

The Continuum of Shelter

How can adaptive reuse strategies be designed to not only provide housing for the homeless but also prevent a return to homelessness?

Introduction (100 words)

The Continuum of Shelter transforms the Grade II* former Wood Street Police Station into a housing model that supports the transition from homelessness to long-term stability through adaptive reuse and circular material design. Existing concrete, brick and structural elements are retained to reduce embodied carbon and preserve the building's heritage. A bespoke modular furniture system fabricated from cork, hemp fibre and bio-binder panels enables disassembly, repair and future reuse, while reclaimed steel, recycled ceramic tiles and recycled upholstery further minimise environmental impact. Hemp-insulated retrofit walls, vertical gardens, daylight-driven courtyards and rainwater reuse strategies create tactile, durable and human-centred interiors that foster dignity, well-being and long-term housing stability.



This perspective is of the Community kitchen where residents and the homeless can come in for a free hot meal.

Soup Kitchen



This perspective is of the cultural food court where the residents have stalls which change out every few weeks.

Cultural Food Court

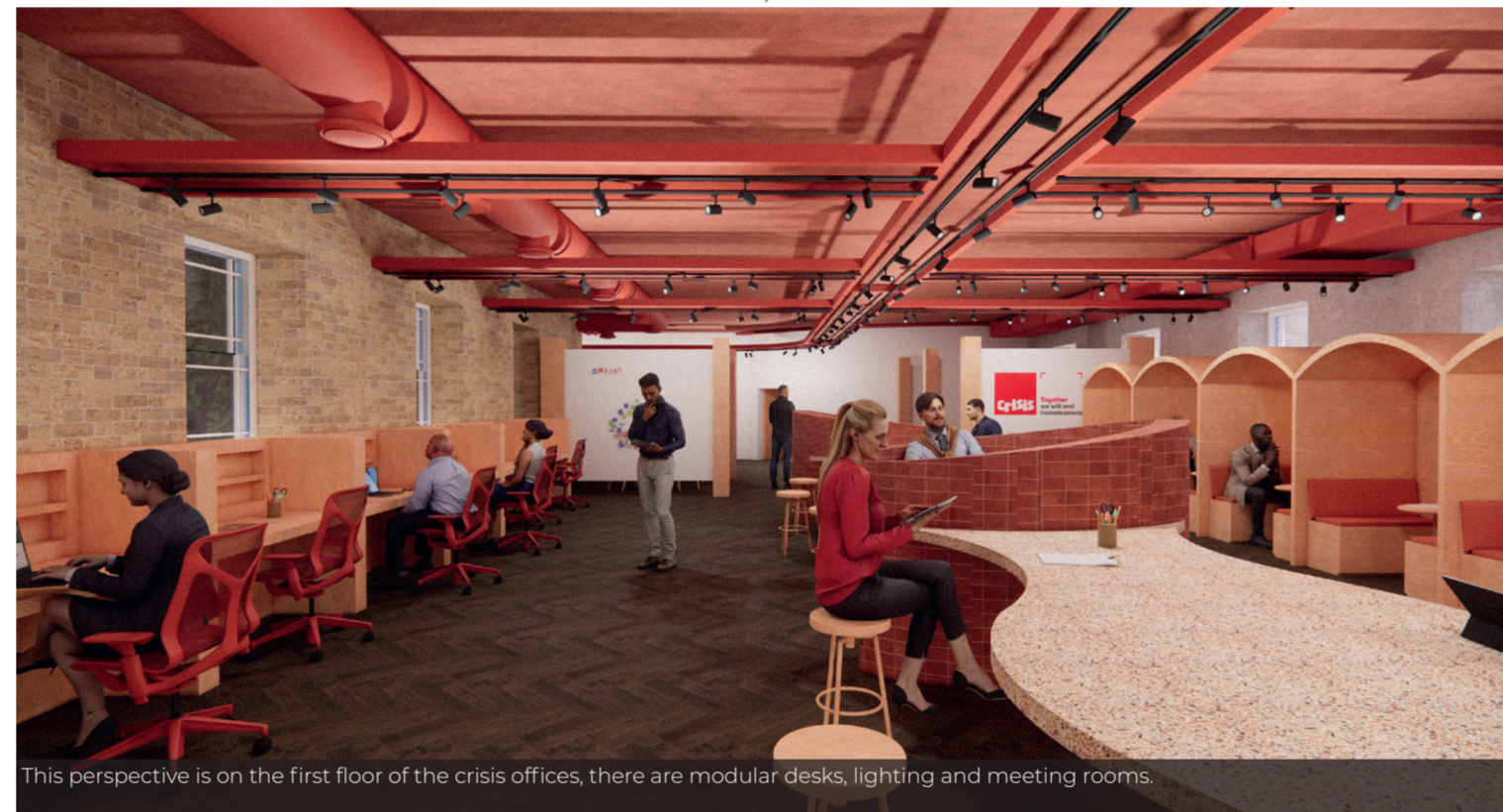


This perspective is looking at the existing entrance of The continuum of shelter building, this is the crisis entrance where there are more intimate and private areas to tackle homelessness.

Crisis Entrance, Exterior render



This is the Crisis reception which is the first room as you enter the building. This is the first step for integrating into the building after being homeless.



This perspective is on the first floor of the crisis offices, there are modular desks, lighting and meeting rooms.



"400,000 are homeless or at risk of homelessness - including people sleeping rough, living in homeless shelters, temporary accommodation or sofa-surfing"



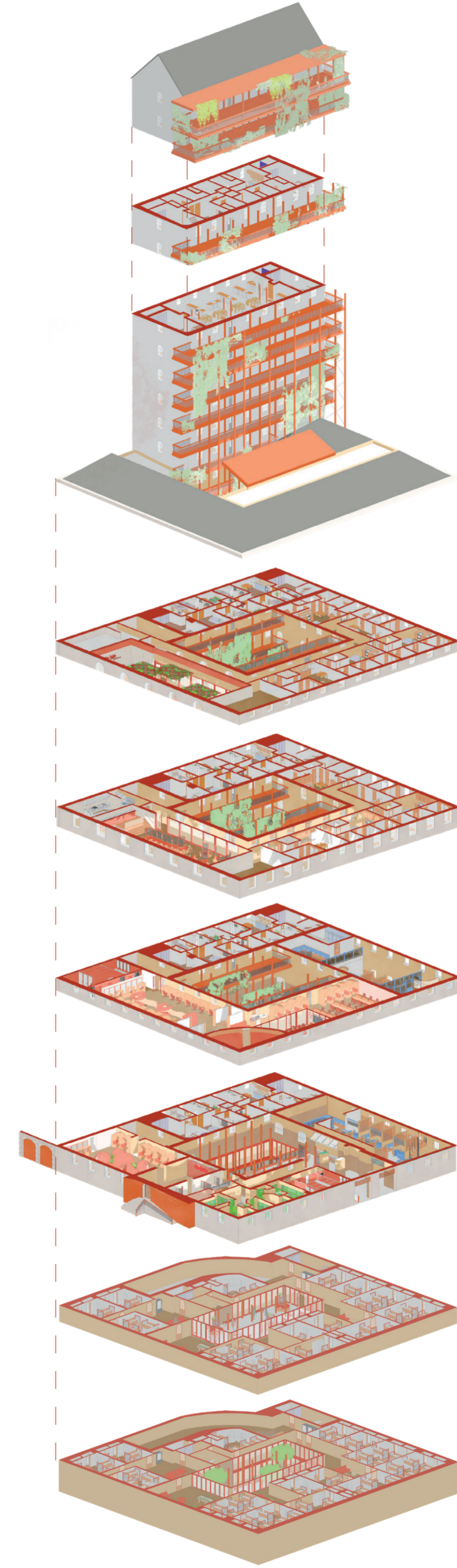
"1.7 million are in unsuitable housing such as older people stuck in homes they cannot get around and families in properties which have no outside space"



This project explores how adaptive reuse can create a continuum of shelter — transforming disused urban structures into inclusive environments that guide individuals from homelessness toward long-term stability.

