

STOCKWELL SKILLS HUB

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01 THE PROBLEM

Typical educational spatial design proposes concepts based on functionality and practicality, such as student and class numbers, types of courses offered by the institution, and ancillary spatial requirements, and design interventions focus predominately on the best outcomes for optimal education conditions, such as the use of certain colours (e.g. blue for relaxation and concentration), and ideal lighting for focus. Though these interventions have empirically proven to be beneficial to learning environments, they assume a single purpose for educational facility design, that being, to provide a space designed uniquely for the purpose of learning. As a result, design of these spaces are generally sterile in appearance, lacking in interventions implemented to attract and retain students, and generally unsustainable in nature. Particularly post-COVID, a time when the definition of 'health' has become more holistic to include mental wellbeing, designers of such spaces can ask themselves:

**How can educational facility design be re-imagined to go beyond the purpose of education?
Can these spaces be redesigned for dual purpose; to provide learning spaces AND to support physical and mental wellbeing?**

In theory, these questions can also be taken beyond the notions of generalised health and wellbeing, and be considered in relation to the needs of unique and specific communities. For communities that experience very unique challenges, designers can further ask themselves

How can design interventions respond directly to the wellbeing needs of specific communities?

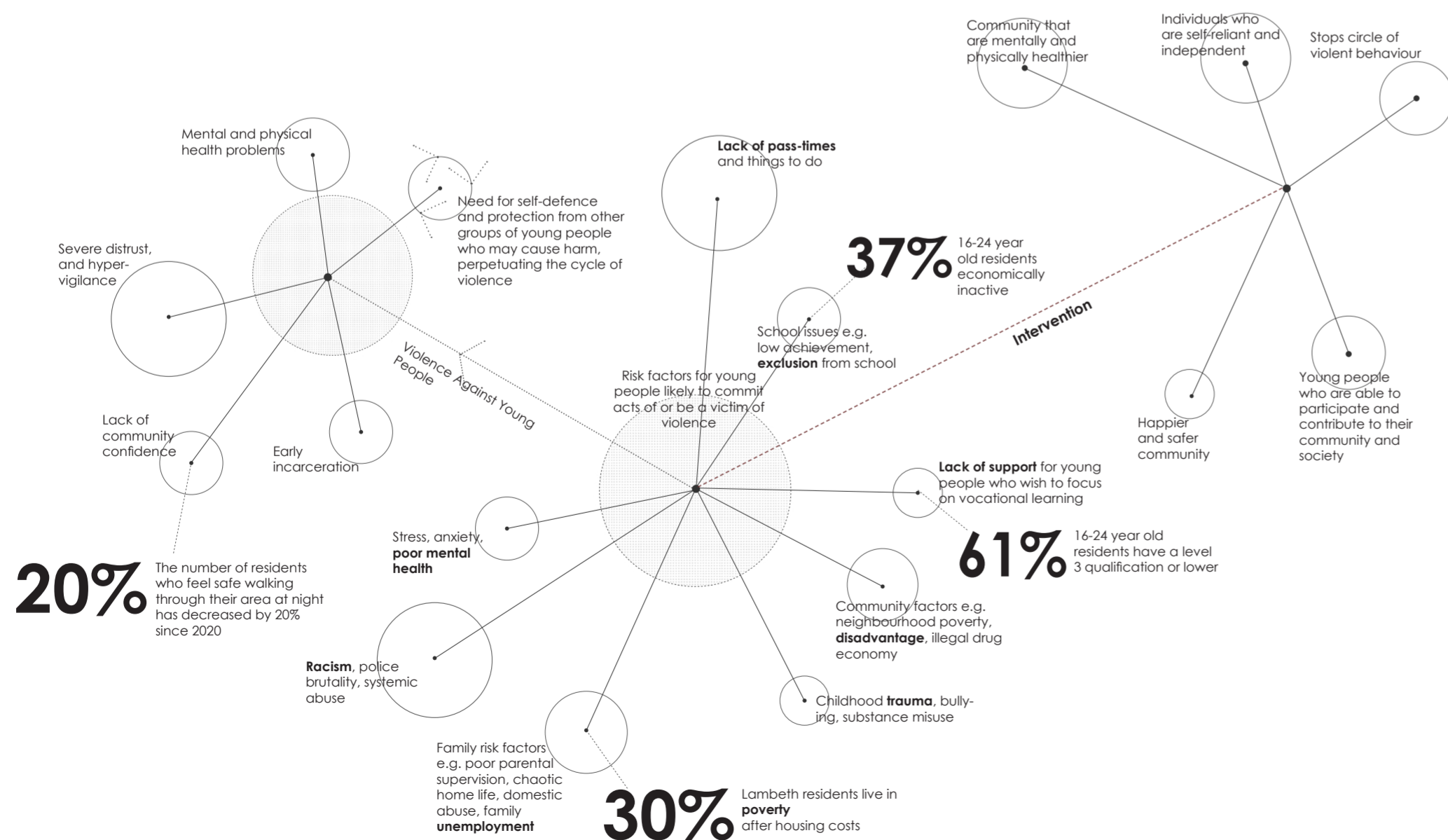
The answers to these questions open a world of potential within which both implicit and explicit design for learning and wellbeing can be incorporated into any genre of space. Biophilic design, for example, can be adopted in any environment, with proven benefits for physiological wellbeing and cognitive function, and is already being incorporated at large in the office context. However design can go beyond this, with subtle interventions prompting massive impacts, and it is only through truly understanding the needs of intended users that this can be achieved.

01.1 The Case Study: Stockwell Skills Hub

Stockwell Skills Hub was born out of a necessity to respond to the impact of youth violence in the Lambeth Council area, a Borough that represents 5% of all crimes committed in London. Lambeth's 'Safer Lambeth Partnership Strategy 2023 - 2030 indicates 3 priorities to address this:

1. Reducing the number of young people who are victims of violence
2. Reducing the number of young people involved in the criminal justice system
3. Addressing the root cause of youth violence, which makes up the majority of offences.

Lambeth Council area is in need of a space that can act as a tool to counter the factors that put youths at risk of offending and becoming victims of violence, proposing an alternative and proactive approach to local youth health and wellbeing. The area has an abundance of schools, however is lacking in colleges and tertiary education institutions. Proposing a **technical college, Stockwell Skills Hub**, will encourage further studies, provide a place of support for those wanting to pursue vocational studies, and provide a refuge for individuals experiencing turbulent family/home lives.



