

COMMUNITY MATTERS

Working on retrofitting an existing bus station into a modern GP surgery that focuses on local health care and the training of new health care professionals which will also explore the re-population of the town centre with new programmes.



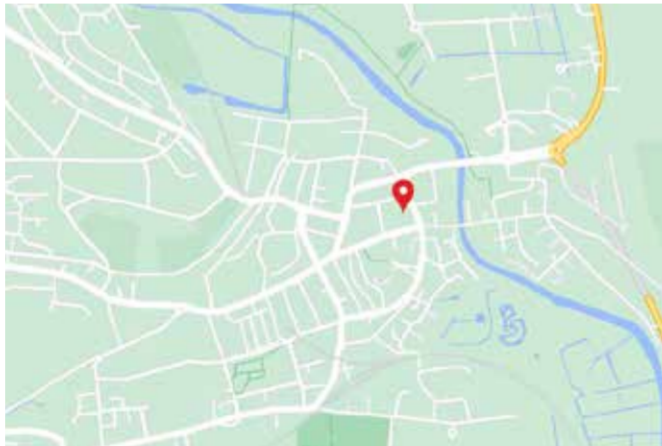
AD671 DESIGN STUDIO

STUDIO 26
Jennifer Owen

LEWES BUS GARAGE




Site from Street View
cr: Google



The site is located in Lewes. Situated on Eastgate Street, across from the Waitrose. Currently no longer in use and has been closed since the 16th of September 2022.



Site Boundary 



Aerial view of site
cr: Google map



Bus Station in 1954
cr: Lewes History Group

The Bus Station was opened in 1954 as a terminus for Southdown Motor Services routes, as well as the adjacent bus depot to service and park the buses overnight.

HISTORY



Map of the site during the 1950s
cr: Digimap



Idea of Romano-British Settlement
cr: researchgate.net

During the Roman period there was an aristocratic villa at the foot of Mount Caburn, and there have been several finds of Roman coins and pottery sherds in Lewes itself. However, as there is not yet any archaeological evidence for a built area dating back to the time, it is unsure of a Roman Lewes.



Traditional Anglo-Saxon Town
cr: en.infoglobe.cz

The earliest Anglo-Saxon finds begin to appear in Lewes from the sixth century. The town of Lewes was probably founded around this time, and it may have been one of the most important settlements in the Kingdom of Sussex.



Lewes viewed from Lewes Castle
cr: Lewes Wikipedia

After the Norman invasion, William the Conqueror rewarded his retainer William de Warenne by making him Earl of Surrey. De Warenne constructed Lewes Castle within the walls of the Saxon burh in about 1081.



The Battle of Lewes on 14 May 1264
cr: Lewes Town Council

In 1264 it was the site of the Battle of Lewes. The king Henry III, having lost, was forced to sign the Mise of Lewes. Despite this uncertainty about its consequences, the battle is often seen as an important milestone in the development of English democracy.



Procession of the martyrs' crosses
cr: Lewes Bonfire Wikipedia

The Lewes Bonfire is the UK's largest and most famous Bonfire Night festivities. The event not only marks Guy Fawkes Night but also commemorates the memory of the seventeen Protestant martyrs from the town burned at the stake for their faith during the Marian Persecutions.



The Battle of Muster Green
cr: cuckfieldconnections.org

During the English Civil War Lewes became the target of a royalist attack in December 1642, but the army was intercepted and defeated at The Battle of Muster Green. Lewes recovered relatively quickly after the Civil War, and prospered during the late seventeenth and eighteenth centuries.



Frontage of a railway station in Lewes
cr: friends-of-lewes.org

Lewes had always been one of the principal market towns of Sussex, as well as an important port. In 1846 the town became a railway junction, with lines constructed from the north, south and east to two railway stations. The development of Newhaven ended Lewes's period as a major port.

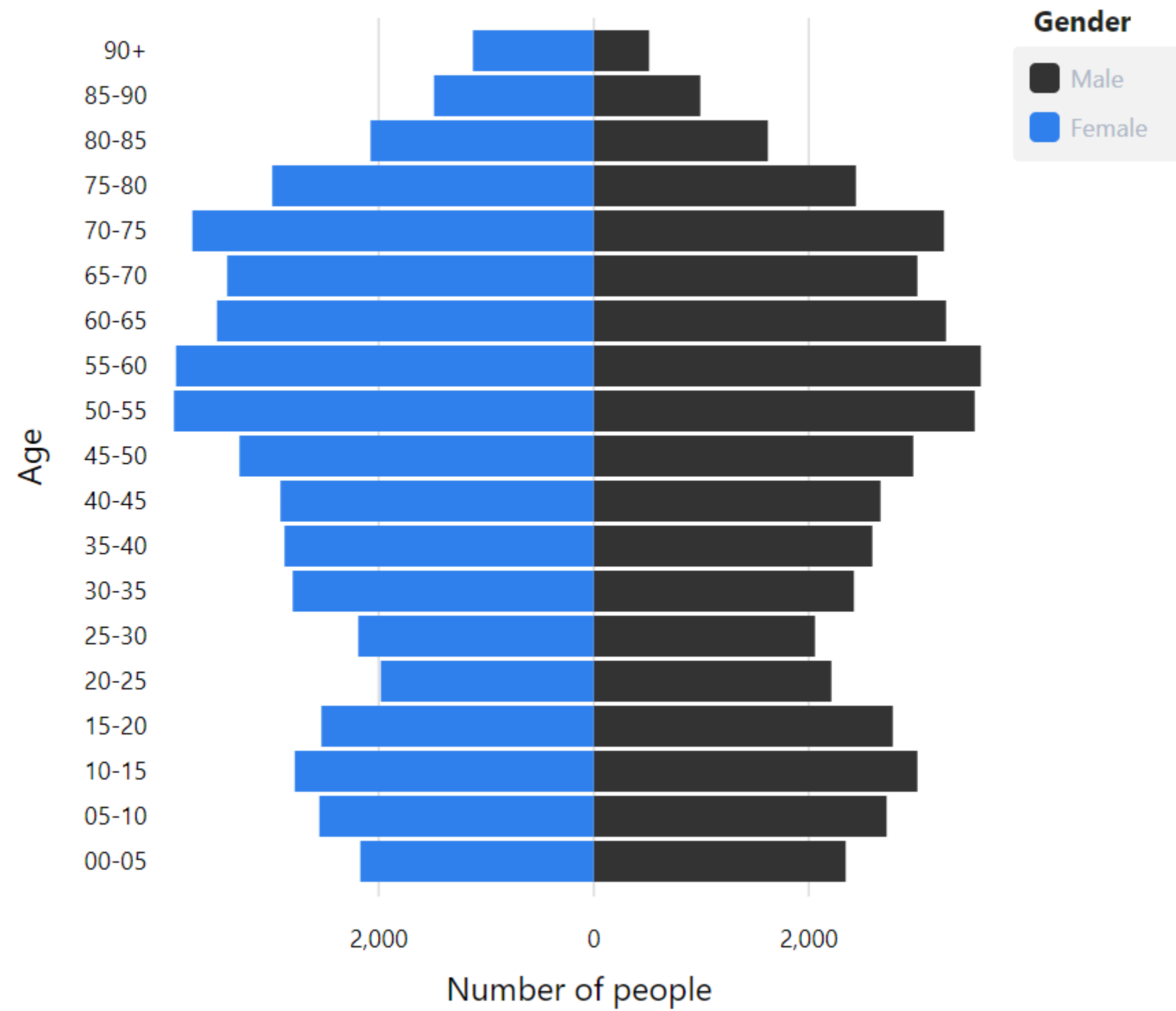
LOCAL

Town of Lewes population of under **20,000**

Age statistics collected by the ONS (Office for National Statistics) show that the adult population of Lewes, (how many people there are over the age of 18) is **84,639**.

Lewes's age structure shows the workig age population to be **57,972** which is **57.9%** of the population.

People under the age of 16 represent **15.5%** of the population, and over 65s represent **26.6%** of the population.



LEWES MARKETS

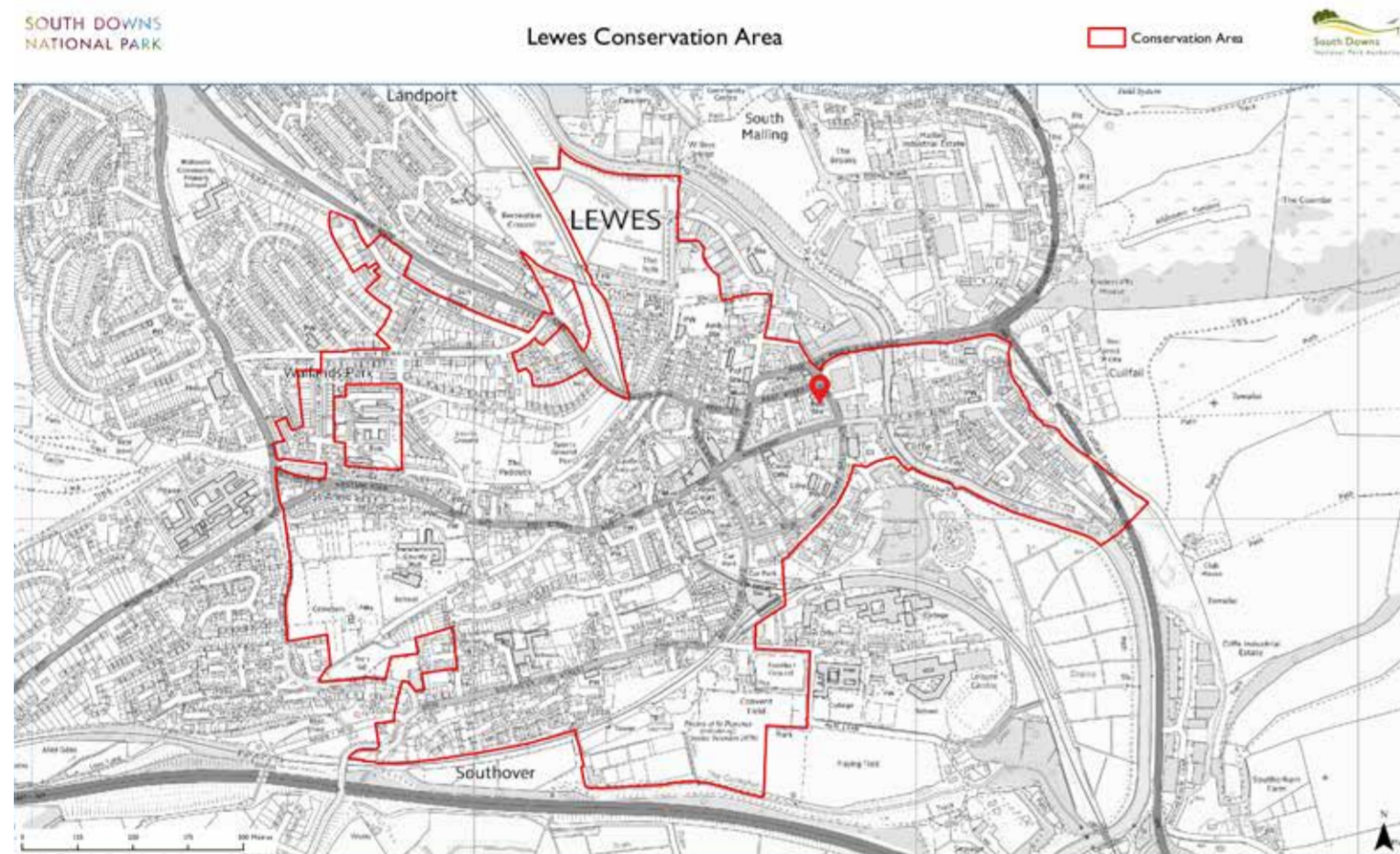
A principal market towns of Sussex, as well as an important port, and by the end of the Georgian era it also had well-developed textiles, iron, brewing, and shipbuilding industries.

The Lewes Chamber of Commerce represents the traders and businesses of the town. The town has been identified as unusually diversified with numerous specialist, independent retailers, counter to national trends toward 'chain' retailers and large corporate retail outlets.

Lewes Farmers' Market, one of the first in the UK, was started in the 1990s by Common Cause Co-operative Ltd and is a popular re-invention of Lewes as a market town.

Well known for it, Lewes has a number of small and larger markets happening in the town. There are food markets selling fresh, local produce, takeaway nibbles and light meals suitable for a picnic. As well as craft markets, flea markets and summer fairs.

CONSERVATION



The town of Lewes is rich in history and for the most part located within the Conservation Area according to the South Downs National Park Authority.



The National Design Guide 10 design characteristics.

The **National Model Design Code** will be available to help guide the production of design codes for new development in an area (such as for a village design statement) or for a large development site in the National Park.

The **National Parks' Purposes and Duty** is the reference for which all assessments of design quality are made.

Purpose 1: To conserve and enhance the natural beauty, wildlife and cultural heritage of the area.

Purpose 2: To promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

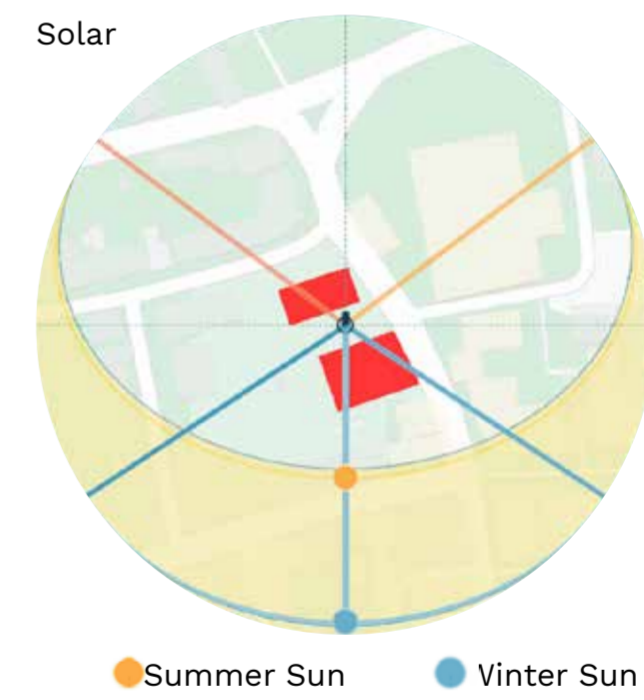
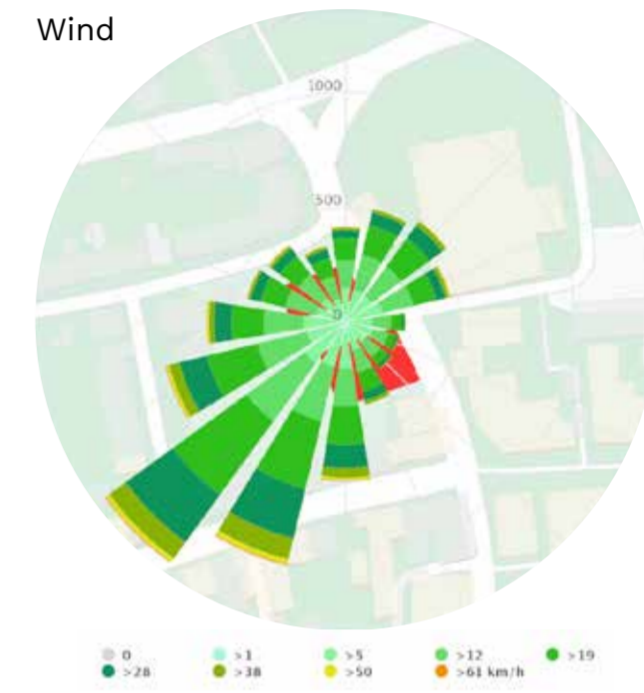
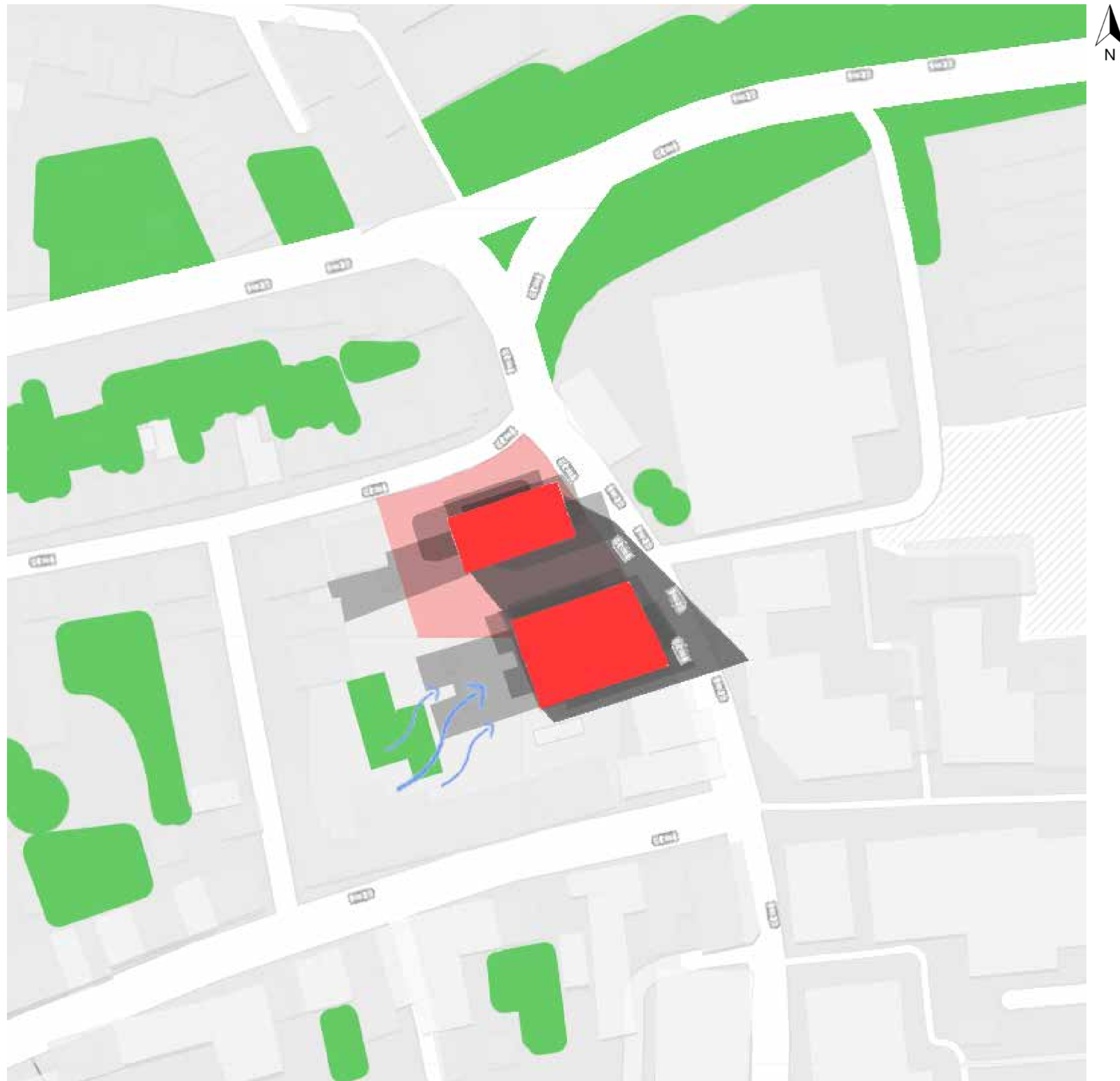
Duty: To seek to foster the social and economic wellbeing of the local communities within the National Park.

Development proposals should:

- Preserve or enhance the character and appearance of the conservation area.
- Respond to key views into, through and out of the Conservation Area.
- Reference the building traditions of the settlement and, where appropriate, fit sympathetically into the existing streetscape.
- Public buildings need to reflect their community function in positive ways.
- Non-residential buildings should contribute positively to the public realm where possible.
- POS should strive to be multi-functional, well-located, overlooked, accessible for all and should serve the whole community.

ANALYSIS

SITE



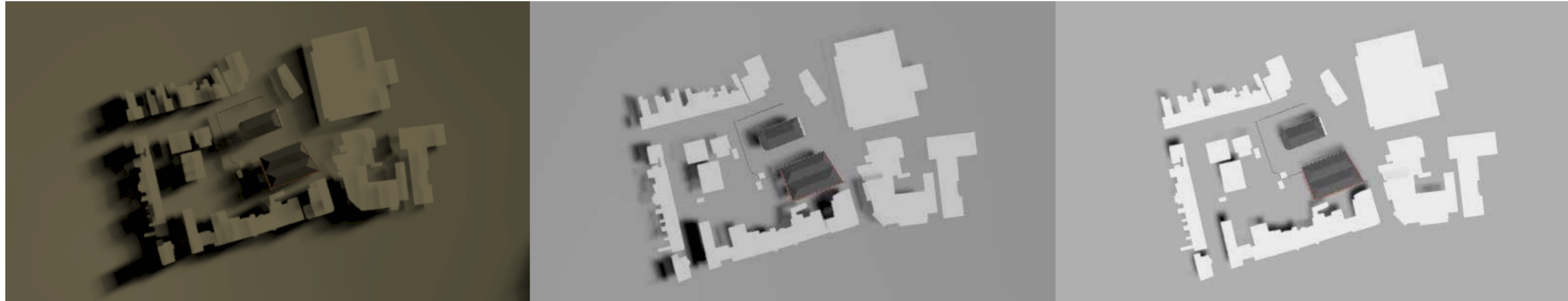
KEY

- Site Area
- Greenery
- Morning Shadow
- Afternoon Shadow
- Traffic
- Prevailing wind direction

05:00

08:00

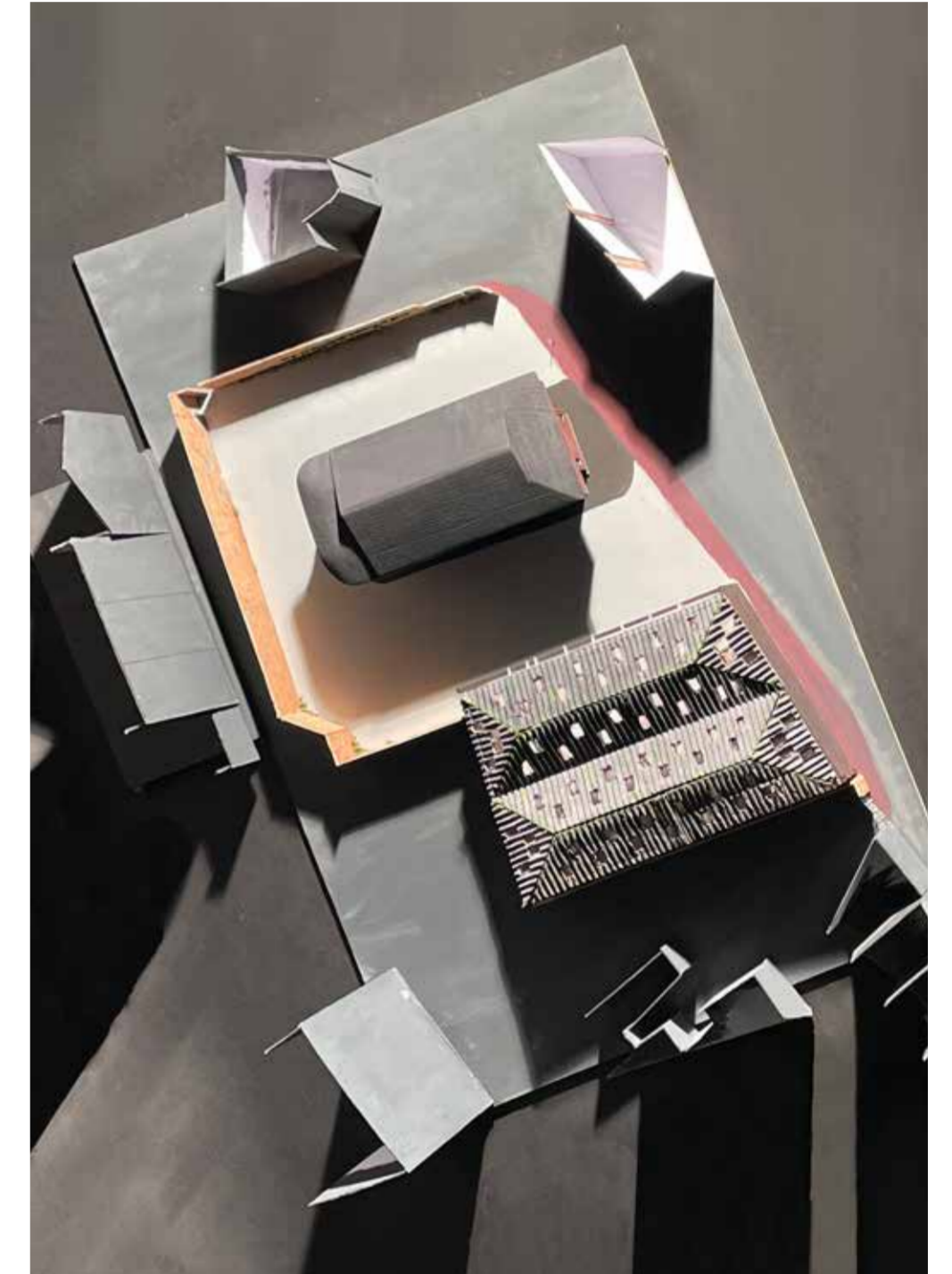
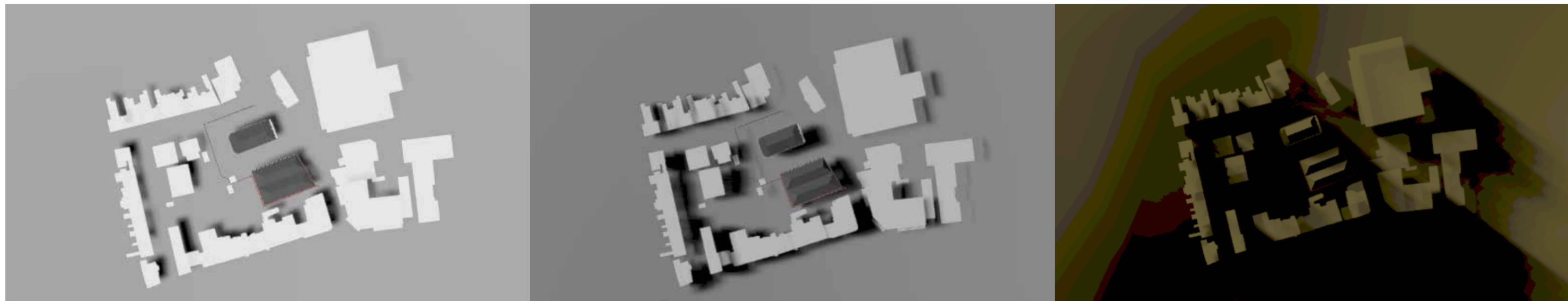
11:00



