW FROM ØSTRE KAJ

# MUUS PAKHUS AND ODENSE HAVN - PROPOSAL



# MUUS PAKHUS AND ODENSE HAVN - PROPOSAL



# MUUS PAKHUS AND ODENSE HAVN - PROPOSAL

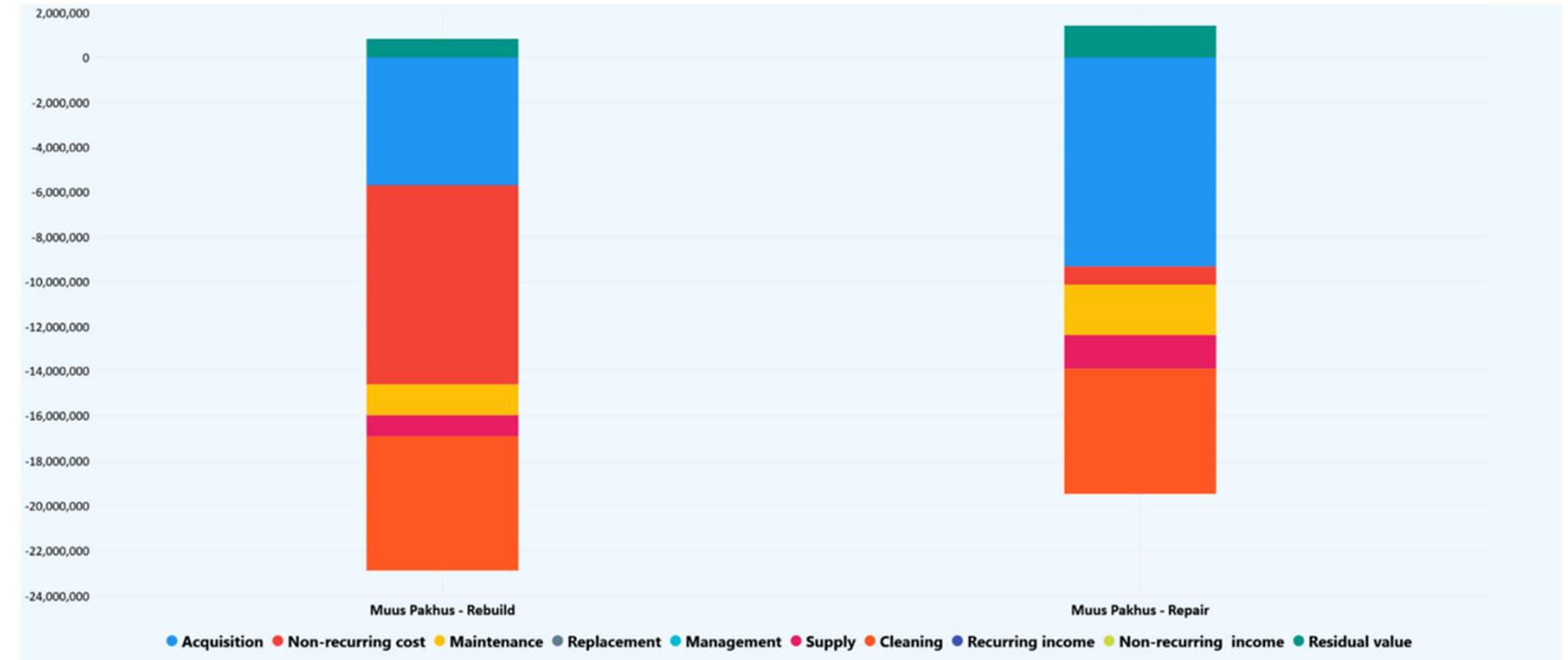


# MUUS PAKHUS - THE SUSTAINABLE FOCUS

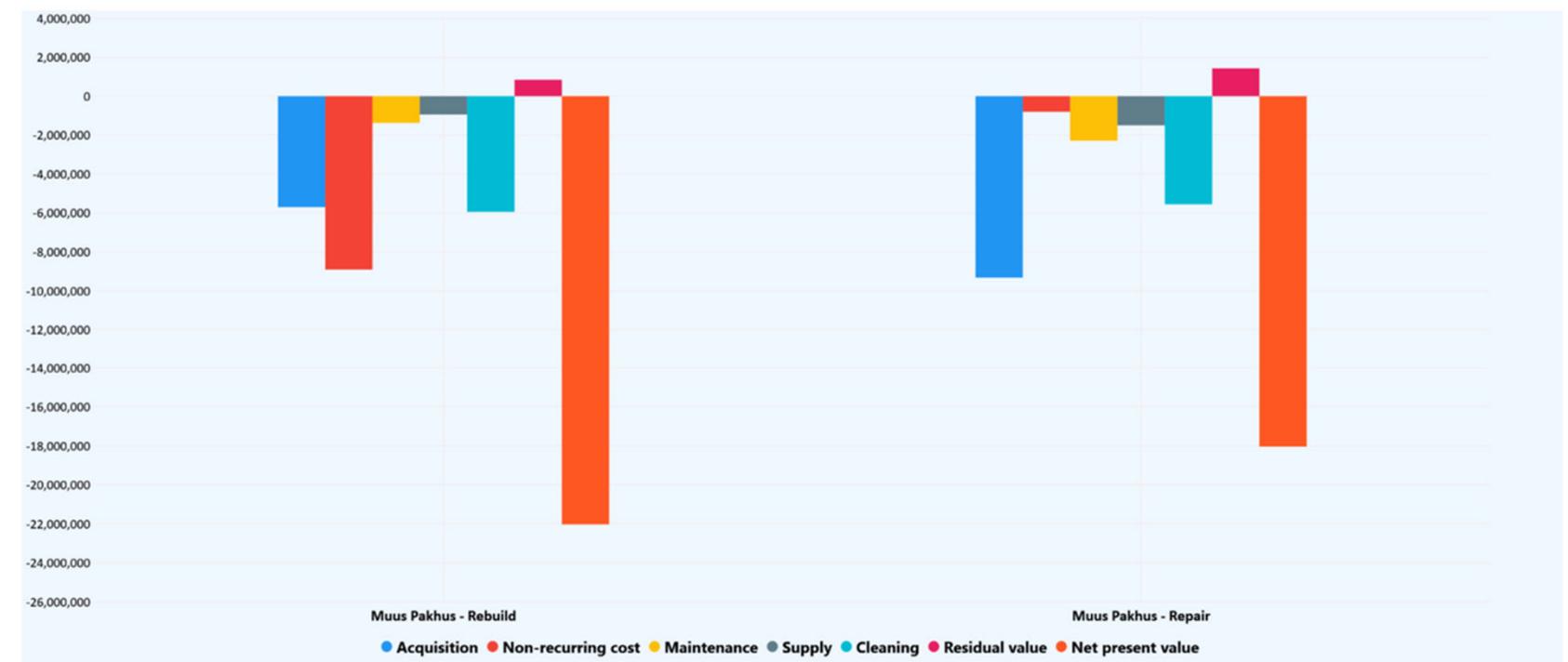
- Multiple uses to welcome people at different times of the day
  - The building will consist of a restaurant on the ground floor and a 24-hourconvenience store. Two floors will be dedicated to co-working offices, and the last floor will be a café.
- Accessibility for all
  - A standard B of accessibility will be implemented in the building, so there are no hindrances for all users.
- Multi-use Design and installations
  - The concept of “open-plan” will allow the uses in the building to be changed in the future, in case there is the need for it. The vertical access core in bricks will be the only fixed body in the building, and all remaining walls are of steel frame and gypsum, allowing for easy disassembly. The ventilation ducts are done on the top of the ceiling, making it easy to move around the room in case the future changes the rooms’ layouts.
- Furniture
  - The offices’ furniture are easy to assemble and disassemble, and they promote a fun and creative environment for the users. The furniture in the cafe and restaurant can easily be taken outside during a sunny day in the summer, providing a relaxed atmosphere in those areas.
- General materials
  - The inner leaf of the exterior walls will be of bricks painted in white to allow for a more brighter interior with the reflection of natural light. The cozy feeling will be promoted by dark acoustic panels on the ceilings of the offices, as well as the wooden ceiling in the cafe area. The restaurant will have a ceramic floor and the the walls will be in natural bricks, also promoting the coziness for that environment.