Emergency spaces that provide safety and dignity, transitional living areas that offer community, counselling, and skill-building, permanent units that allow for independent living but remain connected to supportive networks.

Site and research



Ground floor to floor 12
Micro living apartments

Floors 6,9 & 12
Community level
Community kitchen classes
Community gym

Third Floor
Soup Kitchen void, Food Bank void and Family apartments.

Second Floor
Soup Kitchen, Food Bank and Family apartments.

First Floor
Cultural stables void, Crisis offices.

Ground Floor
ReCell, Cultural stables, Crisis reception & pods, Crisis community garden & cafe.

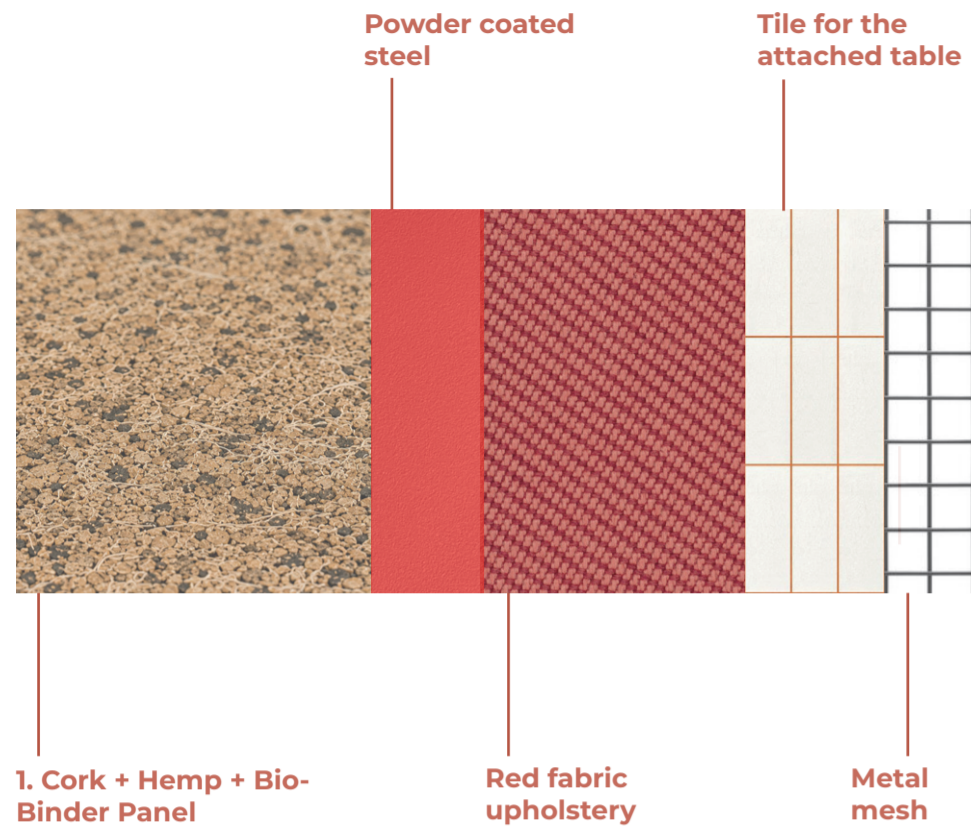
Level -1
Crisis Shelter Hostel and Courtyard void.

Level -2
Crisis Shelter Hostel and Courtyard garden.

Exploded Axonometric

Bespoke Modular Booth materials

Materials board



FF&E

1. Cork + Hemp + Bio-Binder Panel

The panel is light in weight, yet strong and rigid. Suitable in structural uses and load bearing applications like flooring, packaging and furniture, CNC machining possibilities. The wide size range with several thickness's and sizes, widens the usage potential beyond traditional end uses. Made from environmentally certified Nordic Spruce, it meets all the relevant environmental requirements.

2. Reclaimed welded steel frame (modular furniture)

Powered coated Finnish for colour
 Powder coating releases less hazardous waste and harmful gases (VOCs) into the atmosphere
 Powder coating is resistant to chips, dings and corrosion and abrasions

3. Recycled red upholstered fabric by Camira

Company: Camira
 Upholstery: Made from 100% recycled polyester and marine waste SEAQUAL® yarn

4. Recycled Tile on tables

Company appearance	Deklin ceramic tiles
Grout	Red-4mm thickness
Sustainability	95% recycled content and a 94% lower CO2 footprint