14:00

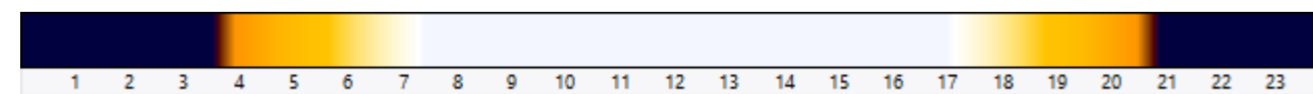
17:00

20:00



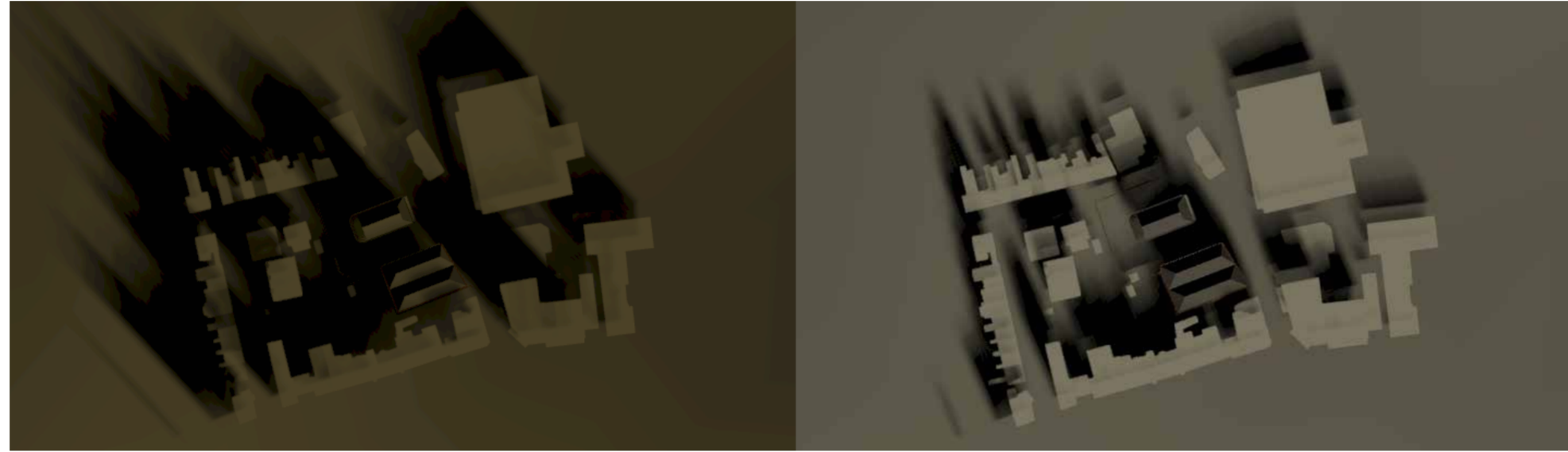
3D model showing shadows at different times of day (during Summer Sun Time)

Physical model also showing sun shadows



09:00

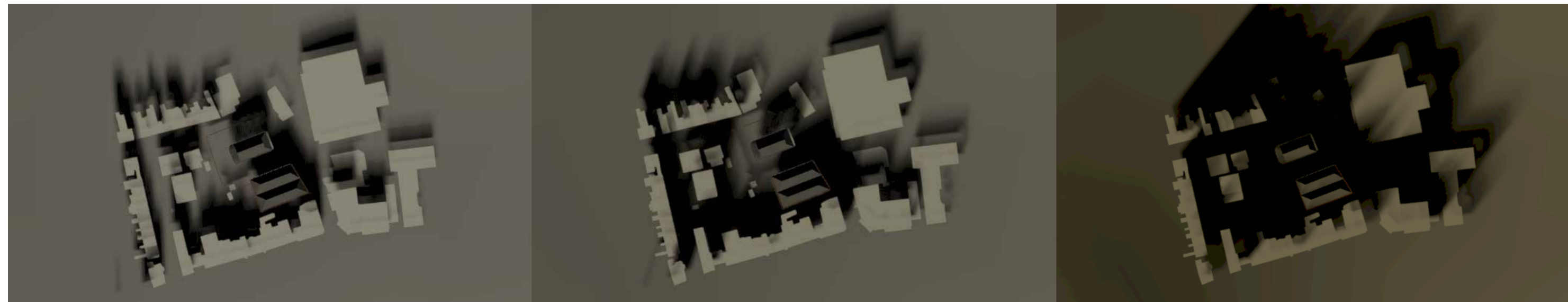
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12:00

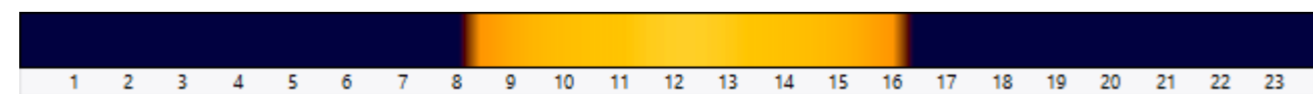
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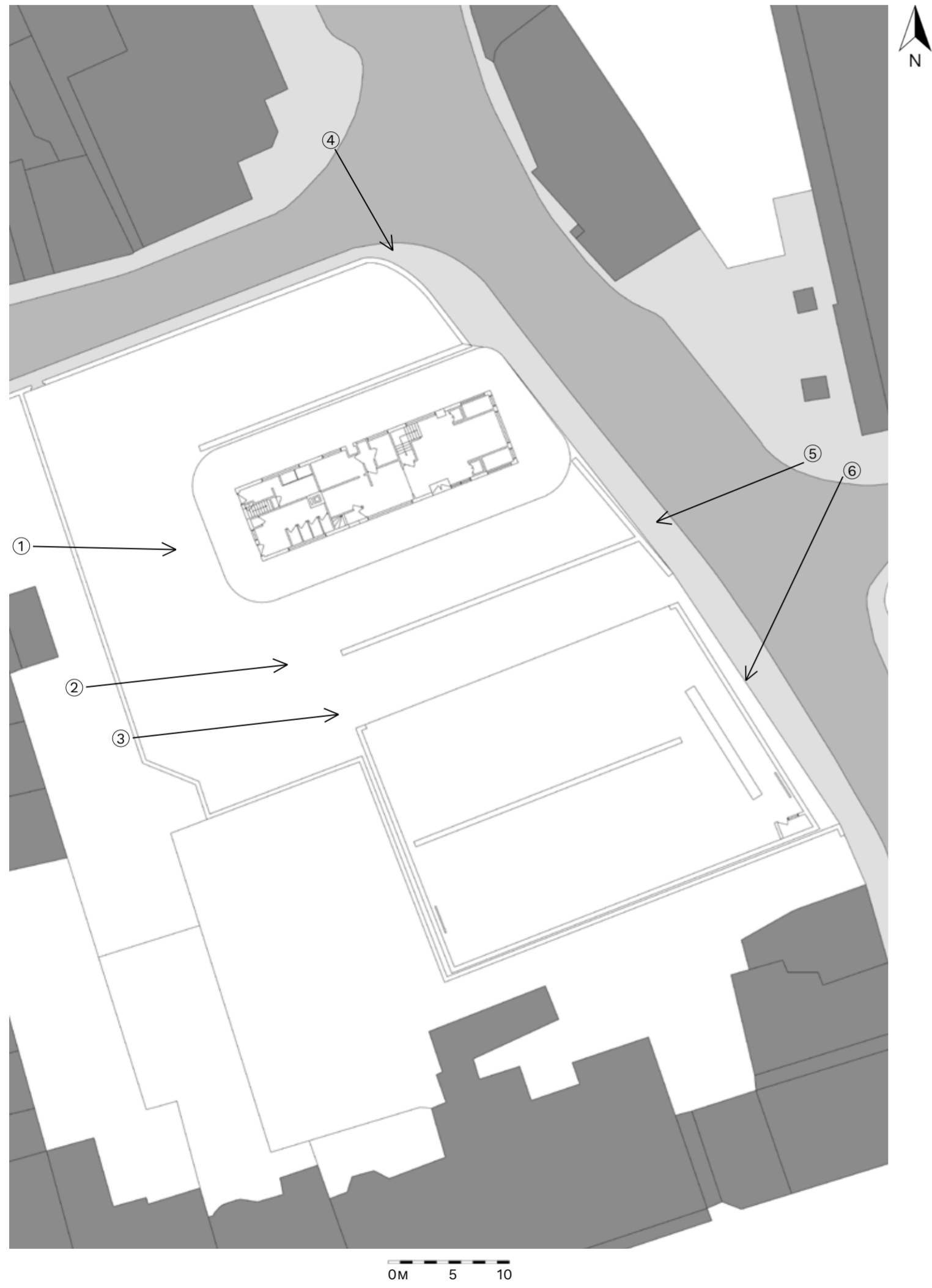
15:00



3D model showing shadows at different times of day (during Winter Sun Time)

Physical model also showing sun shadows





Back view of the Bus Station



View from North of Site also showing side of Station



View of space between the two buildings and front of Depot



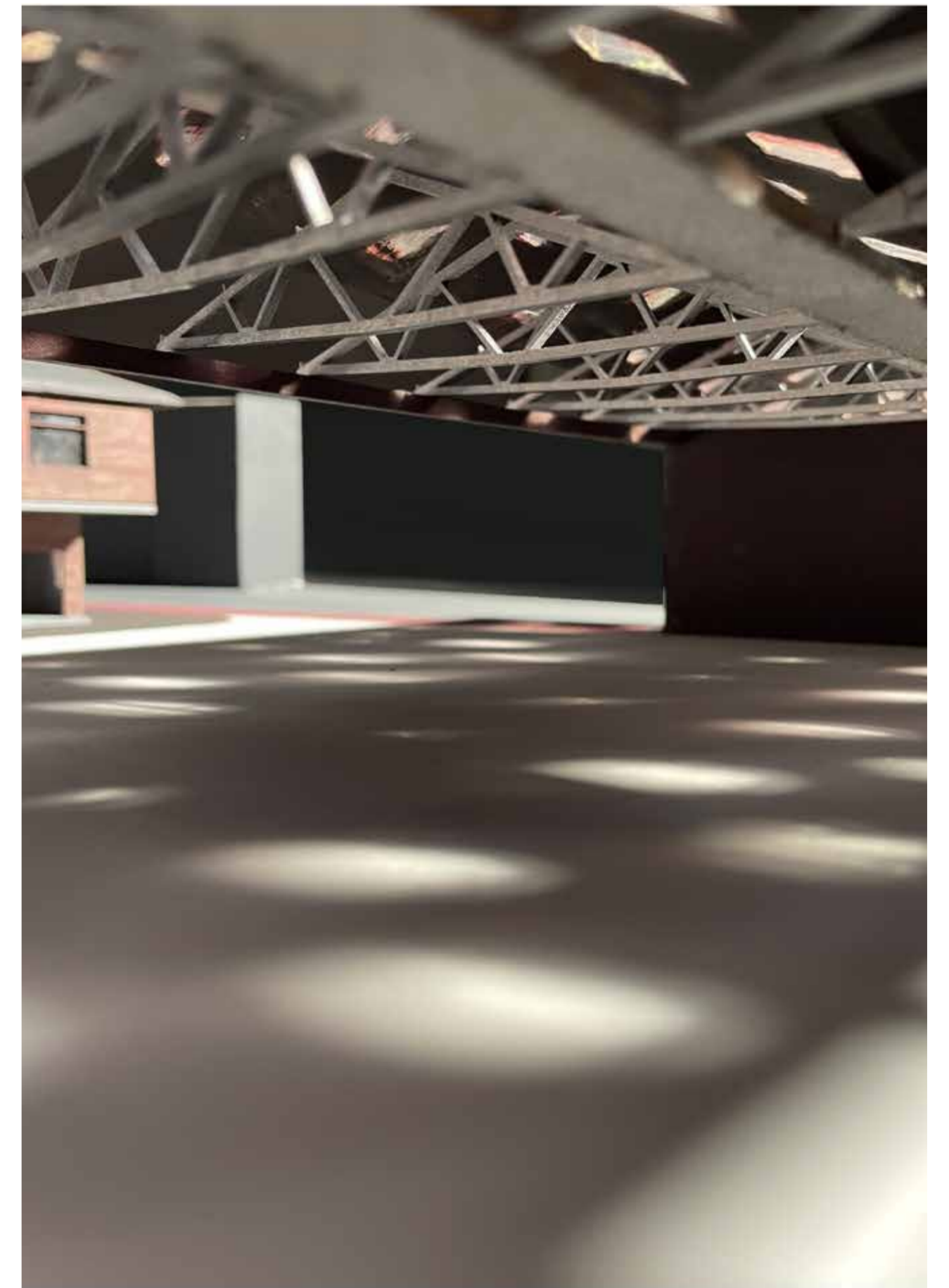
View from main street showing front of buildings



Space between the two buildings



Side view of the Bus Depot



Interior of the Bus Depot can be seen when door is open

Interior stairs can be seen within the station

Interior point of view of the Bus Depot, showing the steel trusses



1. Steel



2. Concrete Brick



3. Clay Brick



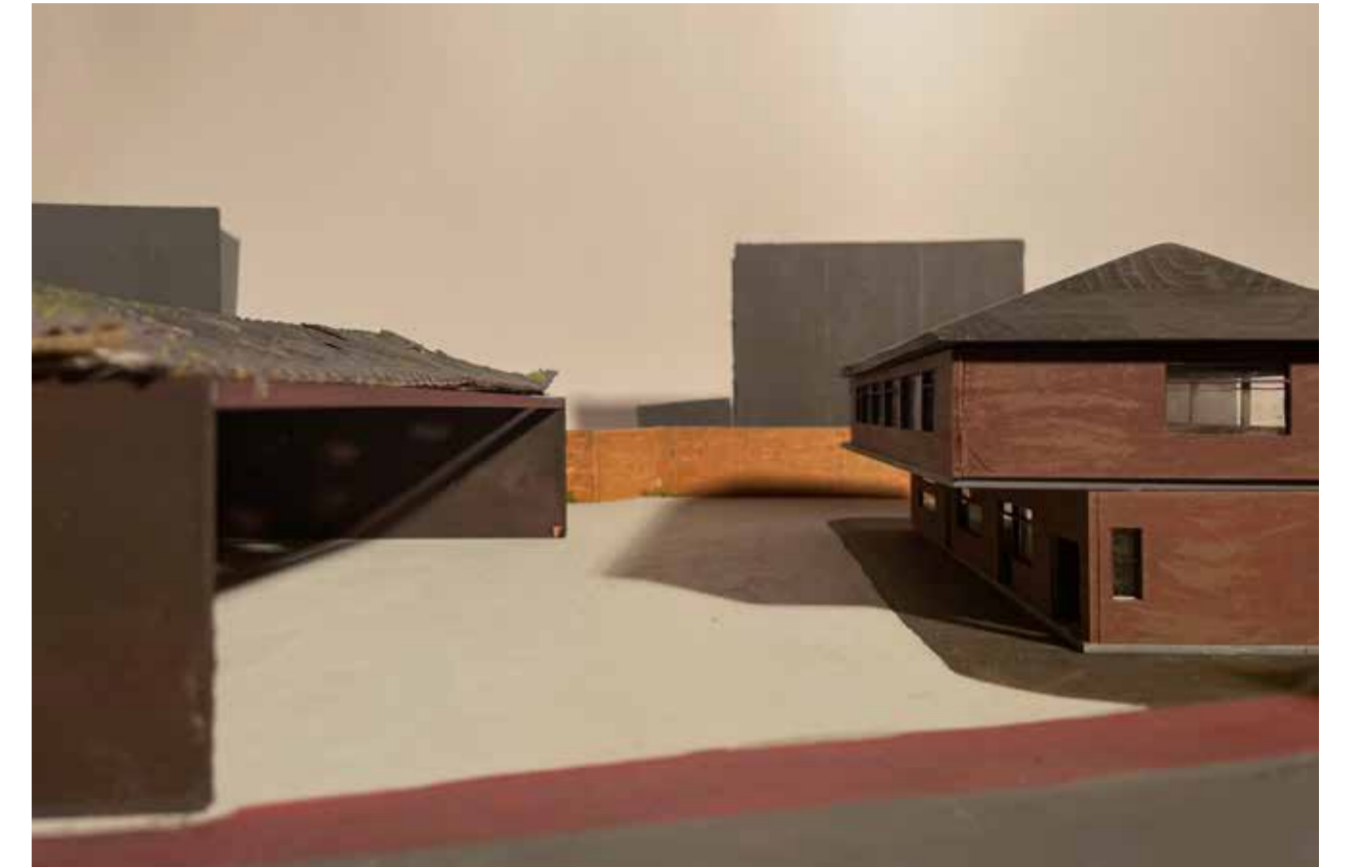
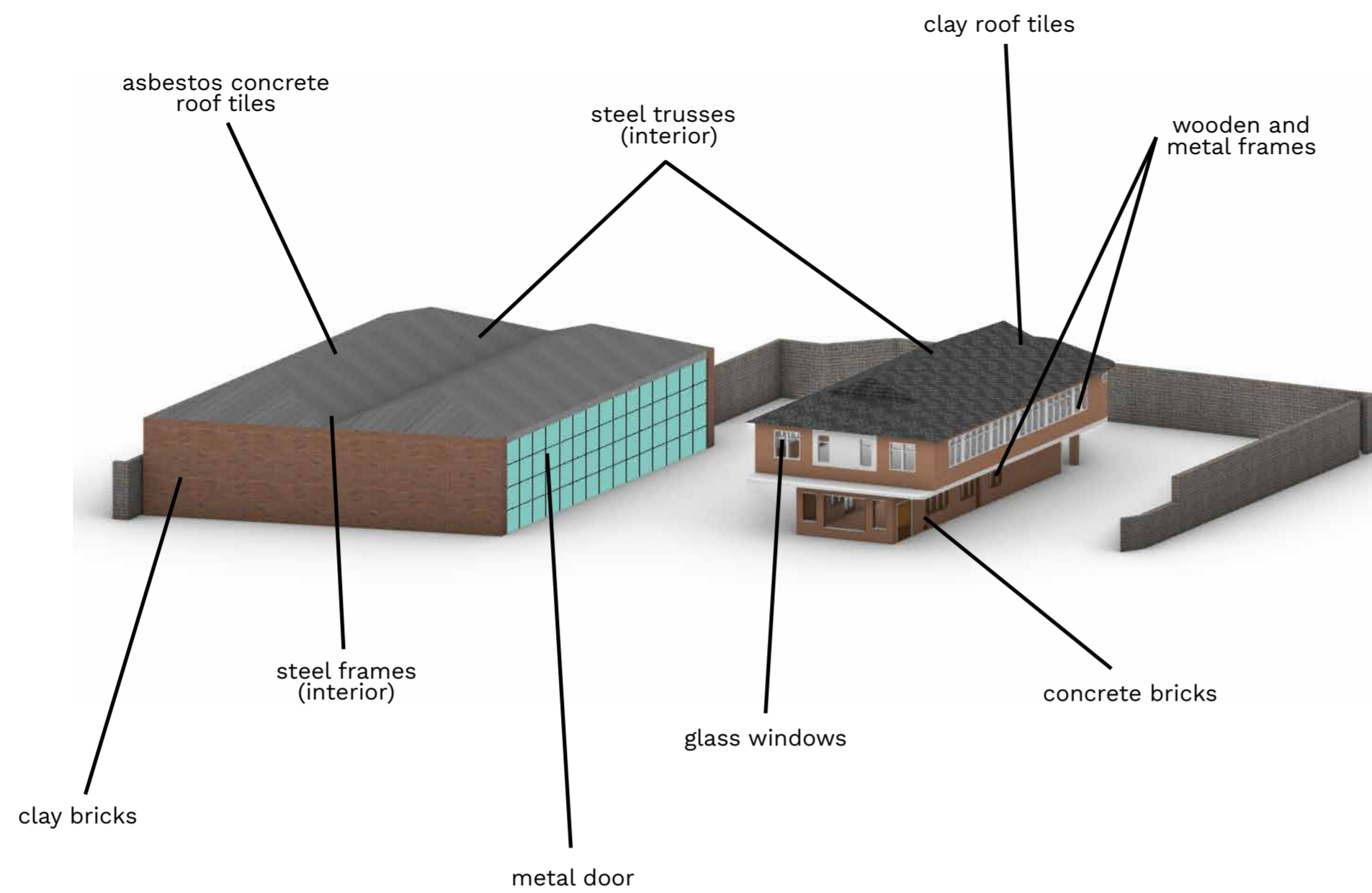
4. Asbestos Concrete



