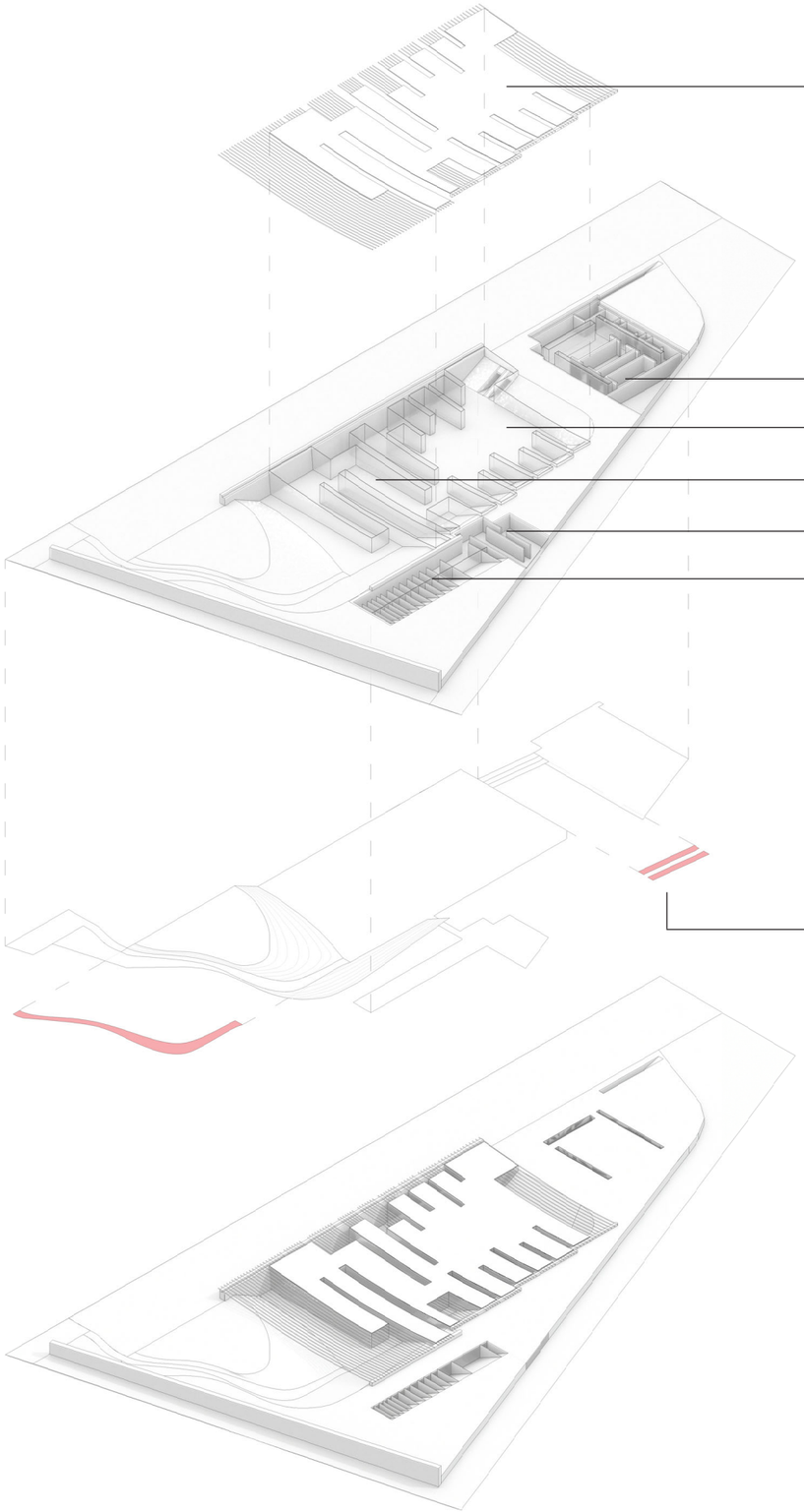
Marquee at Les Cols

RCR Arquitectes
Spain

The marquee stands to the rear of a precinct belonging to the restaurant Les Cols (‘The Cabbages’ in Catalan) in the small town of Olot, 40 kilometres west of Girona on the edge of the volcanic park of La Garrotxa in the foothills of the Pyrenees.

Architectural space study.



Suspended roof stretches across the dining space. A translucent cover sits on top of steel rods that subtly hangs from each end.