# ODENSE HAVN - EVALUATING TWO ALTERNATIVES

- Muus Pakhus - Rebuild
  - The exterior walls will be almost half the thickness of the original wall, increasing the netto m<sup>2</sup> by approximately 10%.
  - The exterior walls are better insulated, hence lowering the energy consumption of the building.
  - The construction cost is 16.069.887 DKK
  - The heating cost for one year (district heating) is 30.068 DKK



- Muus Pakhus - Repaired
  - The original walls are over 1 meter, where they are the thickest and as a result, limiting natural daylight in the building.
  - The construction process will be more time-efficient.
  - The construction cost is 11.138.560 DKK
  - The heating cost for one year (district heating) is 48.078 DKK



# MUUS PAKHUS - FLOORS USAGE



## Rooftop bar

Located atop the building, this stylish bar offers panoramic city views while retaining the visibility of its wooden roof structure, adding a unique aspect to its design. It's a place dedicated to social activities and relaxation.

## Offices area

The second floor of the building boasts a stunning view of the city harbor and offers a peaceful atmosphere. This area is dedicated to offices with open spaces where sociality and business seamlessly combine.

## Offices area

The first floor is designated to accommodate various companies in need of meeting rooms and workspace, providing a private and productive environment.

## Restaurant and Grocery store

The ground floor area is dedicated to hosting a restaurant and a retail shop. The purpose of this space is to provide convenient access to various personal needs for the occupants of the offices above, while also creating a cozy and enjoyable dining experience in the harbor area.