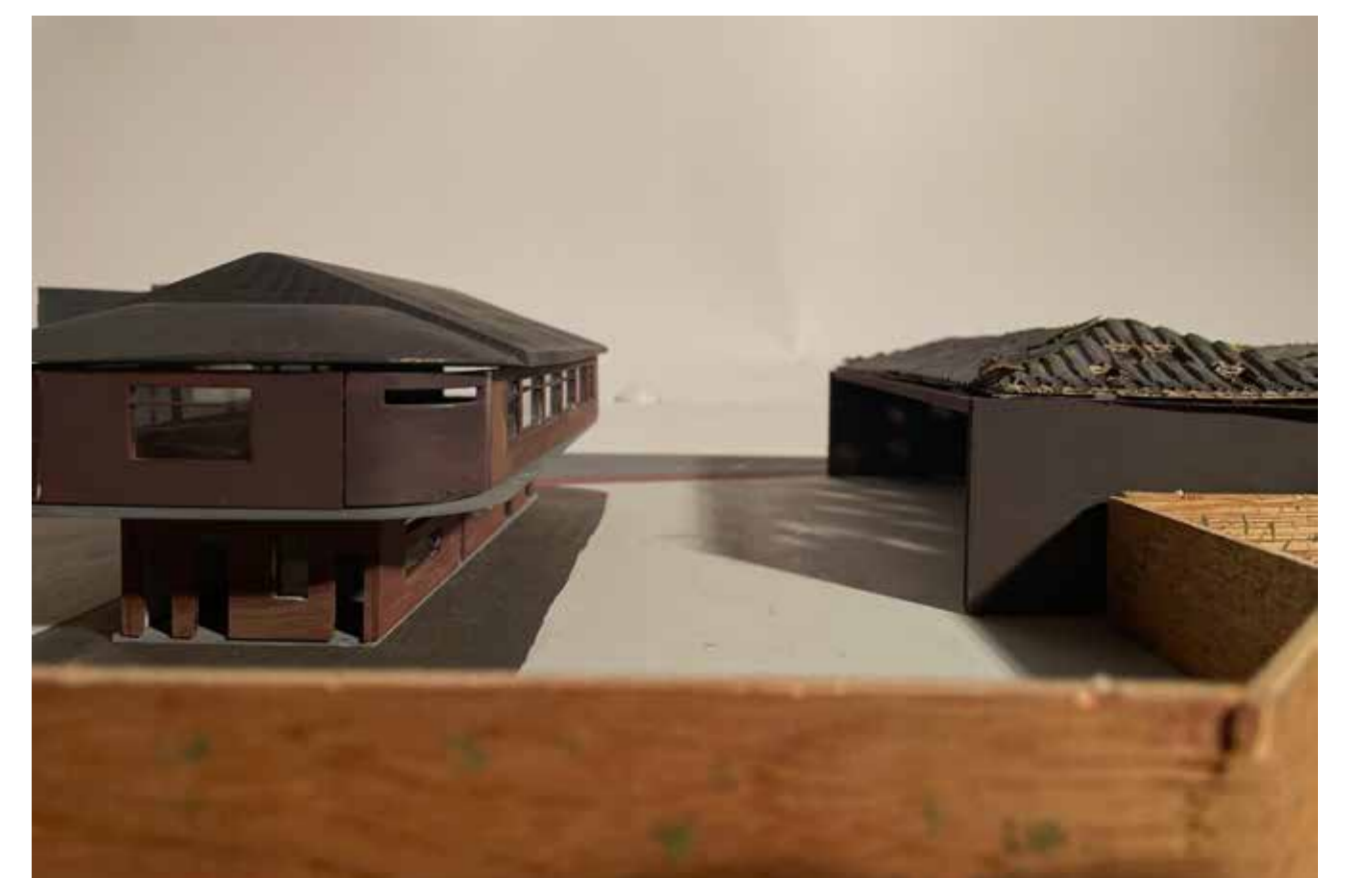
5. Glass



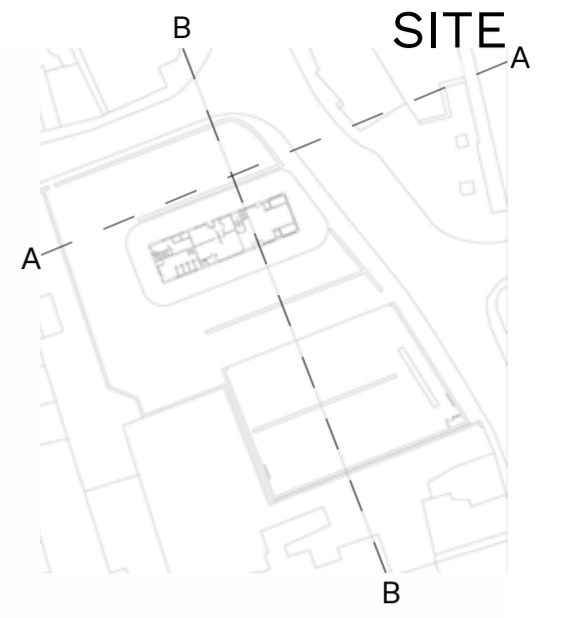
6. Clay Tiles



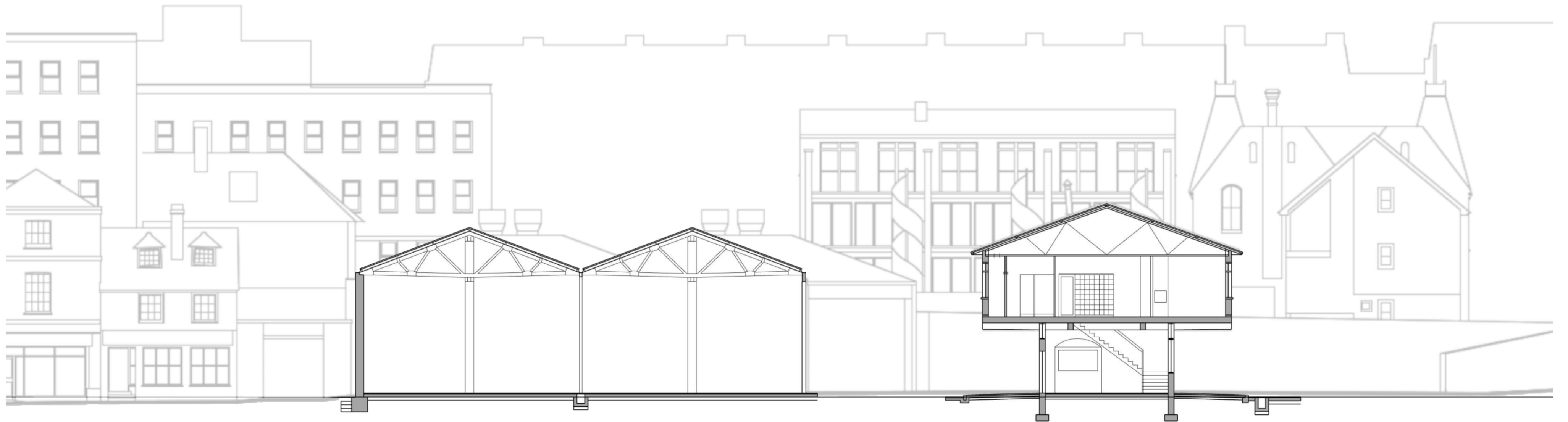
Street view of buildings



View of buildings from the back of the site

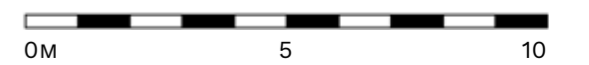


Section A-A



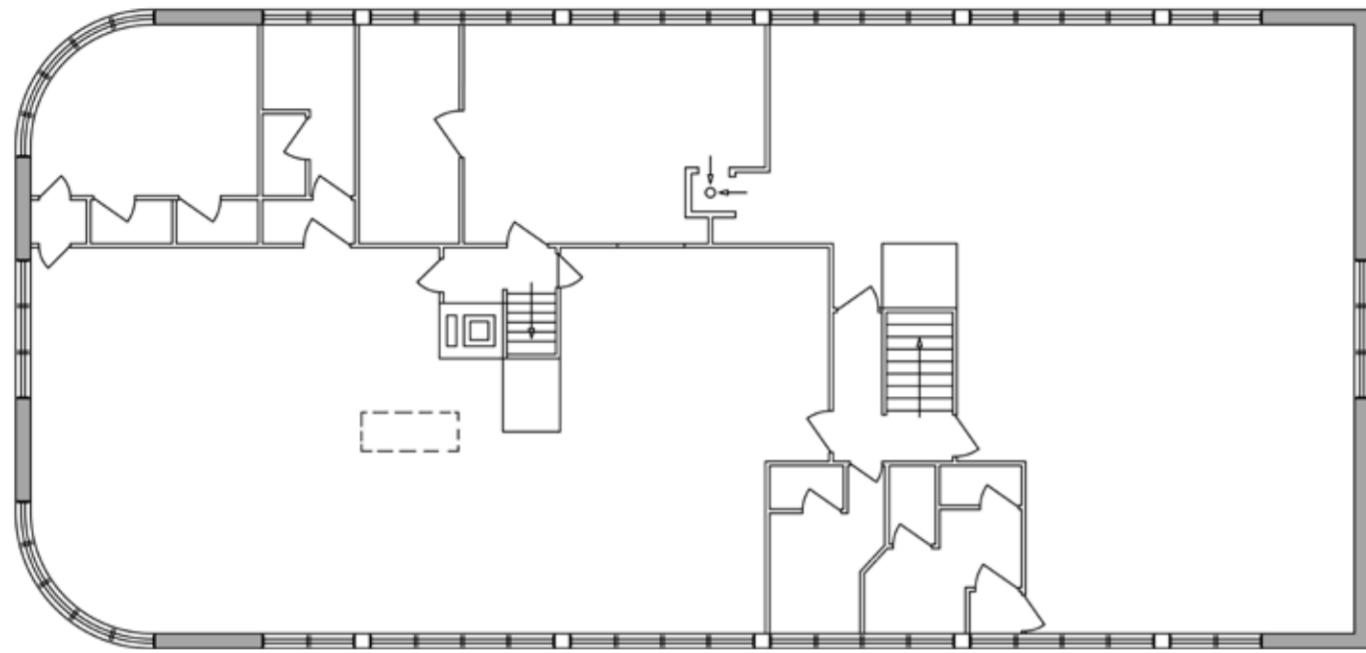
Section B-B

Existing Site Sections A and B used for background
cr: ECE Architecture

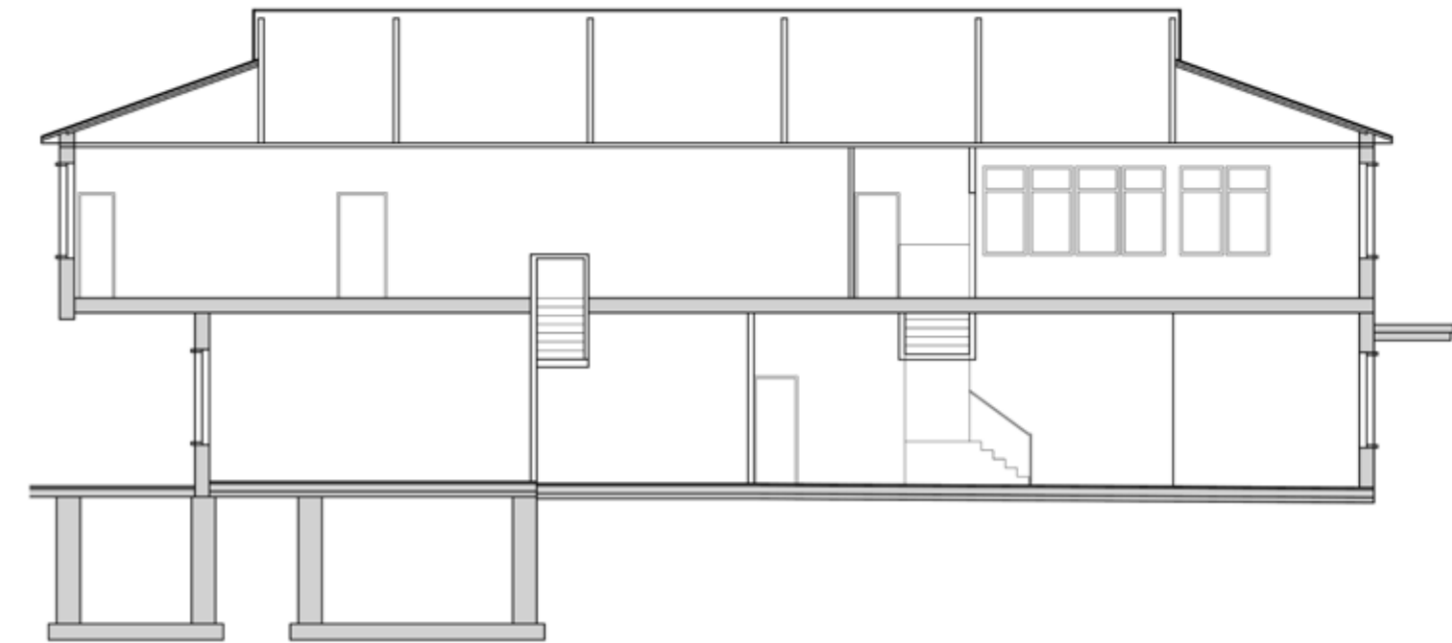


LEWES BUS STATION

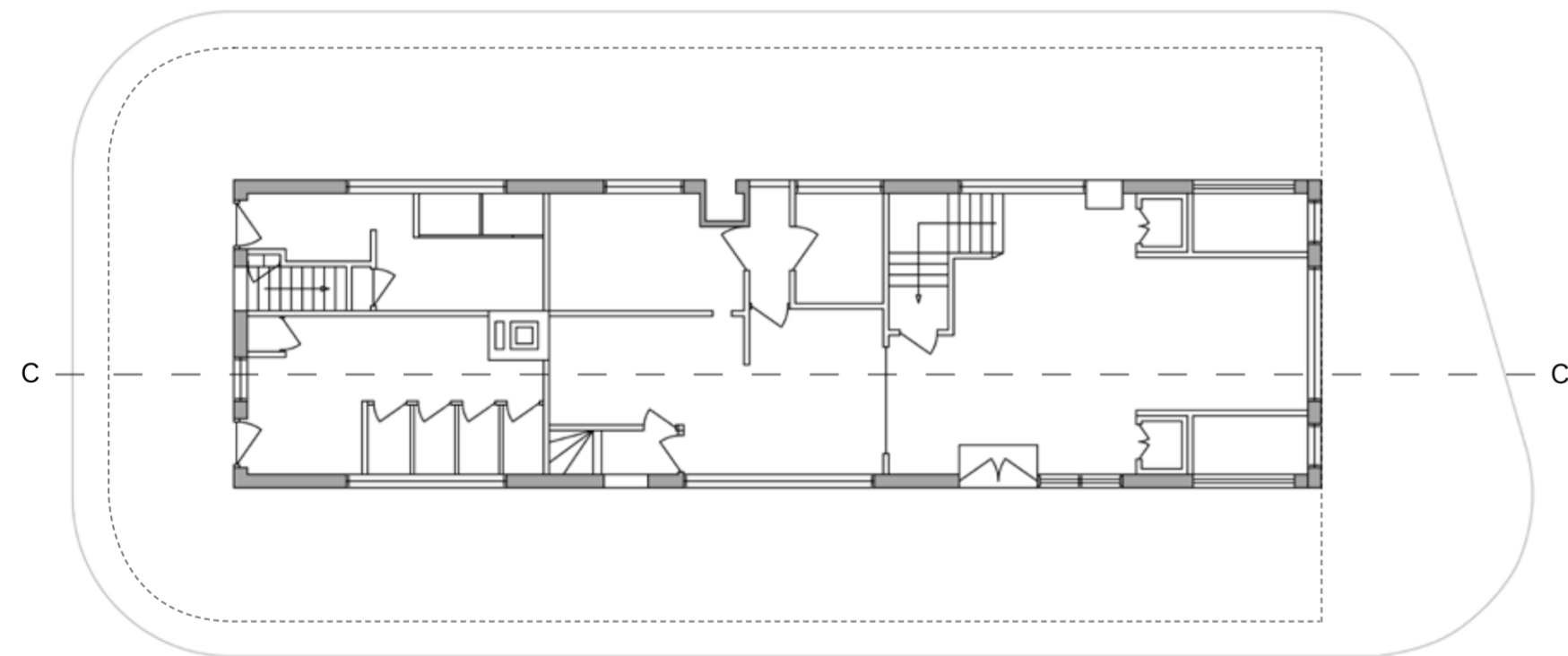
FIRST FLOOR PLAN



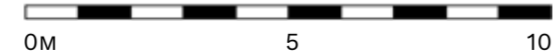
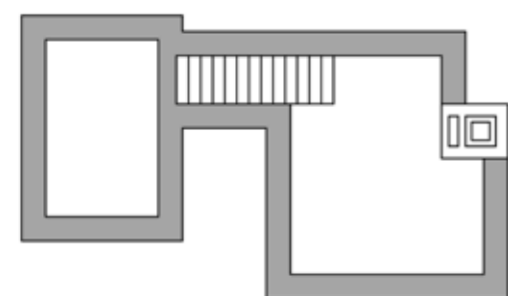
STATION SECTION C-C



GROUND FLOOR PLAN



HEATING CHAMBER PLAN



Front view of building



Side view of building

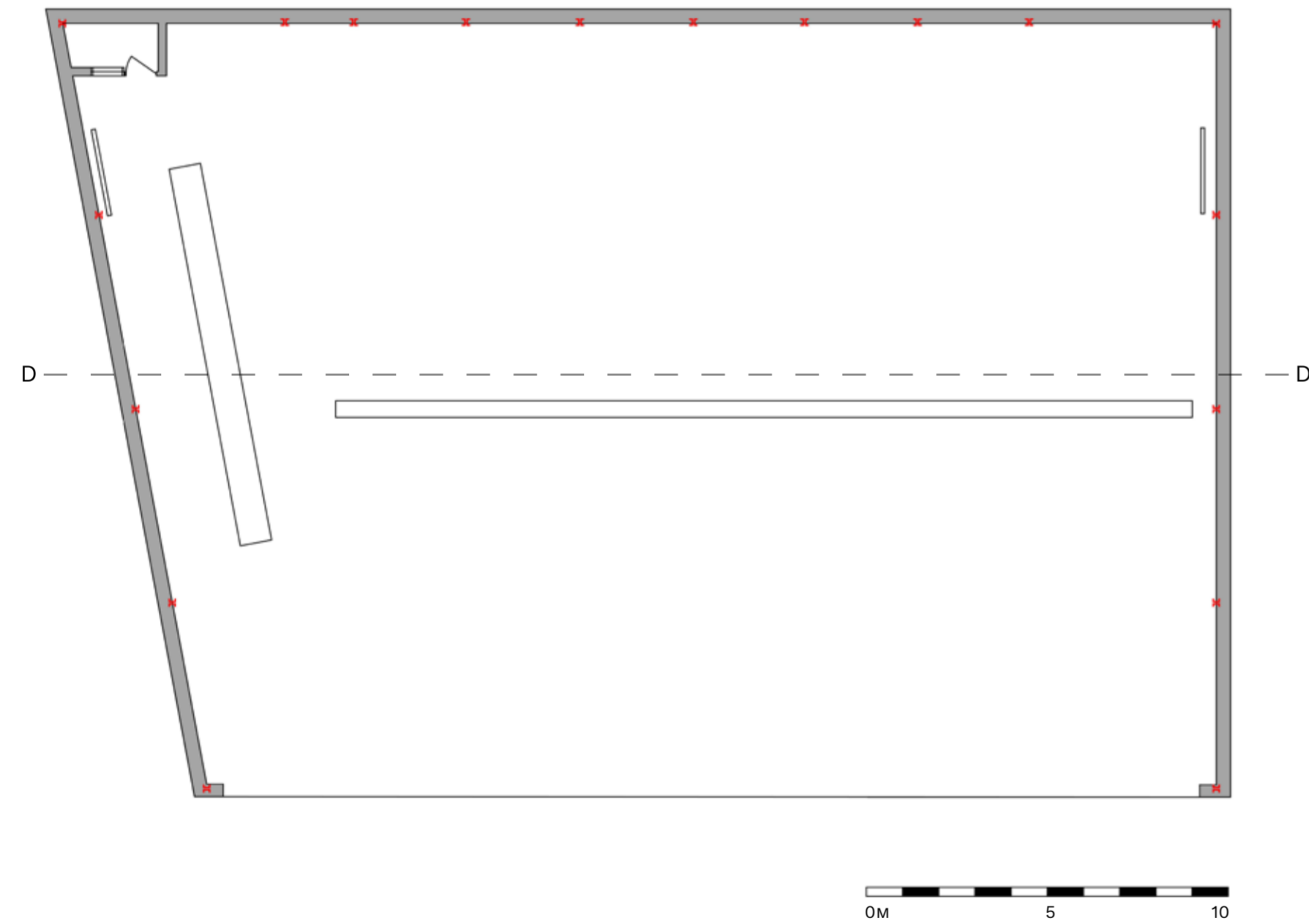
Building materials include;

- concrete bricks
- wooden and metal frames
- clay roof tiles
- glass windows
- steel trusses

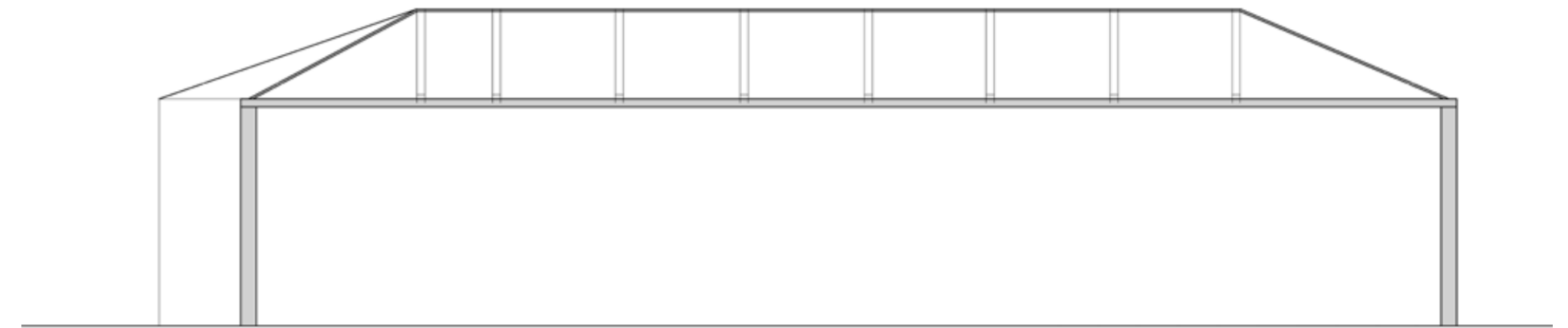
BUS DEPOT

SITE

FLOOR PLAN



DEPOT SECTION D-D



Exterior view of building

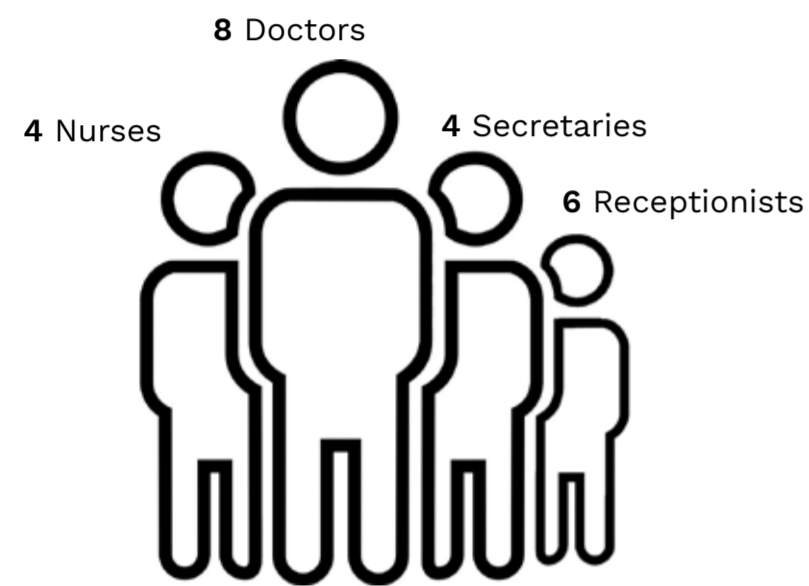


Front view of building

Building materials include;

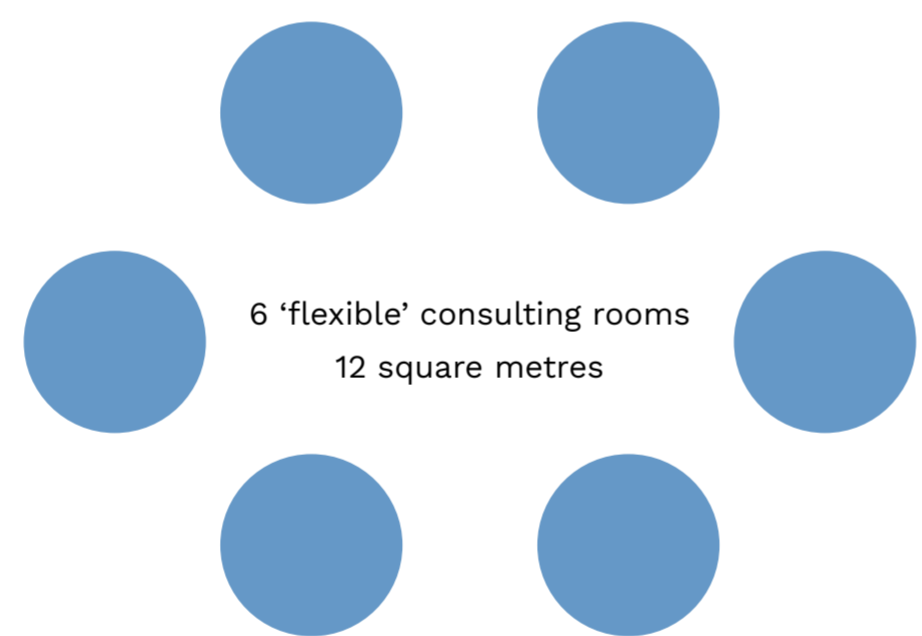
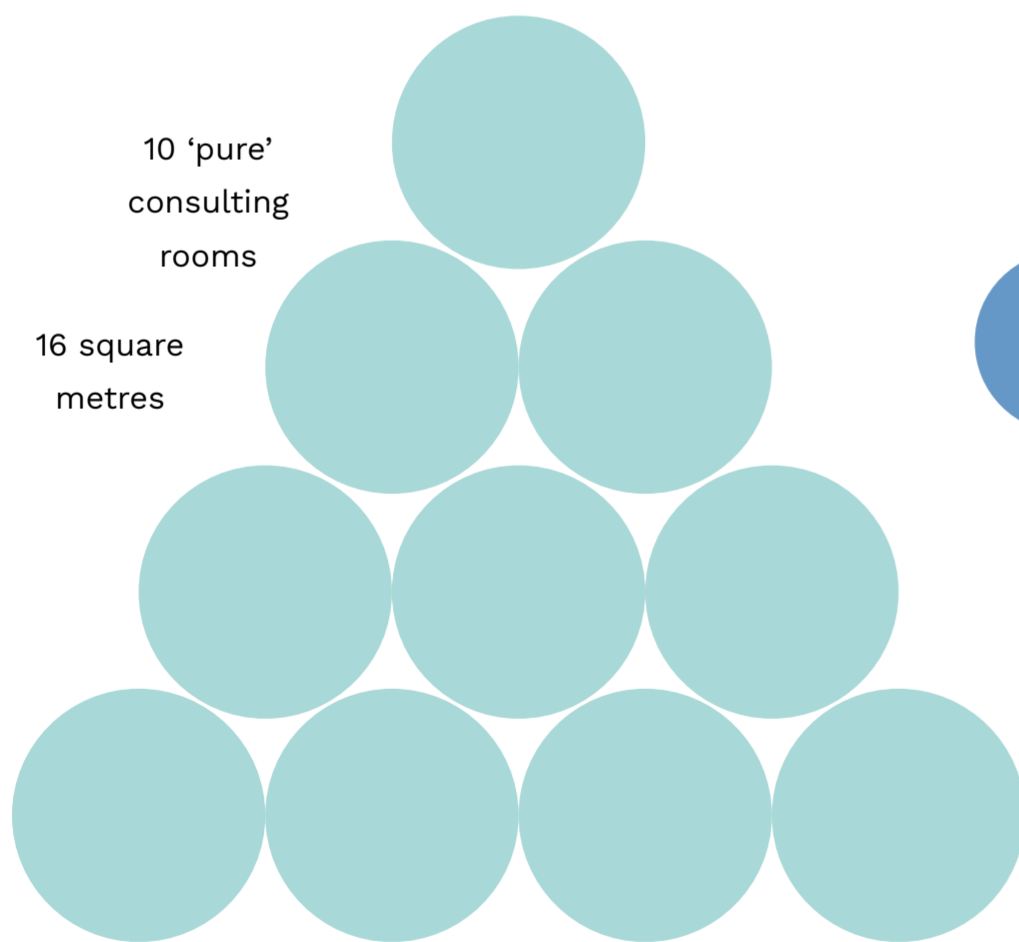
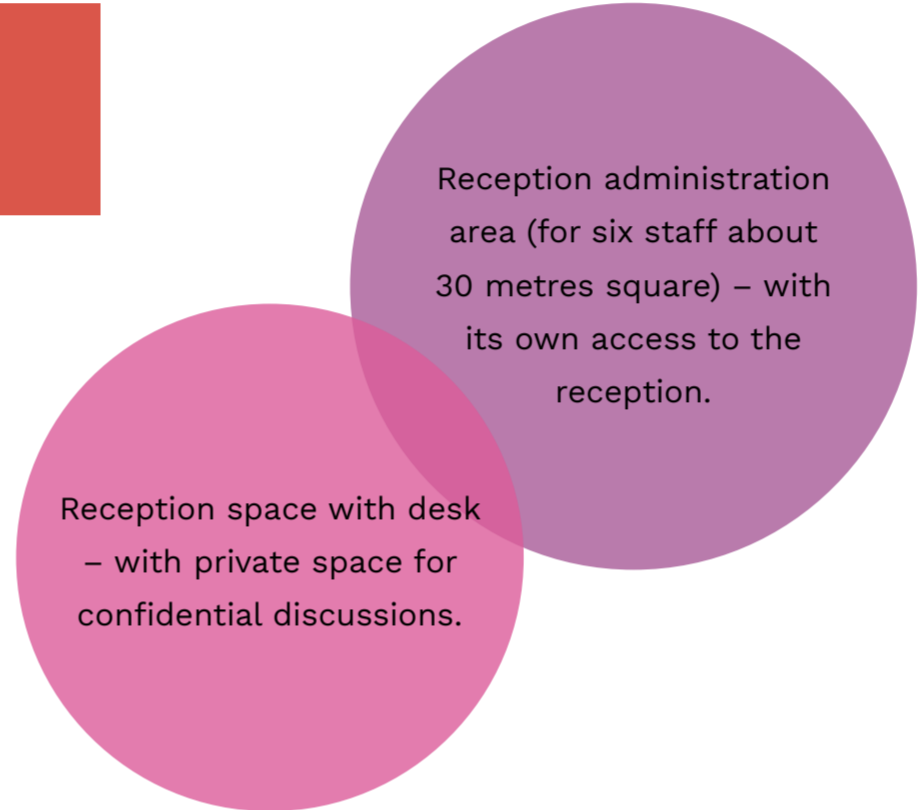
- clay bricks
- steel trusses
- metal
- steel frames
- asbestos concrete roof tiles

CLIENT BRIEF



Meeting room for meetings, teaching, training etc. Space for 15 people.