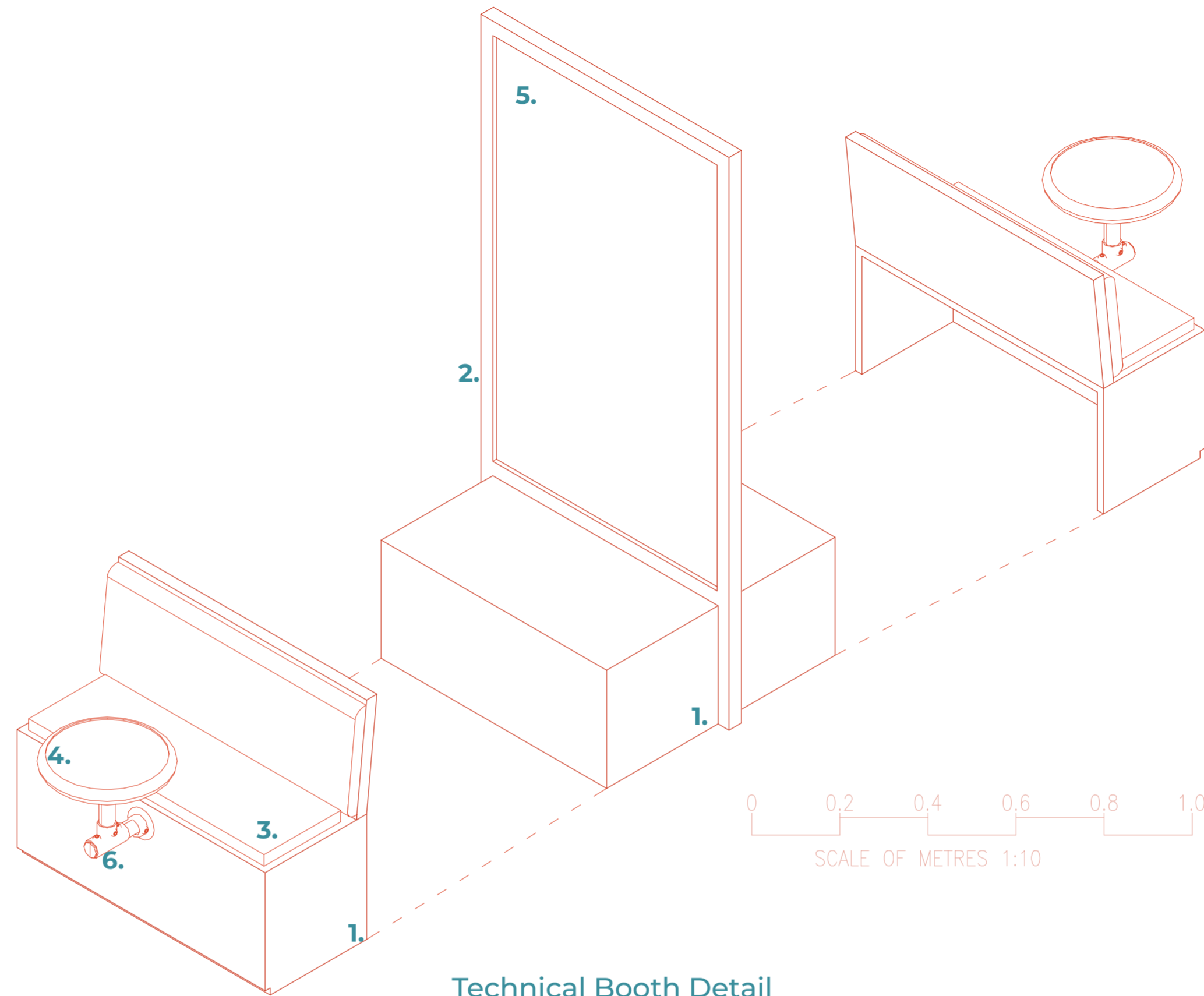
5. Reclaimed Metal mesh

Recycled metal mesh screwed into steel frame, used for hanging information posters and leaflets, plants and objects.

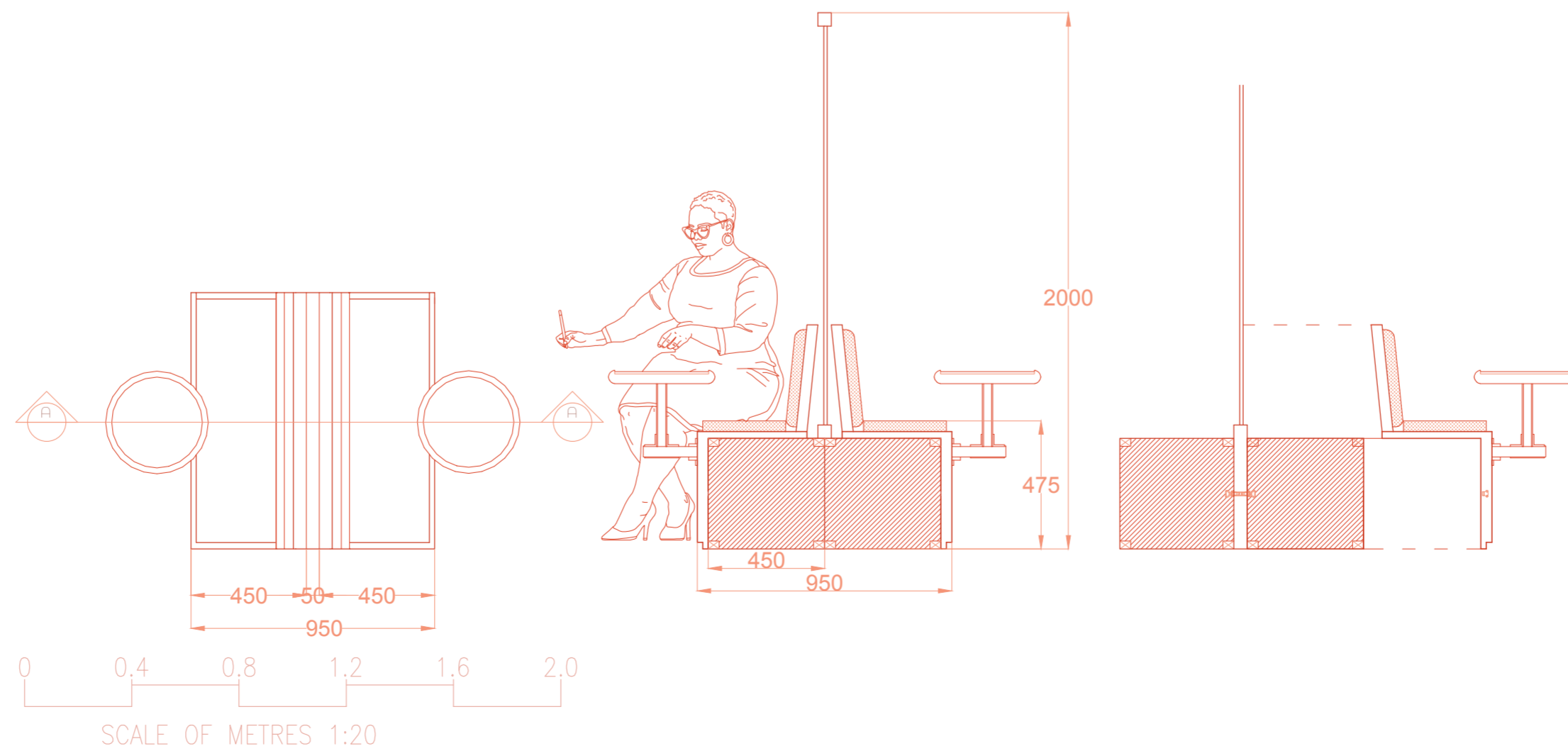
6. Reclaimed Steel scaffolding pipe

Reclaimed steel scaffolding corner tube bolted onto table top and lower front of booth.