02 THE PROPOSAL

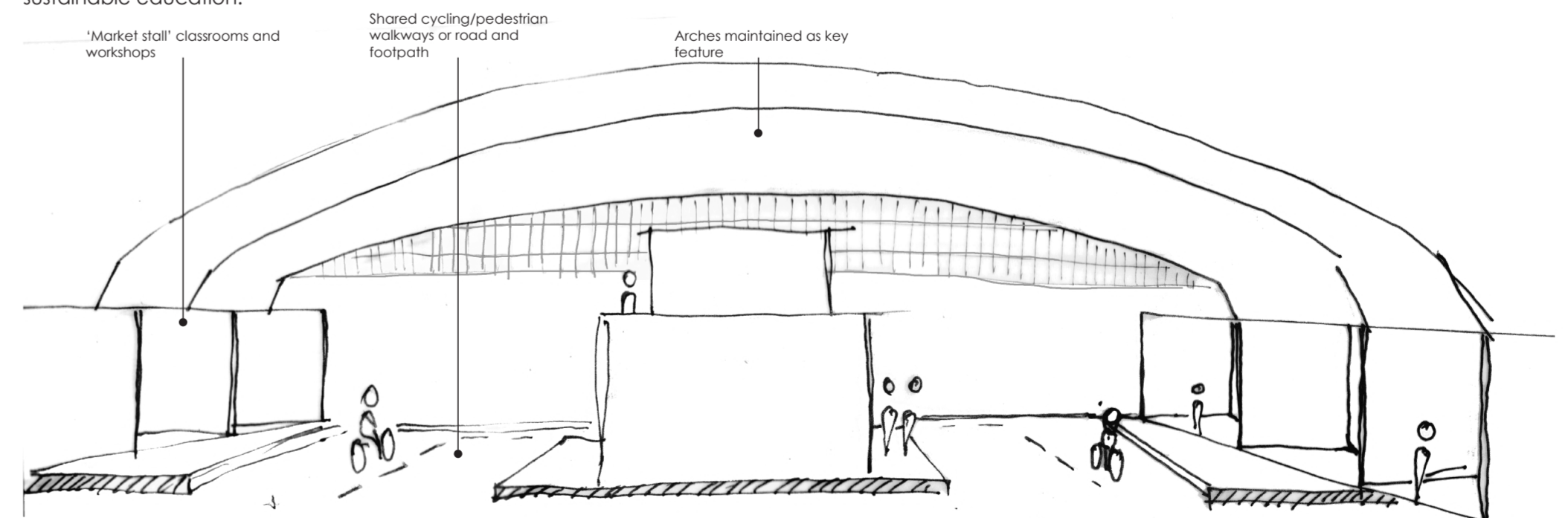


The newly proposed college will be housed within the iconic Stockwell Bus Garage building, located within the Lambeth Council area. The main garage building plus ancillary buildings provide approximately 10,000m² of usable floorspace, allowing the new space to accommodate approximately 3,000 students and 120 staff members.

Imperative to the college's proposed success in achieving Lambeth Council's goals, and the subsequent success of the college, will be ensuring the comfort of students, providing a space where they can feel familiarity, connection and safety in their attendance. Unlike traditional educational facility design, which is more often than not, clinical in appearance and lacking in design innovation, the design will propose an exciting and purposeful approach to institutional design, going beyond the space's role as a learning facility to one that actively takes on the role of healing, nurturing, and supporting, and thus is supporting of a physical and mental wellbeing.

Taking the design of a 'marketplace/village', the newly proposed college will mimic the concept of Brixton Village, a popular youth hang-out in the local area. Using the Village as a precedent will ensure that The Hub's students can experience a sense of familiarity and comfort in their attendance. Designed as such, the new facility will allow students to cycle directly into and around the facility, attending classes within unique market 'stalls/units'. Using a retail-style approach, the proposed concept along with the deliberate selection of relevant and sustainable materials will provide students with a learning environment non-conformant to the pressures of institutional design, and will encourage a more relaxed and independent approach to continued education.

Further to this, the design proposed will be entirely sustainable in nature, considering the use and life-cycle of materials from cradle to grave, and an absolute minimal impact to the Grade II* listed space. Environmental impact of materials, construction, and intervention will be considered at every stage of design and will be imperative to the concept success, and will be recognised through educational interventions throughout the building, proposing a unique approach to sustainable education.



03 THE BUILDING CONTEXT

The primary building on the site, a dome made up of 9 arches, is an architectural feat of its time. Constructed in the post-war era of 1956, the building is characteristic of the utilitarian style, or utility design, and was designed using concrete as the primary material, a relatively available material during the post-war materials shortage of the 1950s.

Designed as a bus garage, and currently continued in use as so, the space is purpose-built. The 6,800m² allows for buses to enter and exit throughout the day, be stored 200 at once in the evening, and provides space for servicing, repair, and refuelling. To its north-eastern and south ends, a small number of offices are made available for the use of TfL and Go London, with further offices available for use in the smaller, brick building to the south of the site. This building also contains a locker room, a canteen and kitchen for staff use.



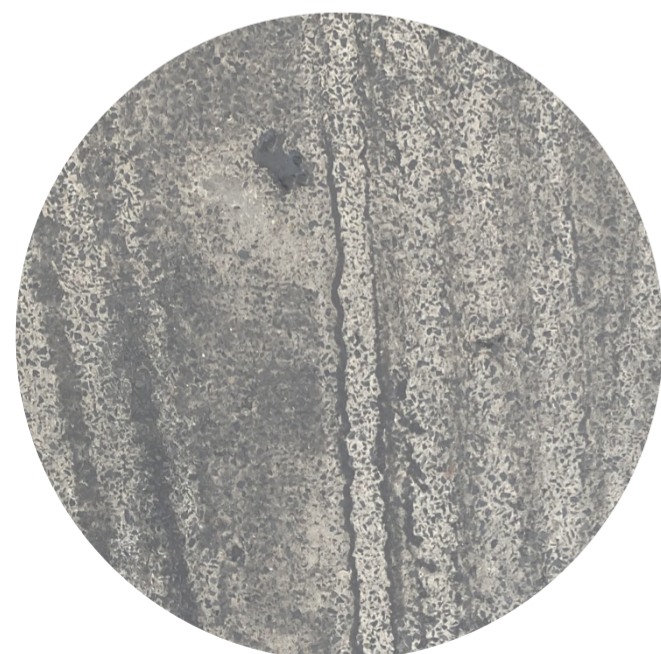
1 Red Flemish Bond

Typical of London architecture, the red Flemish brick to the ancillary building to the South of the site ensures that the attention is not taken from the beauty of the main garage



2 Opaque curtain glazing

Curtain glazing allows for additional light to enter the space. The glazing adds to the charm of the building, though will need to be restored during the construction phase