Staff space for eating/resting (22 people).



Large secretarial room for 4 secretaries (about 24 square metres).

Two storage rooms, each to be 12 metres squared.

medical supplies
cleaning equipment

- To serve a patient population of 10,000, about half of total Lewes town population.
- Surgery with **8 doctors, 4 nurses, an administration team** (6 receptionists and 4 secretaries, typically working separately in these two roles).
- Flexible working space important as '8 doctors' means 8 full time equivalents (i.e. more than 8 if part time)
- Assorted additional part-time roles, e.g. social prescribers.v
- **Reception space with desk** – with private space for confidential discussions.
- **Reception administration area** (for six staff about 30 metres square) – with its own access to the reception.
- **Meeting room** for meetings, teaching, training etc. **Space for 15 people.**
- **Staff space** for eating/resting (**22 people**)
- Large **secretarial room** for 4 secretaries (**about 24 square metres**).
- **10 'pure' consulting rooms** with a couch (**16 metres squared – one desk, three chairs, one couch, one sink**). For use by GPs, nurses, phlebotomists, etc.
- **6 'flexible' consulting rooms** without a couch (**12 metres squared – one desk, two chairs, one sink but no couch**). For use by pharmacists, counsellors, medical students, social prescribers, telephone consultations. Can also be used by administration staff if room free.
- **Individual toilets x 8** – n.b. separate toilets for staff. **Four for staff, four for patients.**
- **Two storage rooms one for medical supplies and one for other** (e.g. cleaning equipment). Each to be **12 metres squared.**
- Please note that the secretarial room, staff toilets and two of the 'flexible' consulting rooms should be in a staff only area' e.g. a lockable corridor door.
- n.b. Building to be used by other services (under separate management)

SOCIAL PRESCRIBING

Lewes is known for being a traditional market town and centre of communications. There is a strong built community within the town and is also culture driven.

To reflect this, a large part of this project will be dedicated to the community. As a GP is considered a public service - this already benefits the townspeople so, by having other spaces be able to host other services this can further develop the area and aims to benefit the locals.

On weekends, there will be a morning market available in the space provided as well as an indoor café to provide fresh beverages to staff, patients, or locals alike.

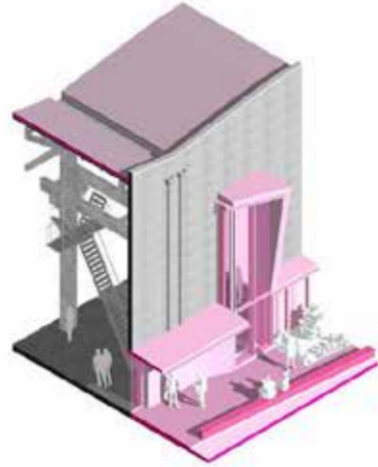


Concept Collage - Market and Open Outdoor Picnic Tables and Indoor Cafe

CASE STUDIES



SOUTH FACADE



EAST FACADE

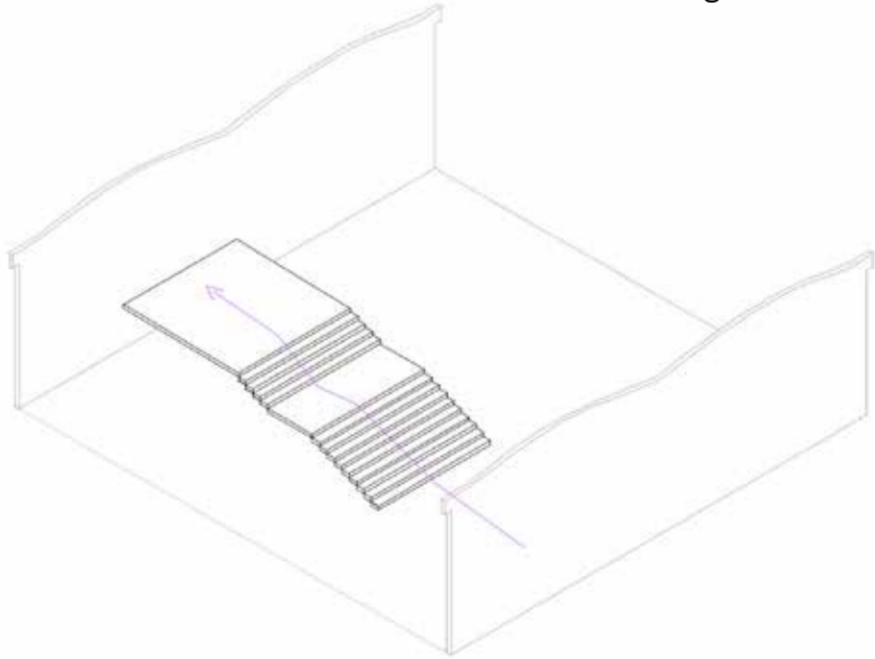


before retrofitting

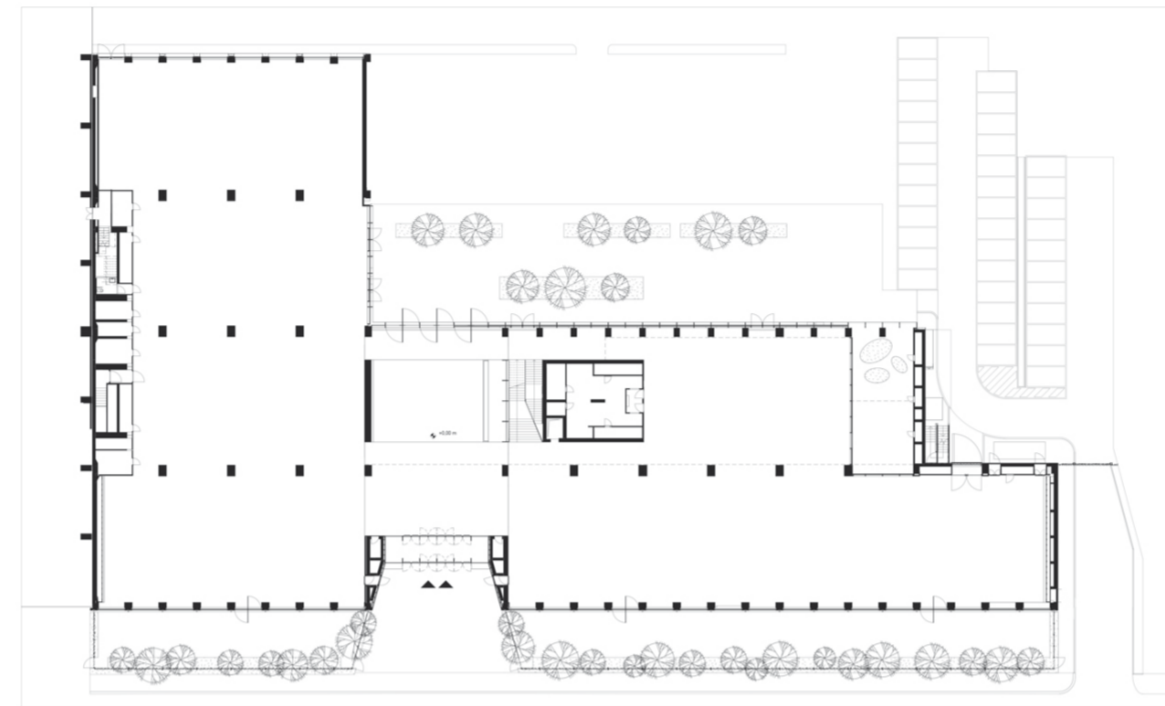


This project retrofits an old warehouse into a new function of exhibition, cultural, and sales center. Similar in ways to my project is that it goes from a big industrial scale to a human scale. Most of the original structural elements are preserved however, all parts of the building envelope are renewed, replaced, or reconfigured, for practical reasons such as climate insulation, waterproofing, or safety.

Design Element of Interest



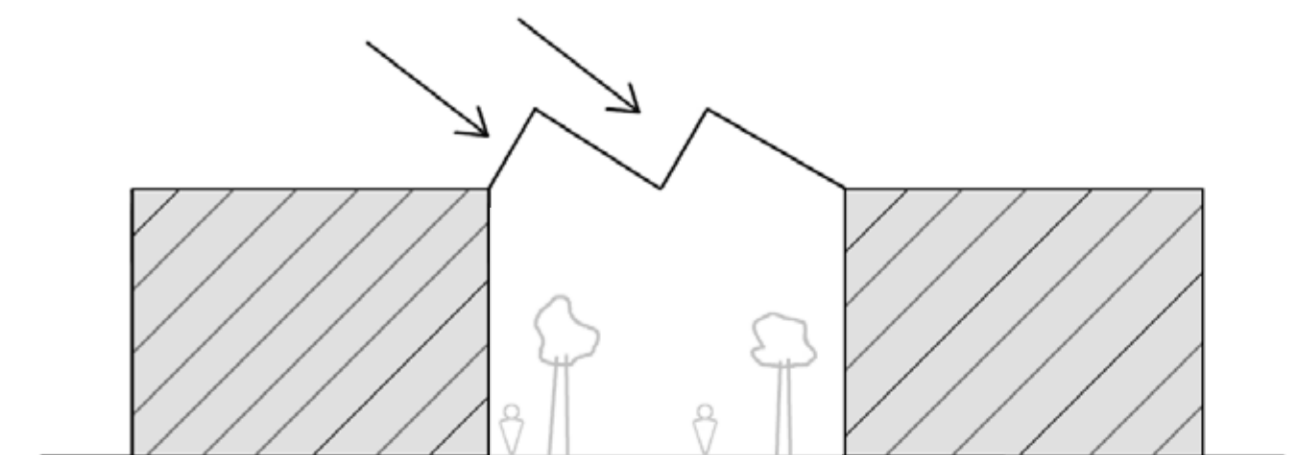
Looking at circulation on levels



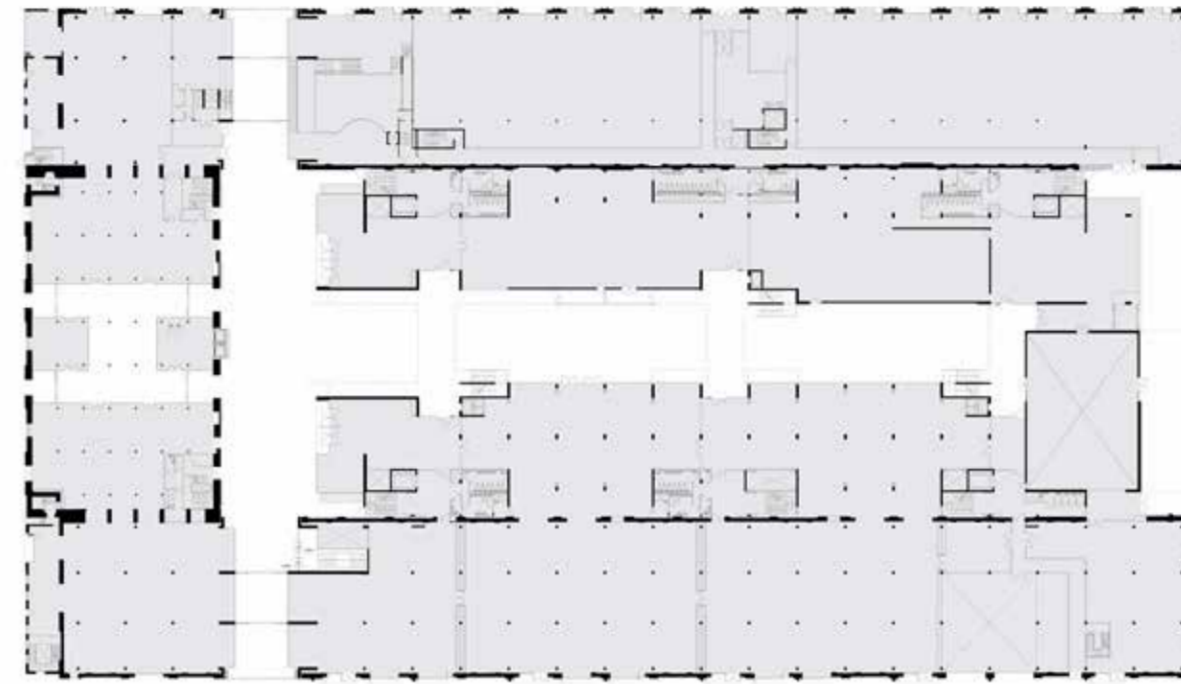
before retrofitting

This project retrofits an industrial complex into a digital factory. Paying the greatest attention to quality, using technologically innovative materials and seeking cutting-edge architectural solutions are the focal points for this build while also paying attention to the peculiar elements of the place and respecting the social fabric of the neighbourhood hosting the new structure.

Parti Diagram

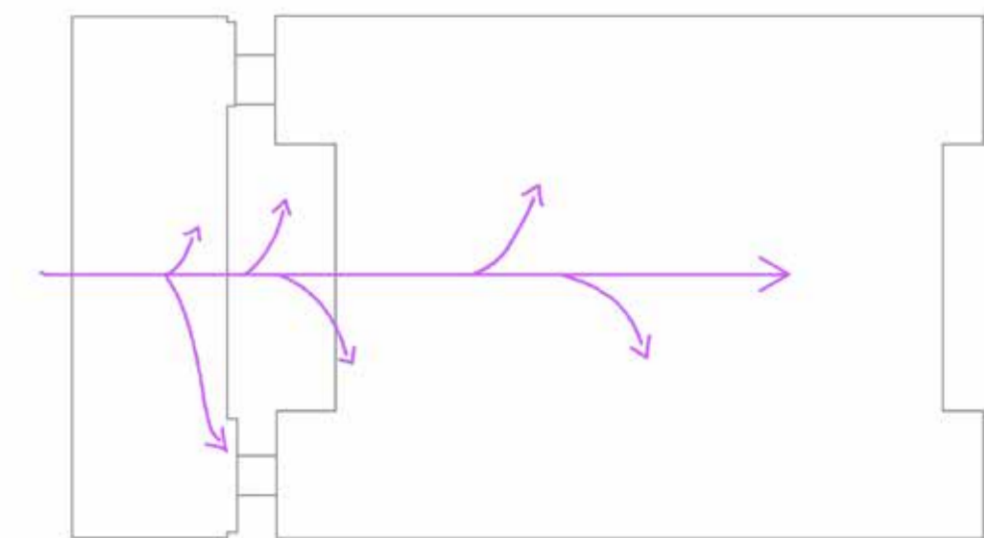


Looking at scale and light



This project I have looked at has a similar programmatic strategy which is named "the Street", where there is a pathway inbetween 2 buildings or 2 different programme groups. This allows for a clear path of circulation as well as a method to divide the programmes into groups and sections to create significant spaces within the project.