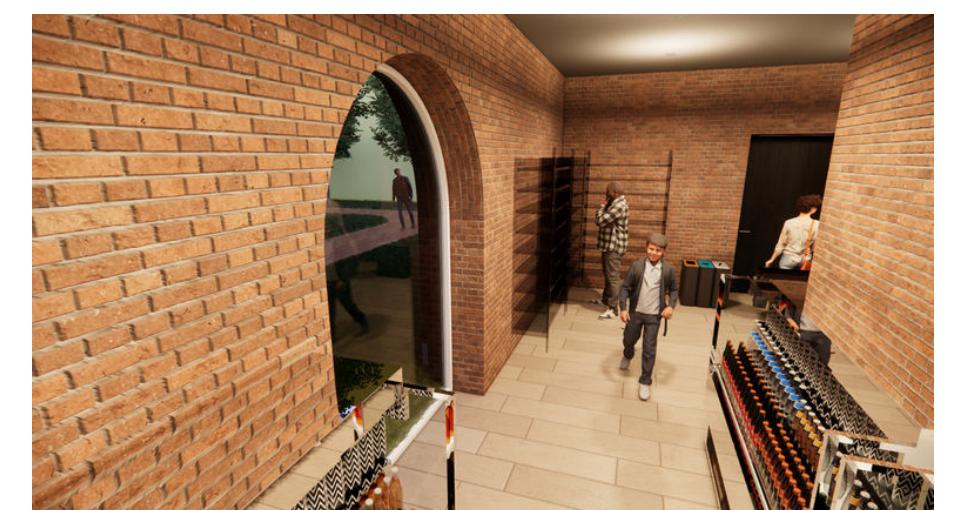
# MUUS PAKHUS - GROUND FLOOR



# MUUS PAKHUS - GROUND FLOOR



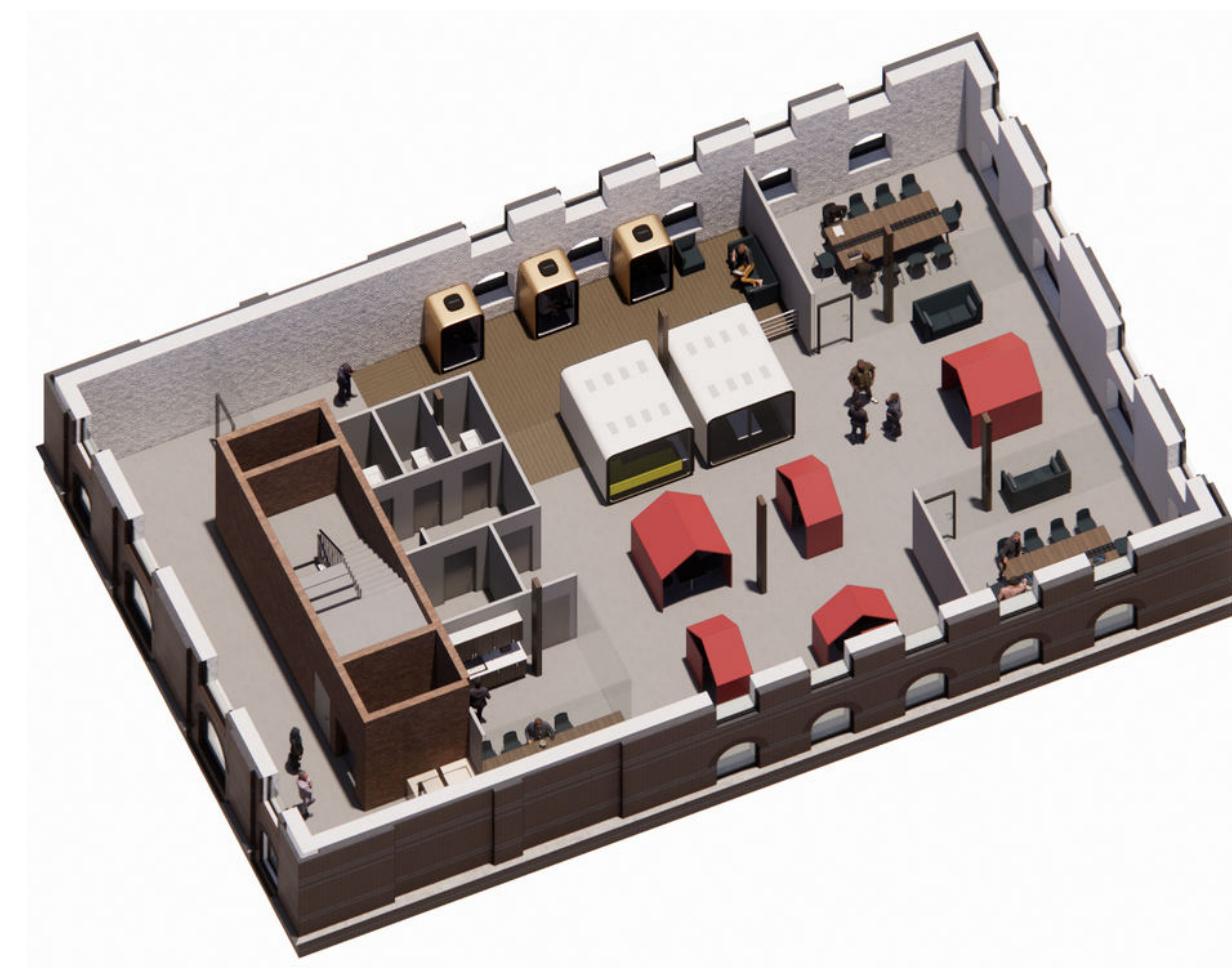
RESTAURANT



KITCHEN

STORE

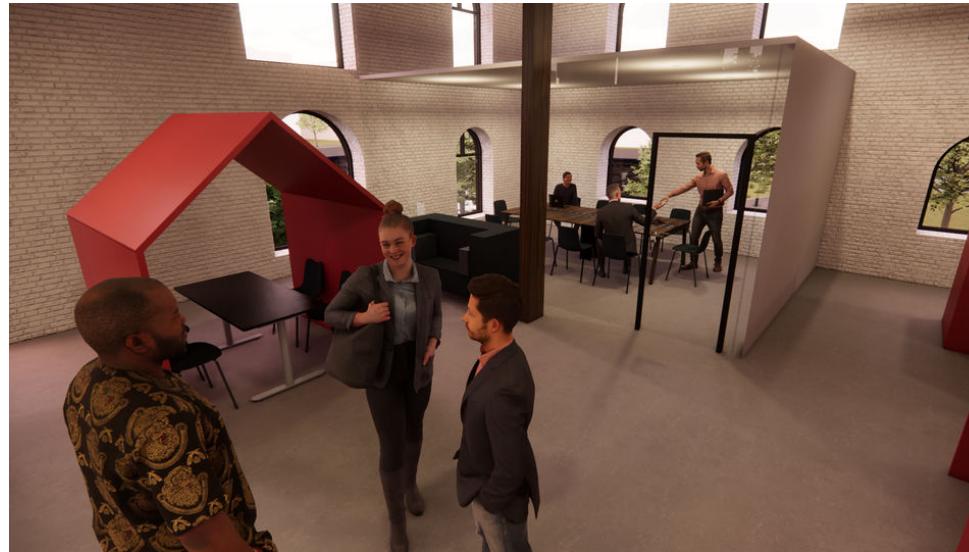
# MUUS PAKHUS - 1ST FLOOR



# MUUS PAKHUS - 1ST FLOOR



KITCHEN



OPEN CABINS AND MEETING ROOM



WOODEN ACCESS RAMP

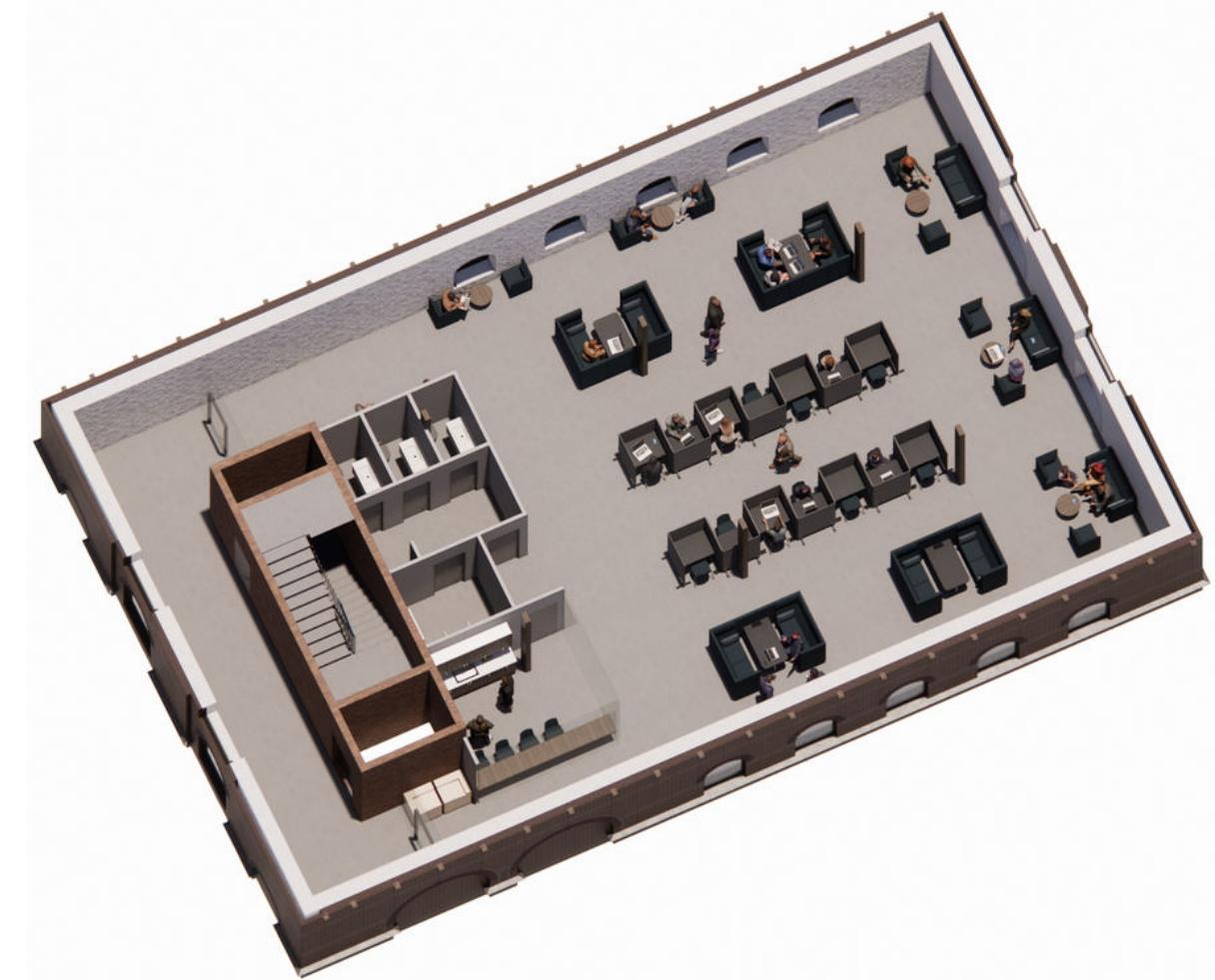