Exploded Booth Detail

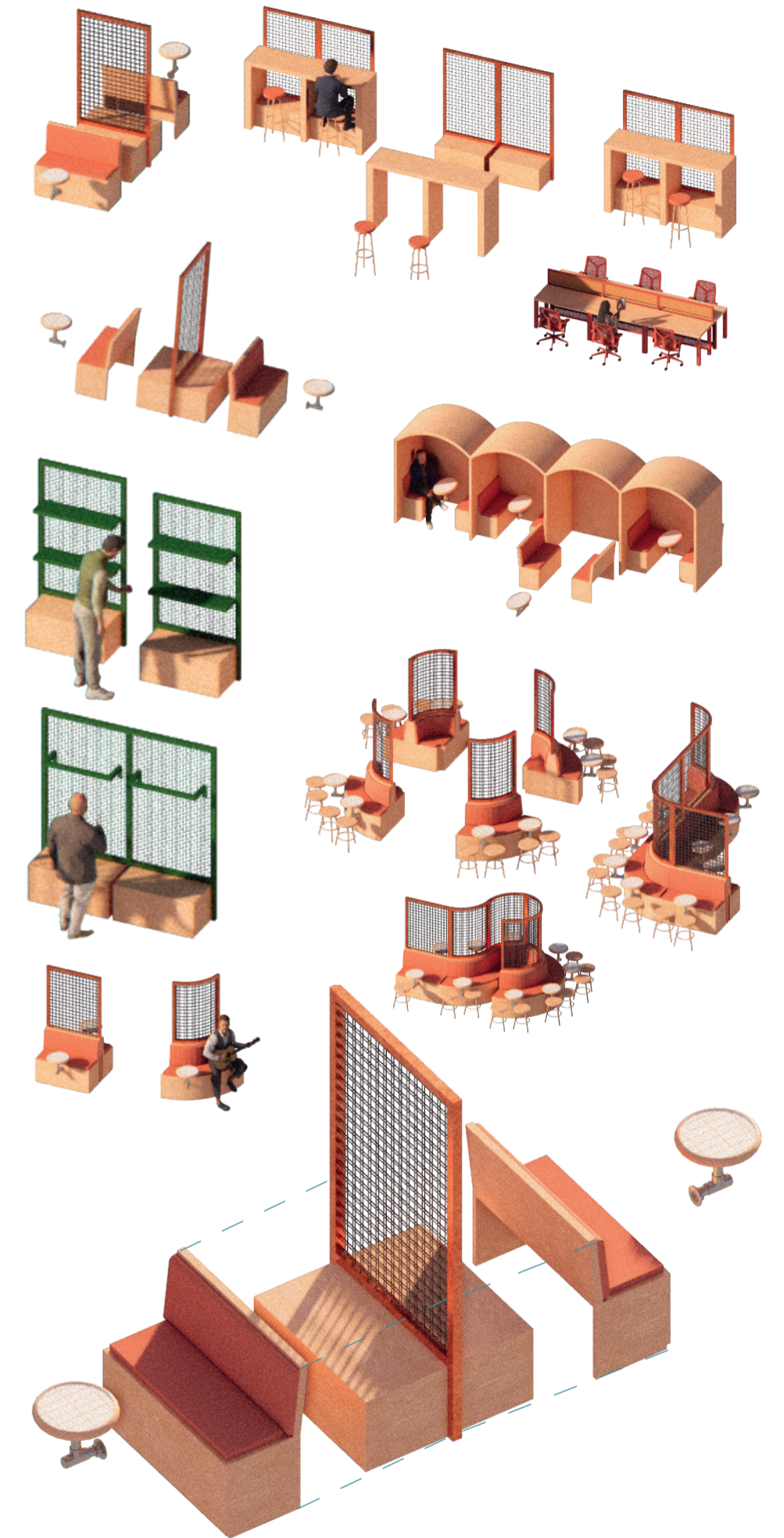


Technical Booth Detail



Bespoke Modular Furniture

I designed a range of modular furniture to carry my design language throughout the building to make it cohesive but also sustainable. All the items use the cork, hemp and binder material I created and all are designed as flat pack to be built on site.



Sustainability statement

My sustainability approach is centred on adaptive reuse and the principles of **reuse, repurpose and recycle**. I Selected **high-quality materials** chosen for **longevity** and where possible, **replicating forms** within the design. This combination allows me to prioritise **mass production** over bespoke finishes, **reducing embodied carbon** associated with the **manufacturing and delivery of components**. By remaining cohesive in this approach, the design language is able to flow consistently throughout the proposal, benefiting both **aesthetics and sustainability**.

Additional design decisions include the use of **local materials, recycled and low-carbon products** and an **adaptive-reuse strategy** for the existing structure. The incorporation of a vertical garden further supports both **resident well-being and local biodiversity**.

Cork, Hemp fibres and a bio binder

FF&E

1. Cork

Cork is harvested from the bark of the cork oak tree without cutting the tree down. The bark regenerates every 9-12 years. Cork oak forests can remain productive for over 150 years. Cork has a cellular structure made up of millions of air-filled cells. Reduces overall panel weight compared to MDF or particleboard. Makes modular furniture easier to move and reconfigure.



2. Hemp Fibre

Hemp fibres have excellent tensile strength. Hemp absorbs large amounts of CO₂ during growth. One of the fastest-growing industrial crops. Can be harvested annually. Requires significantly less irrigation than cotton. Suitable for cultivation in the UK climate. Grows back each year from seed. Can be sourced from UK and European farms, reducing transport emissions.