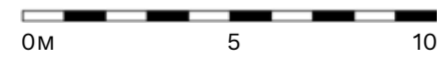
Parti Diagram



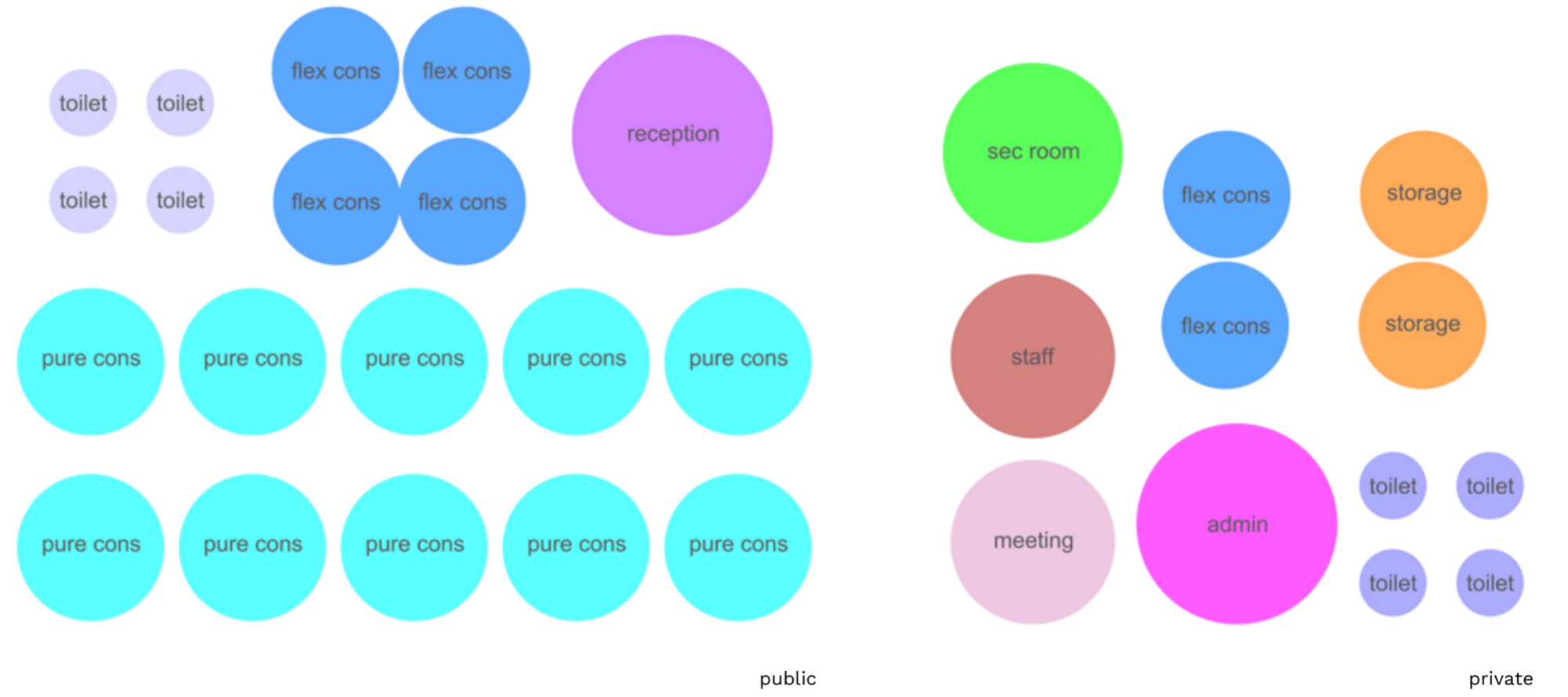
Looking at main circulation

PROGRAMME

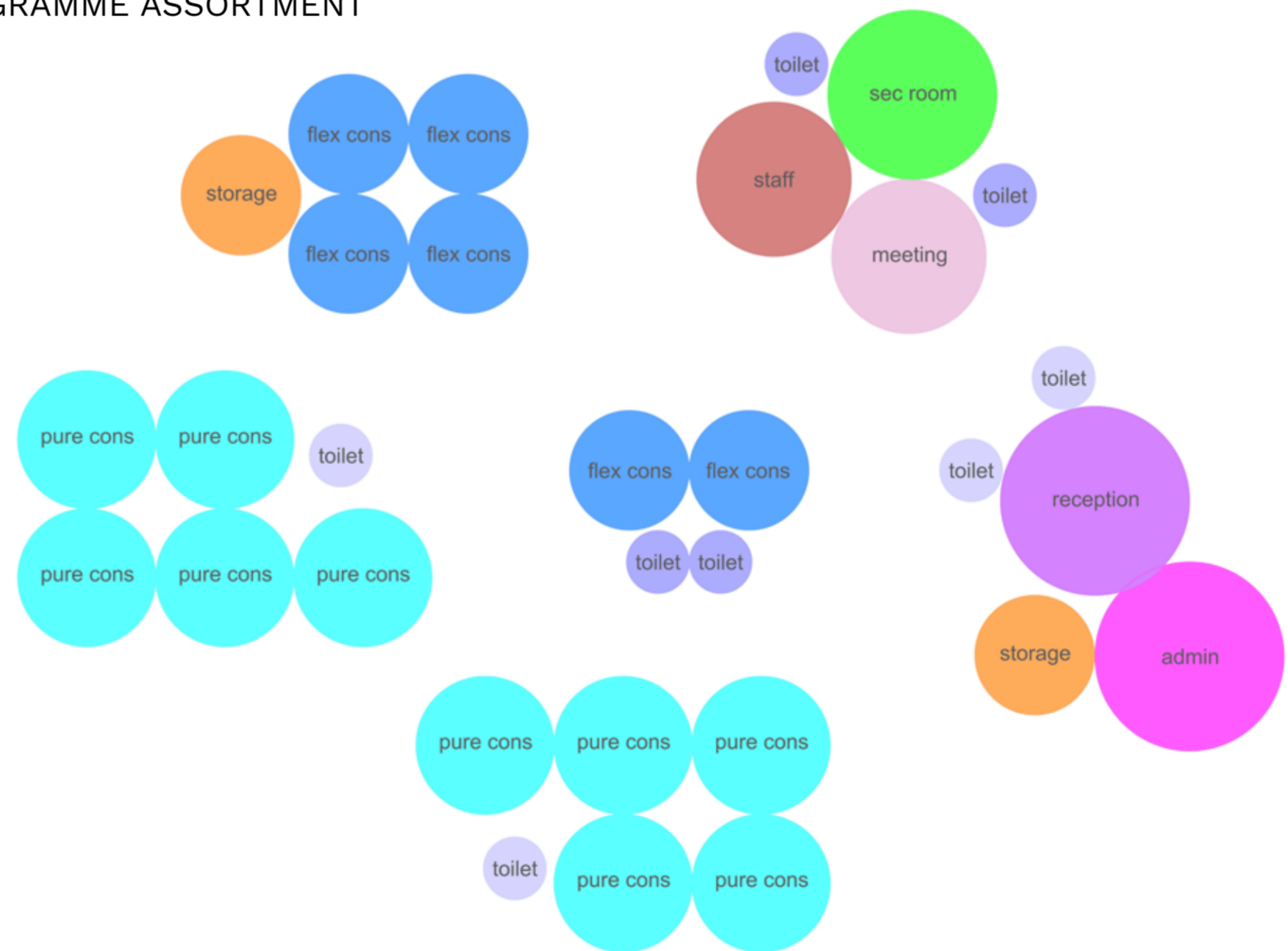
REQUIRED PROGRAMME



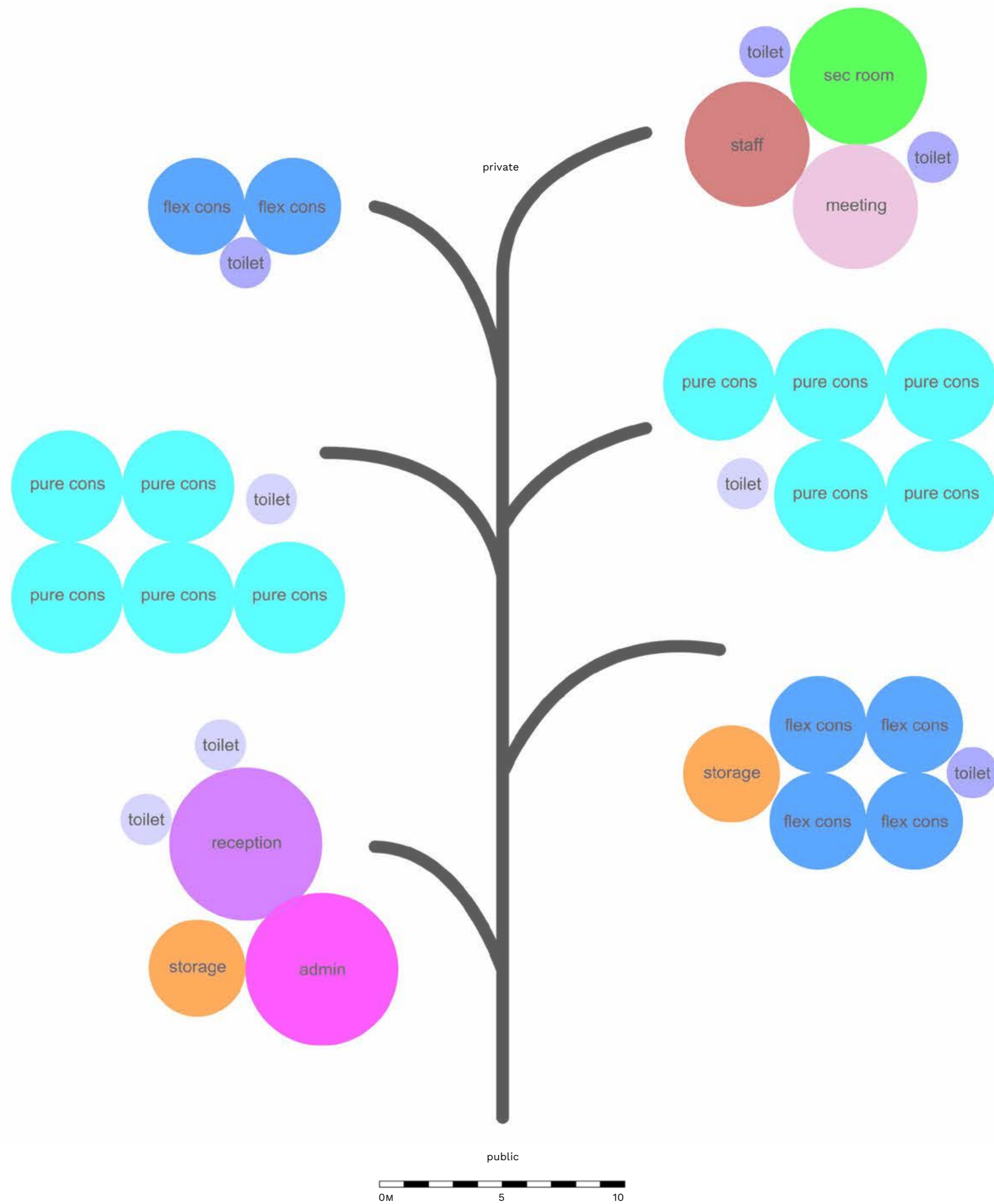
PROGRAMME SECTORS



PROGRAMME ASSORTMENT



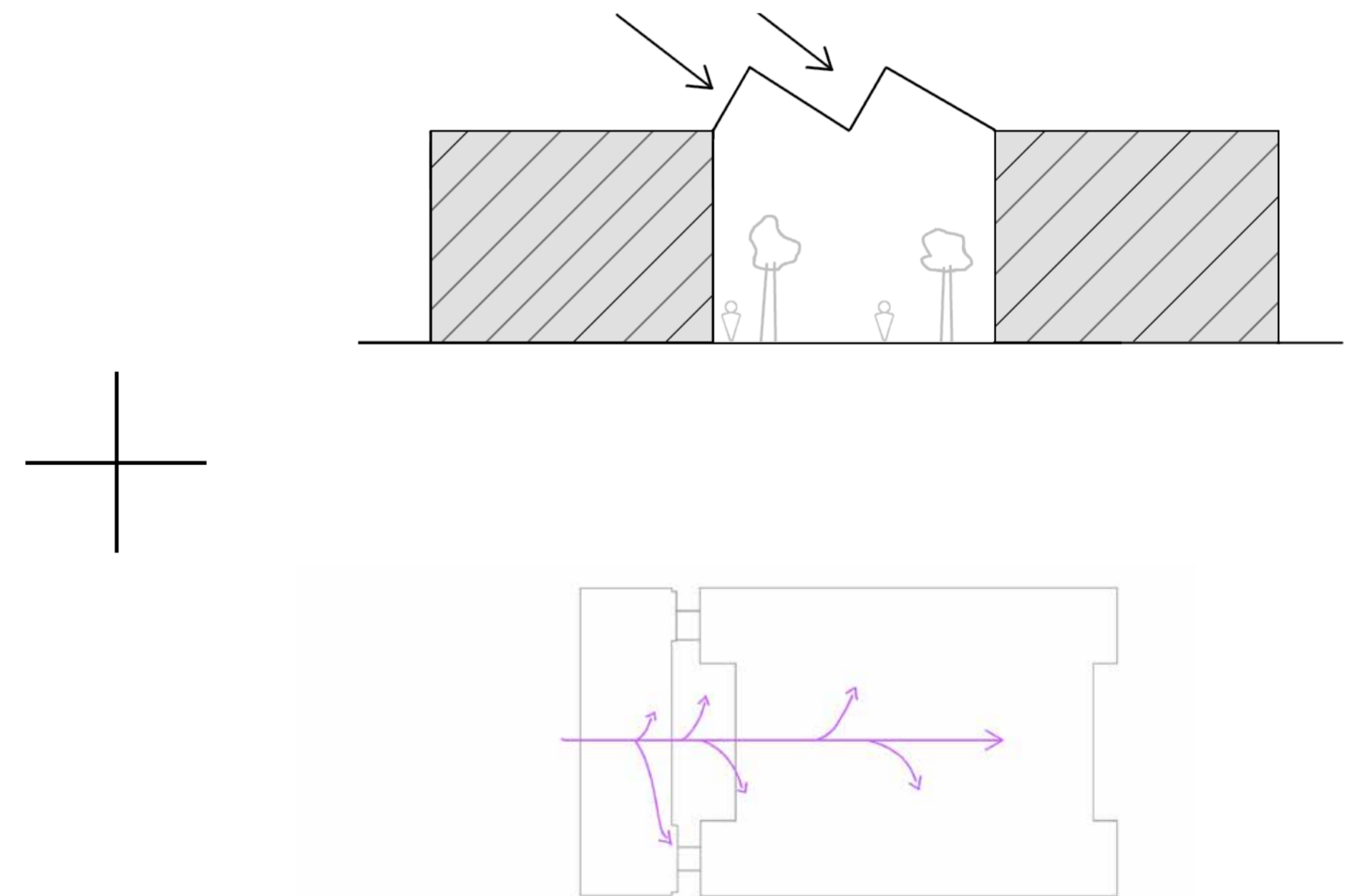
Combining the clusters that were formed by previous consideration for public/private and which programmes would complement each other well, with the **Street** strategy - this creates a programme strategy that allows all the programmes to be accessible by the straight forward flow of circulation that also follows the gradient of public to private.

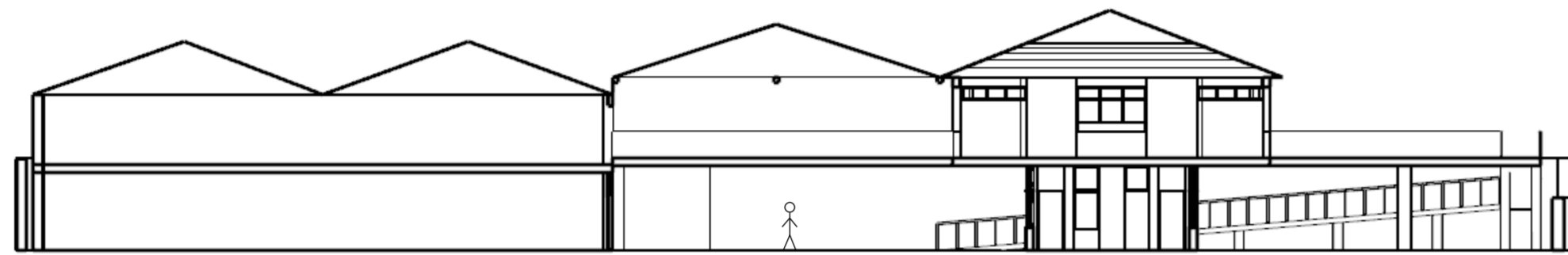


the "street" strategy being applied to site

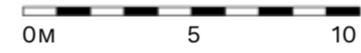


precedent parti diagrams



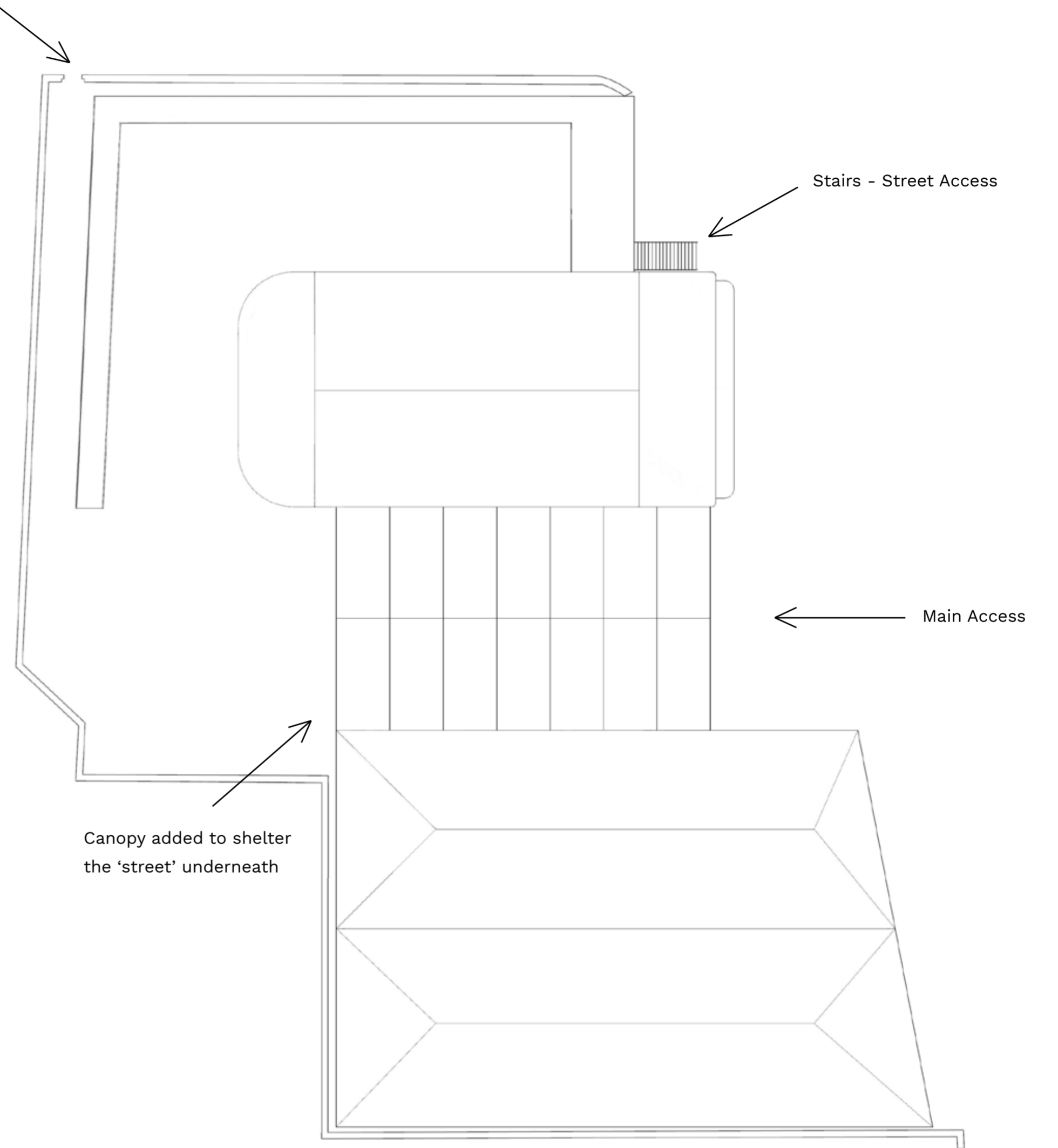


Elevation of design - Pitched roof is designed to fit in with the site



Back of site Access

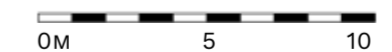
Roof plan of proposal



Stairs - Street Access

Main Access

Canopy added to shelter the 'street' underneath



3D model visualising the Ramp and Canopy

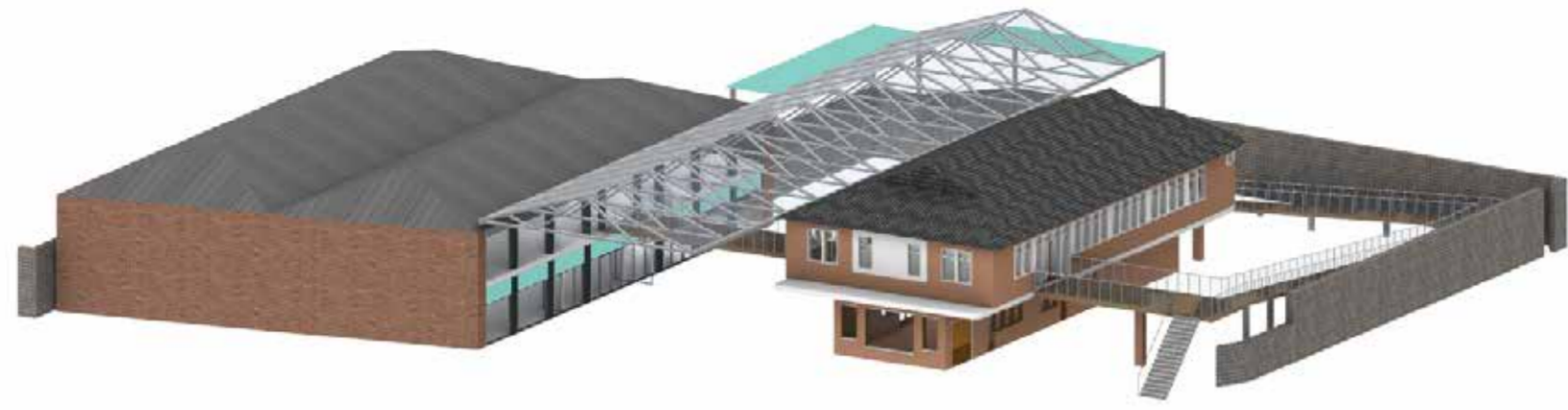


Visual of balcony and ramp



Views of new additions to site

Perspective view of canopy from the back of site



3D model showing adjusted design

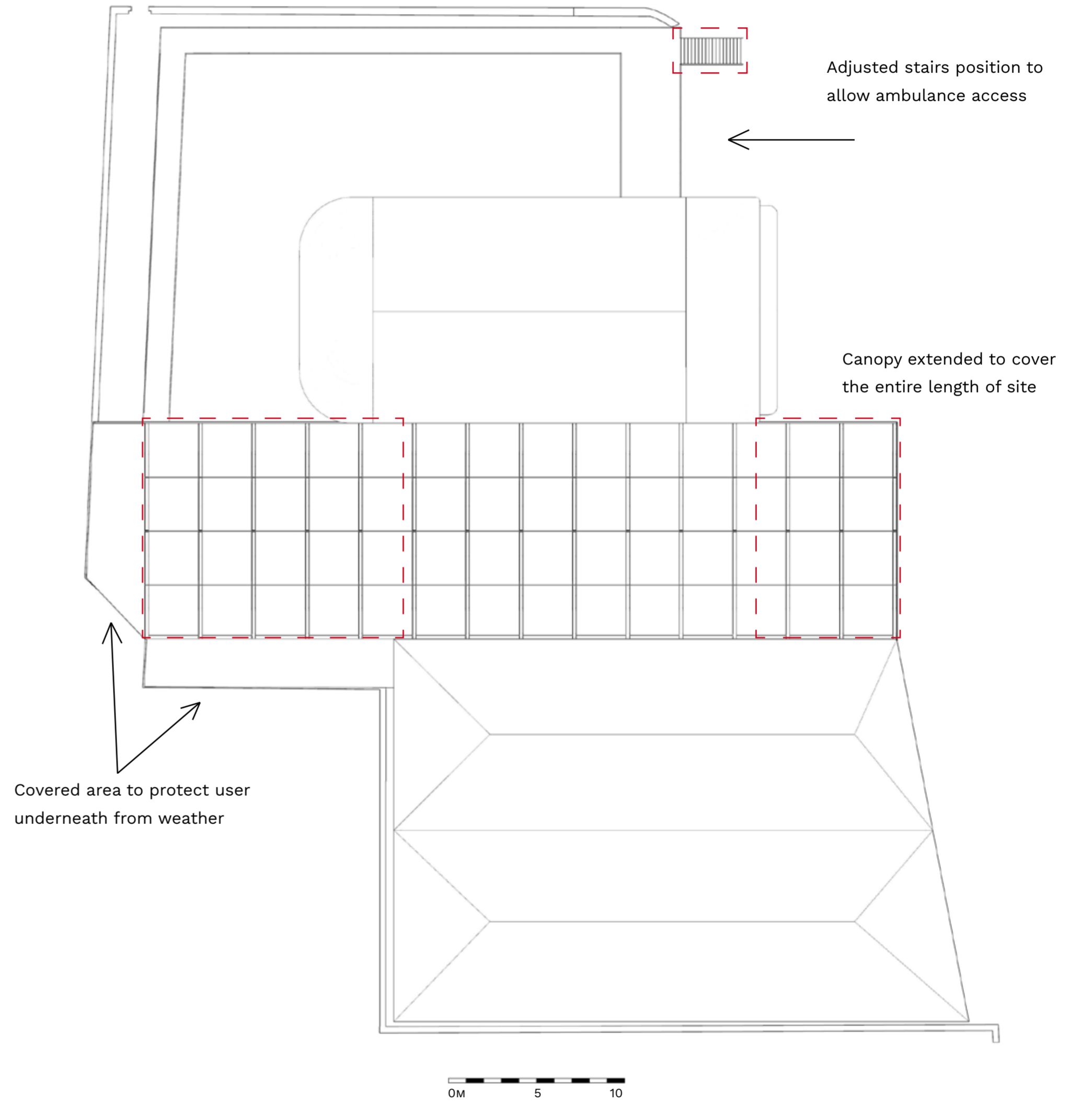


Perspective view looking up the ramp

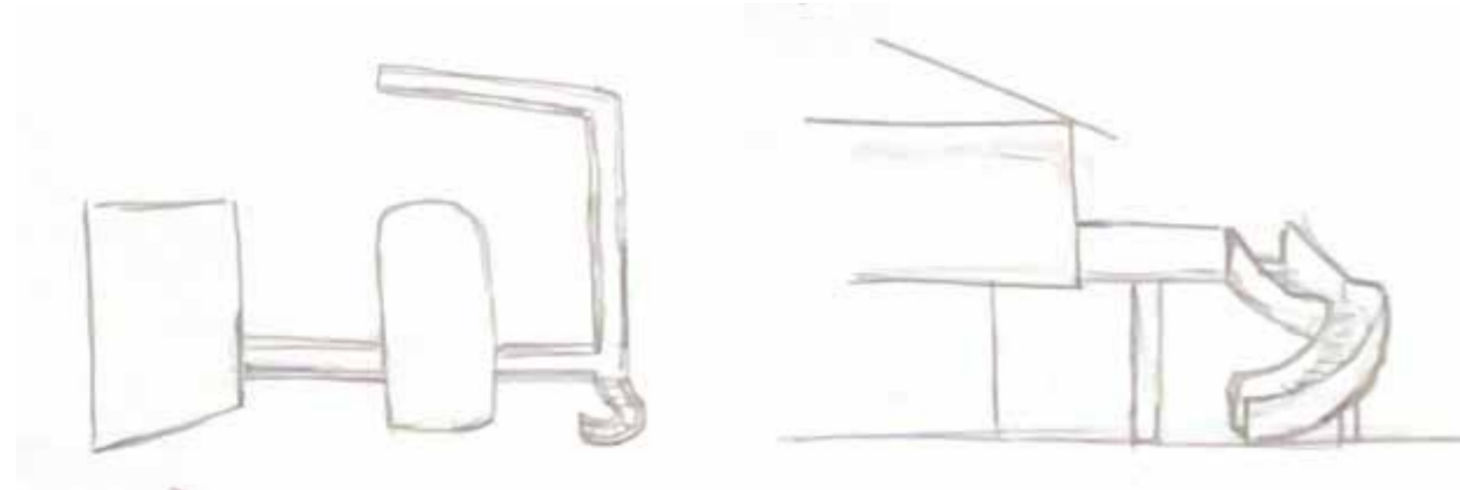


Perspective view looking out to the street

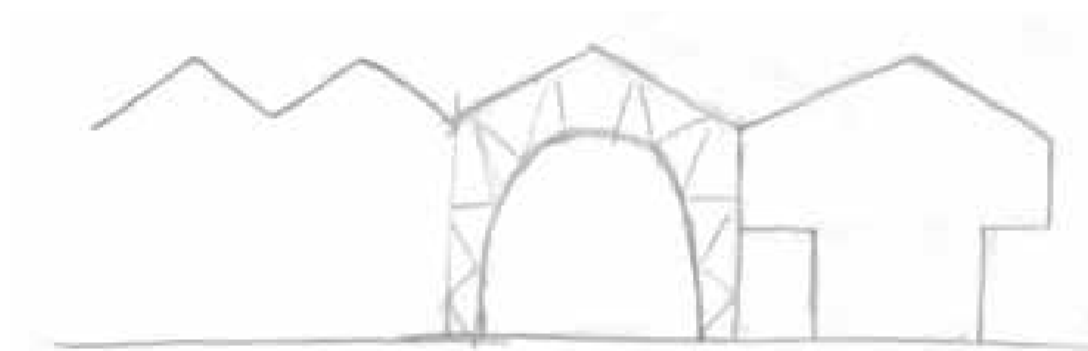
Roof plan of proposal



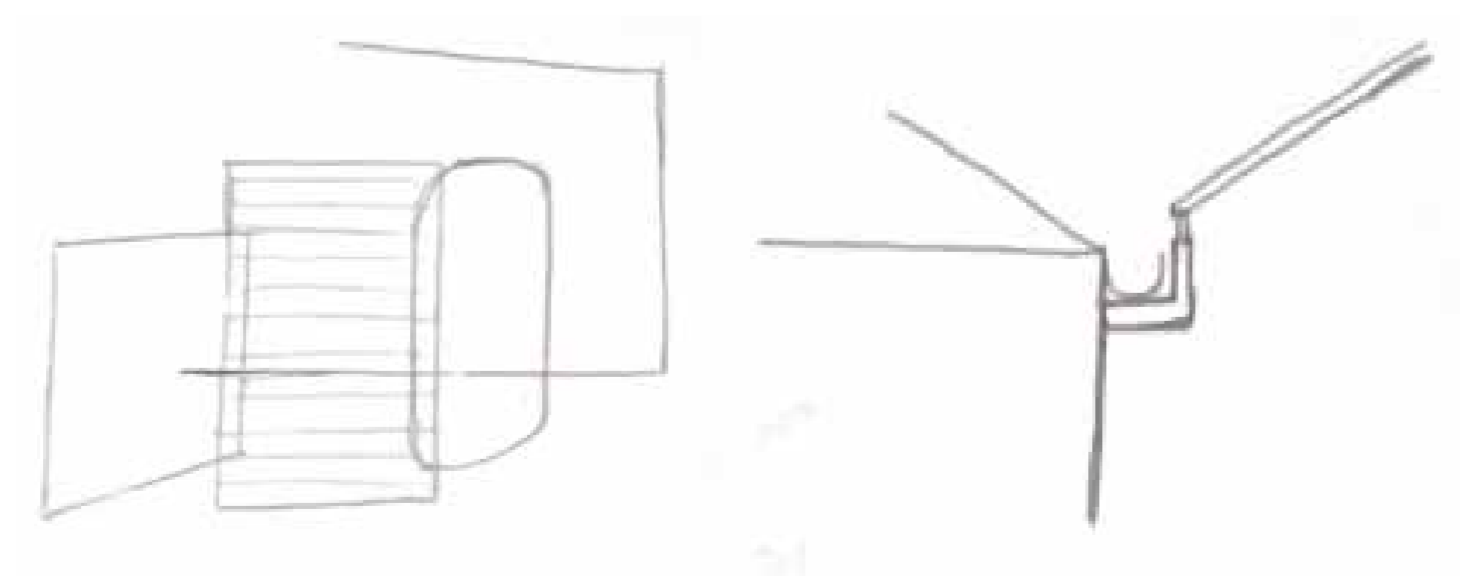
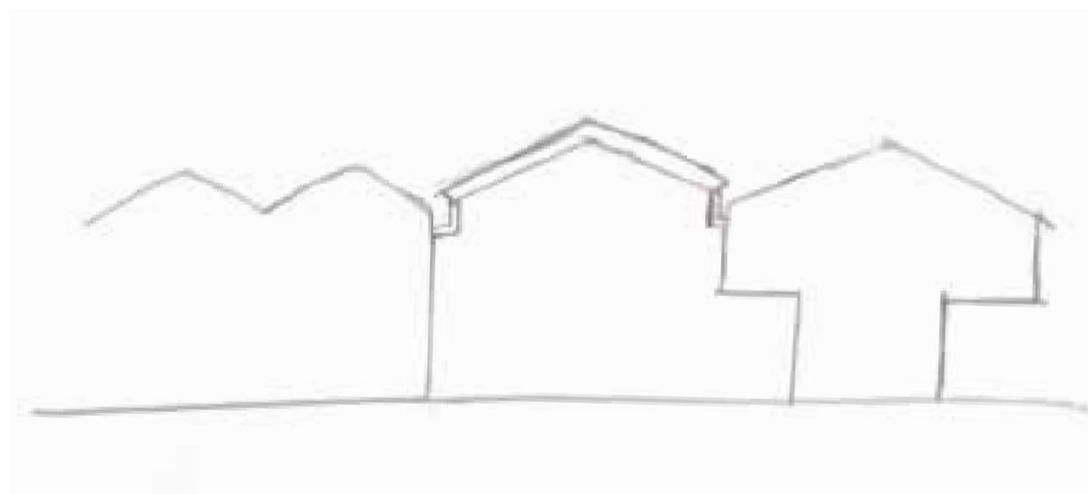
STAIRS