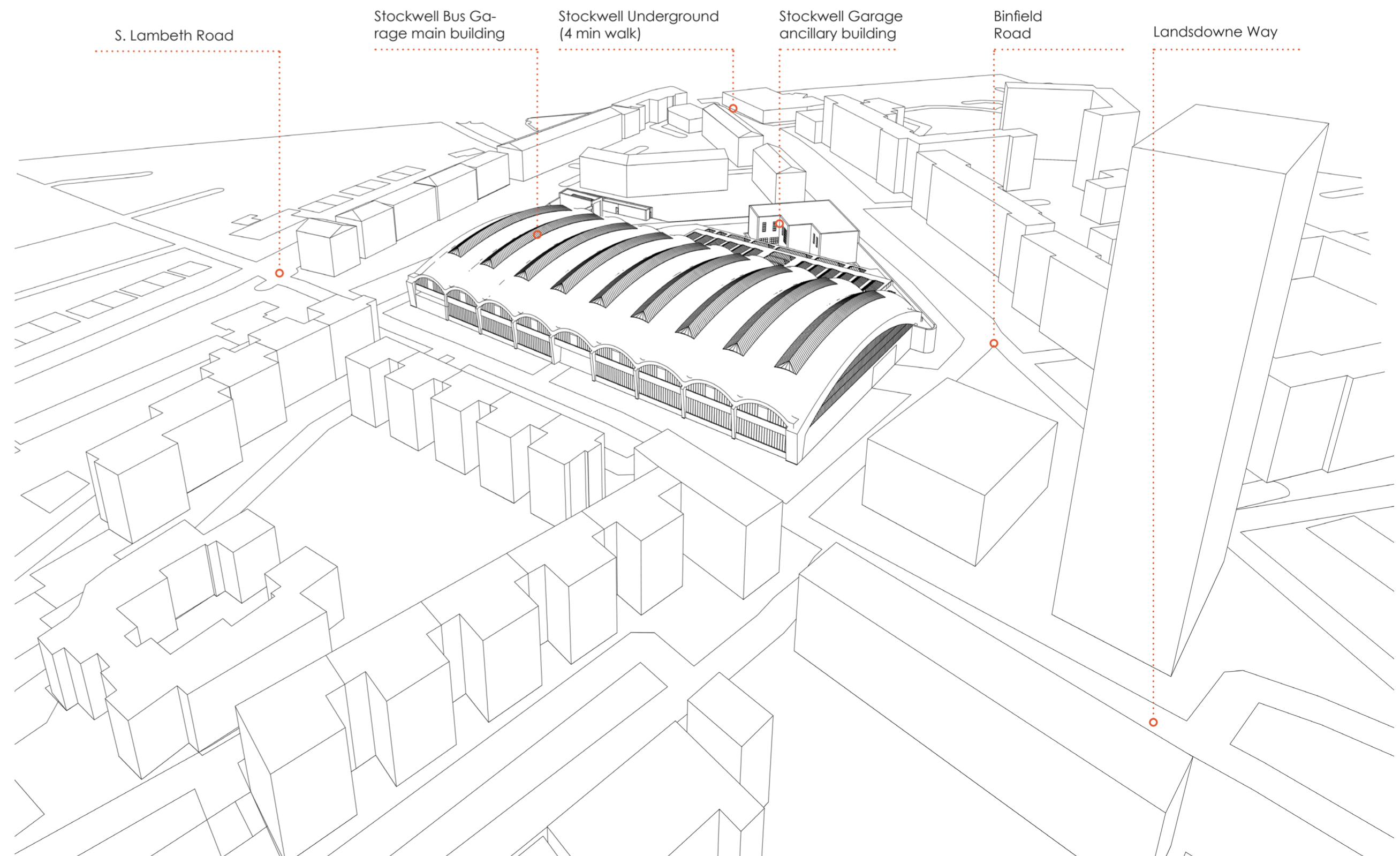
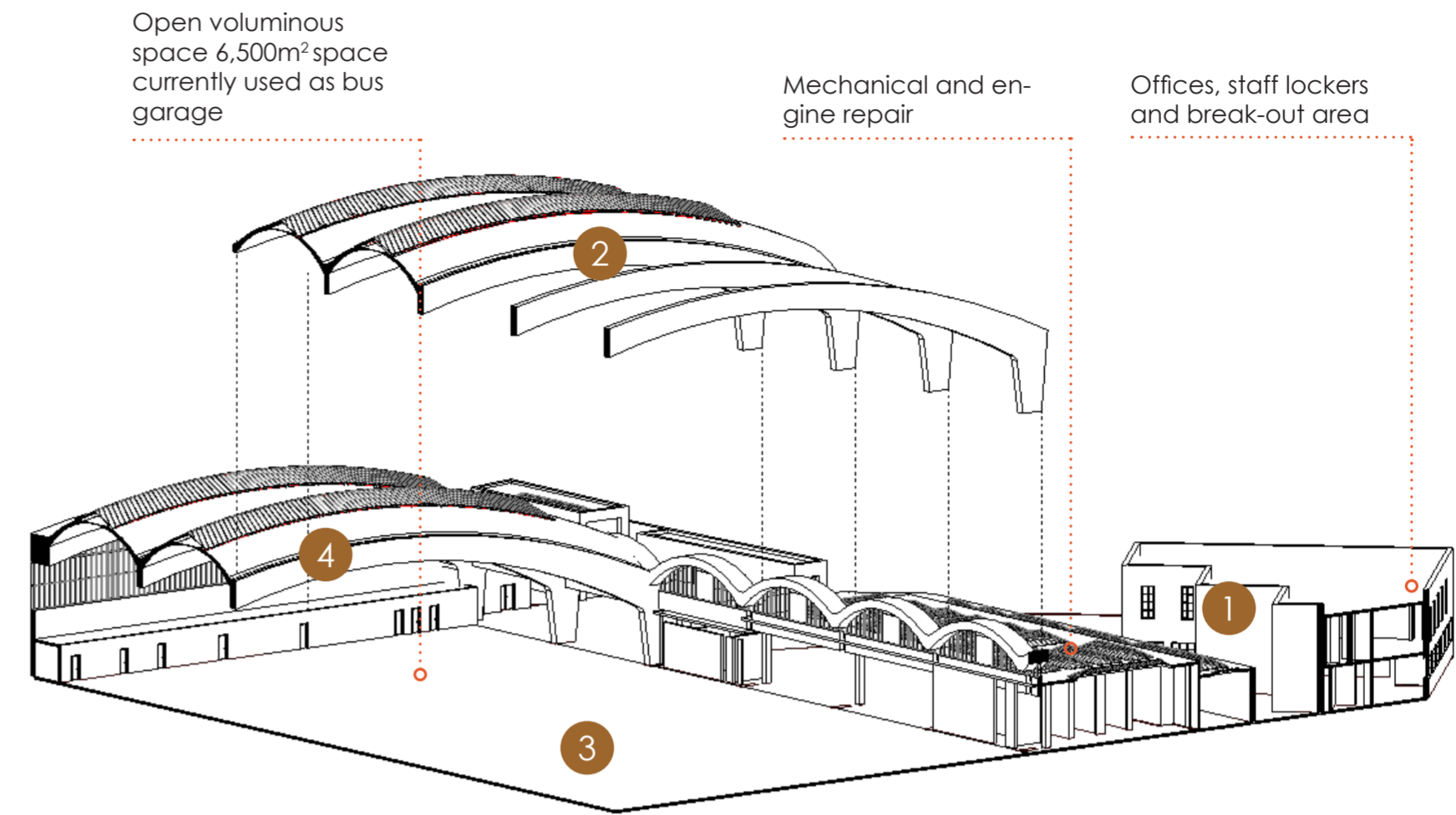
3 Cast Concrete

The concrete flooring extends from the site externally, making a seamless transition from outdoor to indoor. Tyre patterns from buses moving in and out of the space tell the story of the history of the building.



4 Pre-cast concrete

The use of pre-cast concrete is a typical feature of the Brutalist style of the building, and further, telling of its utilitarian style. It is a classic feature of the building, and all efforts will be maintained to celebrate it as a key material