CLOSED CABINS



CLOSED AND SINGLE OPEN CABINS

## MUUS PAKHUS - 2ND FLOOR



## MUUS PAKHUS - 2ND FLOOR



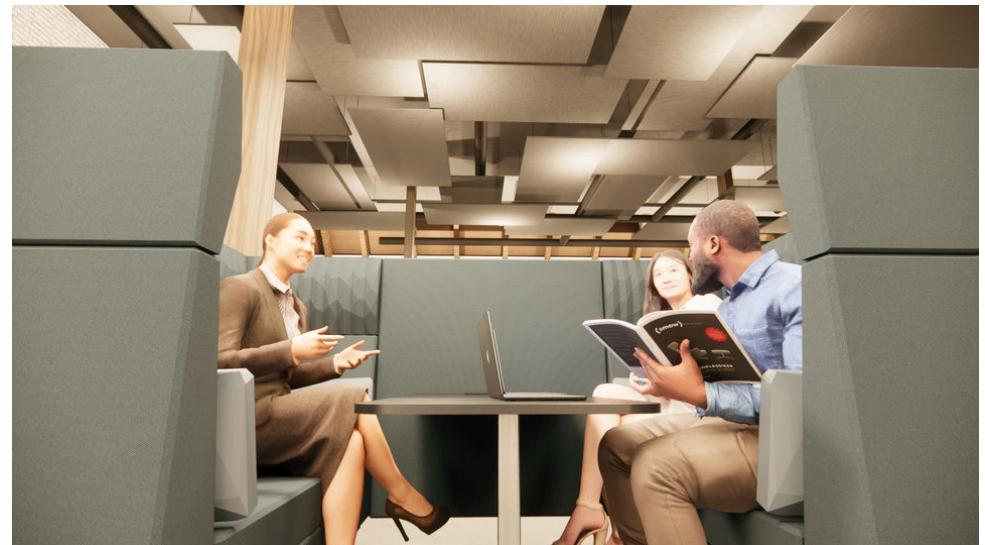
KITCHEN



COUCH AREA



SINGLE OFFICE SPACES



OPEN MEETING COUCHES

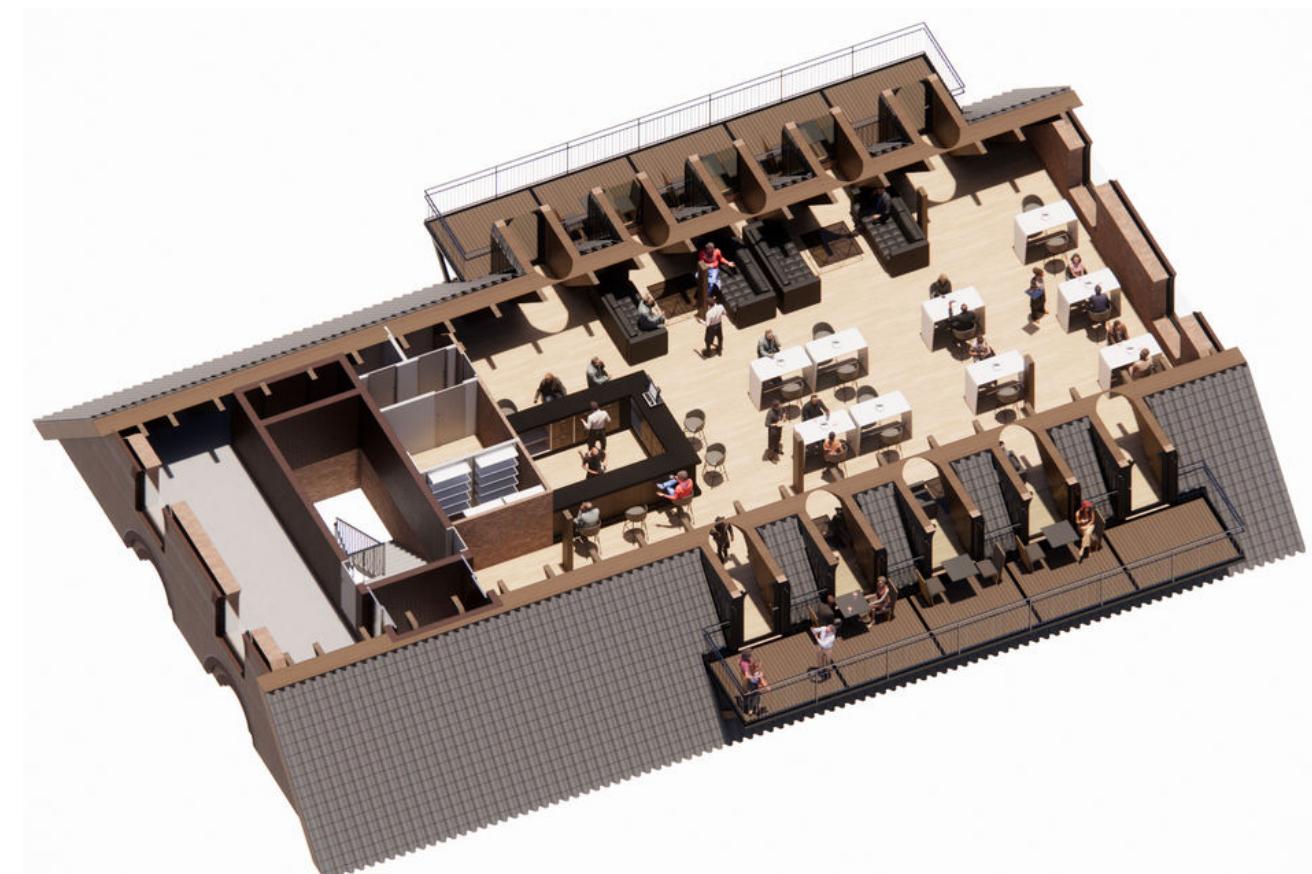


GENERAL VIEW



GENERAL VIEW

# MUUS PAKHUS - 3RD FLOOR



# MUUS PAKHUS - 3RD FLOOR



CAFÉ COUNTER