Kitchens and storage room

Dining space

Entrance and bar

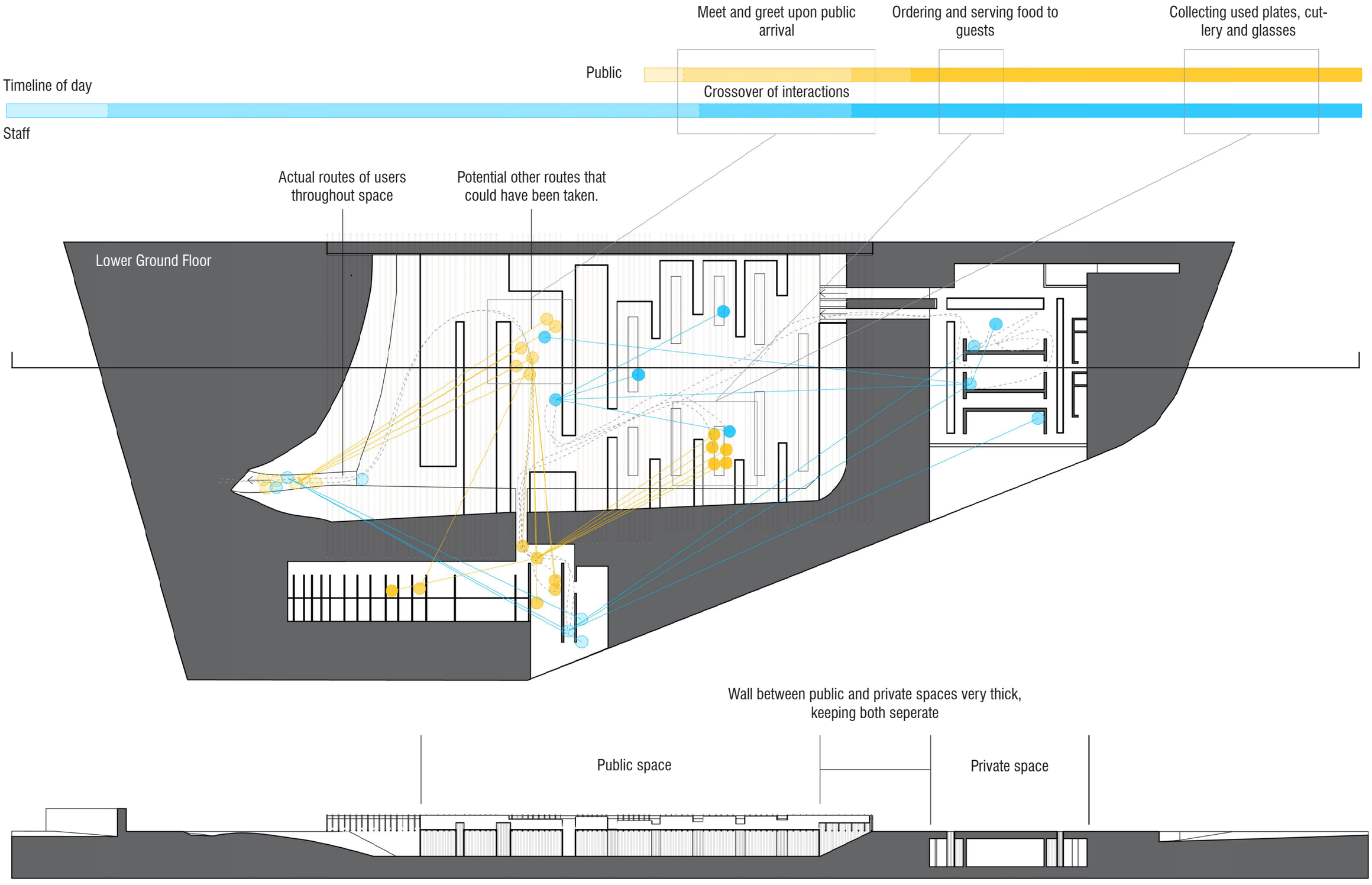
Cloakroom

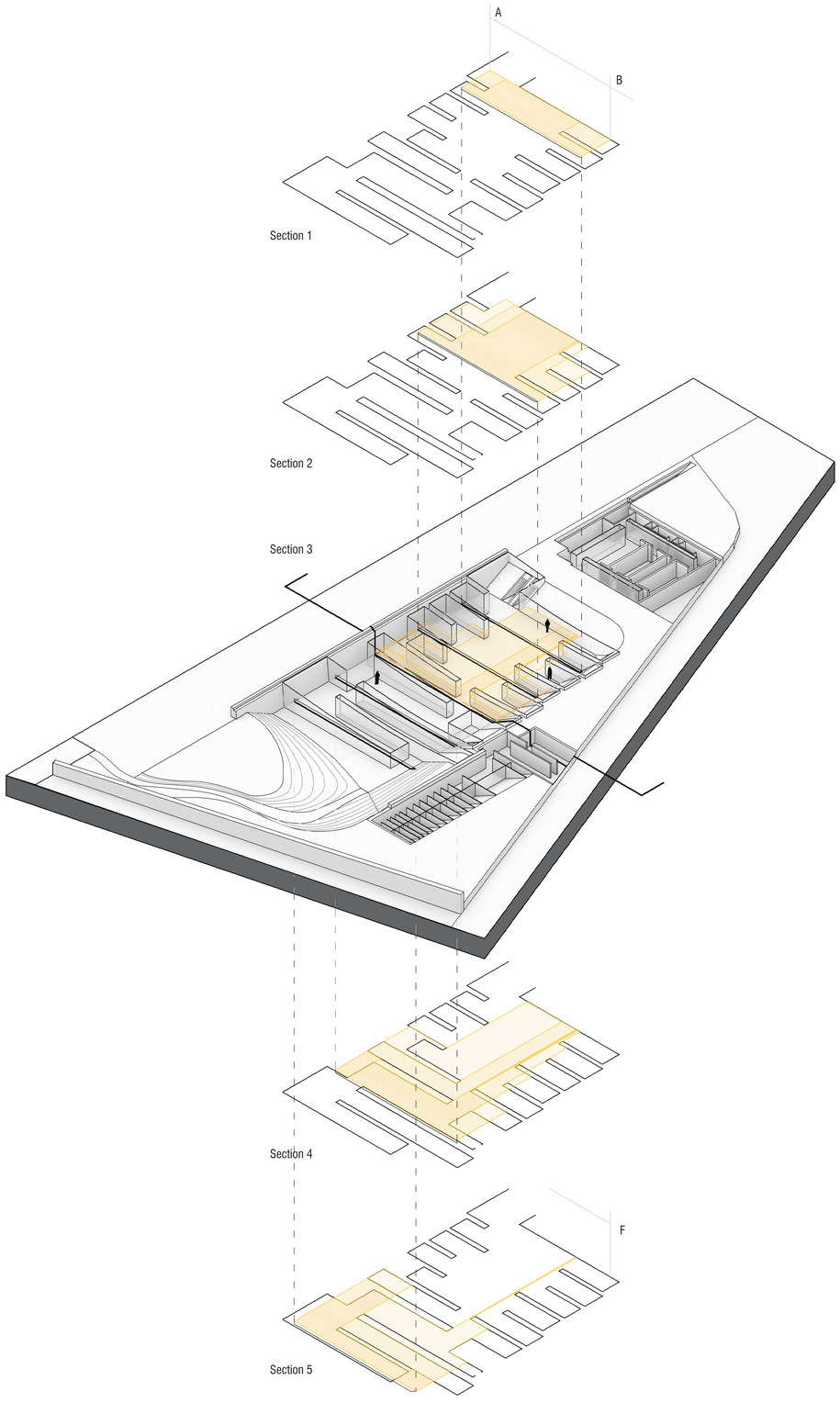
Bathrooms

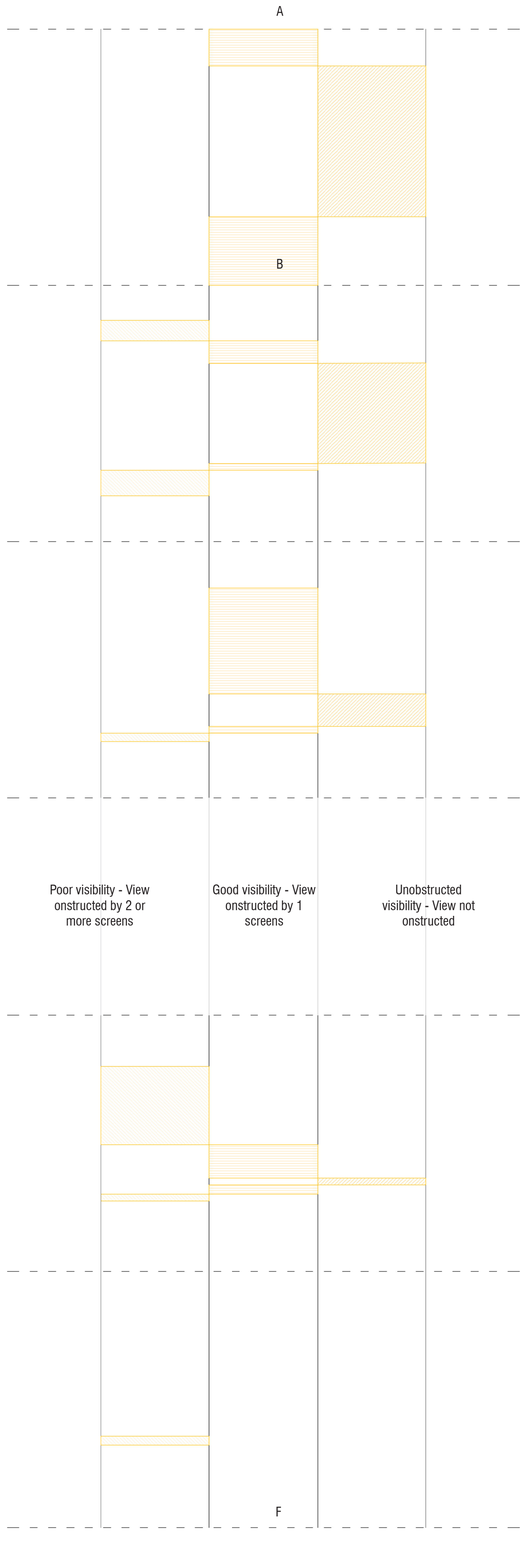
The habitable space is situated below the surrounding ground level. To access the building, guests decend along a curved path directly in to the space below the canopy.

Level changes throughout the site highlighted red.

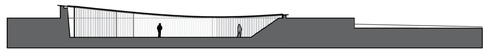
The whole space creates a marquee/dining space for guest. The building can accomodate for large events such as weddings.


Meet and greet upon public arrival
Ordering and serving food to guests
Collecting used plates, cutlery and glasses
Public
Timeline of day
Crossover of interactions
Staff
Actual routes of users throughout space
Potential other routes that could have been taken.
Lower Ground Floor
Wall between public and private spaces very thick, keeping both seperate
Public space
Private space

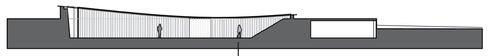




Section 1

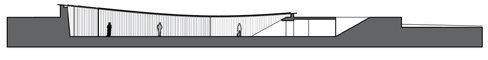


Section 2

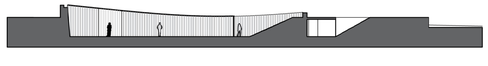


Section 3

Peoples position within the space corrospond to their position on the isometric drawings.



Section 4



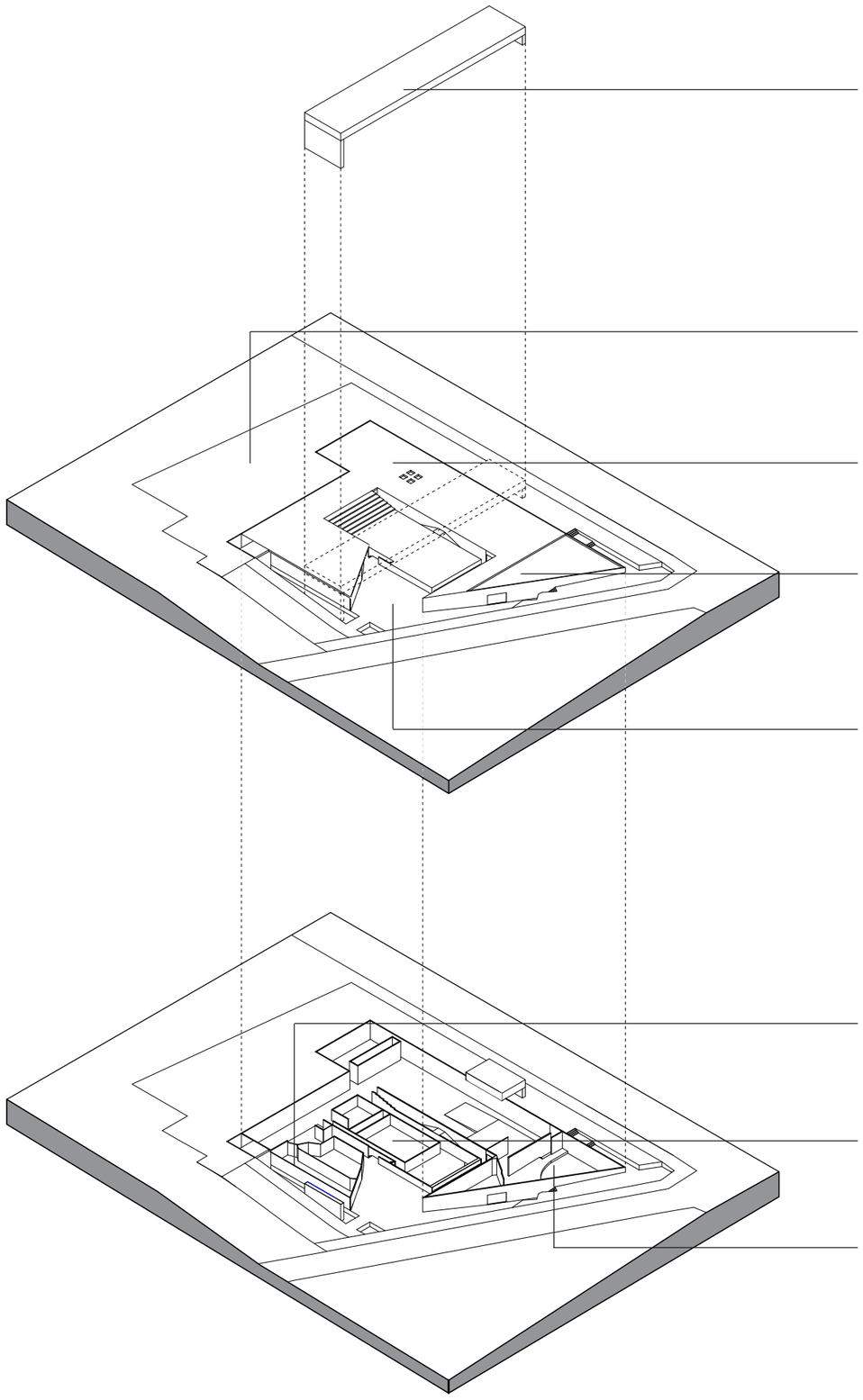
Section 5

MUBE

Paulo Mendes Da Rocha
Brazil

Located in São Paulo, Brazil, the 75,000-square-foot triangular site is a united environment with the museum and landscape, rather than a singular institution. Large concrete slabs merge beneath ground level to create open spaces that are only partly underground, but also help to form an exterior plaza that feature pools. Spanning across the museum is a 97-foot-long, 39-foot-wide beam that commands a presence but also gives shade and shelter to those outside.

Architectural space study.



97 foot long beam spans across the open plaza, providing shelter for people and artifacts underneath. Its vast span makes it appear to float above the ground.

Garden area next to the plaza creates a natural social space that breaks from the concrete structure.

Above ground plaza sits at varying levels, creating staggered openings in to the below ground floors. It creates a unique performance space which can host displays as well as the gallery spaces below ground.

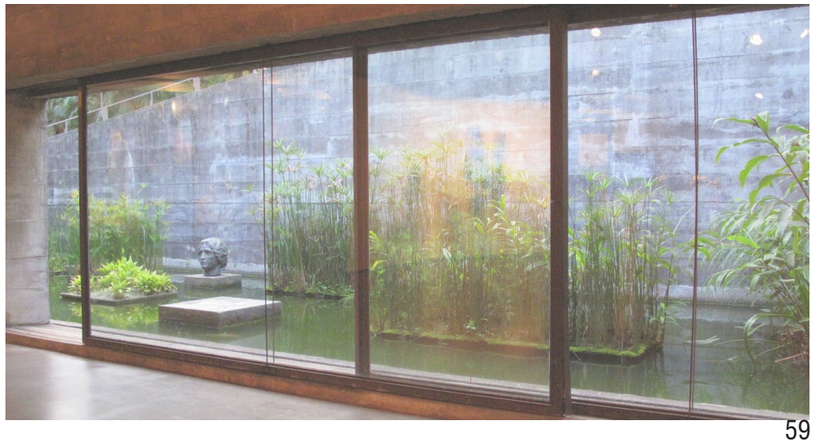
A shallow pool sits next to the plaza, allowing for a moment of reflecting when navigating the above ground levels.