04 TARGETING YOUTH CULTURE - COLOUR, SUSTAINABILITY, FASHION

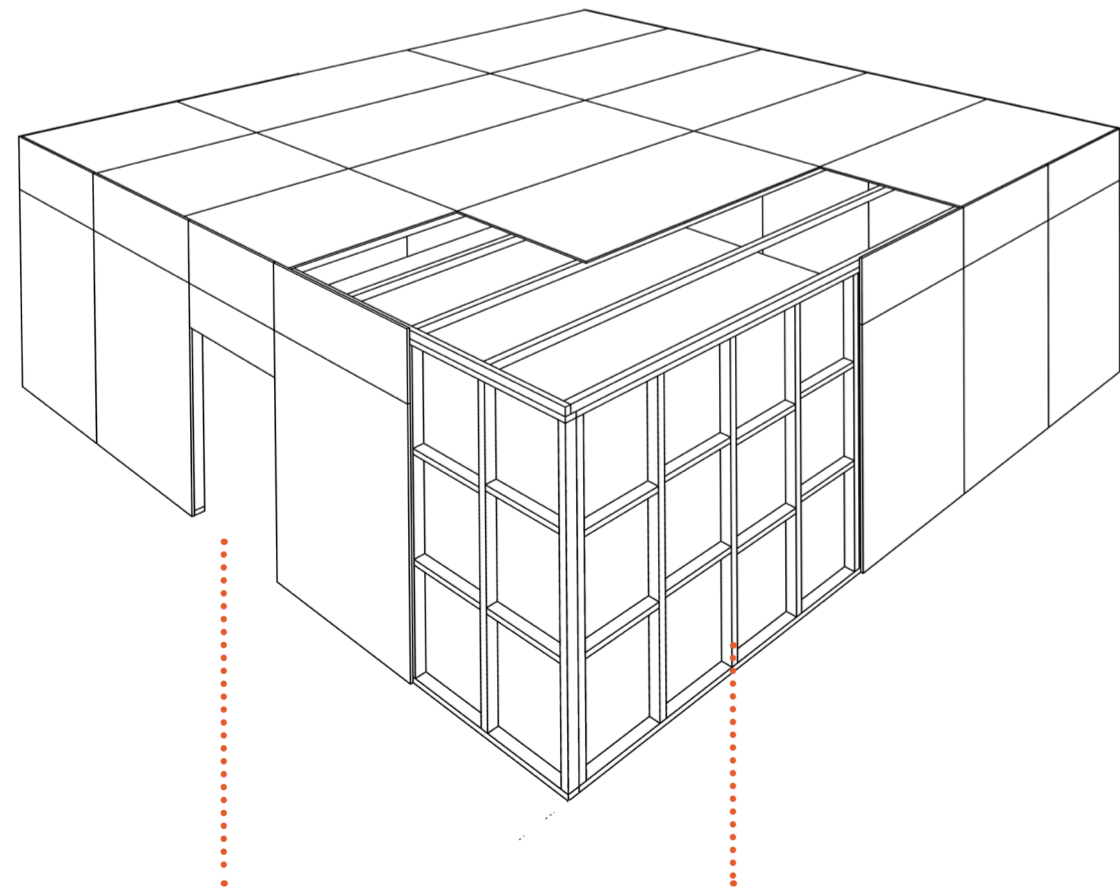
The success of the Stockwell Skills Hub will be reliant on determining relevancy and familiarity to the target audience, which is key to ensuring the space's dual purpose as an educational facility and one that fosters wellbeing. After significant research, the below images have been taken as inspiration for the project.



04.1 Unit structure and materials

ZIIN, a furniture brand showroom designed by Atelier tao+c, in Beijing, has been transformed from an old textile warehouse built in the '60s. Two intersecting polygonal shapes (as seen in plan) were placed within the buildings, and tilted 45 degrees. Though the structure is supported by a total of 18 columns, it sits within the walls of the original building, with no points of contact to its envelope, making the design appear as a **'structure within a structure'**. The internal structure is only supported by 18 columns, easily missable by their narrowness and colour, making them blend into the design.

The **'structure within a structure'** proposes a unique approach to ensuring the longevity of the beautiful and iconic Stockwell Bus Garage. Proposing individual 'units' for the spatial requirements of the college (e.g. classrooms, meeting rooms, workshops) will ensure that the **original design of the garage will not be disrupted** by structural engineering works **at all**. This particular design will ensure that in the future, **when the building is proposed for a new use**, the college's units can be easily dismantled and removed from the site, **leaving the building envelope in its completely original form** for future generations to enjoy.



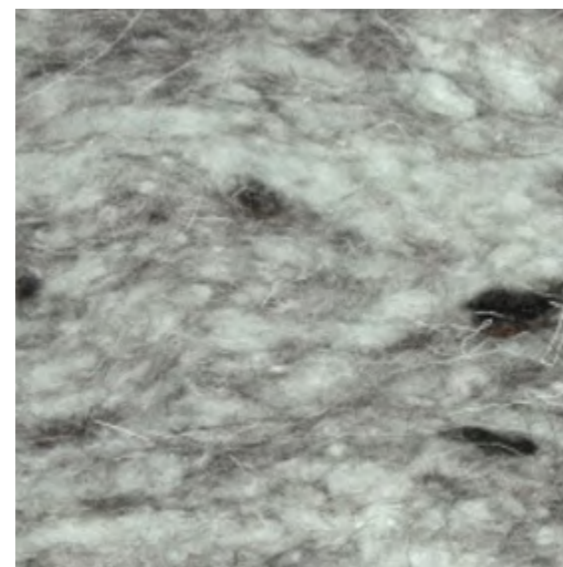
Structure sits directly on existing concrete to create 'structure within a structure'
Units are placed directly onto existing building concrete, and **require no embedded footing**, minimising the impact to the core elements of the original building. Further, this design ensures that there are no thresholds or stairs required to any of the spaces, ensuring complete accessibility.

Minimalist design
Units will be designed using a simple timber frame with insulation and OSB cladding. Units use the bare minimum in materials, to ensure **minimal carbon footprint**, and structures can be easily assembled on-site and easily dismantled.

SMARTply OSB Board Cladding
From FSC® certified forests in Ireland
Manufactured using recycled wood shavings
Zero-VOC solution, low embodied CO₂, 40% making it compliant with building standards. Zero-ignition is water based and non-toxic.
No added formaldehyde



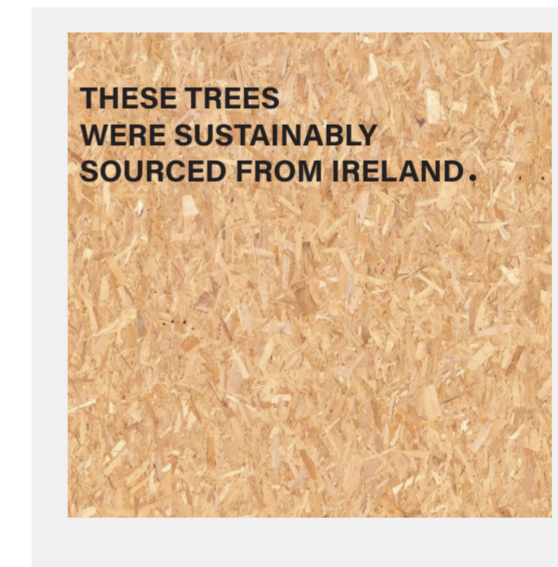
Thermafleece from Cellic Sustainable
100% recyclable source
Manufactured in UK
Thermal conductivity: 0.035 W/mK



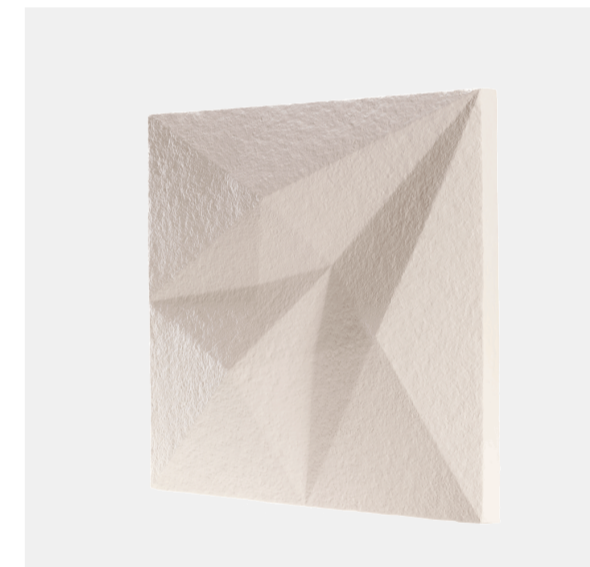
04.2 Strategies to maximise low embodied carbon and high sustainability of design



Units that can be recycled or sold on
The concept proposes the use of sustainable materials in almost every aspect, but also proposes the use of materials that can be infinitely reused, choosing to purchase these on the second-hand market, such as scaffolding.



Materials that educate
Virgil Abloh inspired bold text across materials to specify sustainable elements act as an education tool for students to teach about sustainability in a passive manner



Minimal material volume, but materials that excite
To reduce the total volume of material used for the project, and thus the carbon footprint, the concept will employ a low material volume strategy, and minimal style, using high impact materials e.g. this Mogu mycelium acoustic panel.



Overhead, exposed services
Services will reach each unit respectively from overhead conduits running along the arches of the garage, allowing units to remain entirely free of ground services, and those passing through walls. Units will remain easily demountable and moveable without the need to manage services when moving or dismantling units.