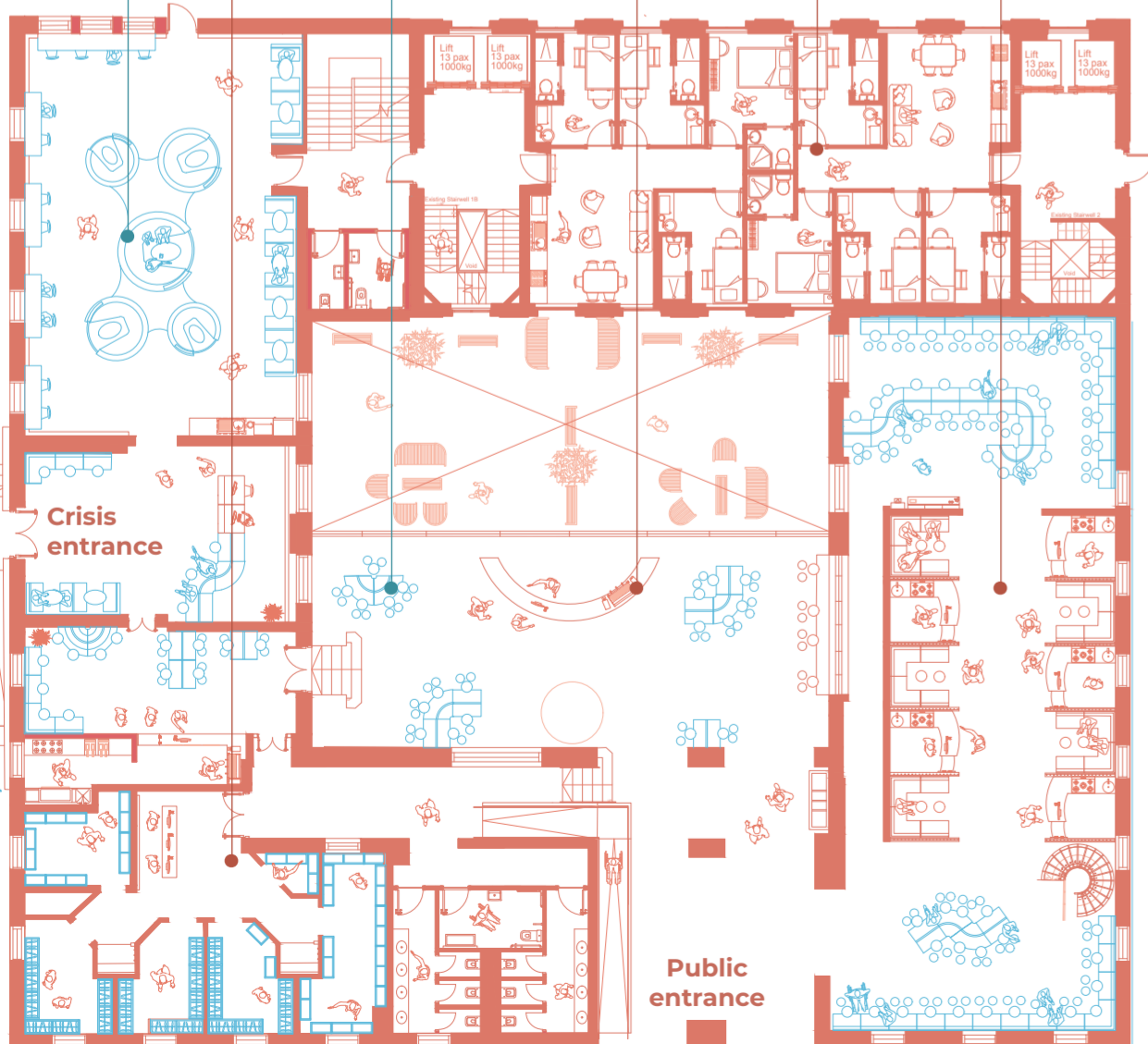
3. Bio-Binder Panel

Derived from natural sources such as lignin, starch, soy, or other bio-based materials. Reduces dependence on petroleum-based adhesives. Bonds cork granules and hemp fibres into a single, stable panel. Ensures consistent strength throughout the material.



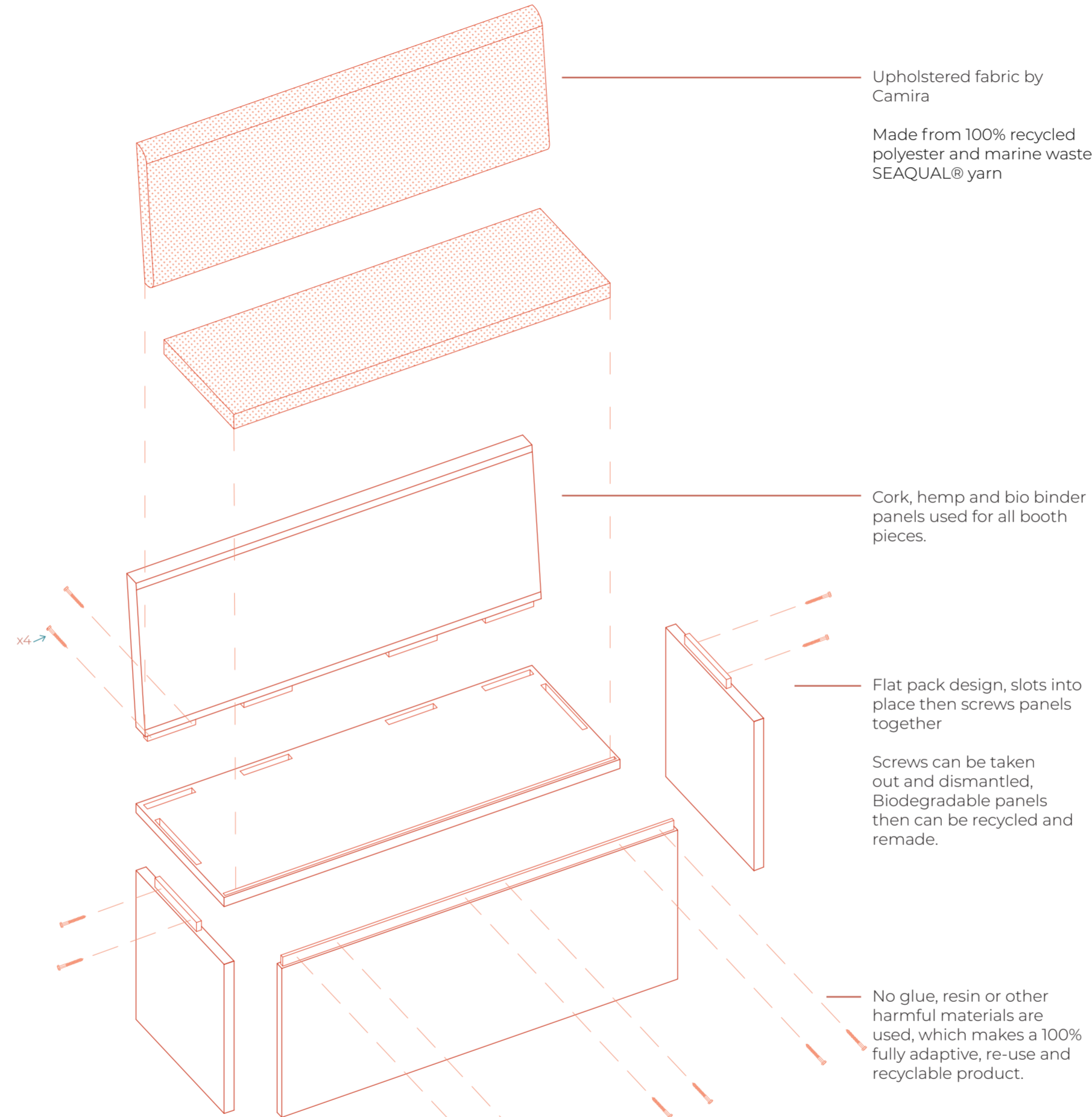
Ground Floor Plan

Micro pods
Charity shop
Blue shows all the bespoke modular elements I designed
Courtyard
Micro living apartments
Cultural food court



0 5 10 15 20 25
SCALE OF METRES 1:250

Bespoke booth dismantle diagram



0 0.2 0.4 0.6 0.8 1.0

SCALE OF METRES 1:10

Cork + Hemp + Bio-Binder Panel

The panel is light in weight, yet strong and rigid. Suitable in structural uses and load bearing applications like flooring, packaging and furniture, CNC machining possibilities. The wide size range with several thickness's and sizes, widens the usage potential beyond traditional end uses. Made from environmentally certified Nordic Spruce, it meets all the relevant environmental requirements.

Material Breakdown

40% Cork Granules → Lightweight, acoustic insulation, thermal comfort
40% Hemp Fibres → Structural reinforcement, rigidity, durability
20% Bio-Binder → Plant-based bonding, formaldehyde-free construction

This gives each ingredient a clear purpose:
Cork = comfort and insulation
Hemp = strength and structure
Bio-binder = cohesion and manufacturability



Image made using AI

Micro Pods

First step to integrate into the building.

The Micro pods are designed as the first step for people coming from homelessness working with the charity Crisis to seek help and better their living conditions.

The pods have a natural rough exterior which juxtaposes the warm and cosy fleece interior, which symbolises the journey these individuals or families have been through.