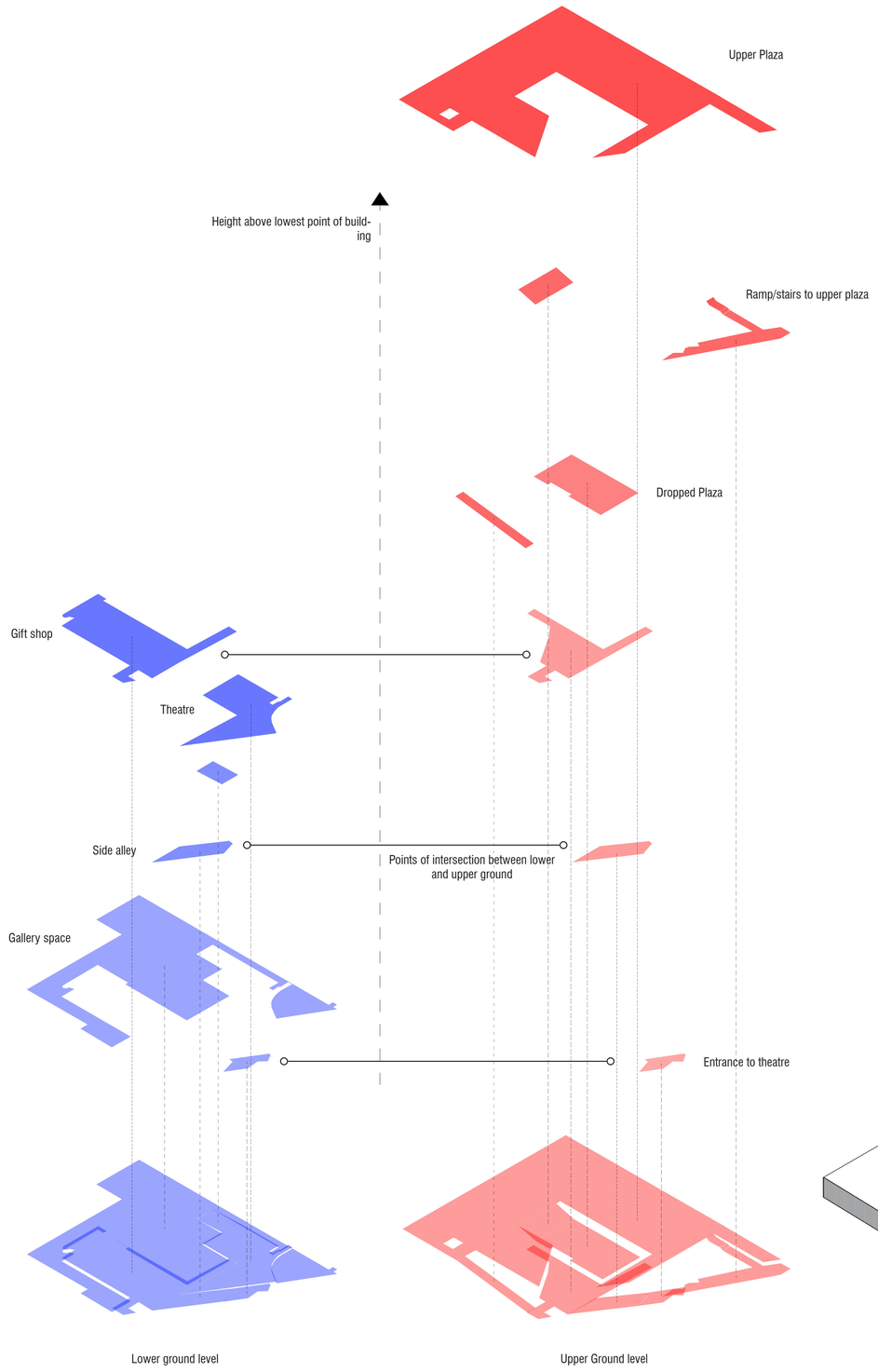
The only (public) entrance is swiftly met with a small patio. Openings in to the building start to become apparent, but passages leading up to the upper levels are also closely available.

Gallery spaces host exhibitions, with display pieces featuring in and out of buildings, only visible through glass windows.

Workshops, storage and archives feature at the heart of the building, protected by no direct passage to the exterior spaces.

Auditorium and cafe create performance space and easily accessible refreshments for events.

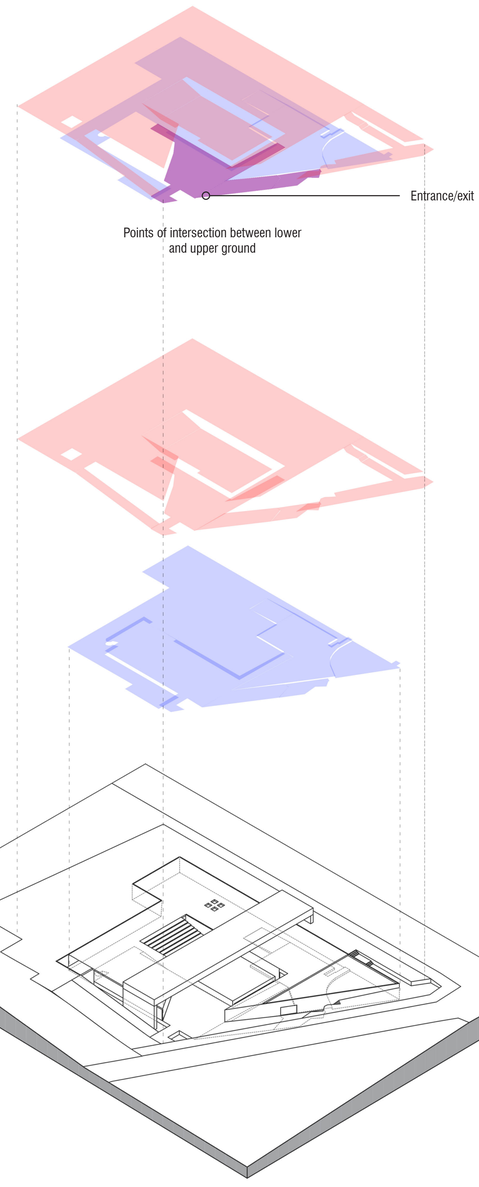


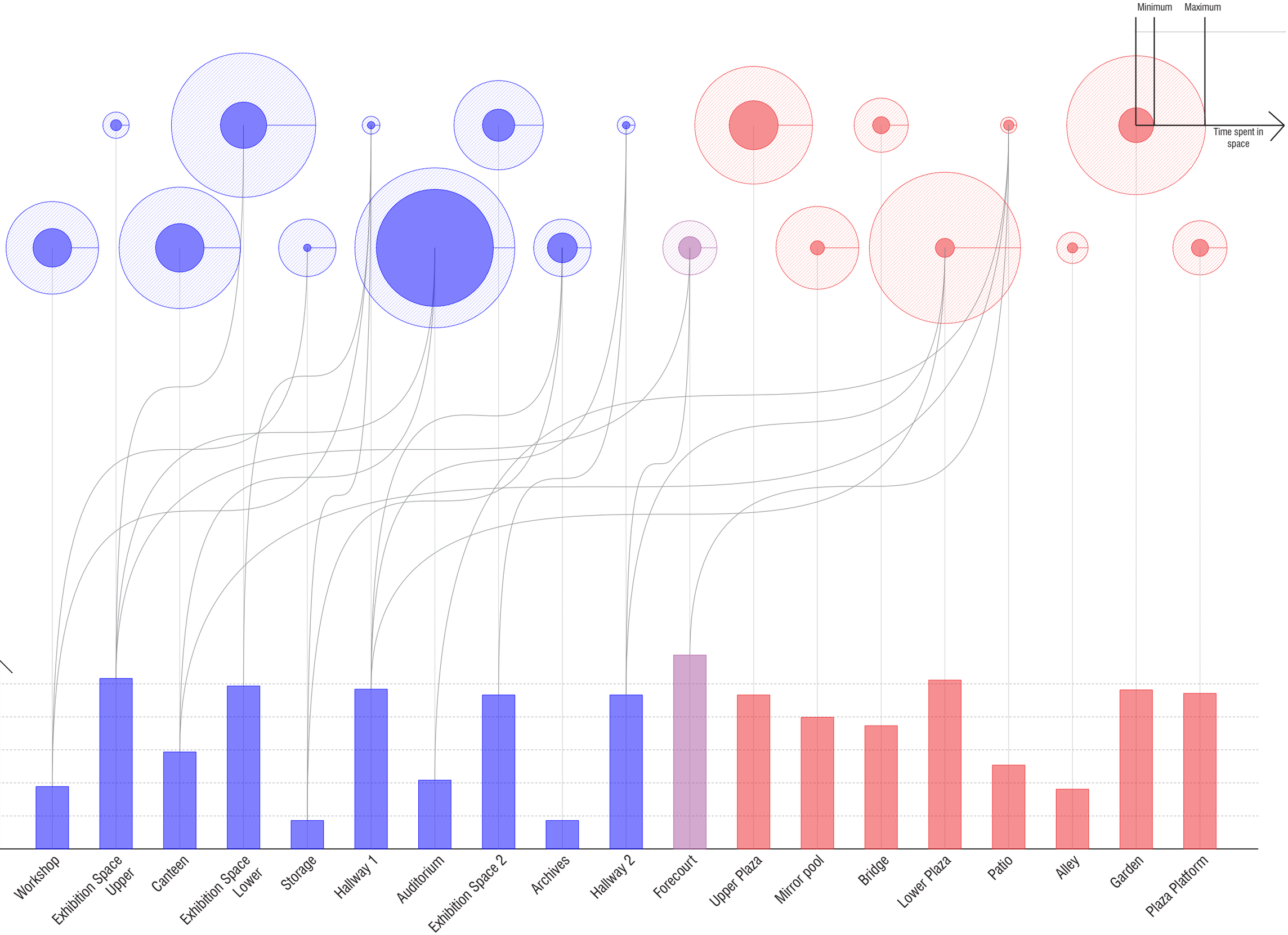


Hidden or Exposed

The intersection point marrys the two experiences of the building. Where, at lower ground, the interior gallery space rises up to meet the outside; the upper ground slopes down to the same point.