SITTING AREA



GENERAL VIEW



COUCH AREA



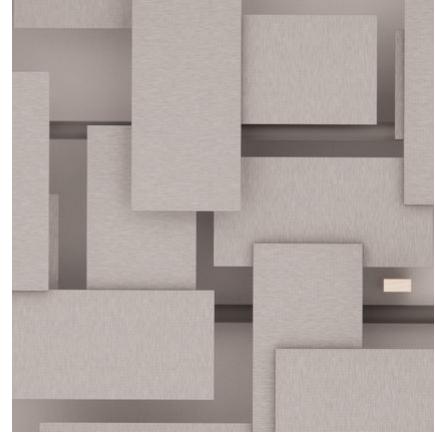
CAFÉ BALCONY - ROOF TOP



CAFÉ BALCONY - ROOF TOP

# MUUS PAKHUS CO-WORKING SPACES - THE DESIGN AND MATERIAL CHOICES

OFFICE CEILING - ACOUSTIC IN GRAY



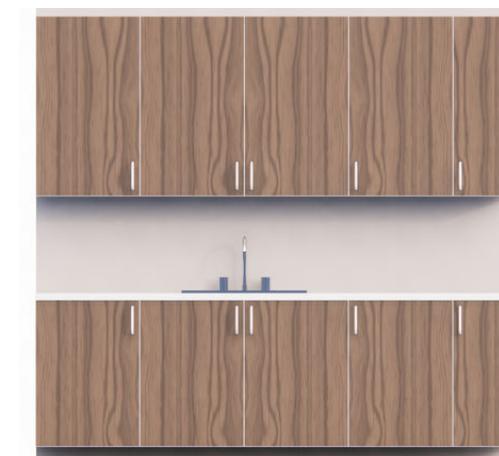
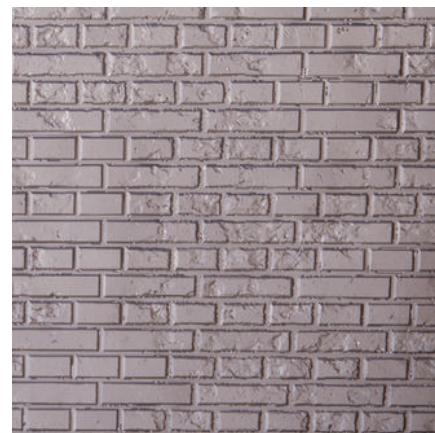
OFFICE FURNITURE