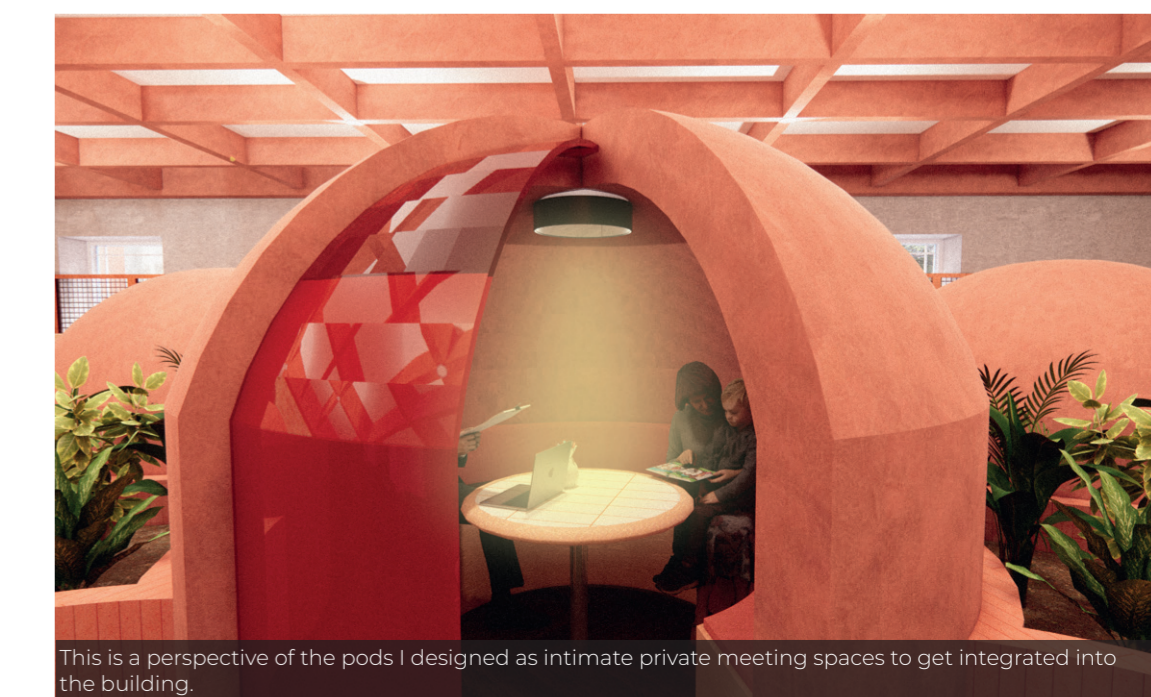
These pods are private with reclaimed frosted glass to let light through but keeps the pods a dignified space. There are five pods, two pods for two people the homeless and the councillor, three person for a small family and a four to five person for a larger family.

Recycled Fleece:

Recycled fleece is a sustainable alternative to traditional fleece, primarily made by shredding post-consumer plastic waste (like PET bottles) or recycled industrial wool and spinning it into yarn. It offers the same cosy, lightweight, and moisture-wicking benefits as standard fleece while significantly reducing landfill waste and carbon emissions.

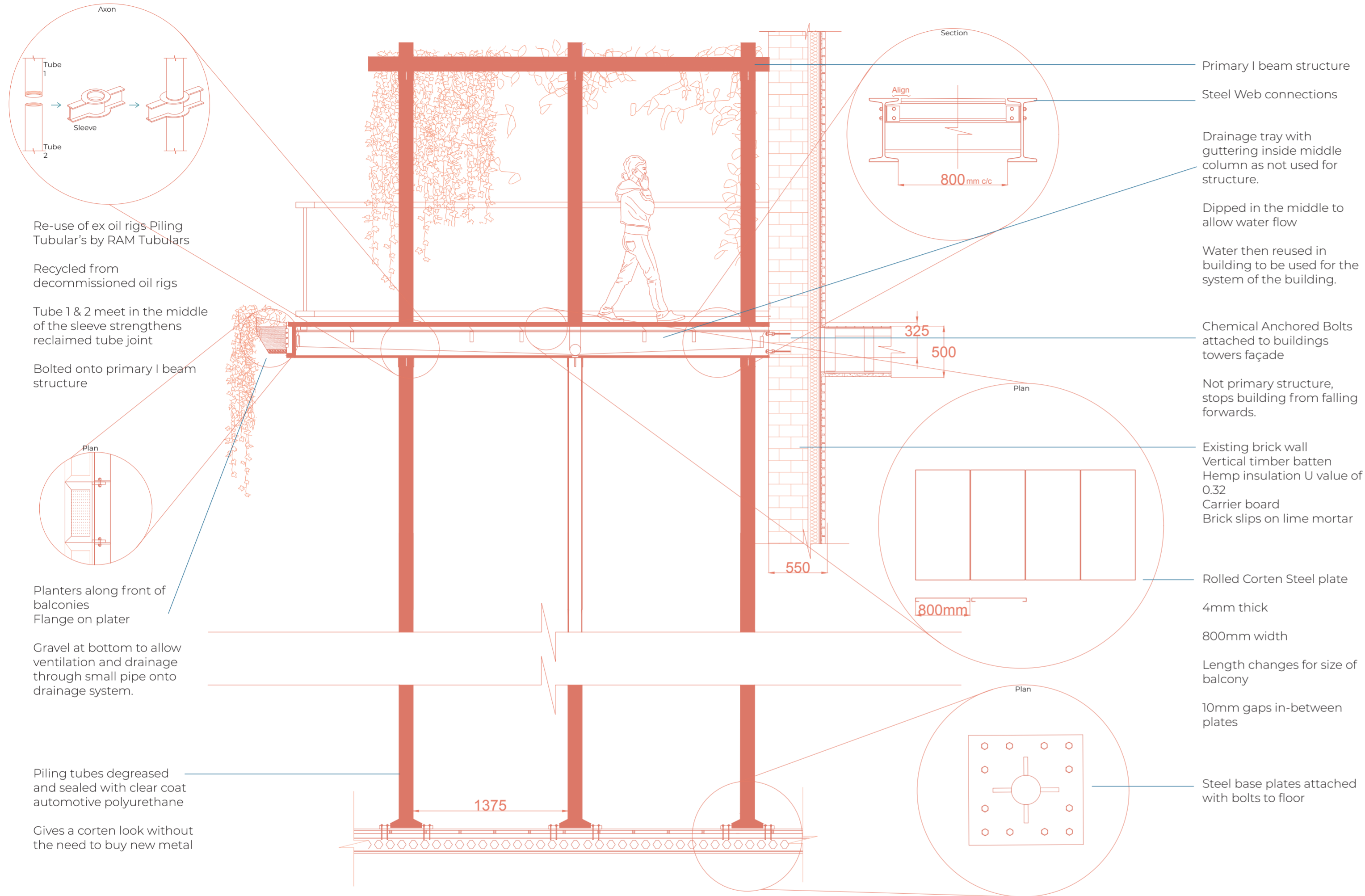
Clayworks:

The exterior is formed and coated in red Clayworks to make the rough and raw. This is a natural sustainable materials which is sourced in the UK.