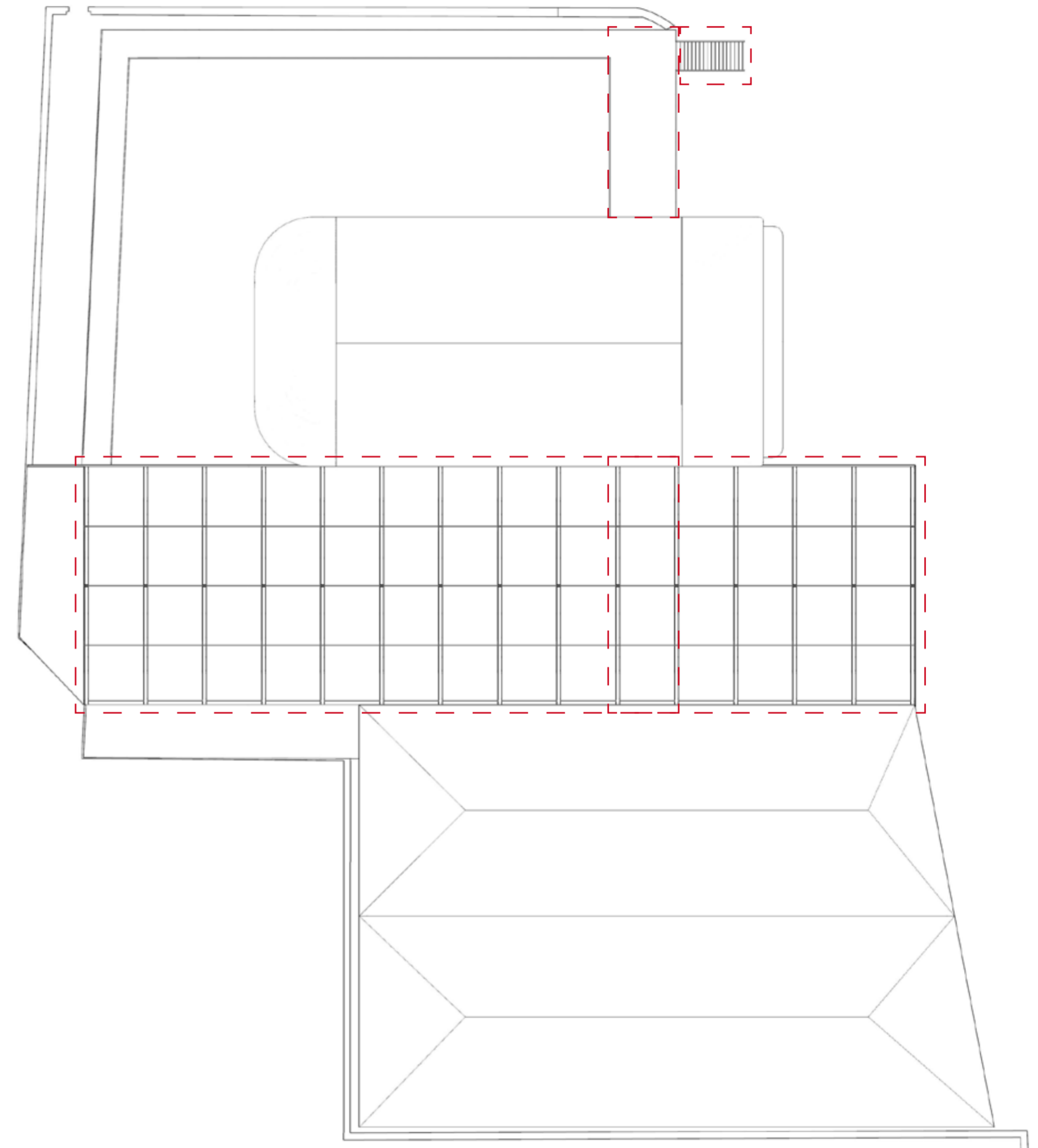
CANOPY



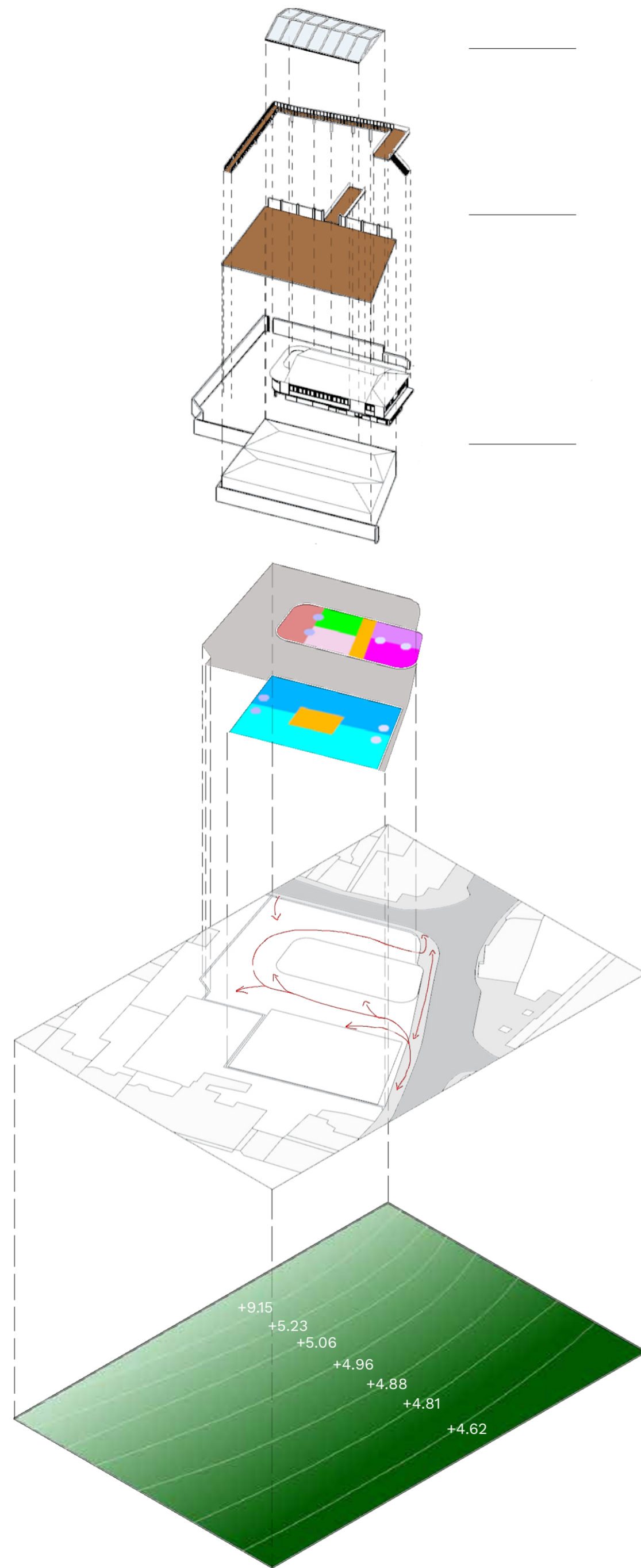
Elevation of entrance to 'street'



Attach riser brackets under the gutters to support the roof from both side



Areas from which the elements were identified



Roof / Canopy Addition

First floor and Ramp Addition

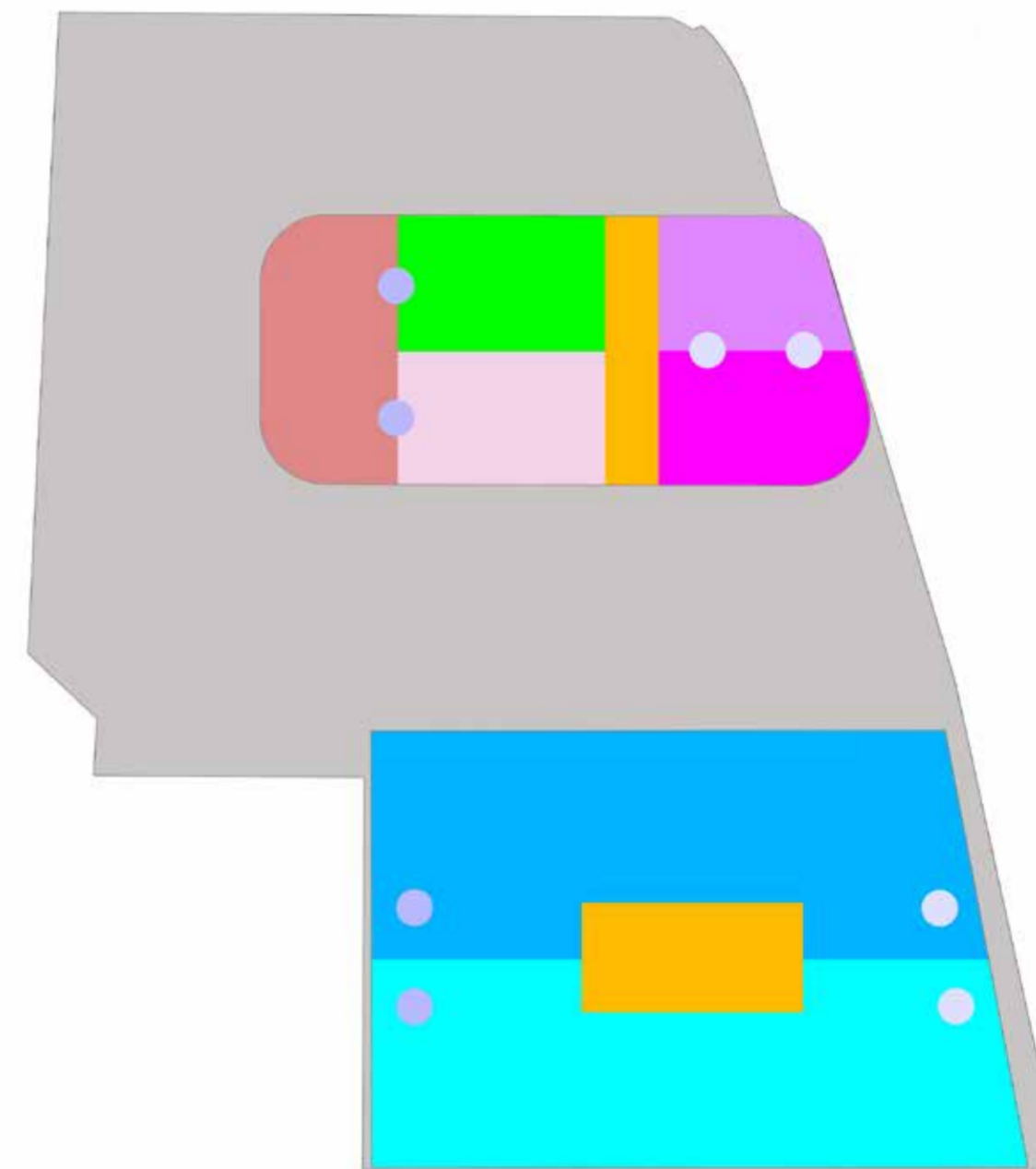
Base Building

Programme

Hardscape and Circulation

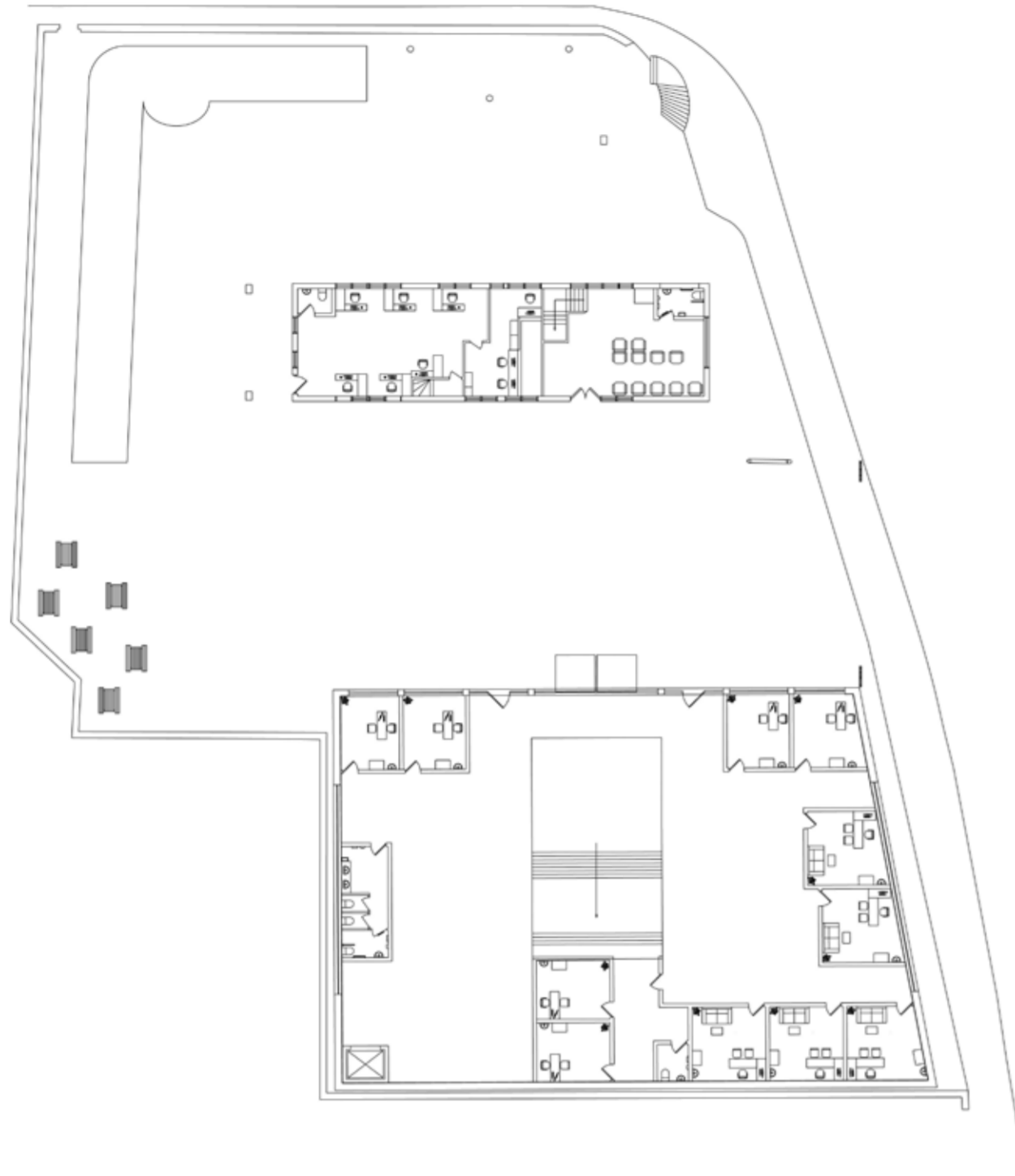
Topography of base

Programme Blocks

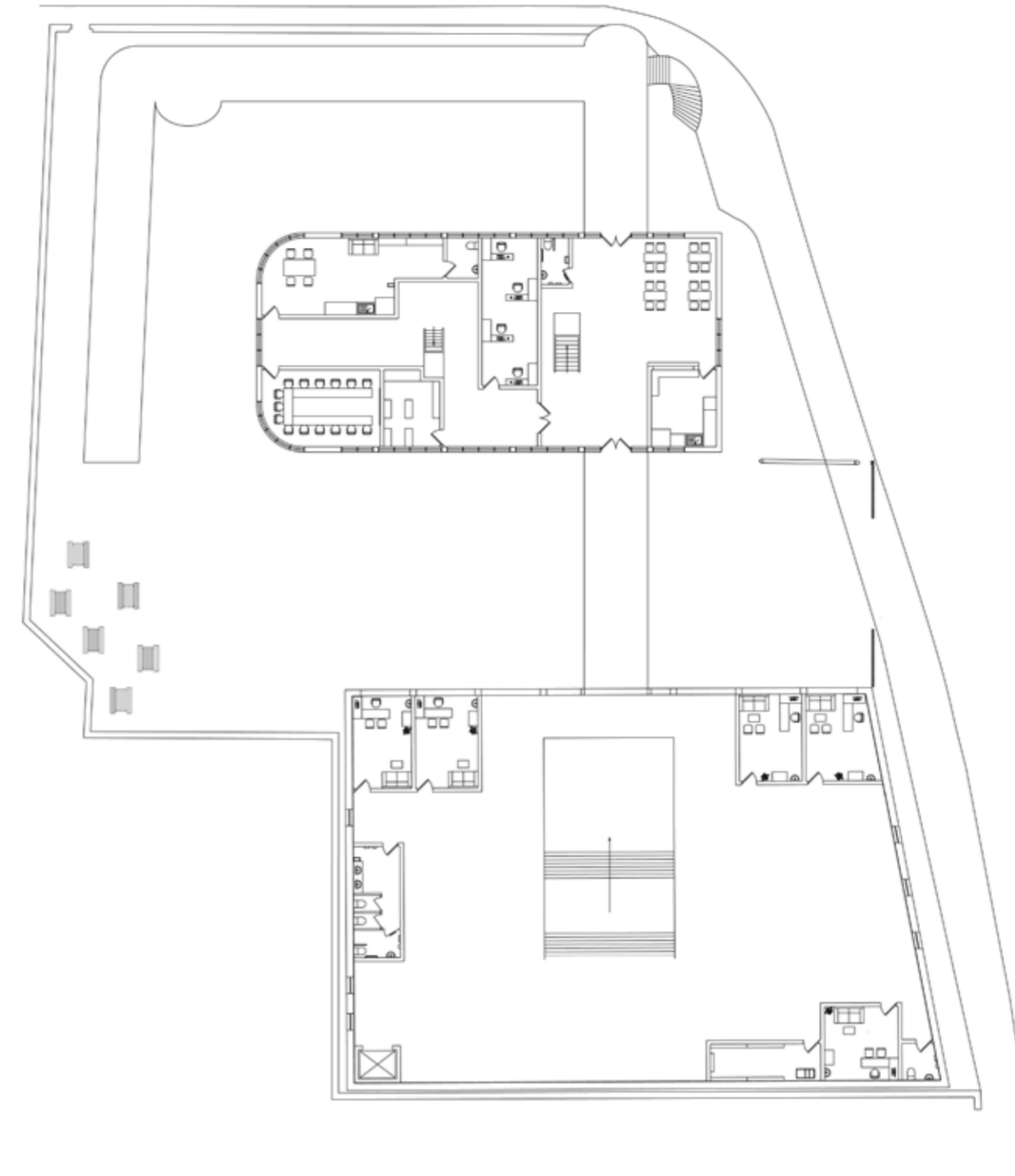


- 'Pure' Consulting Rooms
- 'Flexible' Consulting Rooms
- Secretarial Room
- Storage Rooms
- Staff Room
- Meeting Room
- Reception Space
- Reception administration area
- Staff Toilets
- Patient Toilets
- Outdoor Space