OFFICE FLOOR - SCREED

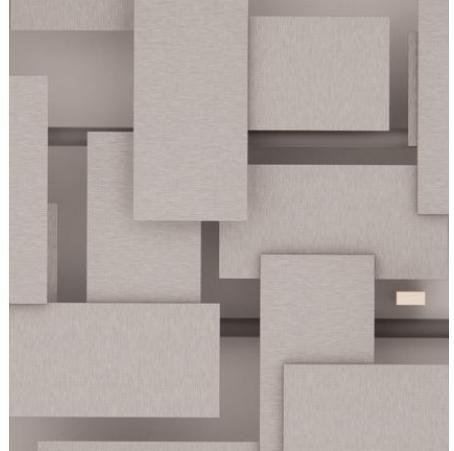


OFFICE WALL - PAINTED BRICK



# MUUS PAKHUS RESTAURANT AND STORE - THE DESIGN AND MATERIAL CHOICES

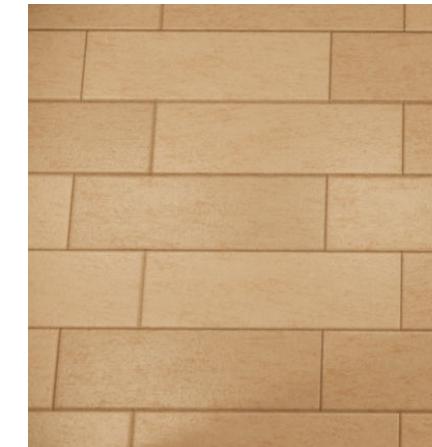
RESTAURANT CEILING - ACOUSTIC IN GRAY



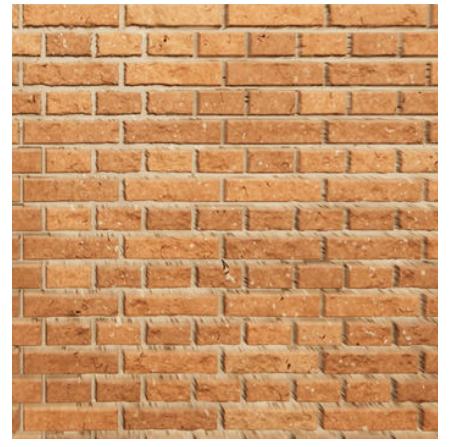
RESTAURANT FURNITURE



RESTAURANT, KITCHEN AND STORE FLOORS - CERAMIC TILES



RESTAURANT WALL - NATURAL BRICK



# MUUS PAKHUS CAFÉ - THE DESIGN AND MATERIAL CHOICES

CAFÉ CEILING - WOOD



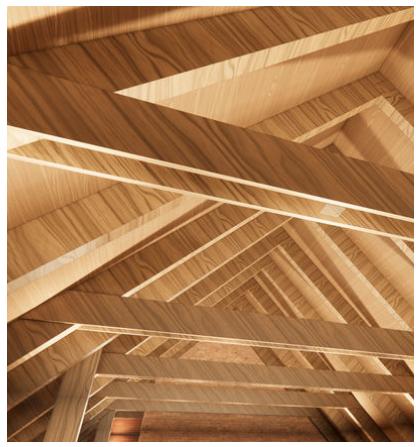
CAFÉ FURNITURE



CAFÉ AND BALCONY FLOORS - WOOD



CAFÉ STRUCTURE - WOOD



# MUUS PAKHUS - THE VISUAL REFERENCES



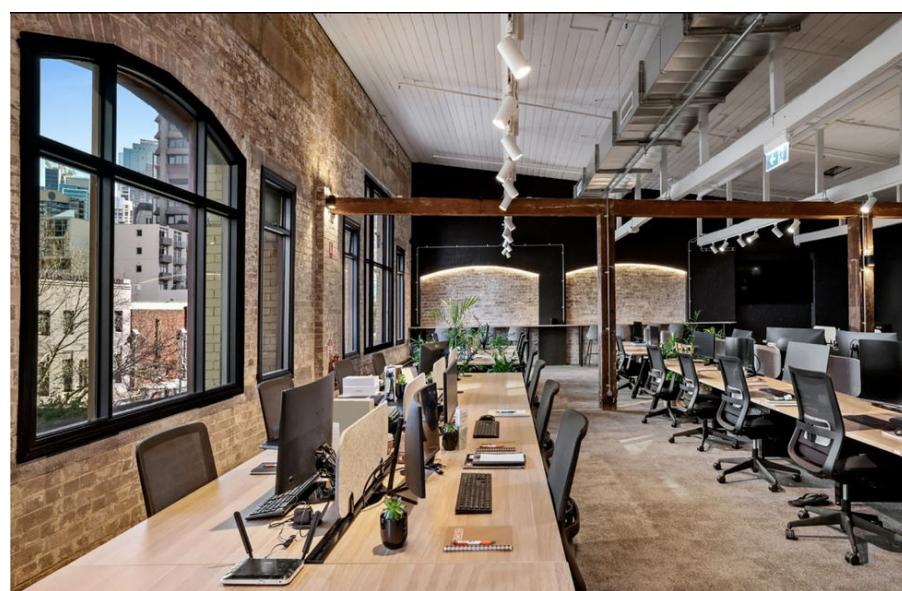