This area marks the only entrance and exit to the building, creating a moment of reflection of which area to explore. Of course, both routes are cyclic, meaning one can be explored directly after the other.



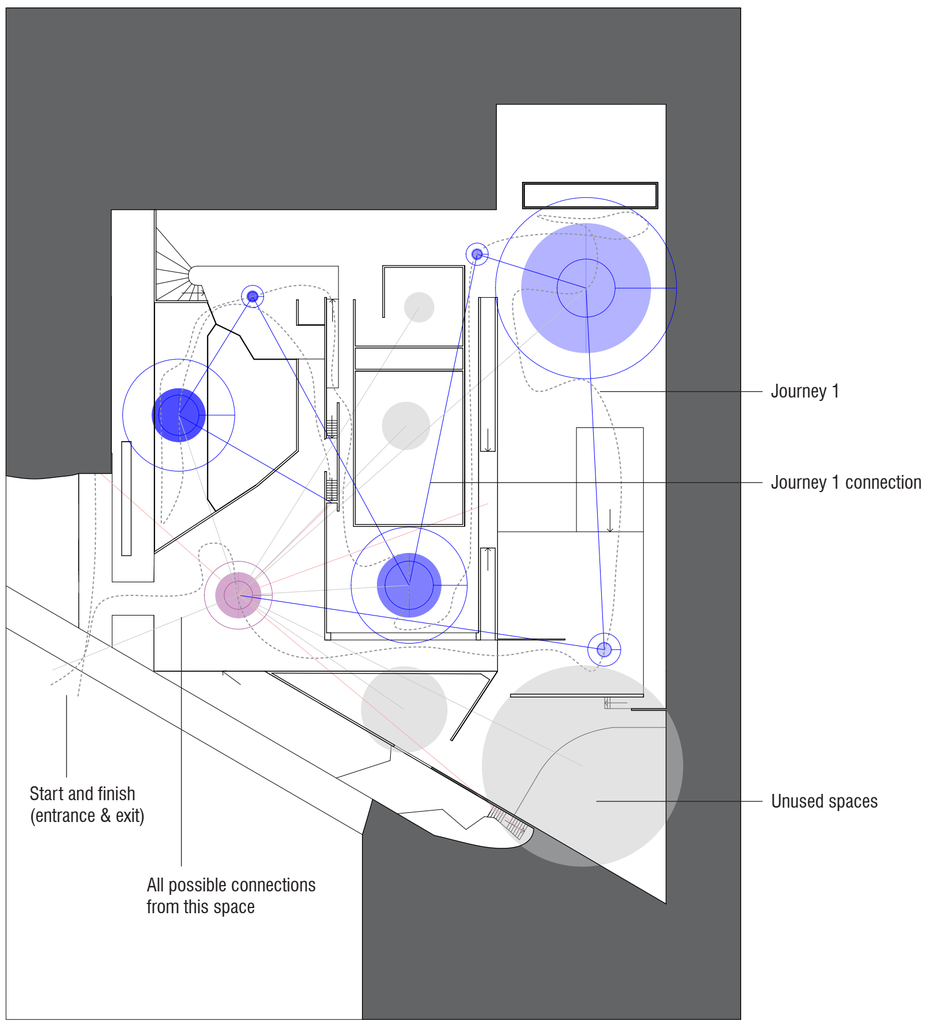

Minimum
Maximum
Time spent in space
Workshop
Exhibition Space Upper
Canteen
Exhibition Space Lower
Storage
Hallway 1
Auditorium
Exhibition Space 2
Archives
Hallway 2
Forecourt
Upper Plaza
Mirror pool
Bridge
Lower Plaza
Patio
Alley
Garden
Plaza Platform

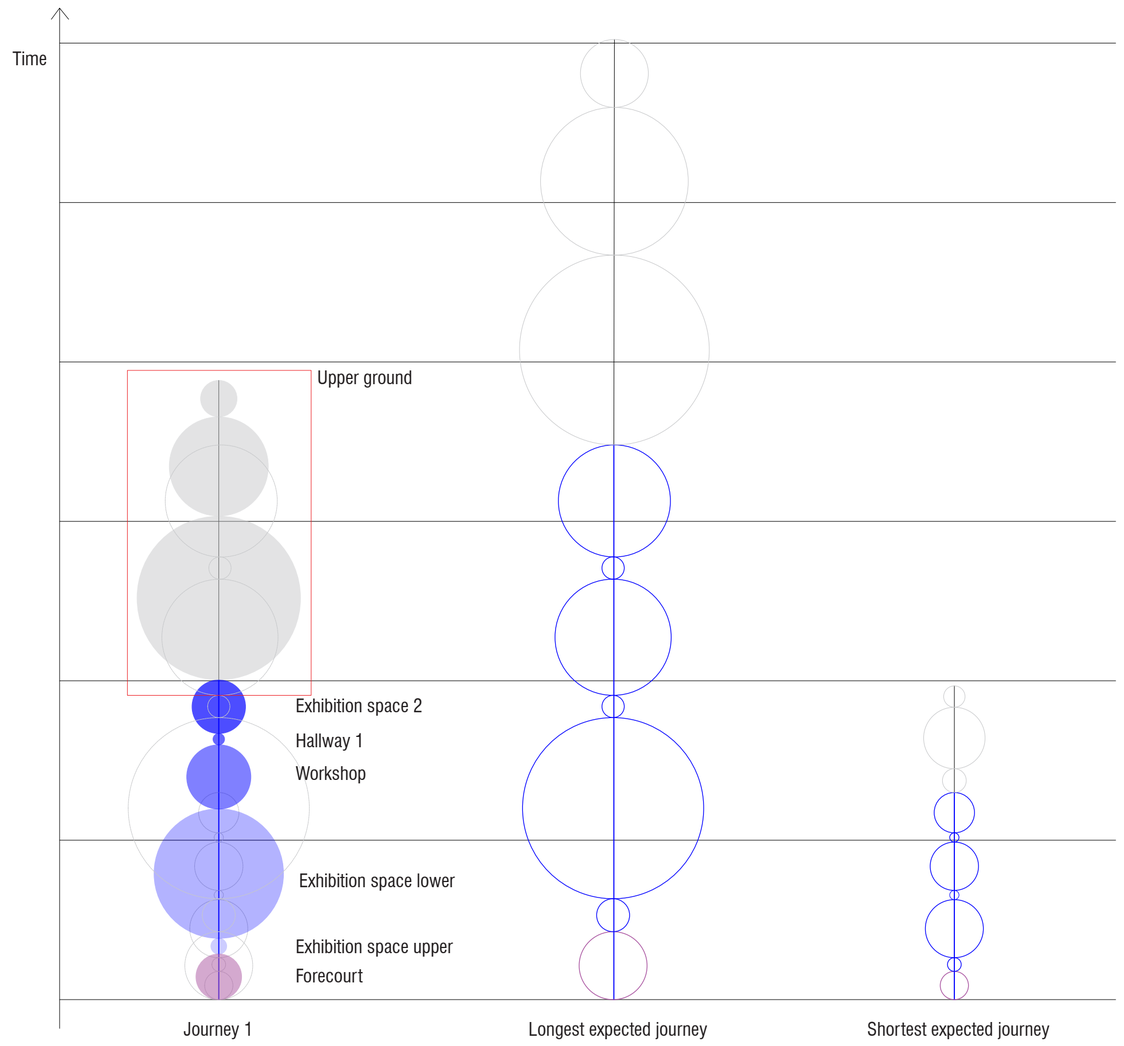
Journey Through Space

Walking through MUBE creates unique routes when exploring the gallery and exhibitions. The lower ground and upper ground create varying experiences and are connected at specific points.

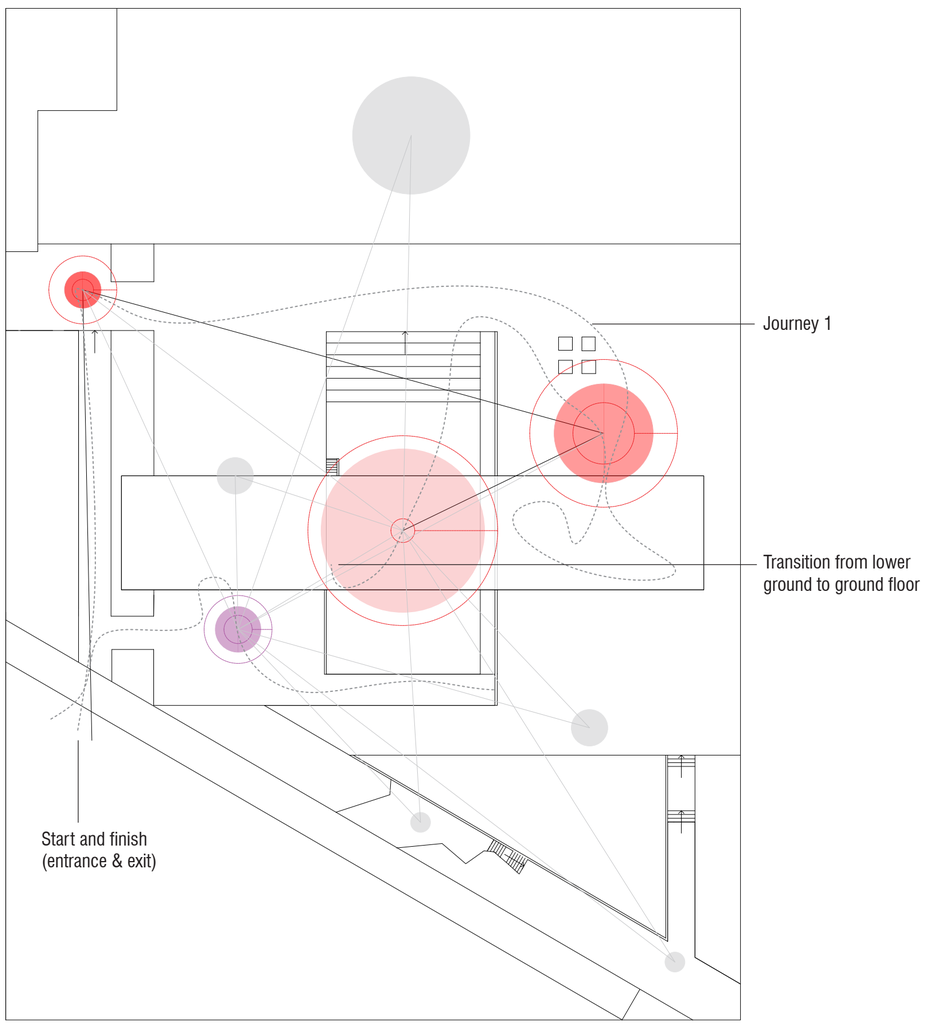
This analysis looks at one potential journey through the building, how long each experience of the space could be and where the lower and upper connect.

