





03

Vision, Brief and Design
Concept

03.01 The Vision & Brief

Vision

Capital City College Group have a vision to transform its Tottenham campus and provide state-of-the-art workshop spaces, for its vocational courses. The vision is to go beyond a 'one-size-fits-all' model. The design of the centre has been distilled through a series of college engagement meetings.

This is a place for learning and innovation on the building will give a nod to the types of course it accommodates.

Brief

The proposed Construction and Engineering centre will include;

- Brick Laying
- Electrical Installations
- Plumbing & Heating Installations
- Environmental Technologies
- Engineering Labs
- Robotics Lab
- Supported GP and IT Classrooms

Key Design Principles

At the start of the design process, several key design objectives were established;

Efficiency

The scheme is to adopt a rigorous and uniform structural grid with the upper floorplates adopting a rectilinear plan form. The grid incorporates a central spine that links cores which are set at each end of the floorplate. This central spine allows efficient circulation as well as providing a primary distribution route for services between cores.

Flexibility

The rigorous grid described in the previous design principles with cores at each end of a rational floorplate creates a 'flexible container'. This allows each floor to be subdivided in multiple ways within this overarching grid. Multiple smaller teaching rooms to medium size or large workshops are possible.

Independence

The new 'Warehouse for Learning' is being slotted into a tight site between the existing campus Tower and the site of the former Building Block. The new building is being designed to be independent of the Tower.

Orientation

One of the consequences of locating a new building within this constrained site is that the orientation of the building is fixed. The result of this, and the decision to locate the cores at each end of the building, is that the main exposed elevation is West facing.

A West facing facade is subject to afternoon sun and potentially significant heat gains and therefore the design of the facade needs will be driven environmental consideration.

Community

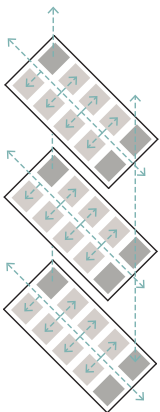
With such a compact and efficient plan, it is important that there is space for students to spill out into as well opportunity for project based learning. This flexible space if planned properly can be a fantastic opportunity for creating a sense of belonging and community for all.

Accessibility Statement

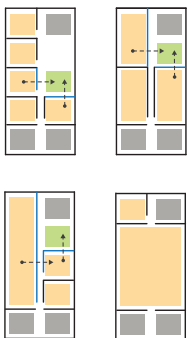
The building has been designed to meet the requirements of the Equalities Act 2010 and Approved Document M. The internal environment is designed in consideration of BS8300 and Building Regulations Part M.

Entrances into the building have a level threshold and the building has been designed to be simple to navigate, with clear routes and easily identifiable entrances. All internal staircases are designed in accordance with the recommendations of Building Regulations Part K and Part M. Lifts are designed in accordance with BS8300, to provide access to all levels of the building including the plant level.

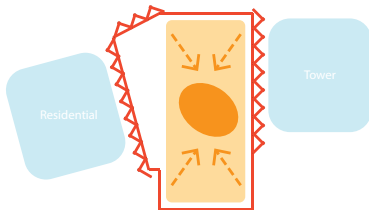
General circulation areas have adequate width and manoeuvring spaces. All internal doors giving access to rooms have clear effective widths of at least 800mm. The Toilet facilities have been spread through the building to allow ease of access for all building users.