INITIAL FLOOR PLANS

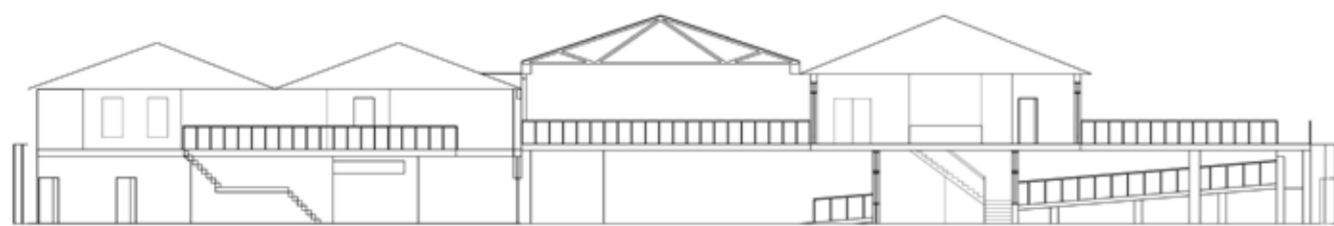


Ground Floor



First Floor

INITIAL SECTIONS



Long Site Section

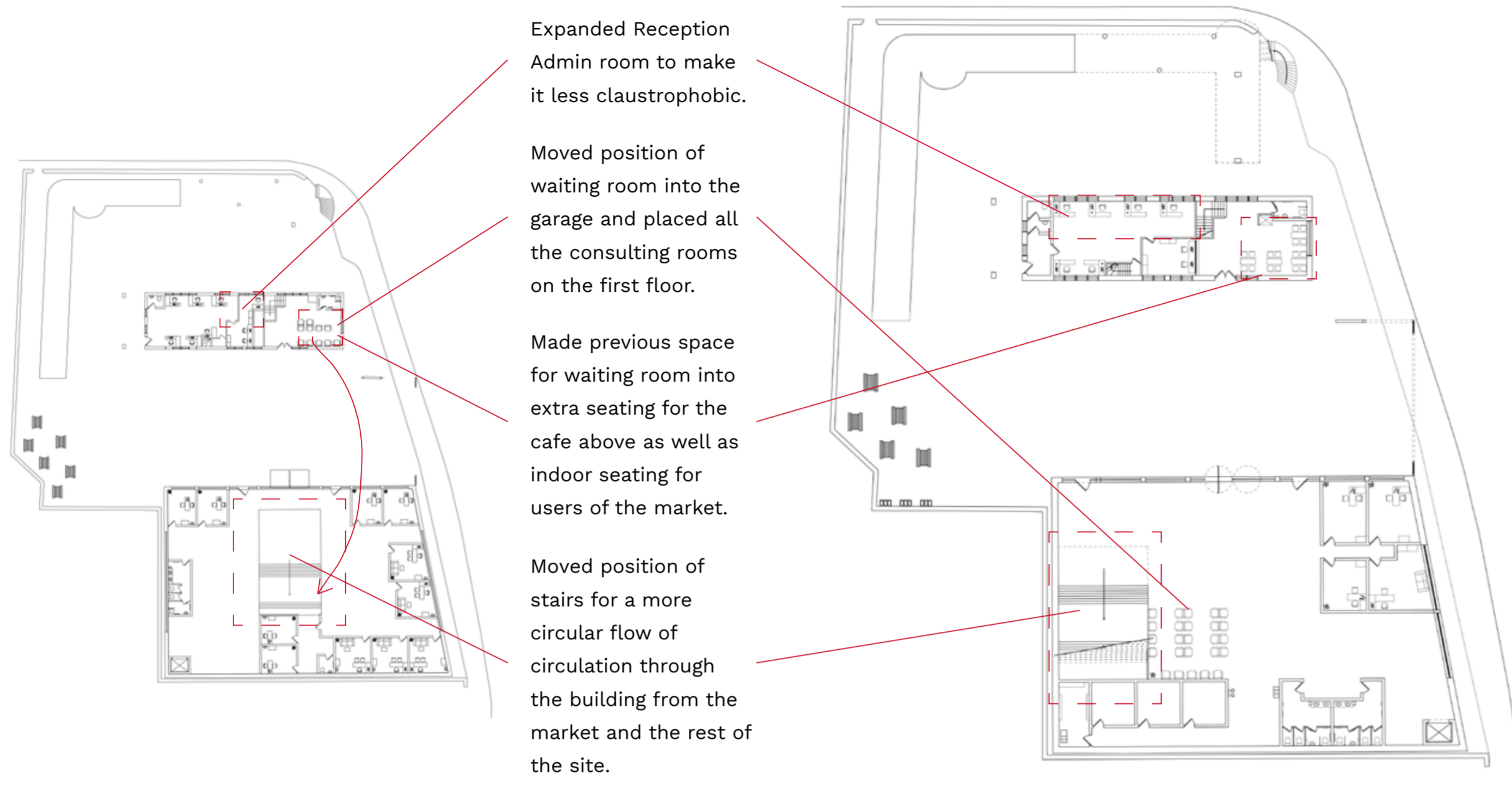


Bus Depot Section

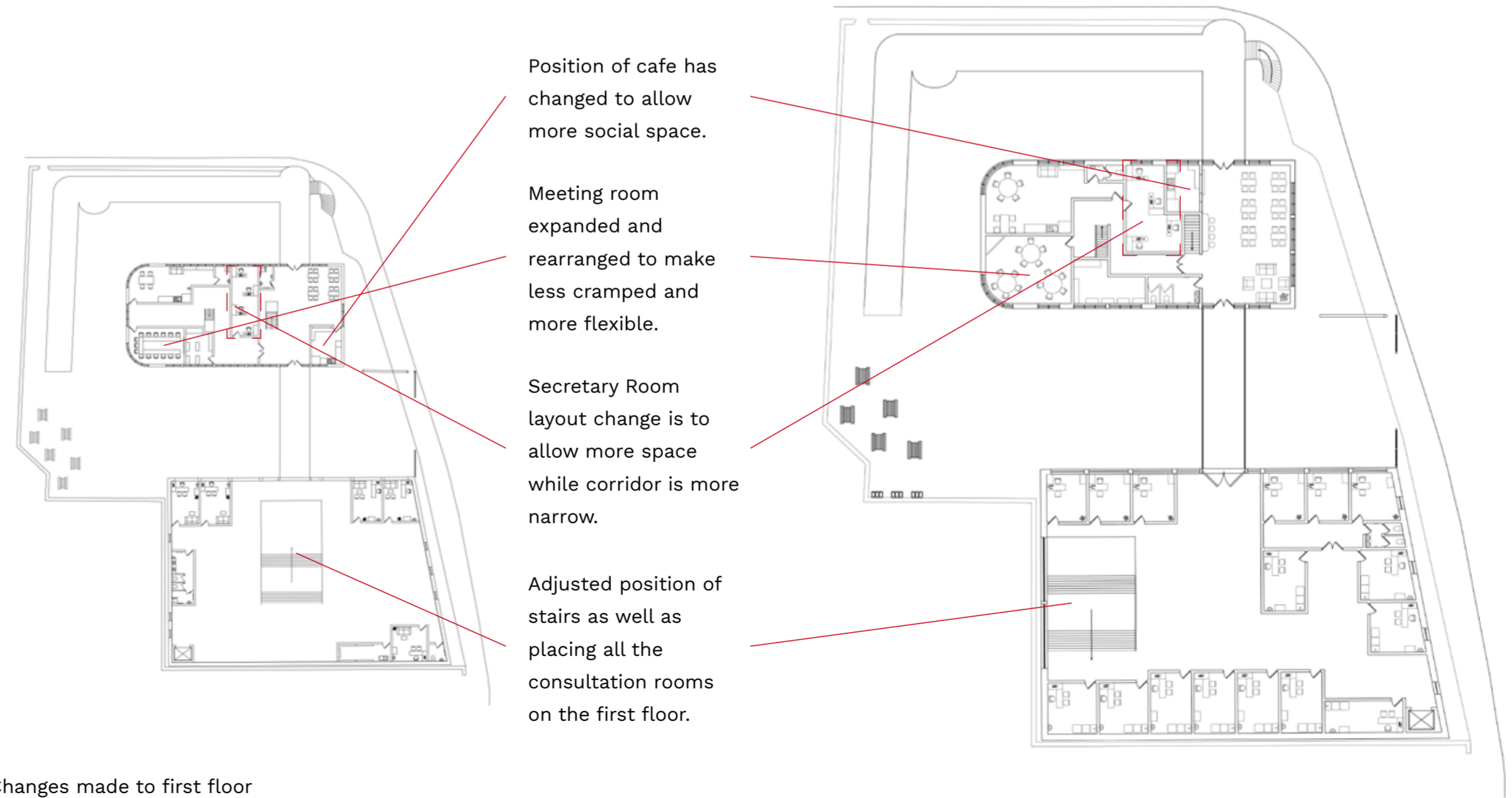


Bus Station Section

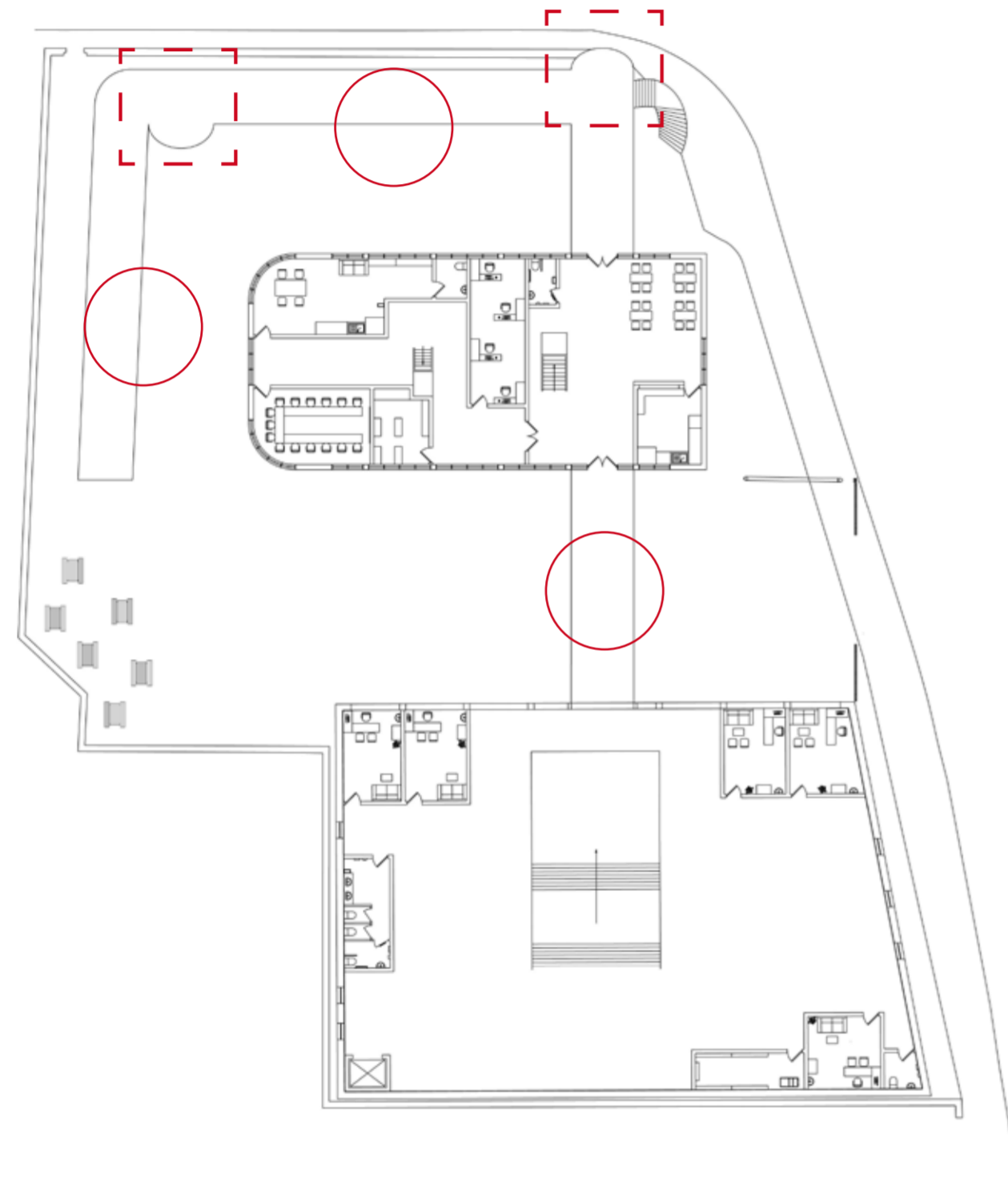
FLOOR PLAN CHANGES



Changes made to ground floor



Changes made to first floor



KEY

- Existing nook
- Additional nook placement

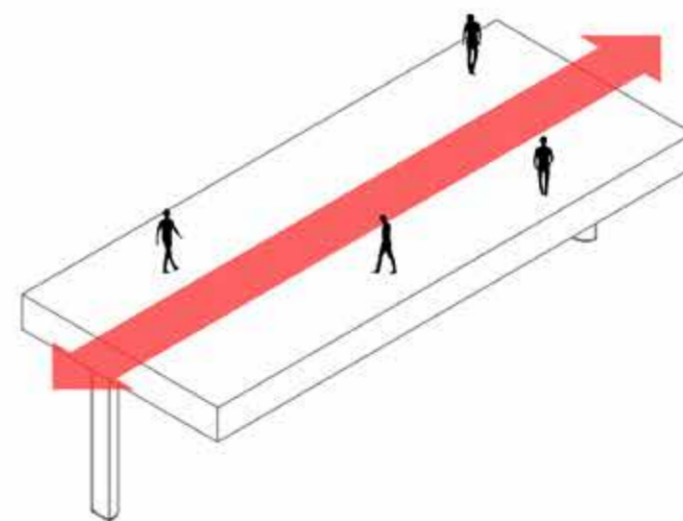


cr: Kew Gardens Twitter

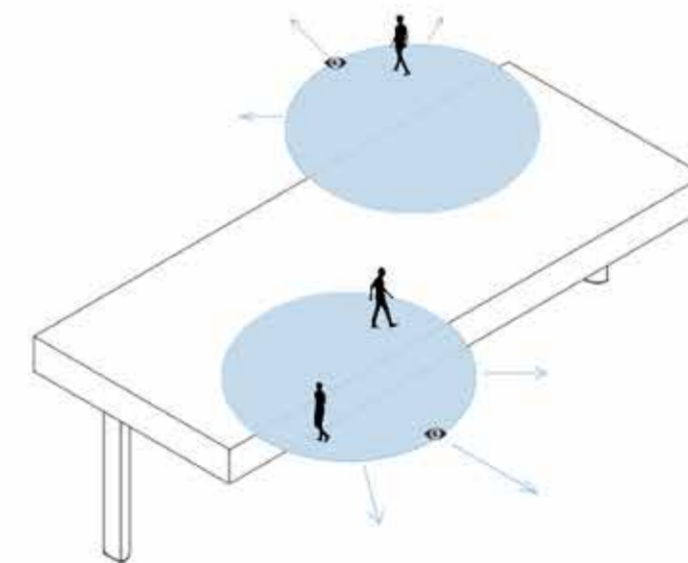


cr: archdaily

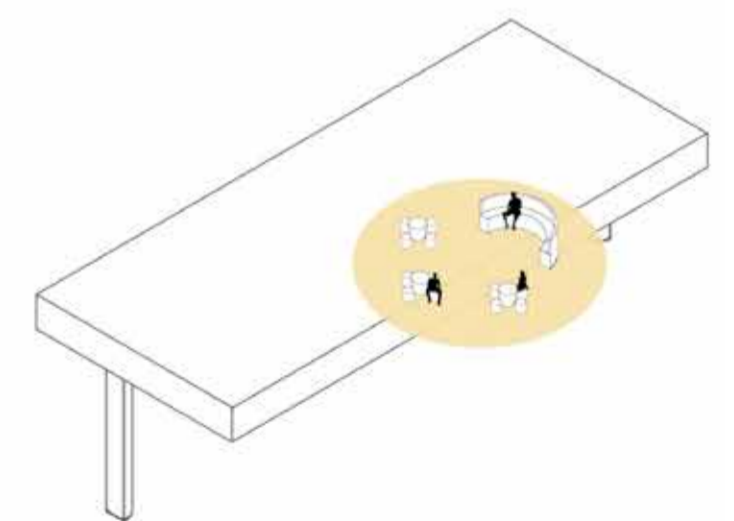
Examples such as the Kew Garden Treetop Walkway and 100architects design proposal that regenerates a pedestrian bridge - these precedents helped inspire a new way to execute the design of the ramp by the addition of little nooks this introduces a new space which allows users to experience the site from a different perspective.



CIRCULATION

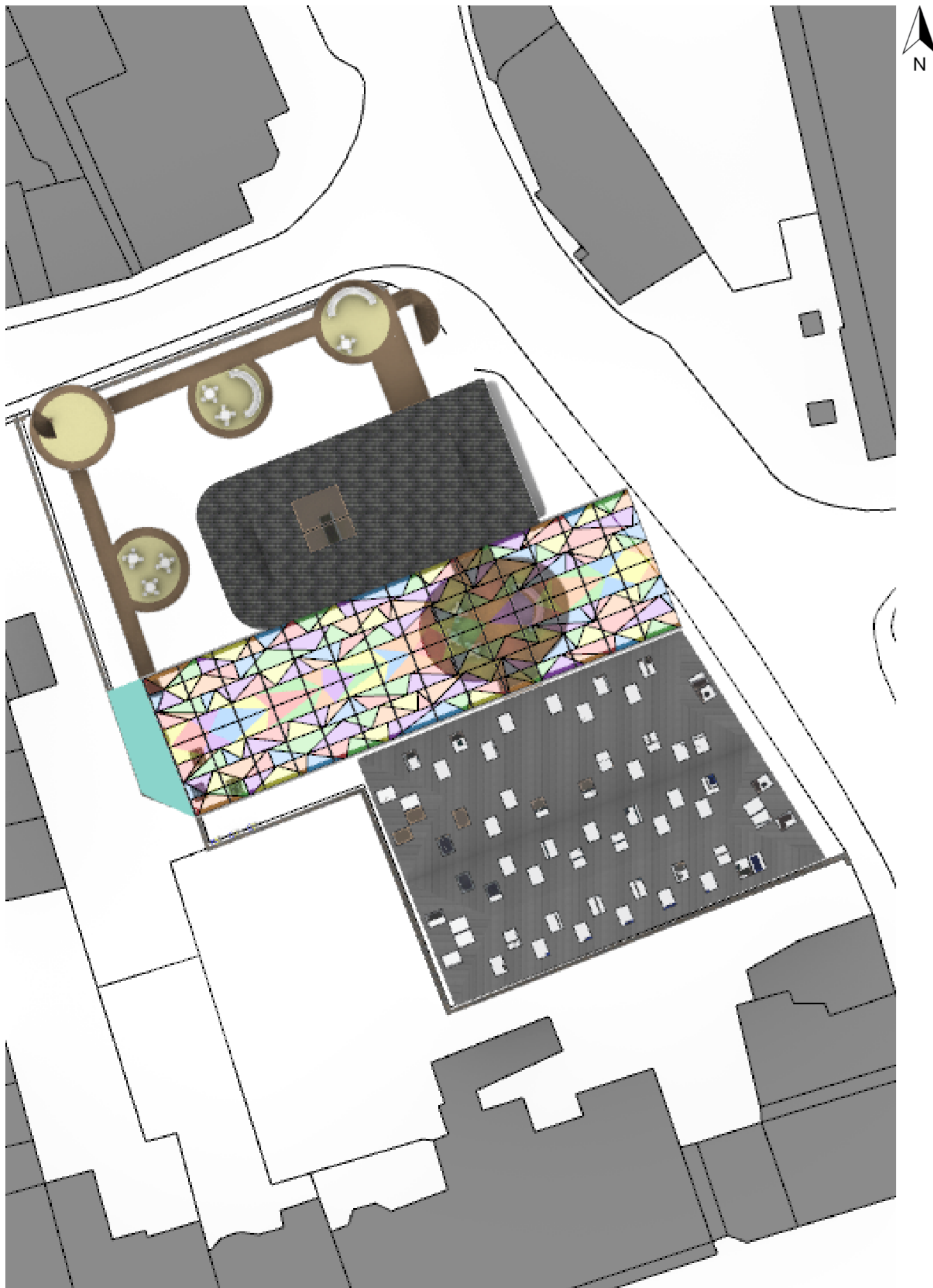


VIEWS

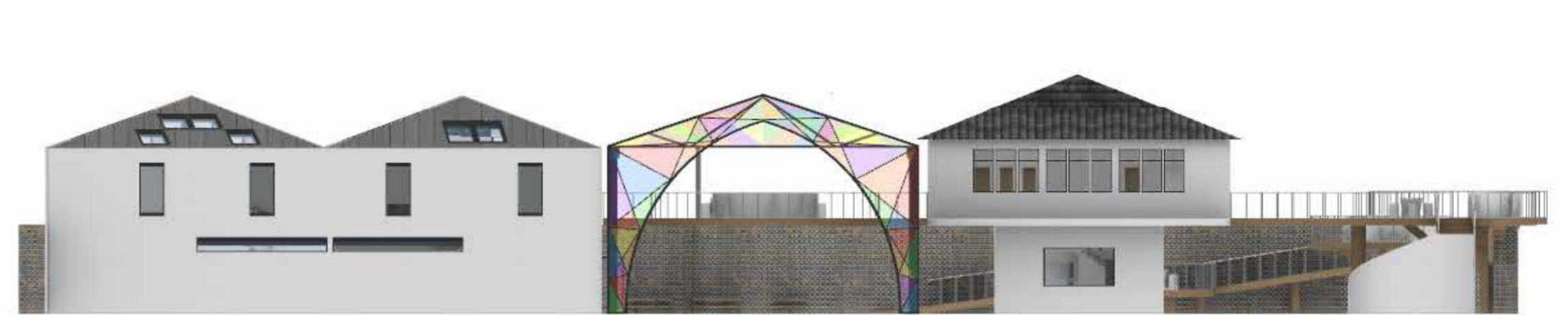
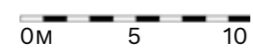


EXPERIENCE

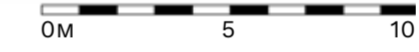
FINAL DESIGN



Design Site Plan

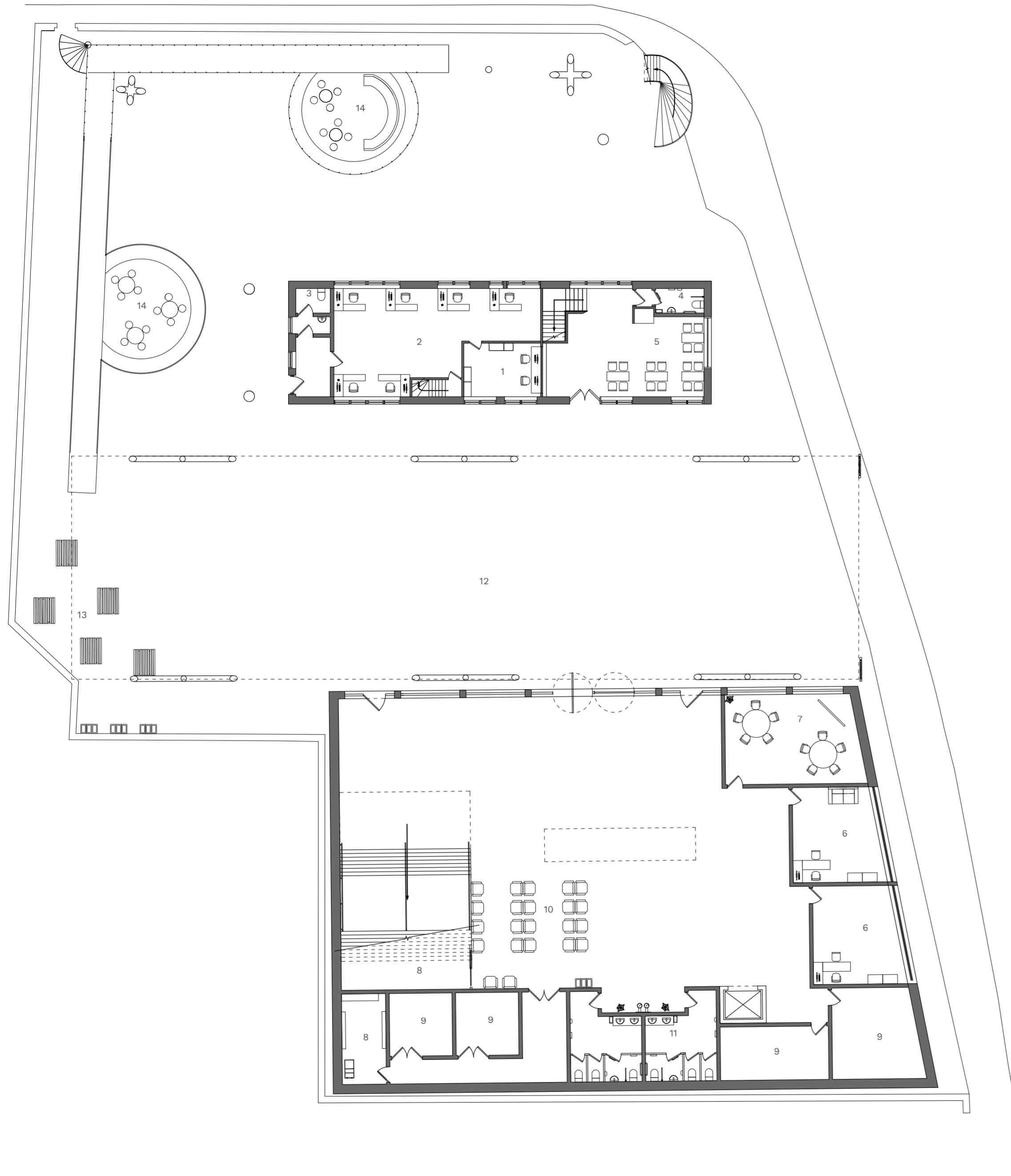


Design Elevation



Design Axonometric

GROUND FLOOR PLAN



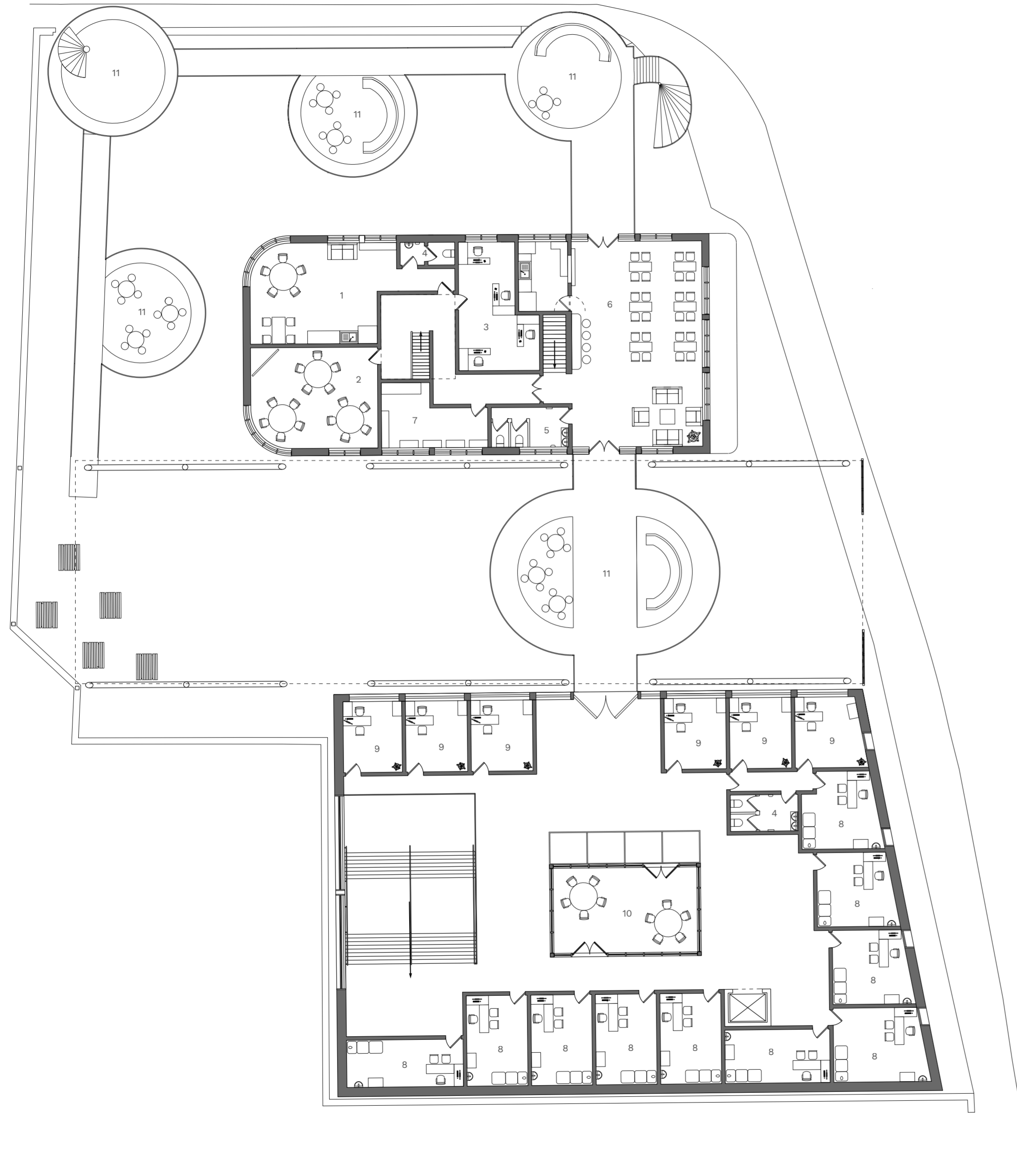
KEY

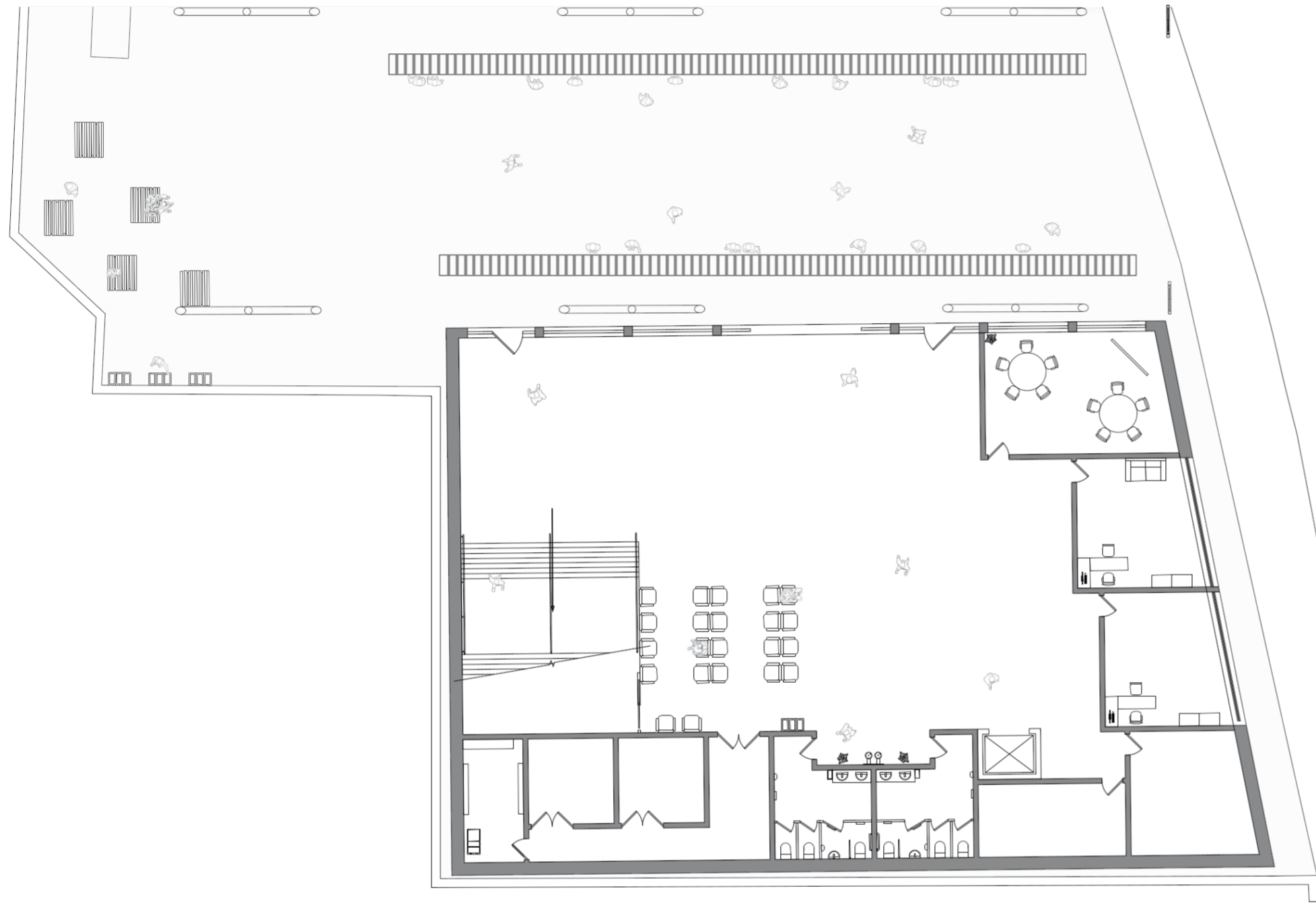
- 1 Reception
- 2 Reception Admin
- 3 Staff Toilet
- 4 Patient Toilet
- 5 Cafe Space / Seating Area
- 6 Office Space
- 7 Meeting Room
- 8 Storage Room
- 9 Market Storage Rooms / Flexible Space
- 10 Waiting Area
- 11 Public Toilet
- 12 Outdoor Market Area
- 13 Outdoor Seating Area
- 14 Social Nooks