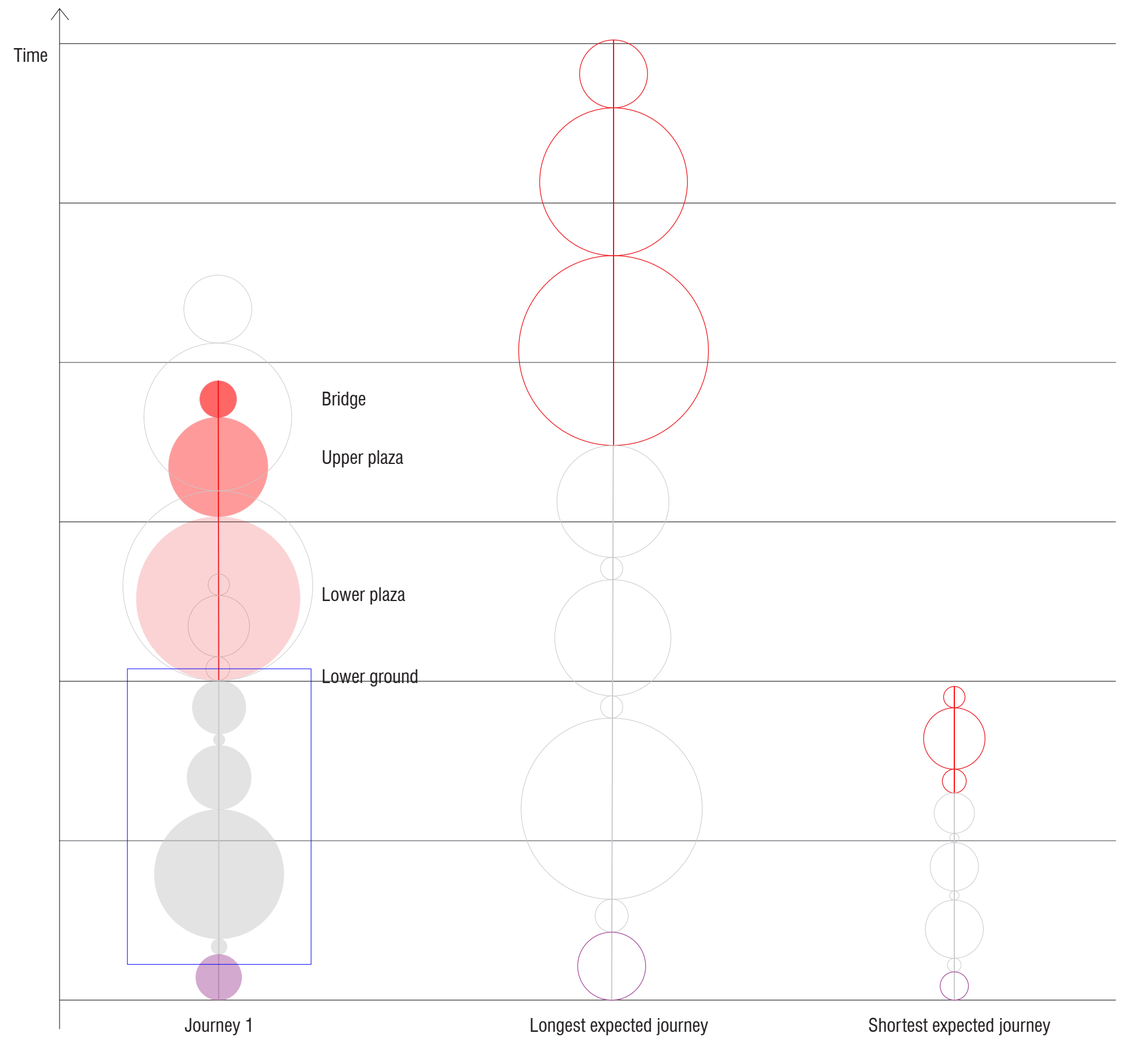
Journey 1 (below ground)

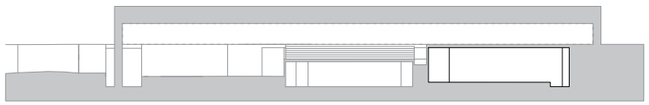


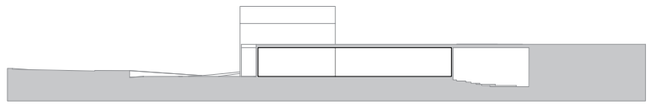


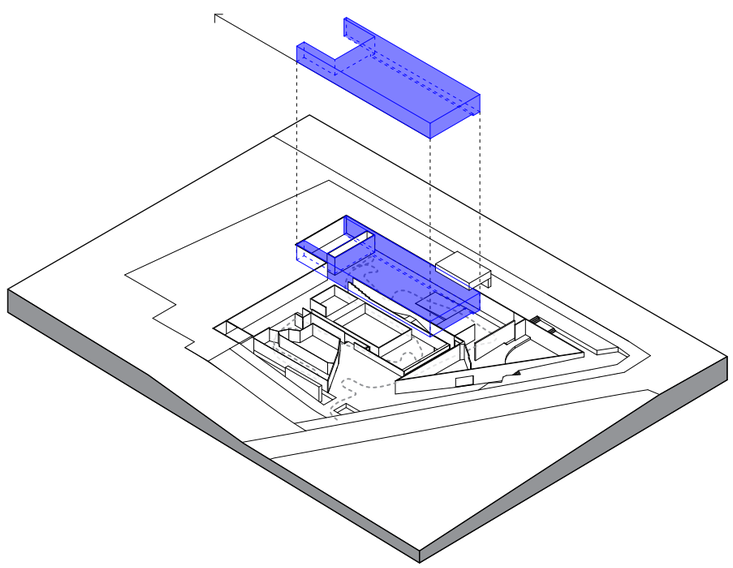
Journey 1 (above ground)

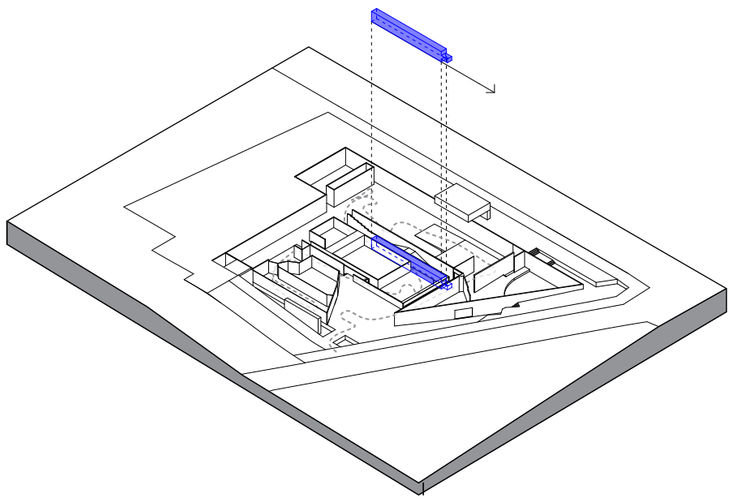


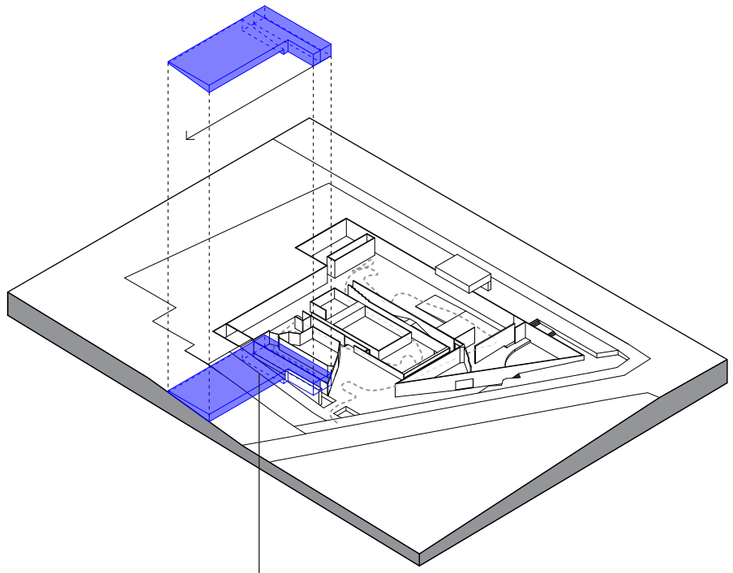












Hidden Views

Journeying through the submerged part of the building creates a continuous stream of framed views at every turn. Each view tends to have specific focal ponts that aim towards certain exhibts or spaces.

Without knowing it, the building is guiding people around the way it wants to by teasing what is around the next corner.

Exhibit display window

Structural Strategies

Phoenix Industrial Estate

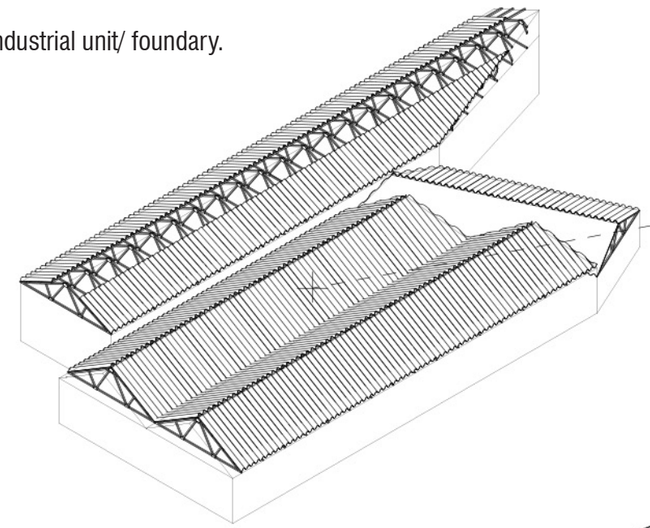
The existing buildings on site display common, but interesting, systems using different truss techniques. Studying these systems is useful to understand how the Lewes Research Institute can be constructed and retain some of what already exists.

Whats Already Here?