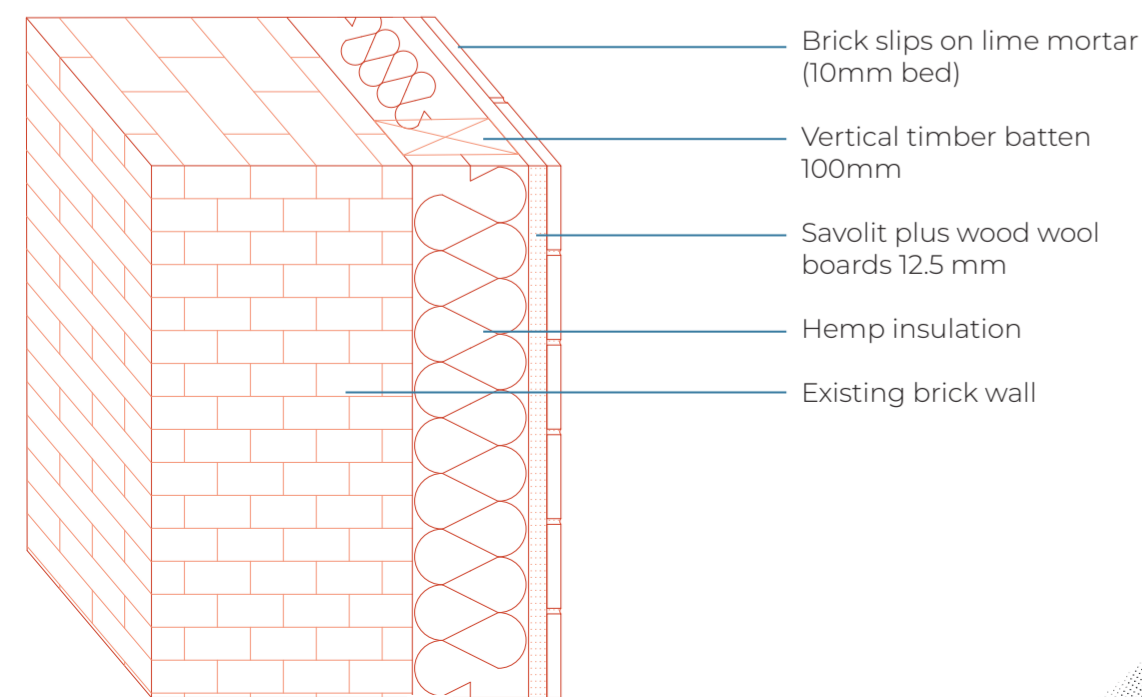


This is a perspective of the pods I designed as intimate private meeting spaces to get integrated into the building.

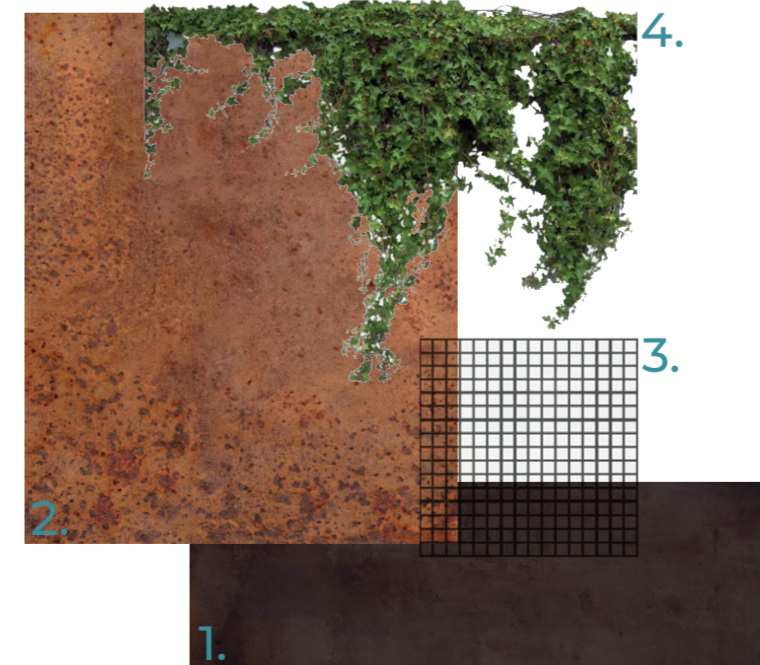
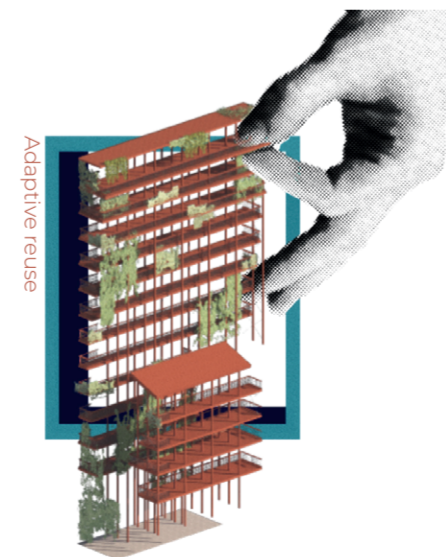
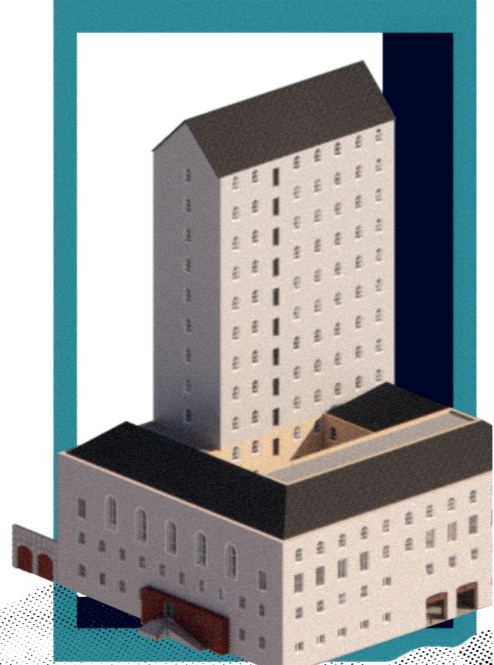
Vertical Garden Technical Detail



FF&E



Housing crisis



1. Steel (structure)

Primary I beam structure
Steel Web connections

2. Corten Steel rolled plates

Is an alloy that forms a stable, protective rust-like layer (patina)
Tensile strength of 480-630 MPa
Yield strength of at least 345 MPa
This makes it a durable, low-maintenance, and sustainable material