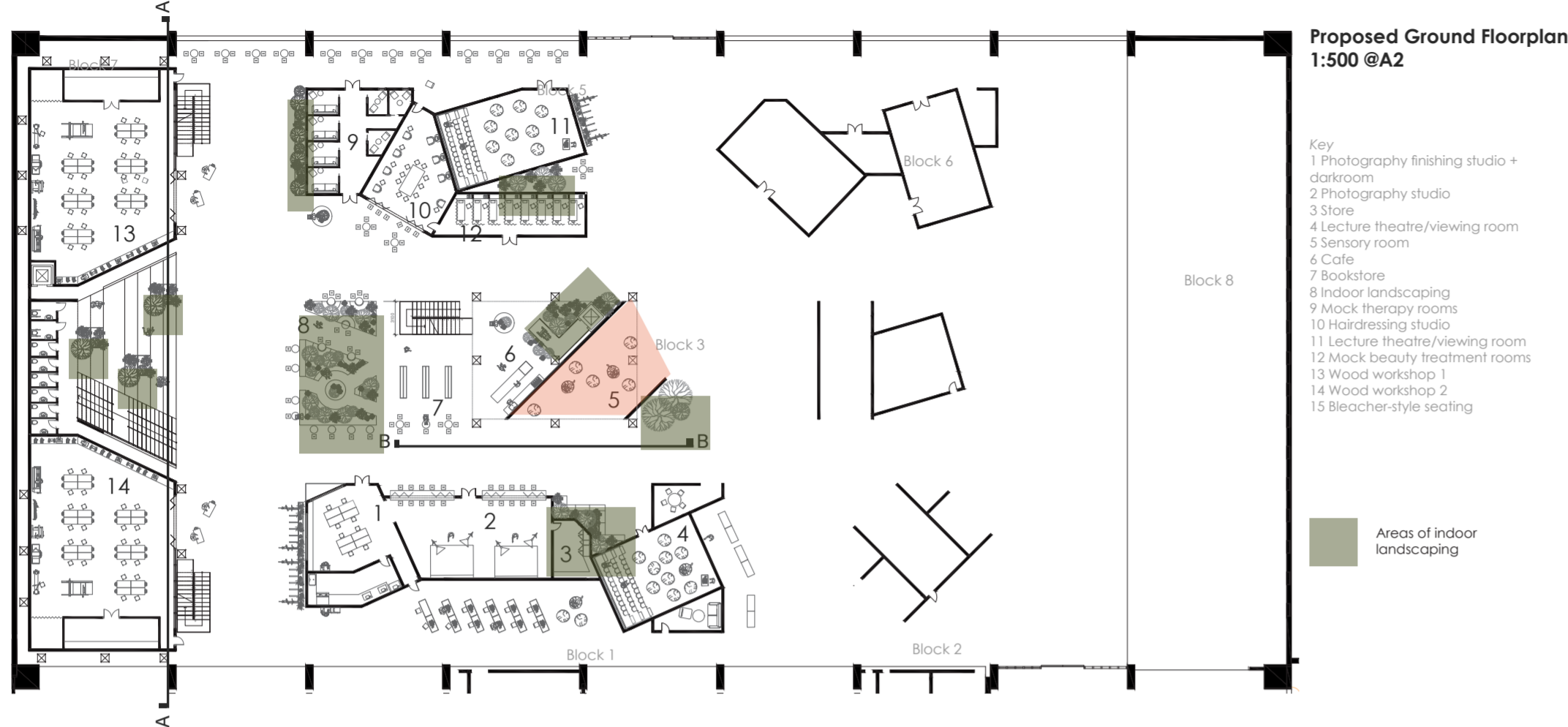
Polished concrete floor
No additional flooring will be added to the building except for at the first storey. Instead, the existing concrete will be polished to maintain this main feature of the building, and reduce the requirement for additional materials, minimising the building's overall environmental footprint.



Easily disassembled furnishings
Demountable, light units, allow for easy disassembly so that spaces can be rearranged in an instant to suit flexible needs.

05 THE DESIGN

05.1 Design backed by research



05.1.1 Biophilic Design
 Indoor 'landscaping' proposes a biophilic element to the space, bringing the outdoors, indoors. The concept of biophilic design has been purposefully included within the space to have maximum impact on the space's capacity to perform as a mental and physical wellbeing tool, with landscaped areas providing students with relaxation, and socialisation zones, and providing space for individual and group study.

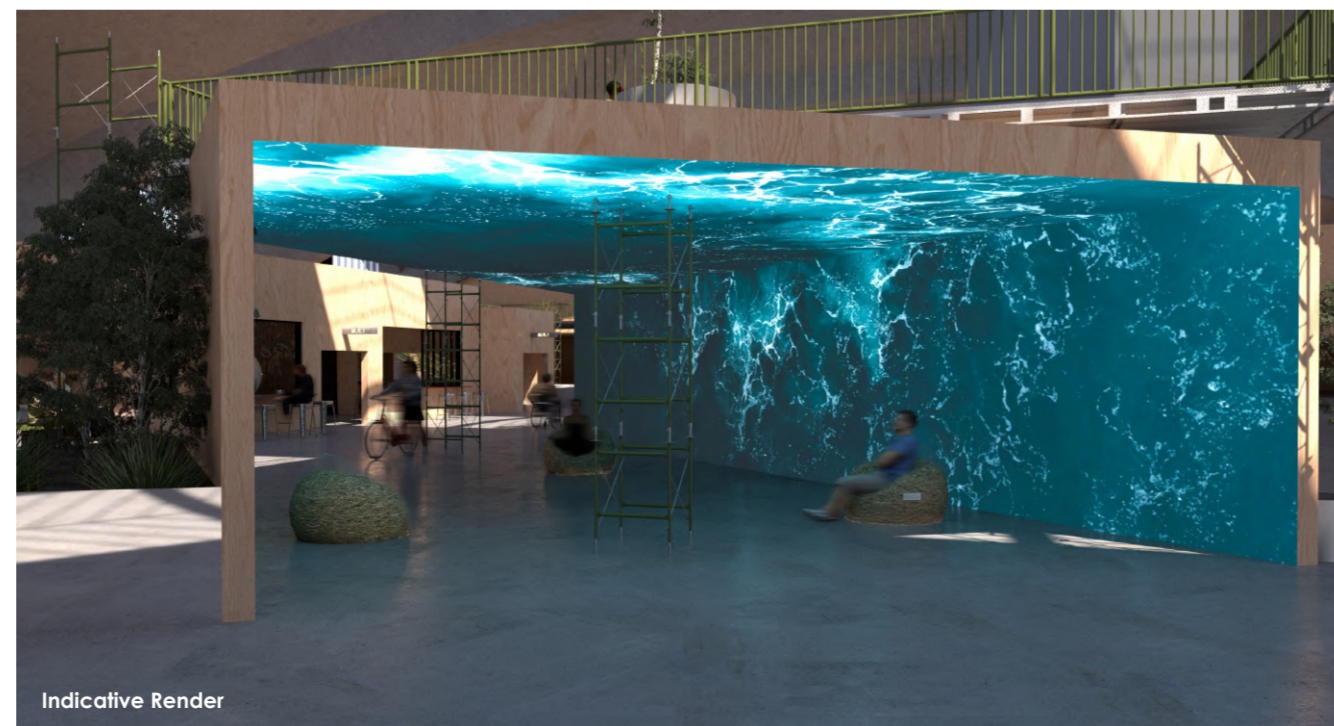
Plants have been chosen best suited to the Garage space, and are reflective of the design concept, with colours such as silver, and bright, striking colours, preferred (examples below). A landscape architect must be consulted however, to ensure best placement for their growth. As a strategy, plants should be maintained by a regular gardener on-site. They should be grown to a certain height, and then replanted/donated accordingly, to be replaced by saplings, this way, ensuring continuous turnover of soil, and the supply of healthy plants to the public.