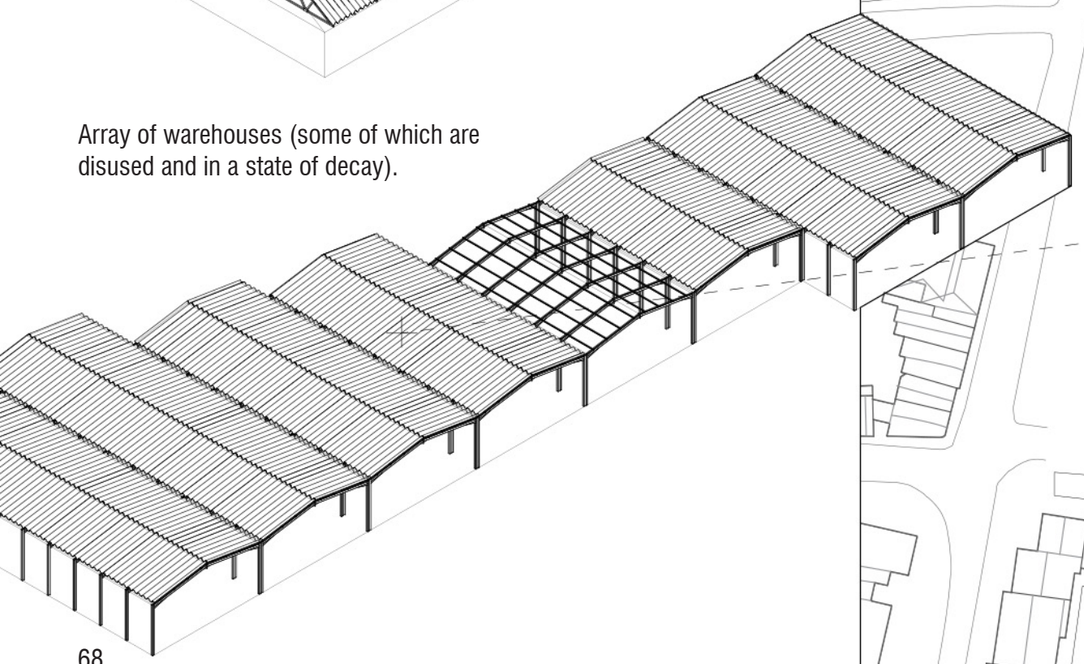
The formation of the existing structure will be removed to accomodate the proposed design. However, the structural elements can be recycled and used to help form the new main-frame.

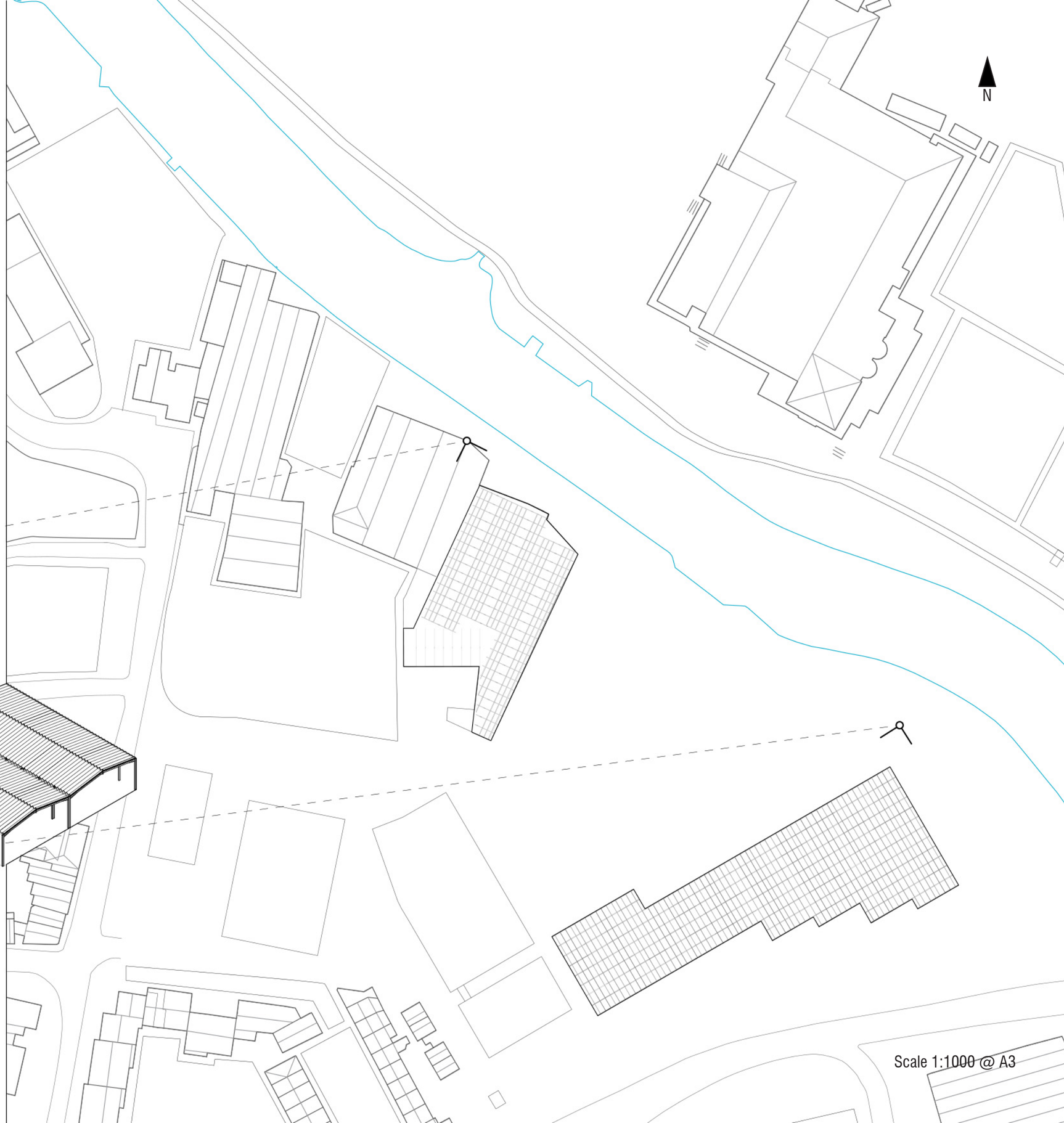
The highlighted buildings below are significant as their current footprint helps to shape its proposed replacements, retaining some of the sites existing heritage.

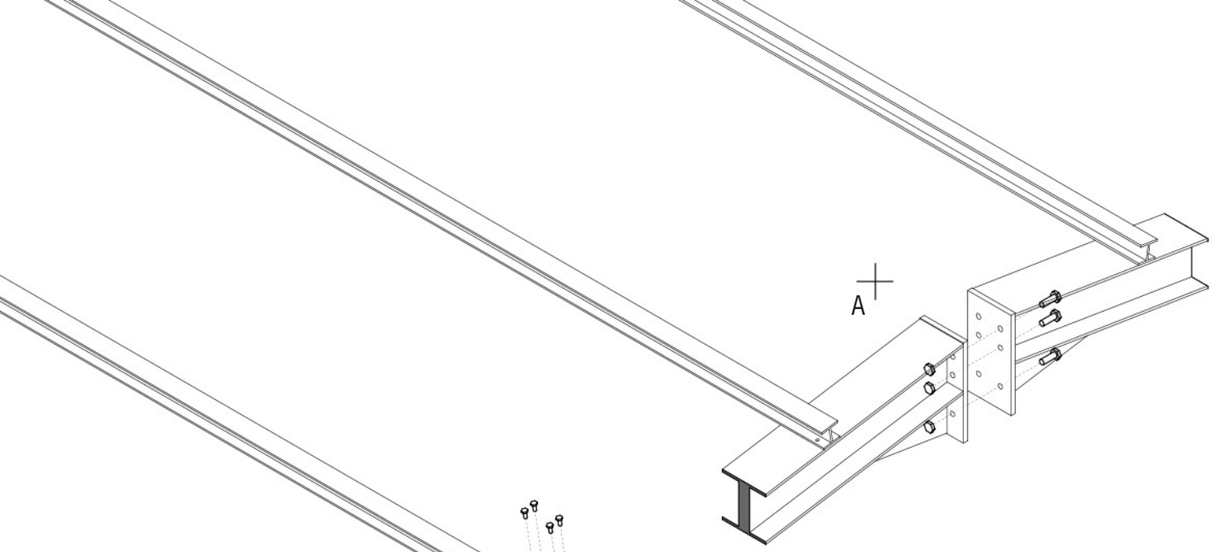
Industrial unit/ foundary.



Array of warehouses (some of which are disused and in a state of decay).