CAFÉ



ENTRANCE OF THE BUILDING



RESTAURANT



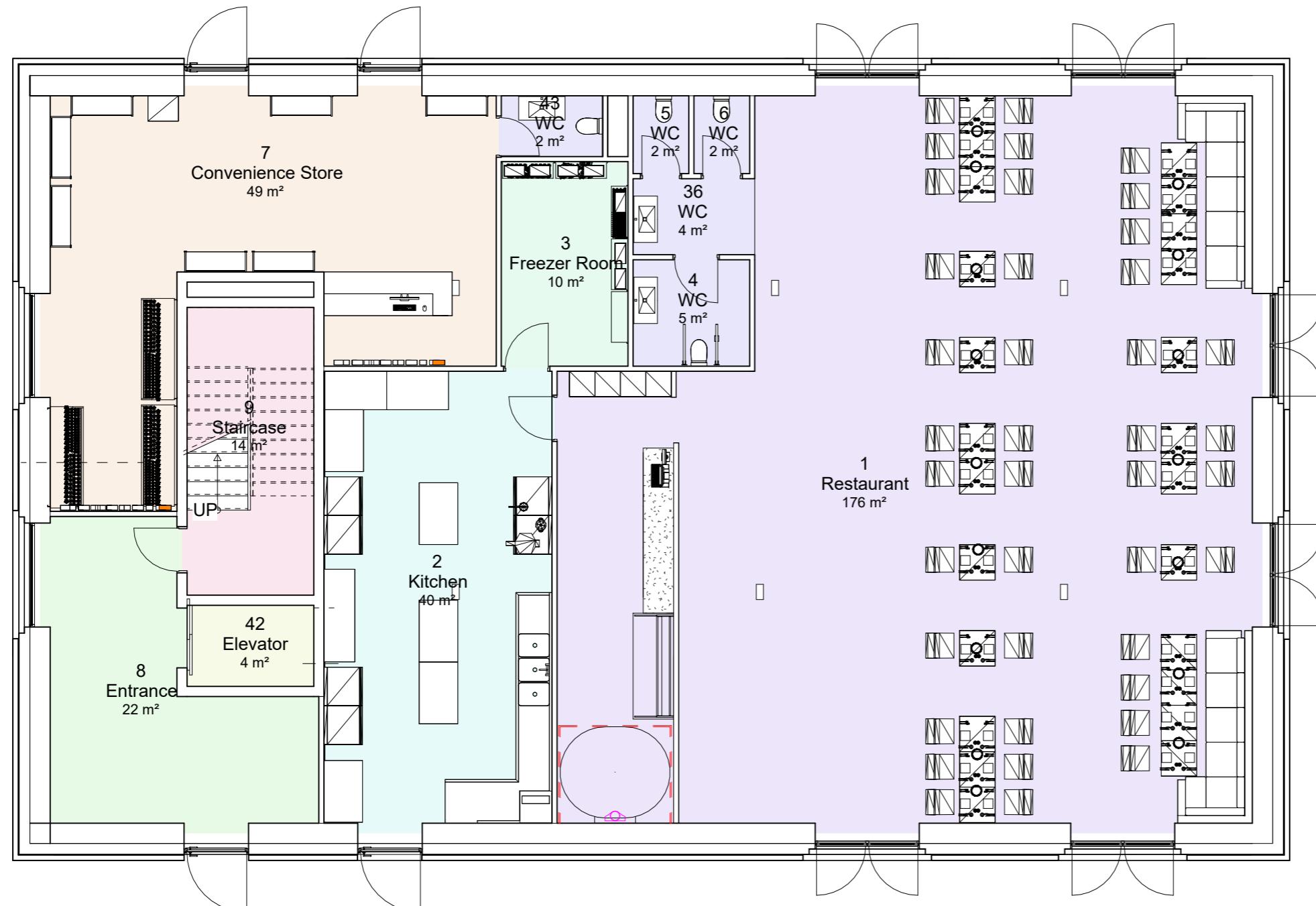
OFFICE OPEN SPACES



OFFICE MODULAR DIVISION

## Room Legend

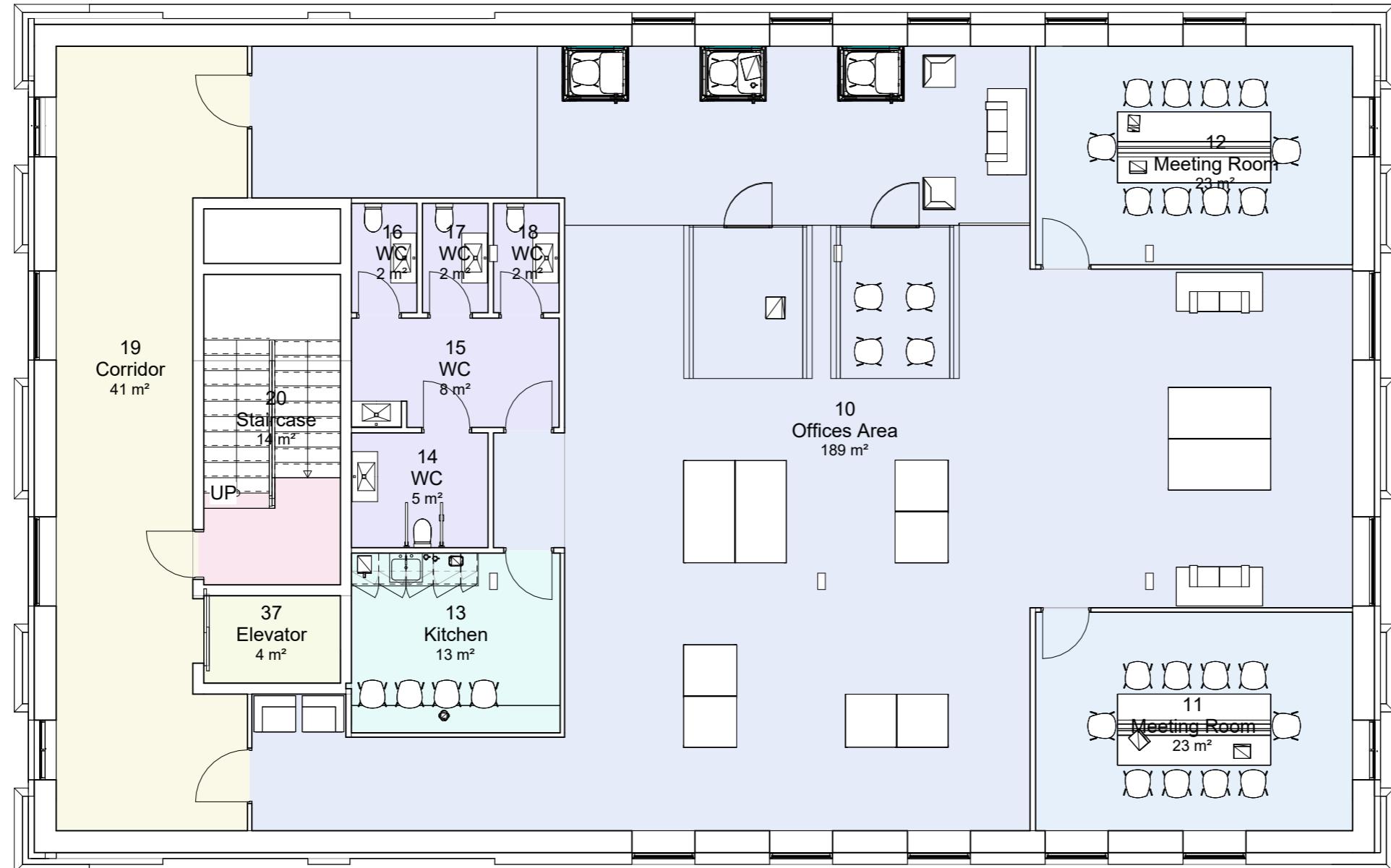
	Convenience Store
	Elevator
	Entrance
	Freezer Room
	Kitchen
	Restaurant
	Staircase
	WC



Drawn by:	ANCA
Checked by:	EYSK
Approved by:	ANRA
Scale:	1 : 100
Date:	10/04/23
Drawing nr.:	Sheet 1
Ground floor plan - Area table	
Project name:	Muus pakhús
Project phase:	Outline proposal
Client name:	Christian Syversen
GROUP 3	
Designer	
Odense C, Denmark	

## Room Legend

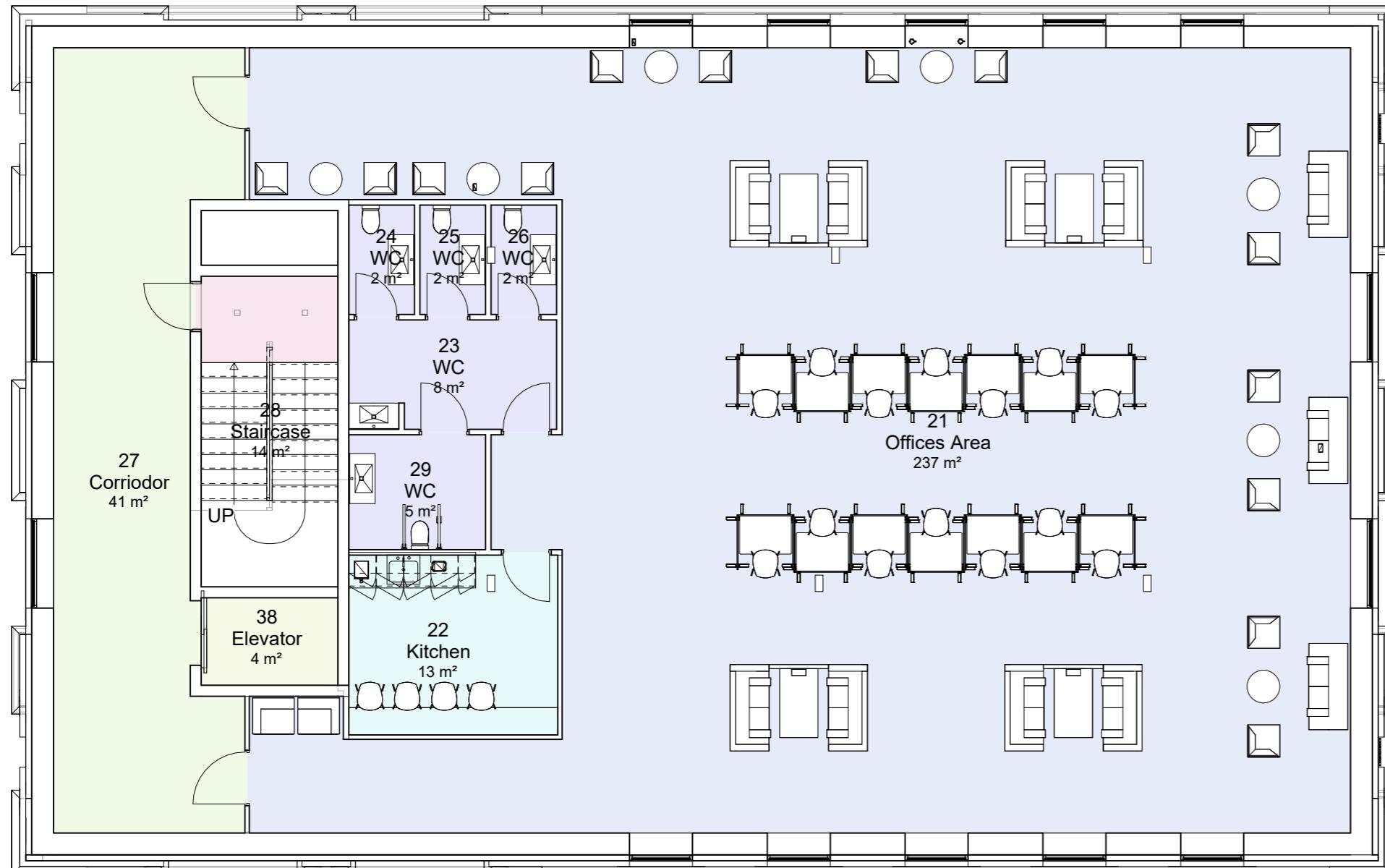
	Corridor
	Elevator
	Kitchen
	Meeting Room
	Offices Area
	Staircase
	WC