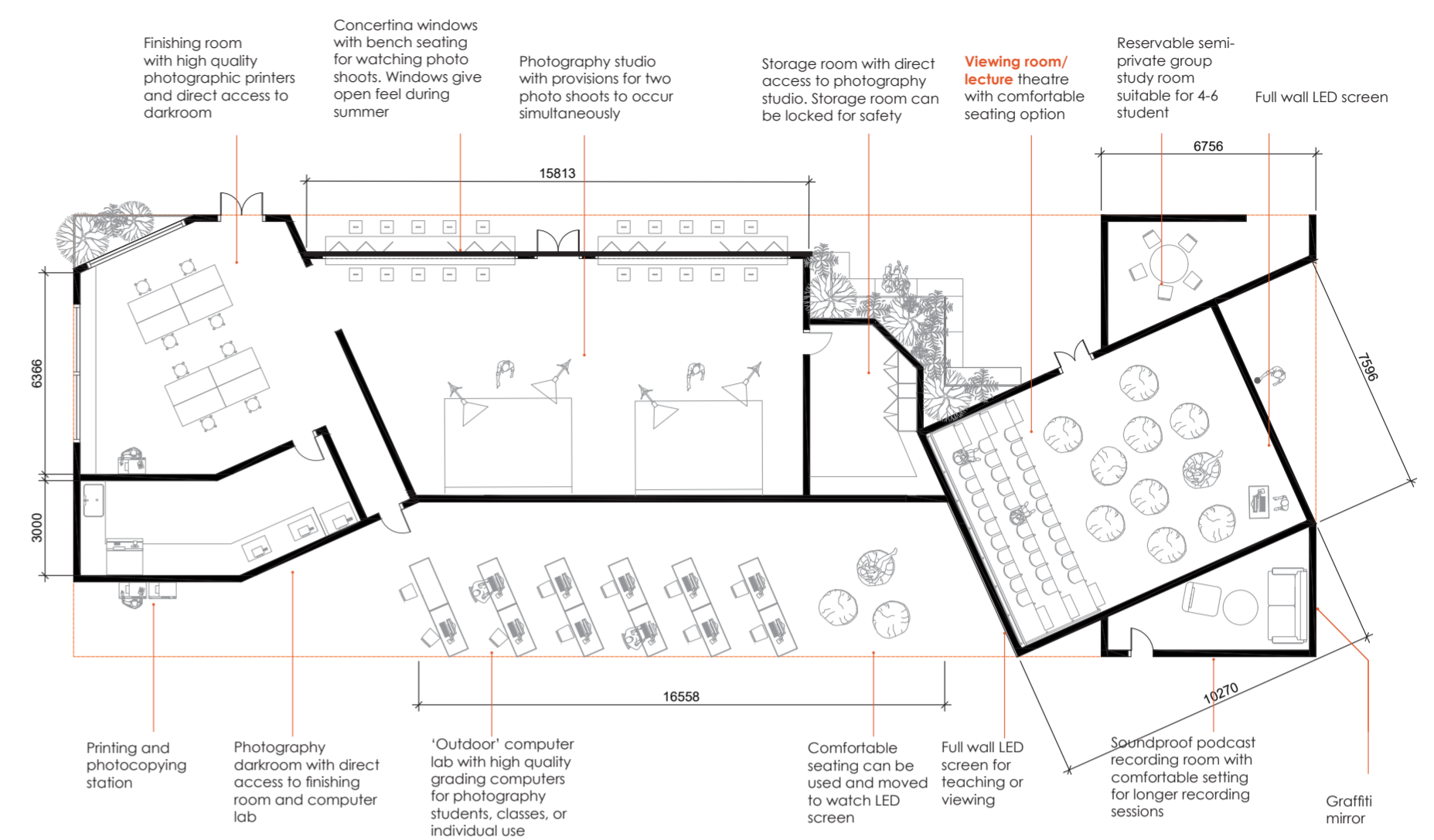
05.1.2 Immersive LED Sensory Room
 An open-ended sensory room (highlighted orange in above plan) provides LED video covering both the walls and ceiling of the space. Sensory rooms have several proven benefits, including providing stimulation, improved focus, cognitive development, and a calming effect. This space is an important addition to the college, and provides a safe space where students can simply relax, or go to when feeling overwhelmed.

The space has been designed to provide 24 hour video (to be designed by students). As the room is open, there will be no accompanying sound over speakers, however accompanying music will be provided to students through a QR code (see sample to right), which can be scanned within the space, with students able to listen through their own headphones.

- Benefits of immersive LED Sensory Room include:
- Stimulation - Heightens feelings of awareness and wellbeing, providing sensory experience in a safe environment
 - Improved Focus - Sensory rooms can teach to cope in situations where concentration is required, such as a **classroom** or **workplace**.
 - Calming Effect - Provides a calming environment where an overstimulated person can regain their emotions using a sensory tool
 - Cognitive Development - Encourages learning through exploration, curiosity and creativity, building nerve connections in the brain.



05.2 Re-imagining the typical lecture theatre and classroom (Block 1)

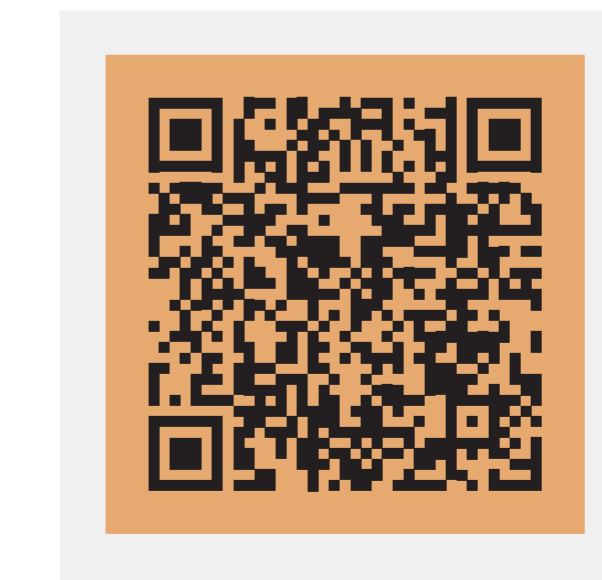


Block 1 Floorplan 1:150 @ A2



Design prioritises youth values and comfort, with elements such as traditional classroom desk and chairs replaced with beanbags and bleacher-style seating. Full-wall LED screens take the place of traditional roll-down projector screens or whiteboards, and casual seating promotes connection between students, student work, and comfort, adopting cafe-style bench seating, and biophilic elements of design.

At the same time, every aspect of sustainable design has been considered. Timber has been sourced from certified FSC UK forests, adopting both a renewable material, and on that has a low embodied carbon content. Acoustic panelling made from eelgrass lines the ceiling, lighting is strictly LED throughout, and seating has been either 100% recycled, is 100% recyclable, or sourced as standard products which can easily be disassembled and parts reused, such as standard bleacher seating (left).



QR code
 For sample continuous soundtrack and video. **PLEASE SCAN WITH PHONE.** (https://www.youtube.com/watch?v=lCmWxaTm88&ab_channel=GoodForYou).