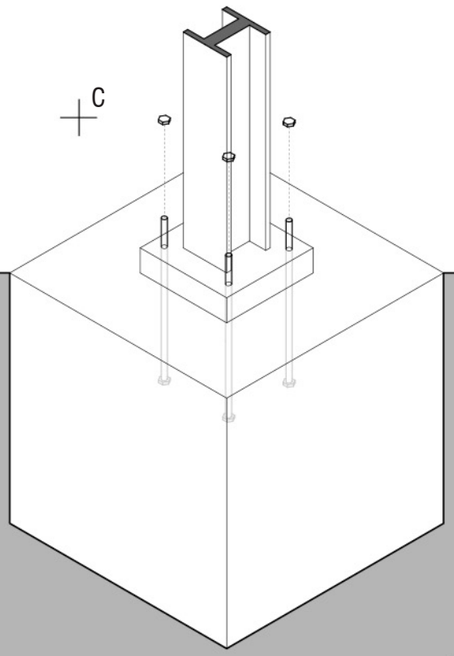




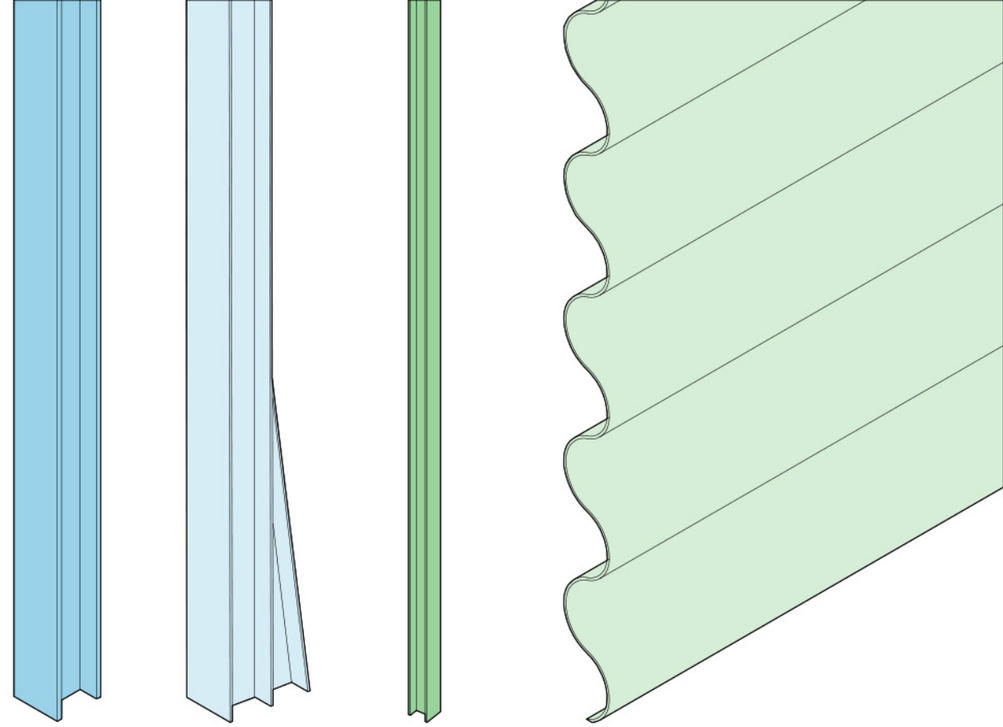


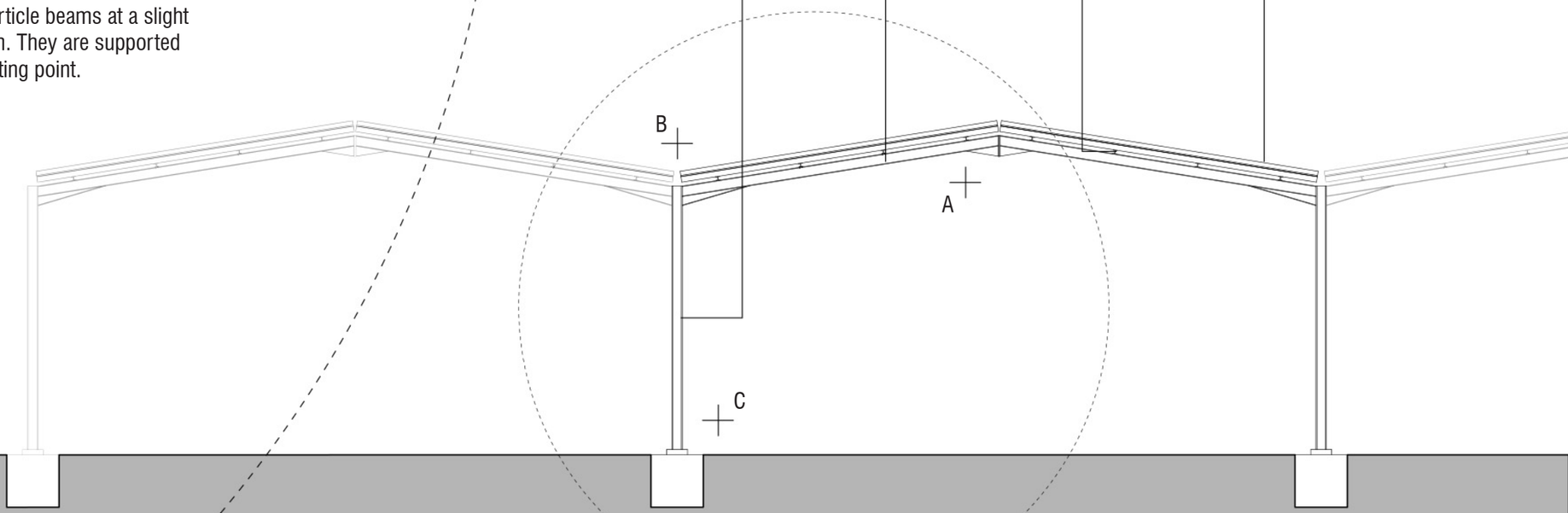
Smaller I-beams run perpendicular to support the corregated sheets that form the roof shelter.

Roof beams bolted on to verticle beams at a slight angle, creating the roof pitch. They are supported by a small brace at the meeting point.



Roof supported by a series of verticle I-beams, bolted in to the ground through concrete foundations.



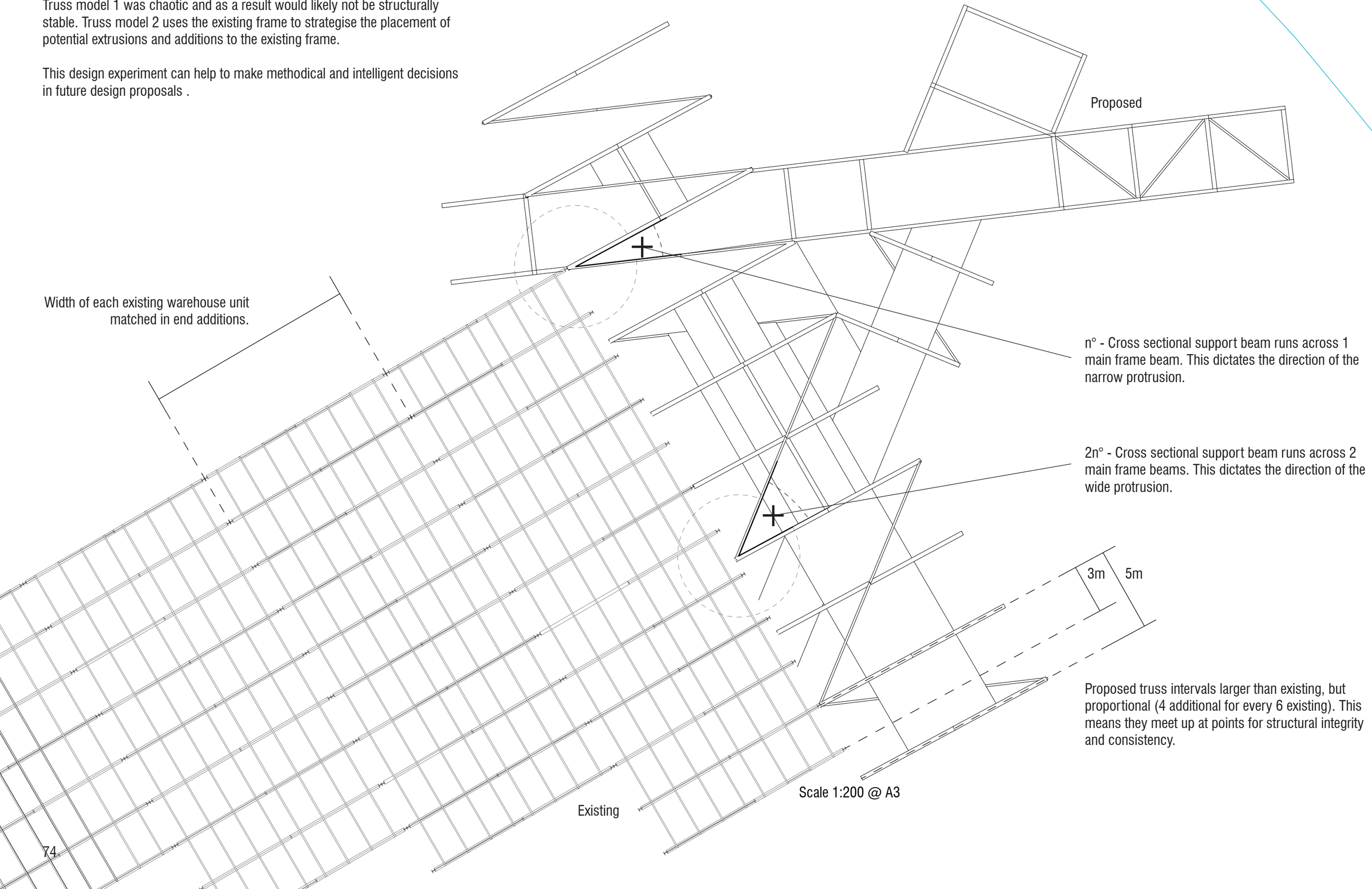


The existing frame of the warehouses are bolted together. This system allows the structural components to be dismantled, which can then be used as part of the new system for the proposed build.

System Strategies

Truss model 1 was chaotic and as a result would likely not be structurally stable. Truss model 2 uses the existing frame to strategise the placement of potential extrusions and additions to the existing frame.

This design experiment can help to make methodical and intelligent decisions in future design proposals .



Truss Model 2 (Physical)

Truss design 2 is far more structurally stable than truss design 1. Every extrusions orientation is determined by other elements of the system. This design creates a triangle keeping the structure stable when force is applied from multiple directions.

The cantilever element is shorter and counter balanced by a large portion of the system. This element no longer deforms, despite being made from card, a lighter material than wood (used in model A).