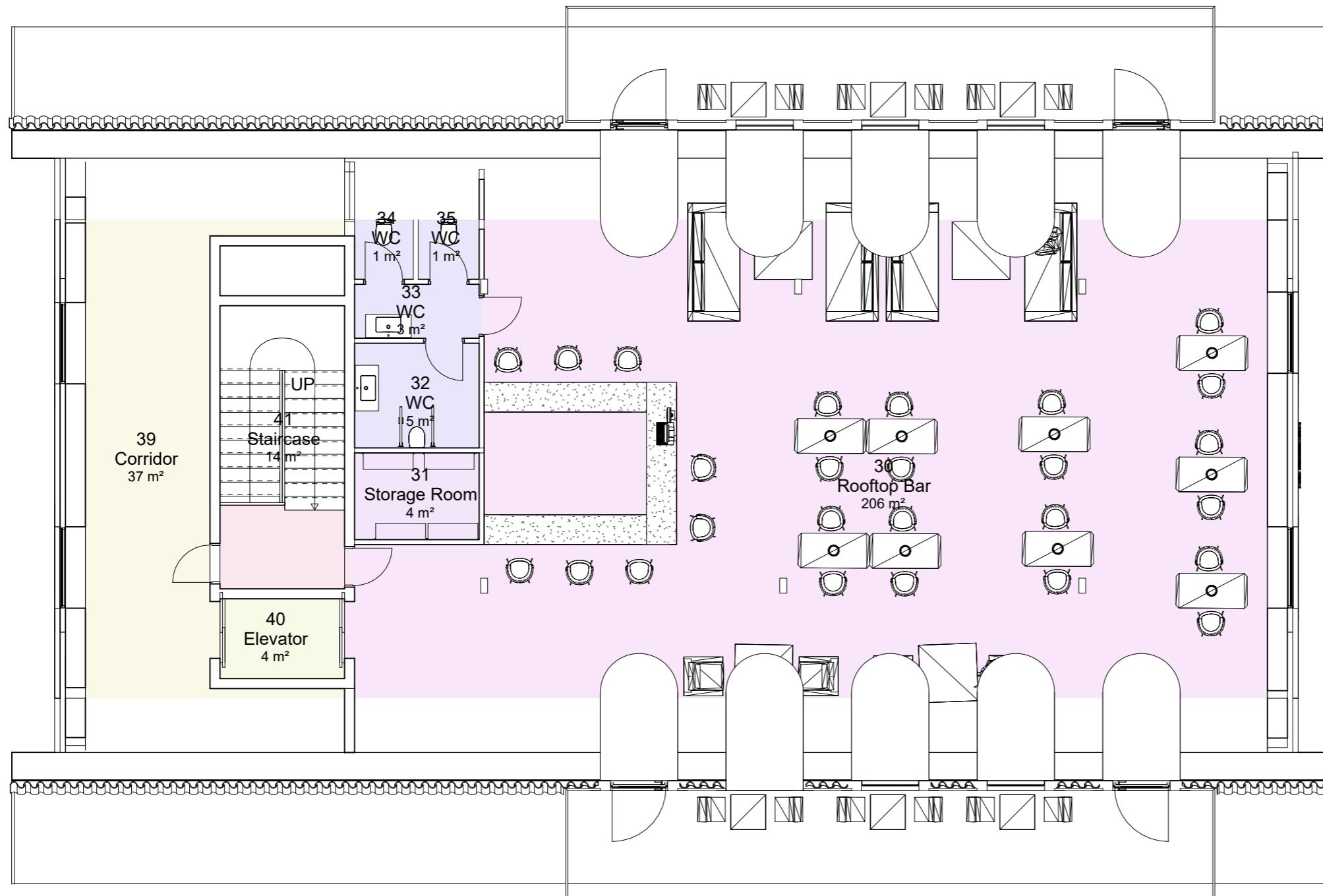
Drawn by:	ANCA
Checked by:	EYSK
Approved by:	ALDE
Scale:	1 : 100
Date:	10/04/23
Drawing nr.:	Sheet 2
1st Floor plan - Area table	
Project name: Muus pakhús	
Project phase: Outline proposal	
Client name: Christian Syversen	
GROUP 3	
Designer	
Odense C, Denmark	

## Room Legend

- Corridor
- Elevator
- Kitchen
- Offices Area
- Staircase
- WC



Drawn by:	ANCA
Checked by:	EYSK
Approved by:	ALDE
Scale:	1 : 100
Date:	10/04/23
Drawing nr.:	Sheet 3
Second floor plan - Area table	
Project name:	Muus pakhus
Project phase:	Outline proposal
Client name:	Christian Syversen
GROUP 3	
Designer	
Odense C, Denmark	



## Room Legend

	Corridor
	Elevator
	Rooftop Bar
	Staircase
	Storage Room
	WC

Drawn by:	ANCA
Checked by:	EYSK
Approved by:	ALDE
Scale:	1 : 100
Date:	10/04/23
Drawing nr.:	Sheet 4
Third floor plan - Area table	
Project name:	Muus pakhús
Project phase:	Outline proposal
Client name:	Christian Syversen
GROUP 3	
Designer	
Odense C, Denmark	