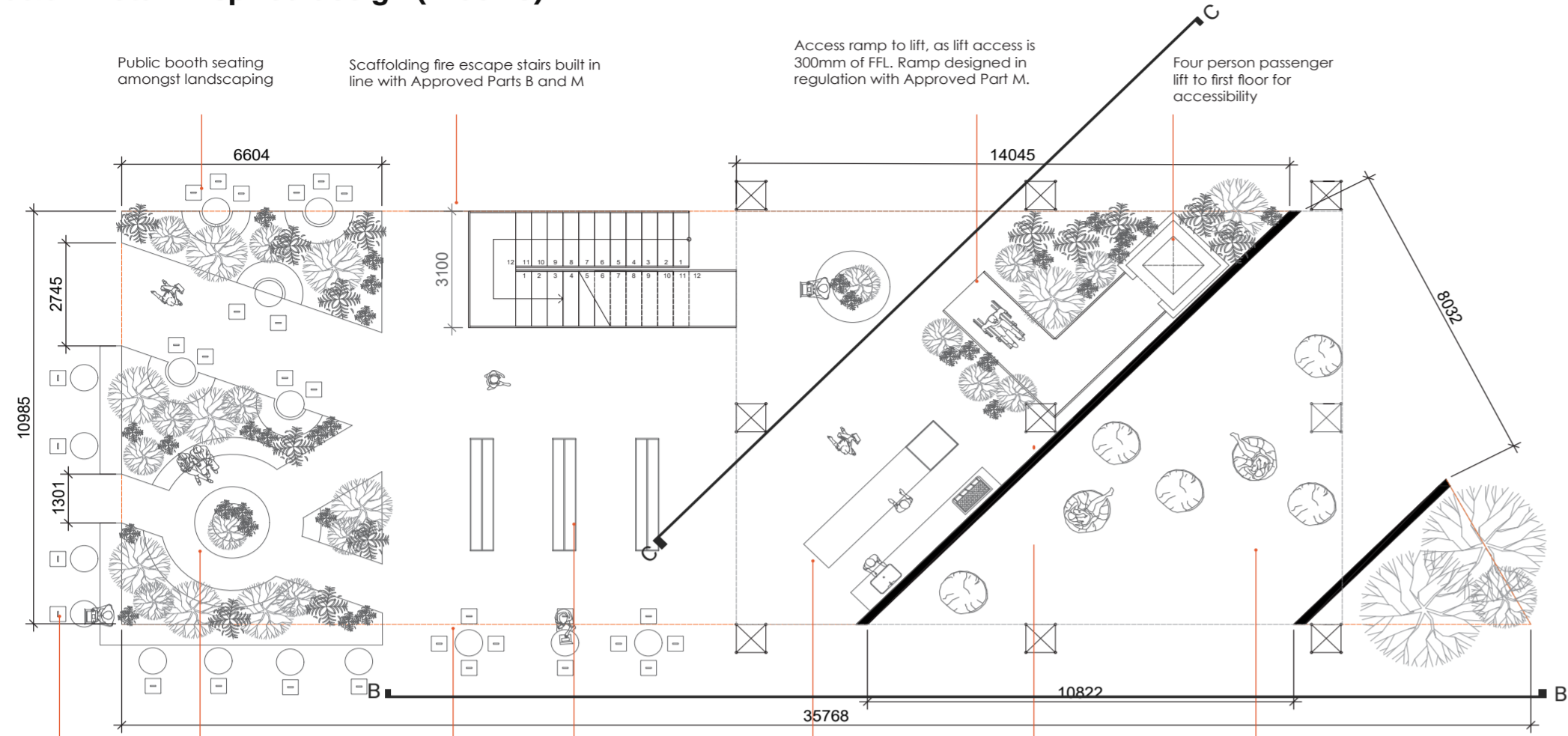


1 Hay-filled beanbags
 Concept furniture researching alternative, sustainable materials by Frederic Goutorbe and Nathalie Duval. To be made with straw and recycled polypropylene. Offers more relaxed feel to room, and comfortable seating option to students



2 SOUND Acoustic Mats FR
 Made from eelgrass
 100% recyclable
 Subtle wind and sea scent for biophilic purposes

05.3 Retail-inspired design (Block 3)



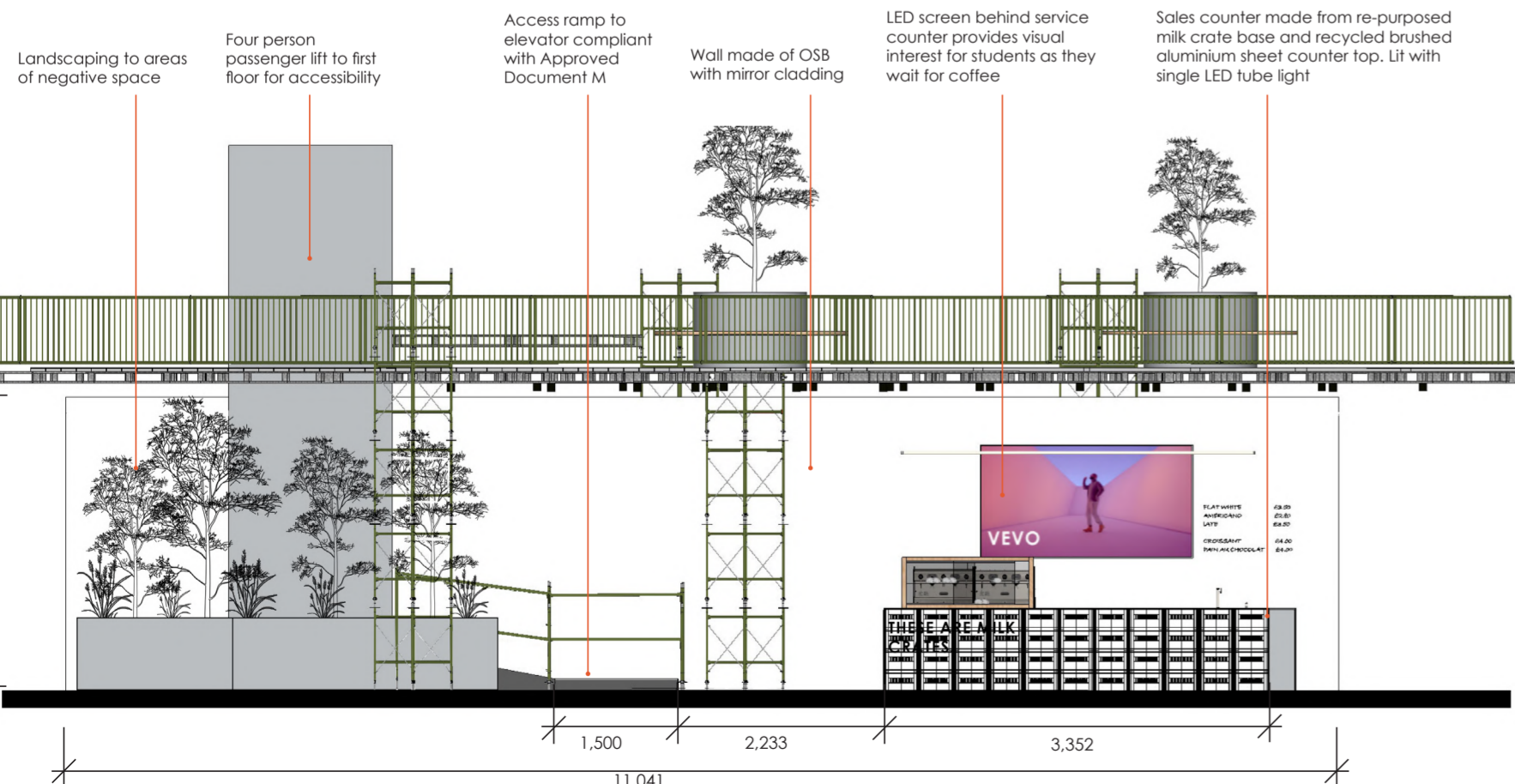
Block 3 Floorplan
1:150 @ A2



Retail-style design has been adopted through purposeful interventions, atypical of educational facility design, drawing inspiration from retail design. Posters (examples below), temporary scaffolding, and LED screens for example, are reflective of a brand strategy rather than an educational facility, and consequently prompts a feeling of ease, casualness, and comfort in the intended user.