V - Plan view of full system

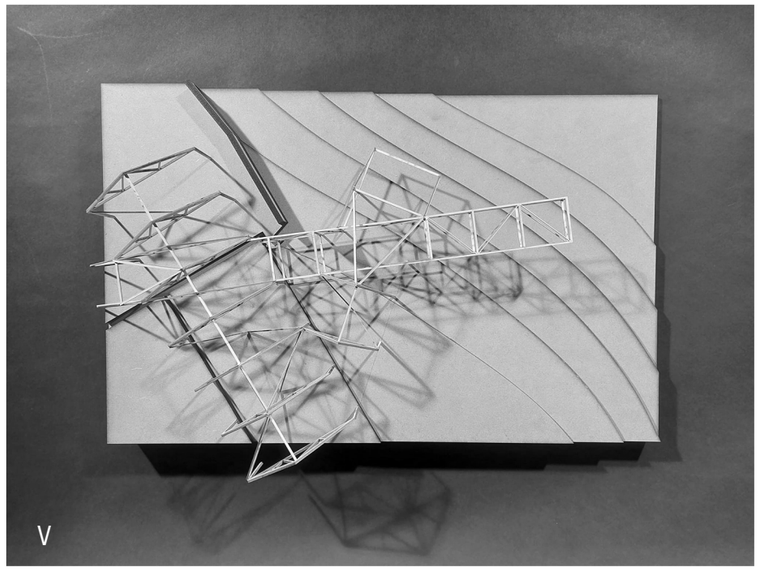
W - Perspective view of existing frame

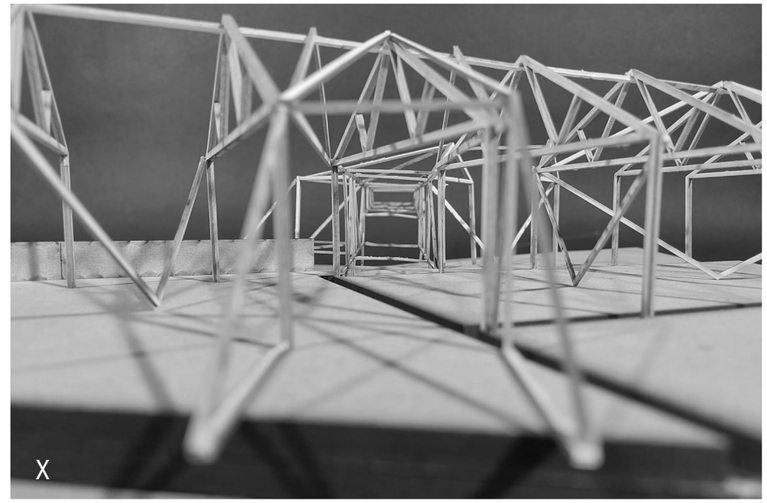
X - Elevation view including cantilever

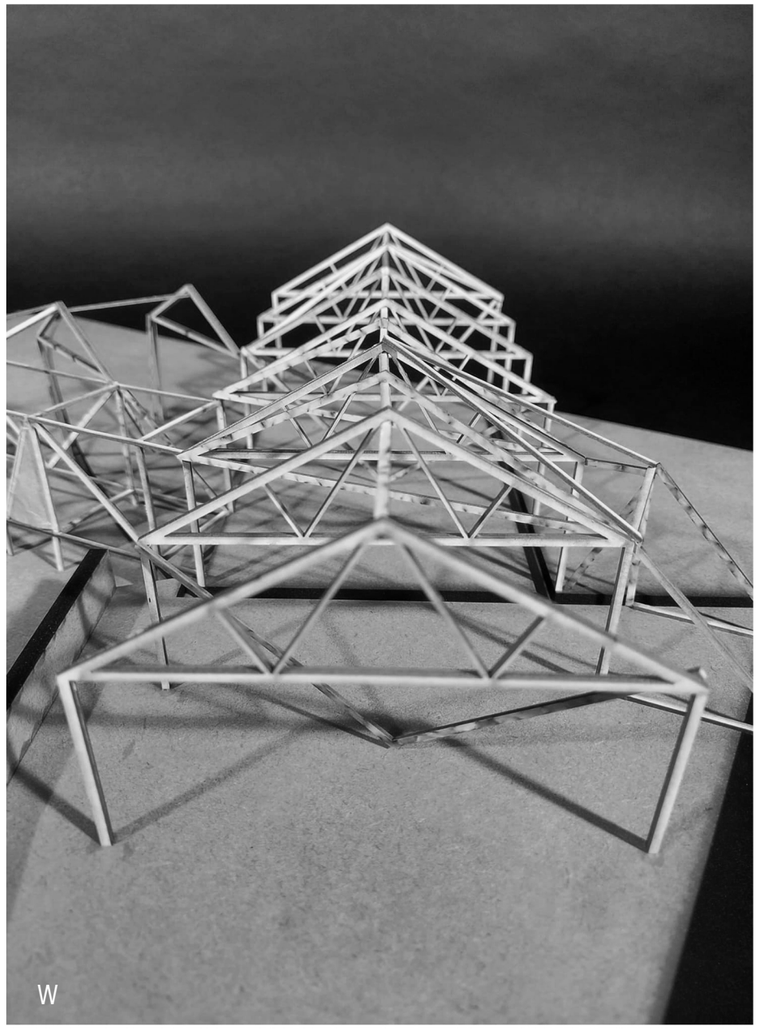
Y - Perspective elevation of wide vierendeel protrusion

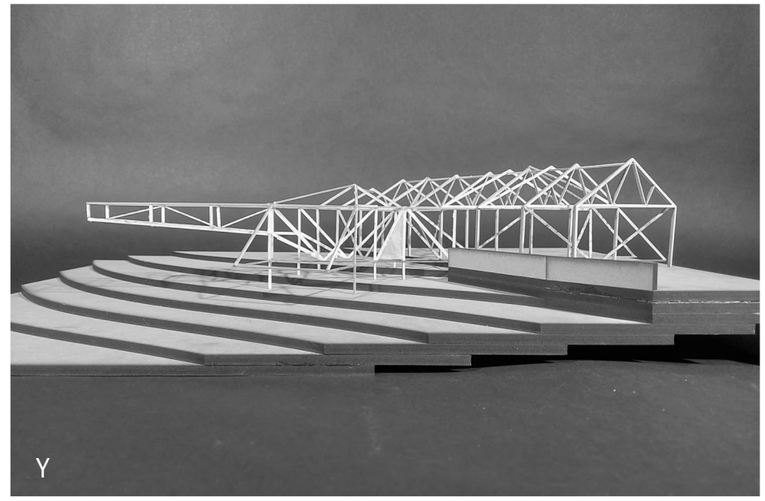
Z - Perspective elevation of wide protrusion

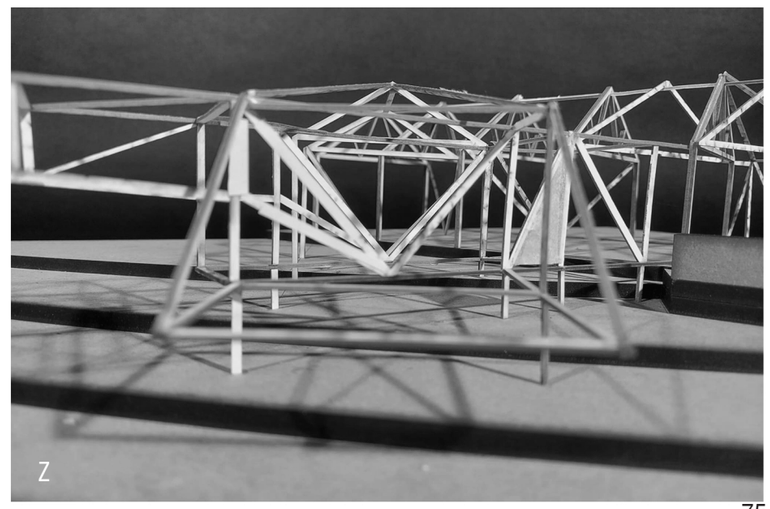
(Model Z)

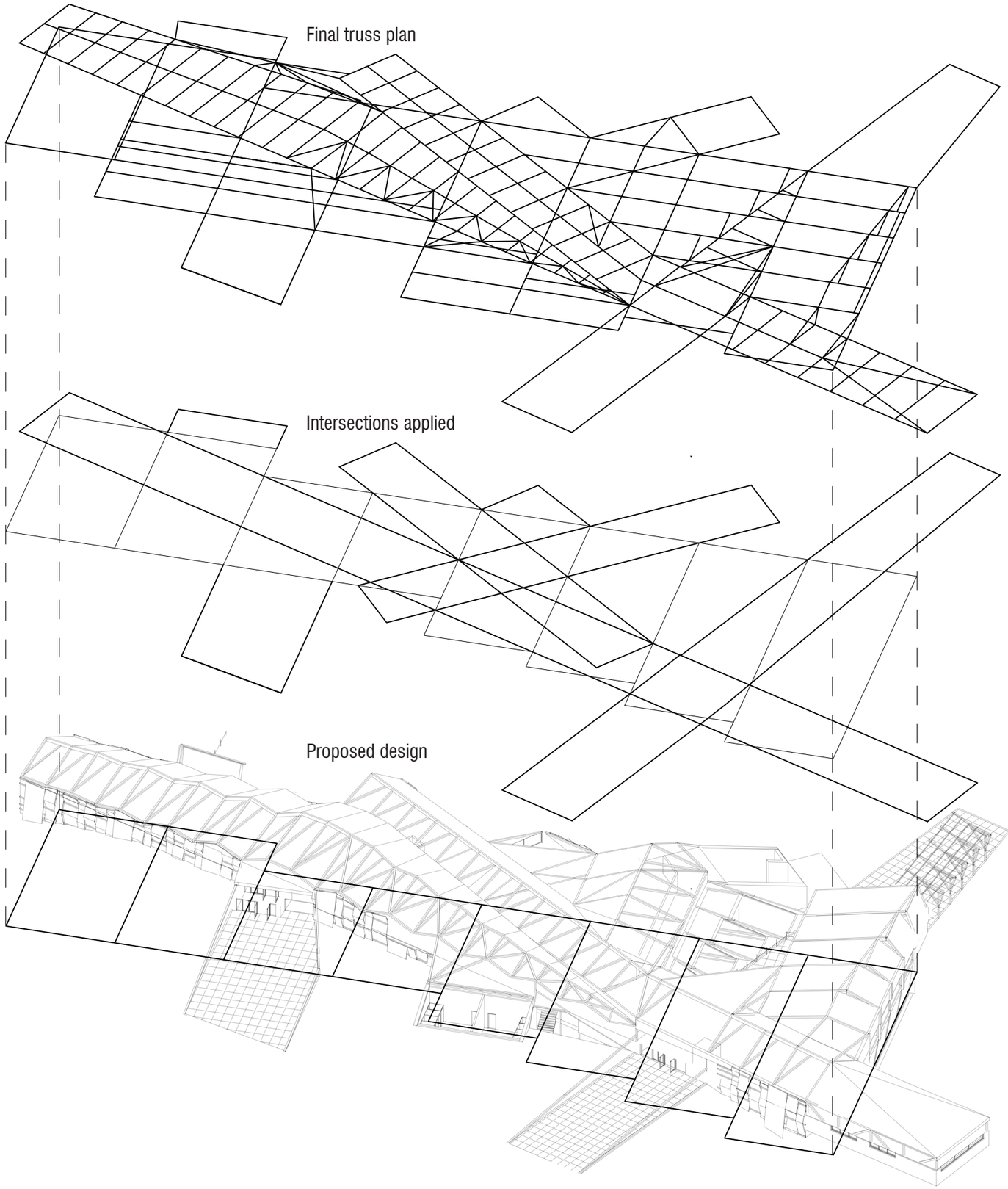

V


X


W


Y


Z



Intersections

The final proposal uses strategies experimented with in truss model 2. The physical models rigidity showcases the intersections ability to keep the building structurally stable.

The intersection form new alleys and openings, shaping the spaces inside the building. The exploded isometric takes the footprint of the existing warehouses and applies the same intersection strategy as the model.

Each intersection is applied at calcuated intervals to ensure the system works as effectively as the experimental physical model.