FIRST FLOOR PLAN

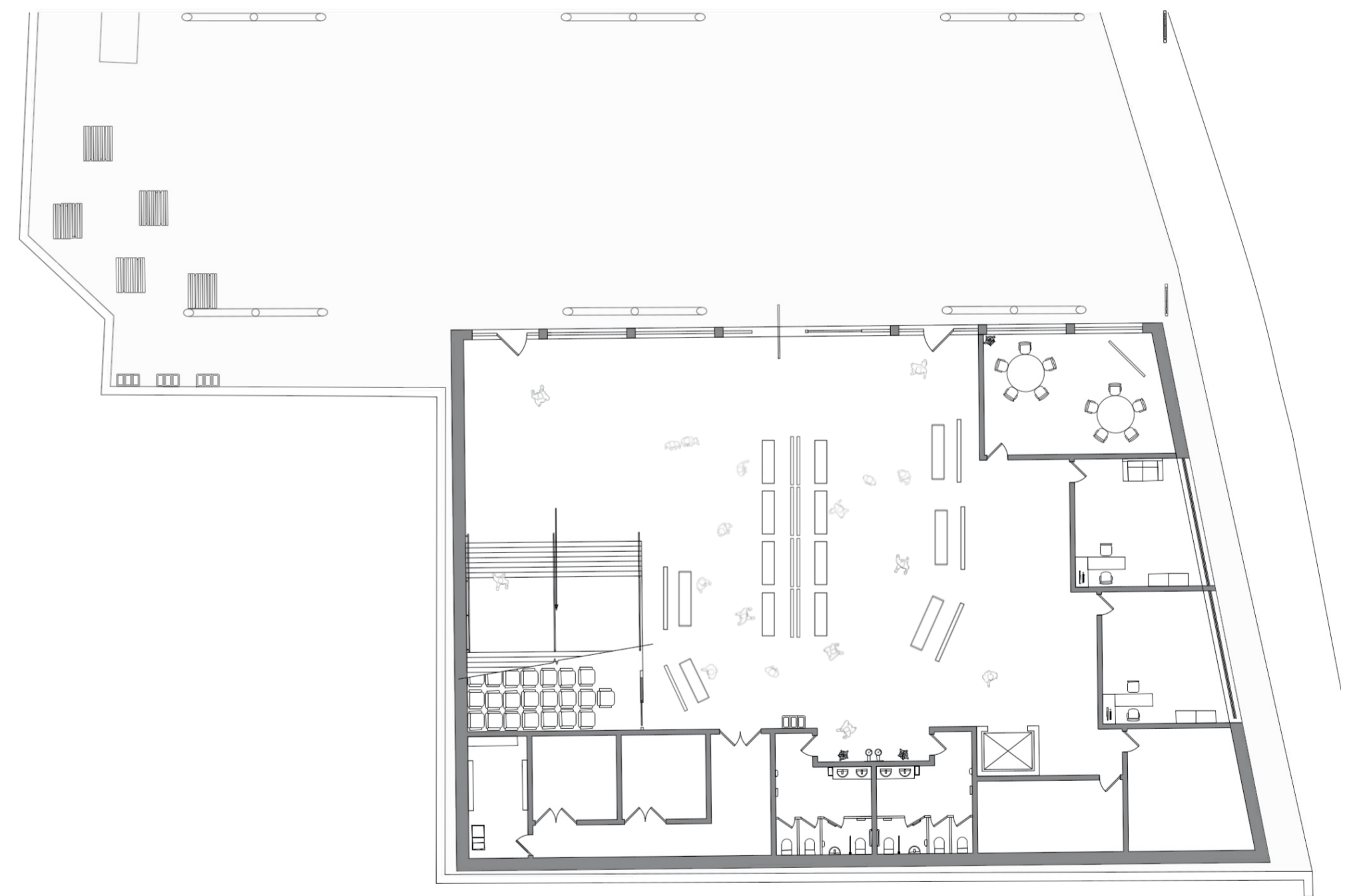
KEY

- 1 Staff Room
- 2 Meeting Room
- 3 Secretarial Room
- 4 Staff Toilet
- 5 Patient Toilet
- 6 Cafe Space / Seating Area
- 7 Storage Room
- 8 'Pure' Consultation Rooms
- 9 'Flexible' Consultation Rooms
- 10 Meeting Room / Flexible Space
- 11 Social Nooks



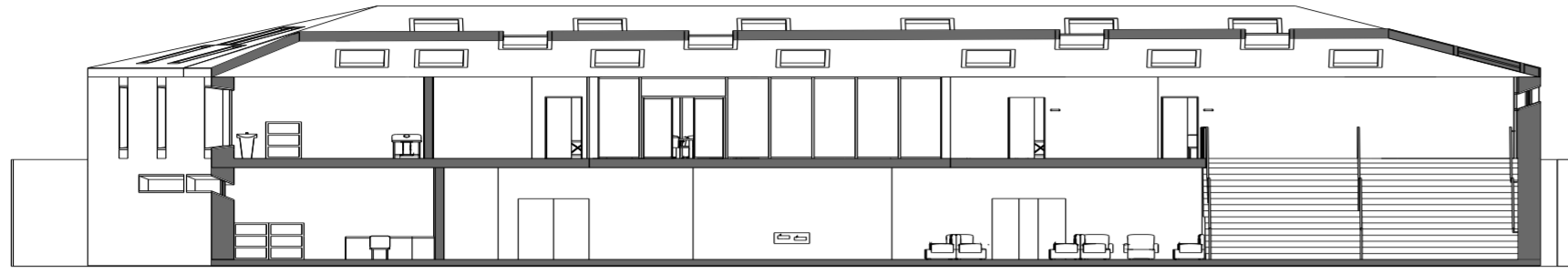


Plan of Market in action



Plan of building holding an Open Exhibition

SECTIONS



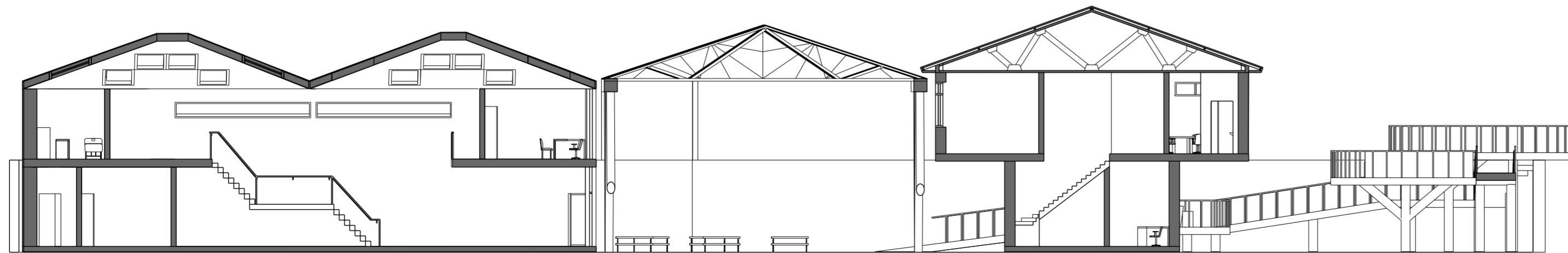
Section A-A



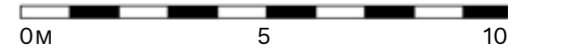
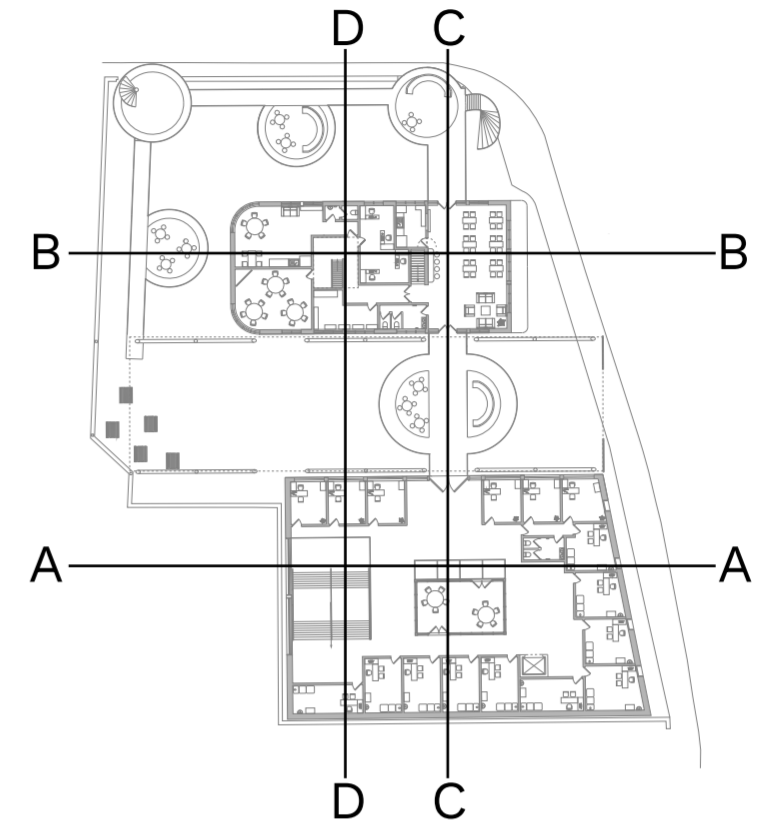
Section B-B



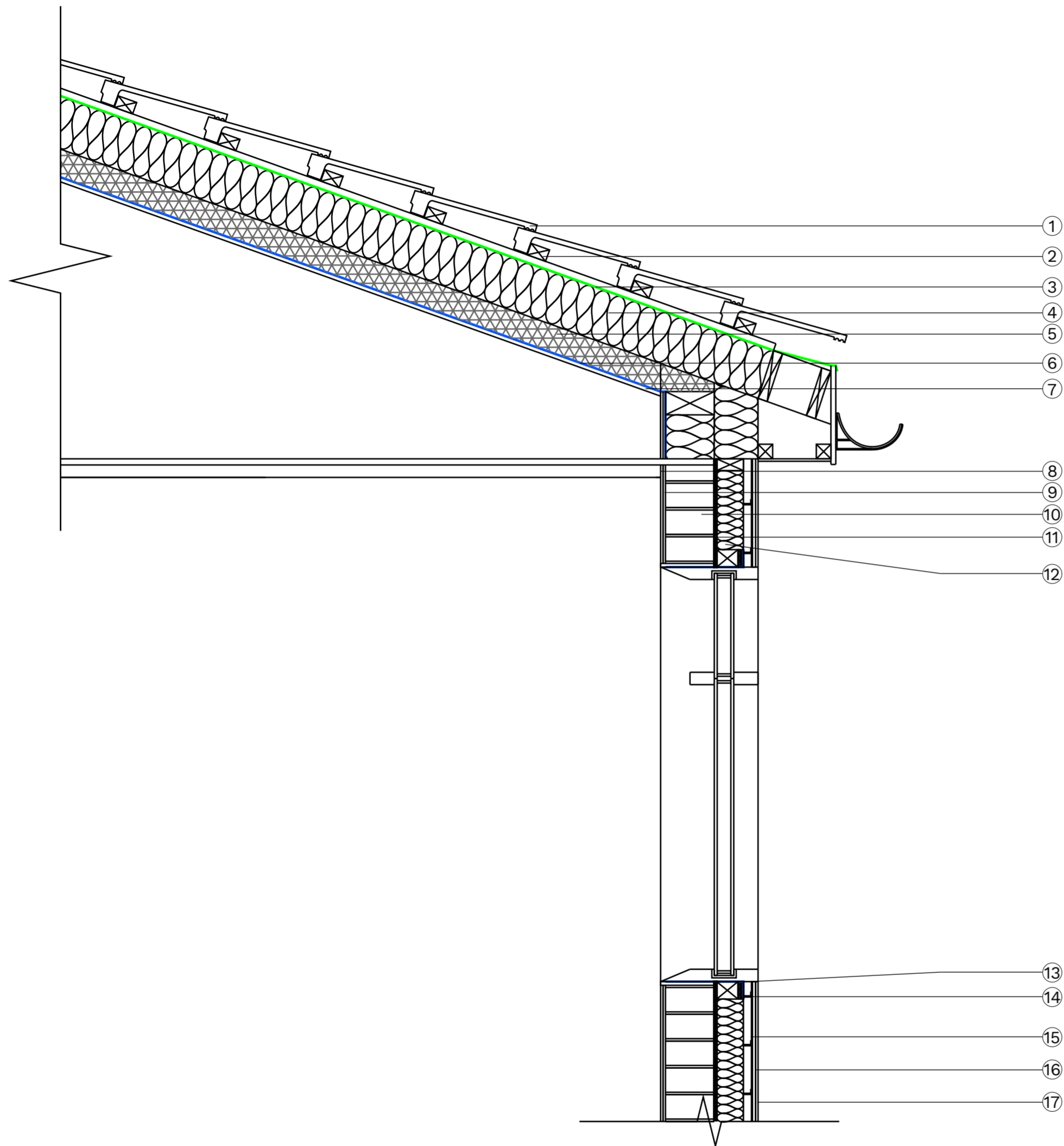
Section C-C



Section D-D



1:20 FRAGMENT SECTION



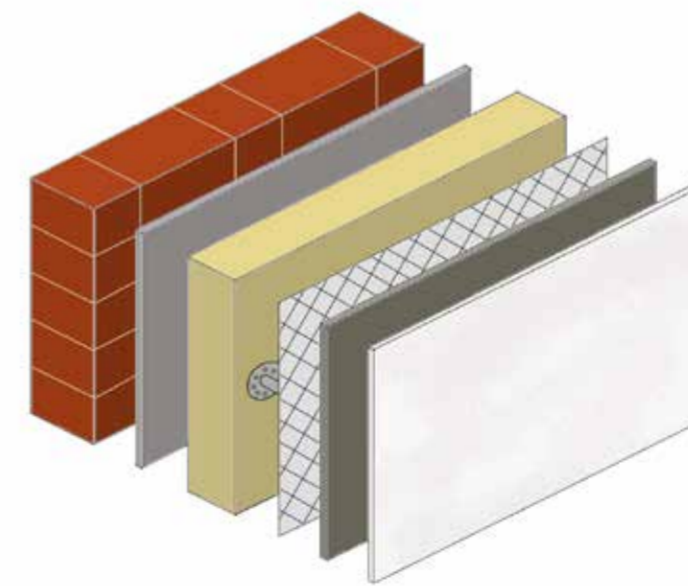
- KEY
- | | |
|------------------------------|--------------------------|
| 1 Roof Tiles | 9 Gypsum Board |
| 2 Battens | 10 Existing Brick |
| 3 Sarking Membrane | 11 Adhesive |
| 4 Insulation between rafters | 12 Insulation |
| 5 Insulation under rafters | 13 Waterproof Membrane |
| 6 Vapour Control Layer | 14 Fixing Anchors |
| 7 Plasterboard | 15 Reinforcing Mesh |
| 8 Interior Finish | 16 Render Basecoat |
| | 17 Render Finishing Coat |

Most of the original structural elements are preserved and kept the way they are with extra elements added for the structure of the canopy.

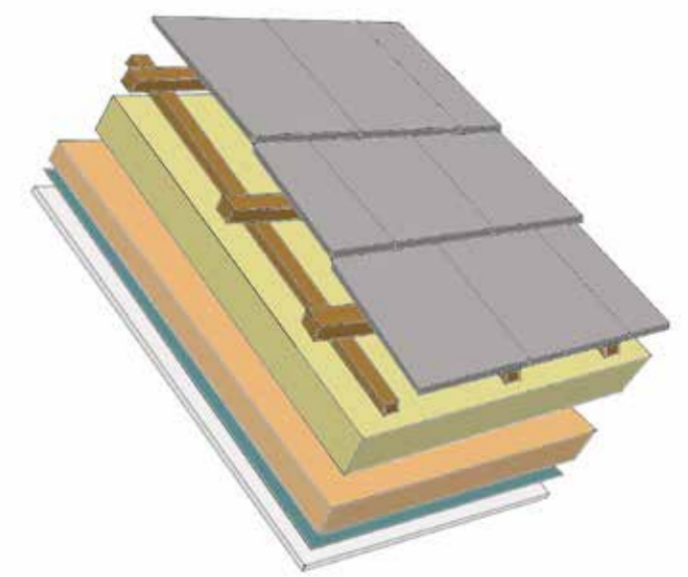
All parts of the building envelope are renewed, replaced, or reconfigured, for practical reasons such as climate insulation, waterproofing, or safety. Because of this, it does not appear as a typical historical industrial building, giving it a more and high-tech and modern feel.

Window treatment was shaped to allow maximum light to travel into the building by reflecting off the bottom panel and into the rest of the building as well as to ensure that the heat stays inside.

The roof and walls are redone to make the buildings habitable. The roof is insulated and waterproofed. The walls consist of the existing brick layer that has been externally insulated.

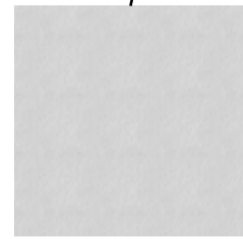
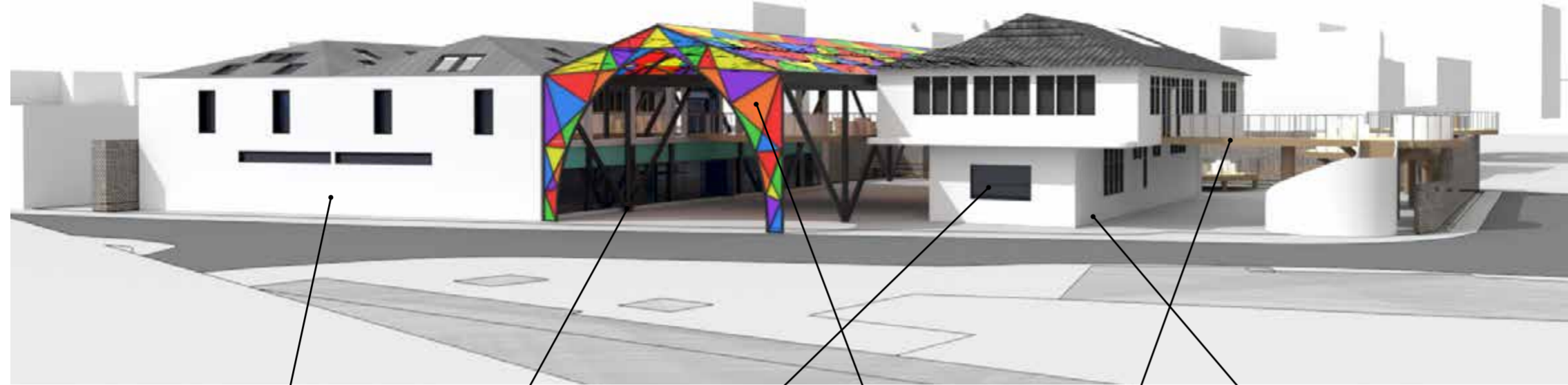


External Insulation Method



Roof Insulation Method

MATERIALS



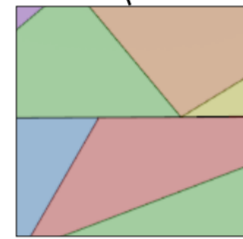
White Stucco



Black Satin Steel



Double Glazed Glass



Coloured Glass



Plywood



Elm Wood Flooring



Market Section Populated



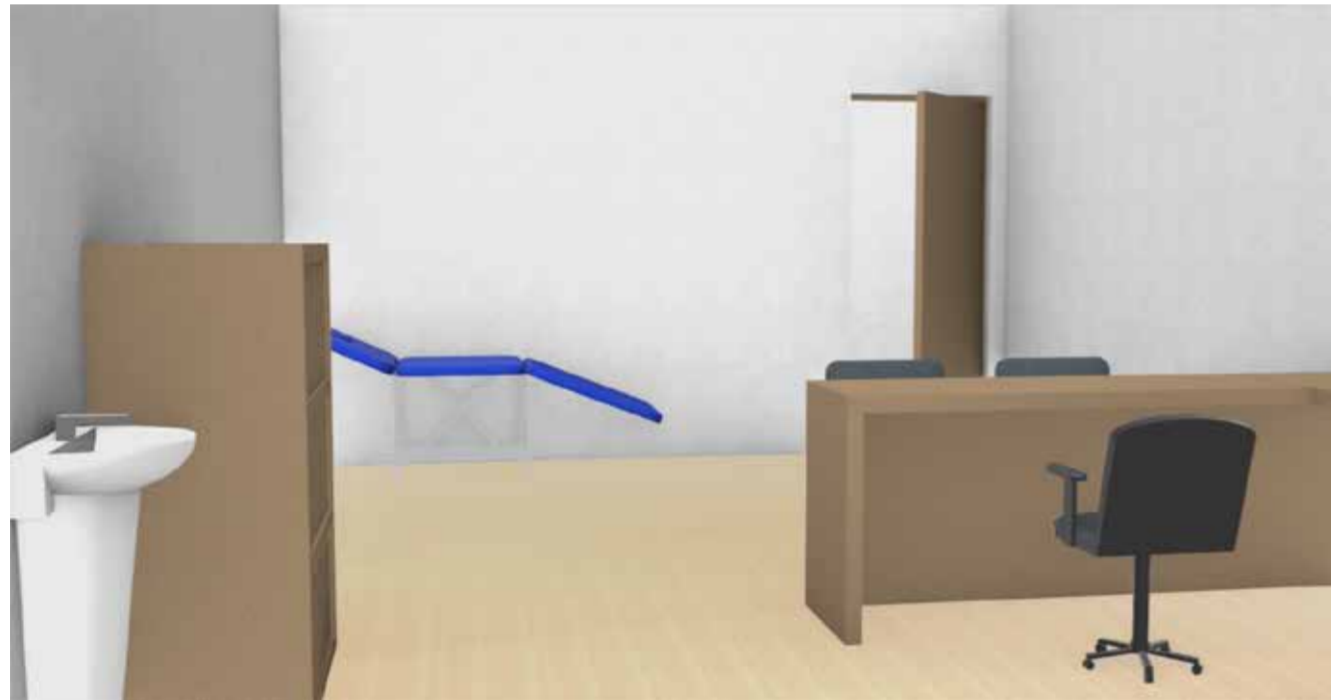
Site Section Populated



Back Site looking up the Ramp Perspective



Nook looking down to market Perspective



Inside of Pure Consulting Room



Inside the reworked Depot



View into Cafe from nook



Populated Market Perspective



Meeting room in use Perspective