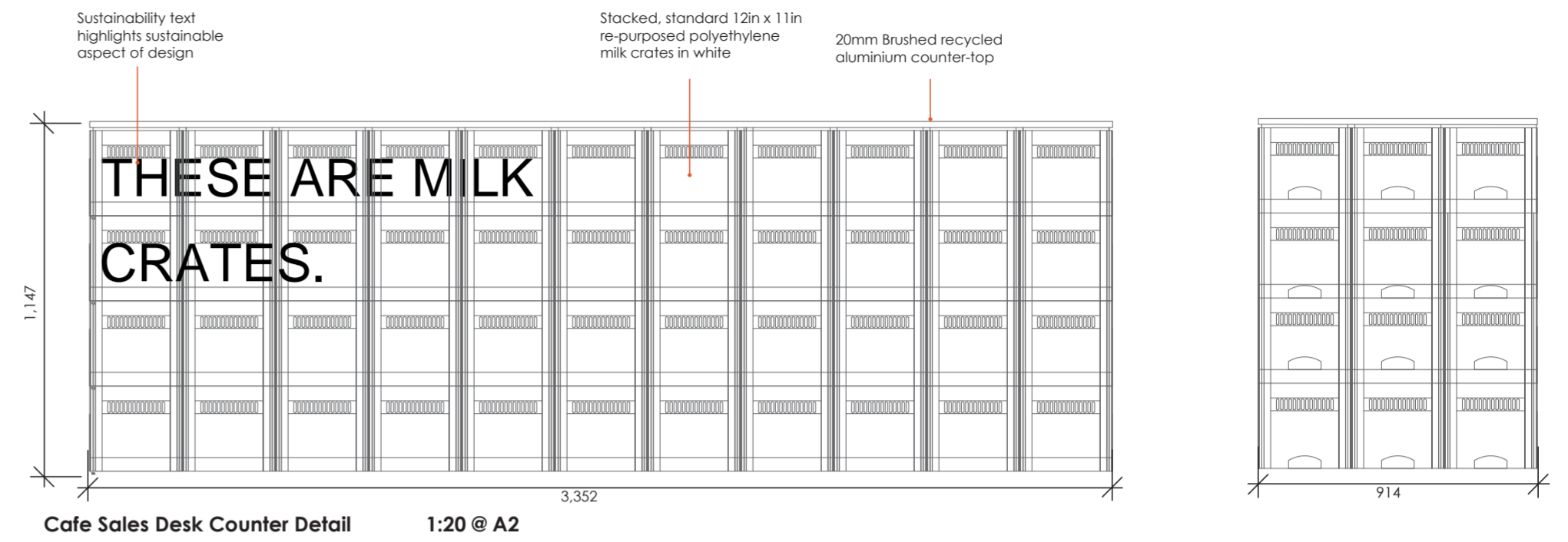
Structure has been designed to be completely temporary, with scaffolding used in place of footed columns, ensuring that the building's original concrete slab remains 100% intact, and ready for the building's next user after its completion of use as an education facility. In line with this, 'temporary' lift systems have been sourced from RECO Lift Solutions, allowing for this concept to be suited to those of all abilities, ensuring the concept's practical applicability to ambulant users of the space.

The interior's temporary nature and ability to be easily dismantled, will ensure not only ensure its continued enjoyment by many generations to come, but also the circularity of the project.



Section C-C
1:50 @ A2

05.3 Relevant, contemporary and innovative materials and furniture (Block 3)

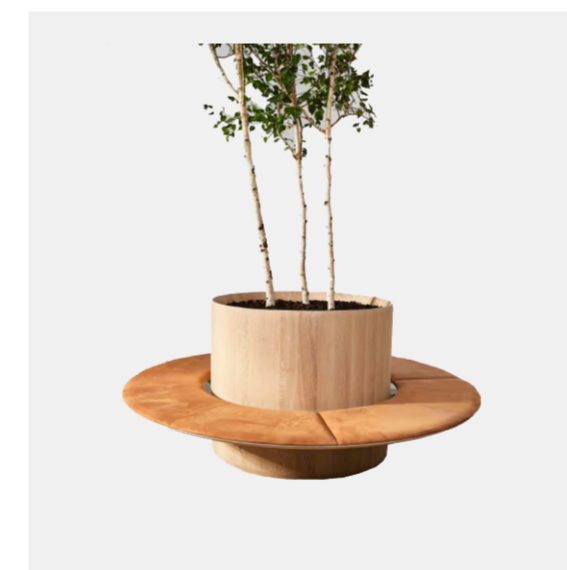


Cafe Sales Desk Counter Detail
1:20 @ A2



Determining relevancy to the target audience of students within the Lambeth area aged between 16 and 24, is key to the success of the design in ensuring the spaces' dual purpose as an educational facility and one that fosters wellbeing. Innovative and contemporary materials and furniture choices define the design, aligning lifestyle values of the target user group to the space, and furthering the concept of familiarity. In this instance, steel, timber, and patterned recycled plastic fall into this category (examples below). This purposeful and considerate approach further ensures the space's success by offering a unique design approach that is non-conformant to traditional educational facility design.

The use of simple and obvious objects such as milk crates, alongside more innovative sustainable materials highlights the behaviour of recycling, and encourages students to see sustainability as a simple and easy to implement behaviour in everyday life. Drawing from the work of Virgil Abloh, a designer who's style was defined specifically by the use of graphic vocabulary, pioneered this mode of communication, which has been adopted in The Hub's design with obvious and bold call-outs to attract attention, and at times, humourlessly state the obvious.



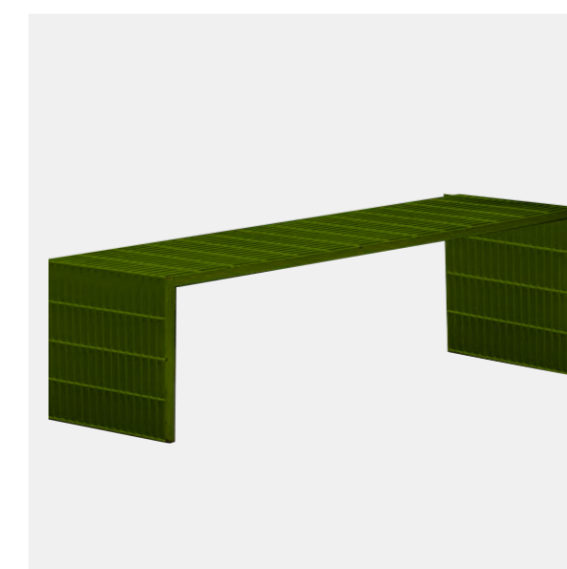
OVO Planter
Designed by Foster and Partners, and made in the UK from UK sourced oak. Piece can be made bespoke to suit project needs.



Brushed Steel Planters
With wheels so space can be cleared for additional uses e.g. performances/events



TOLIX 450mm stool in glossy varnish
Hand-made in France from recycled steel. Metal is recyclable.



Bespoke Benches
Powder coated bespoke steel lattice benches in RAL 6025.



Smile Plastics Bespoke Tabletops
HDPE tabletops made from recycled chopping boards and plastic packaging in 20mm thickness. Product has no VOC off-gassing and company offers a buy-back scheme at end of life.



Tiptoe Table Legs
Graphite black steel table legs, made in Europe (reducing travel mileage). Table legs are detachable, allowing them to be reused, recycled, and multi-purpose. 750mm.