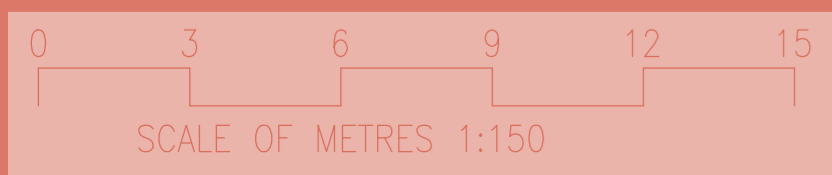
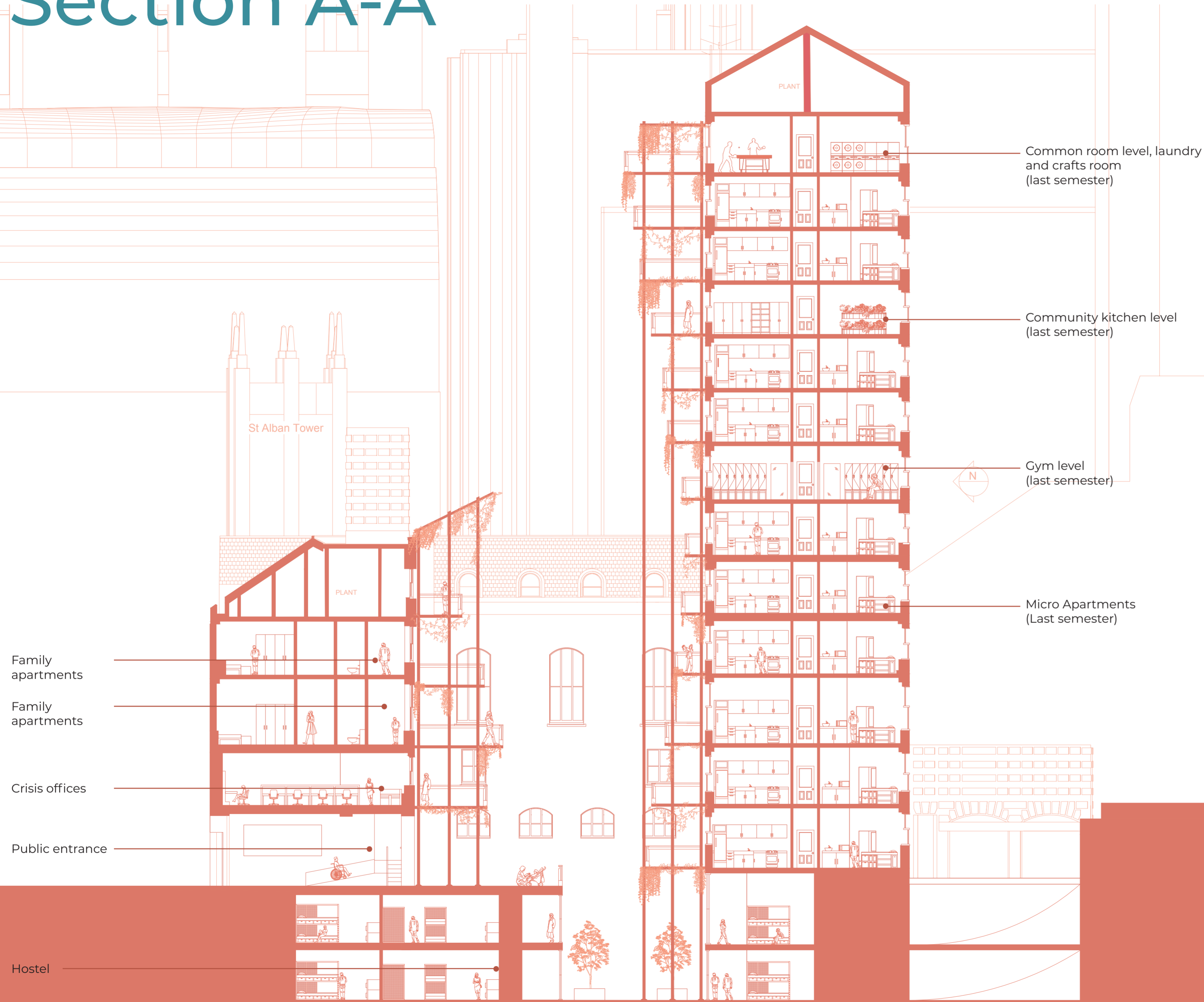
3. Steel Grate (banister)

Stainless steel grate used as barrier on the balcony, allows light through with its mesh like formality.

4. Vertical garden

Green foliage growing throughout the structure to act as a vertical garden and green space in the city of London.

Section A-A



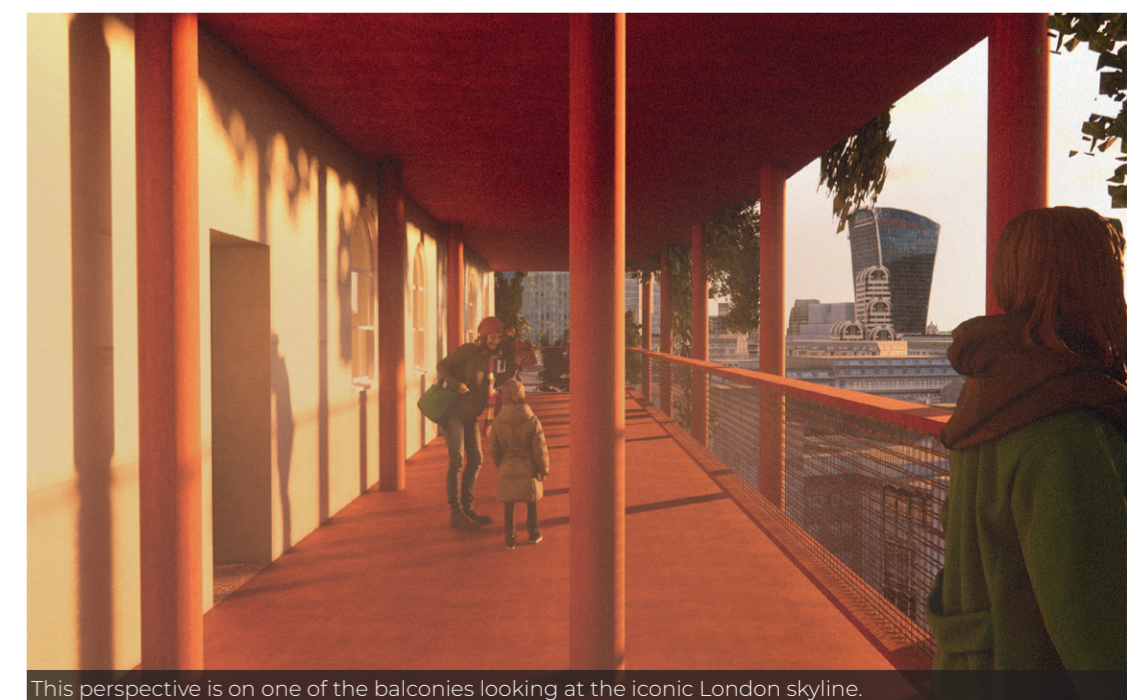
The residents work here and this is where the local community can come and shop, also new residents with nothing after being previously homeless can shop here for essential items.



Located in the old horse stables, this perspective is of the cultural food court where the residents have stalls which change out every few weeks.



Located in the old ball room, this perspective is of the Community kitchen where residents and the homeless can come in for a free hot meal. Residents and Crisis help run this.



This perspective is on one of the balconies looking at the iconic London skyline.