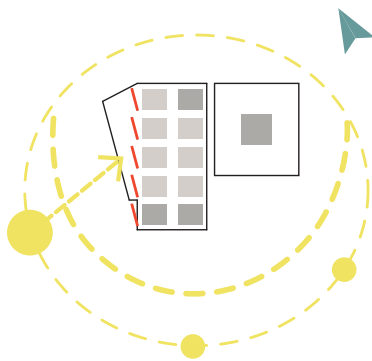
Efficiency



Flexibility



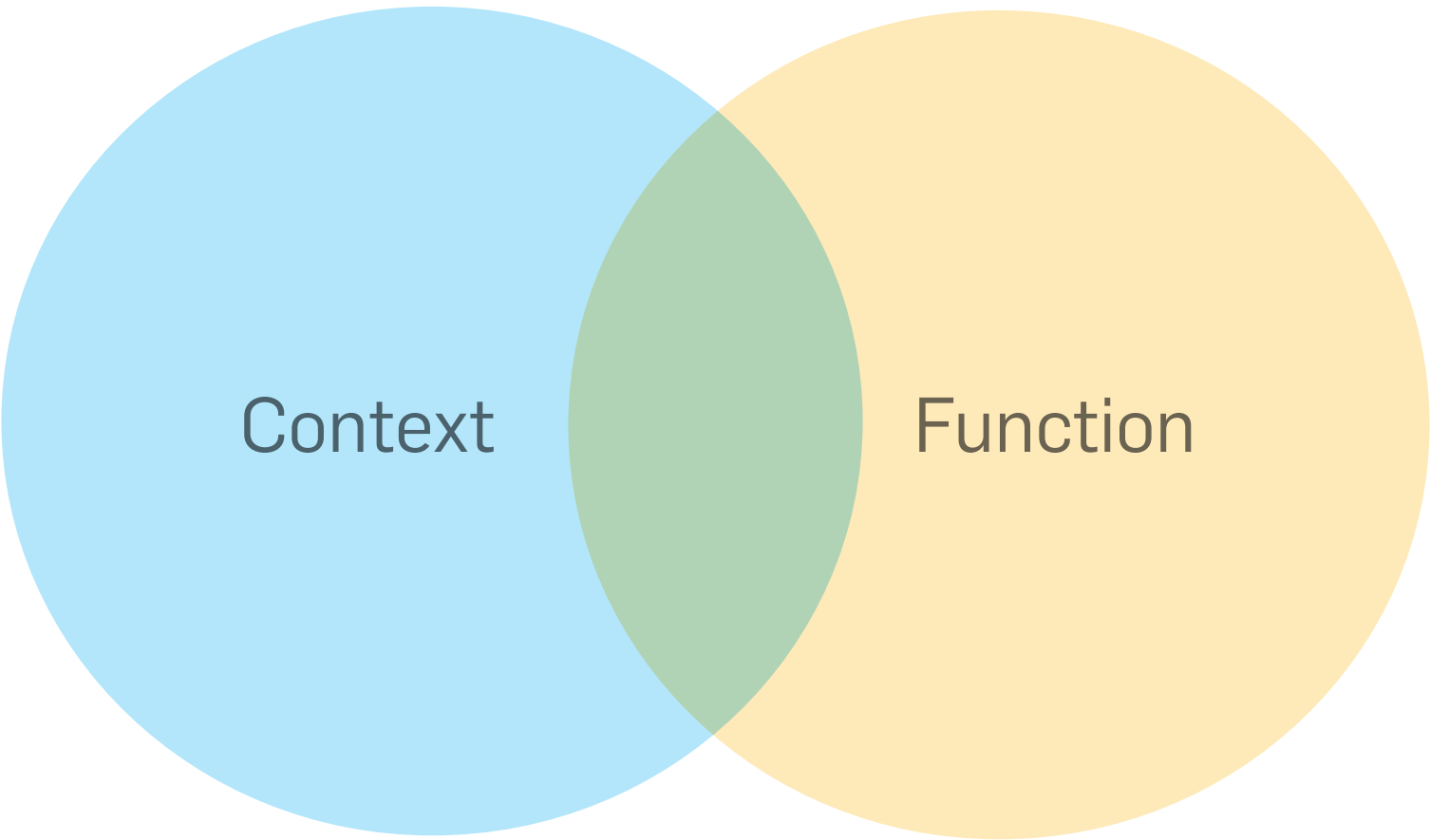
Independence



Orientation

03.02 Respecting Context, Expressing Function

The site sits on the edge between two Conservation areas, Tottenham Green Conservation Area and Clyde Circus Conservation Area and therefore it is key that new Construction and Engineering Centre respects the context, but whilst also expressing its function.

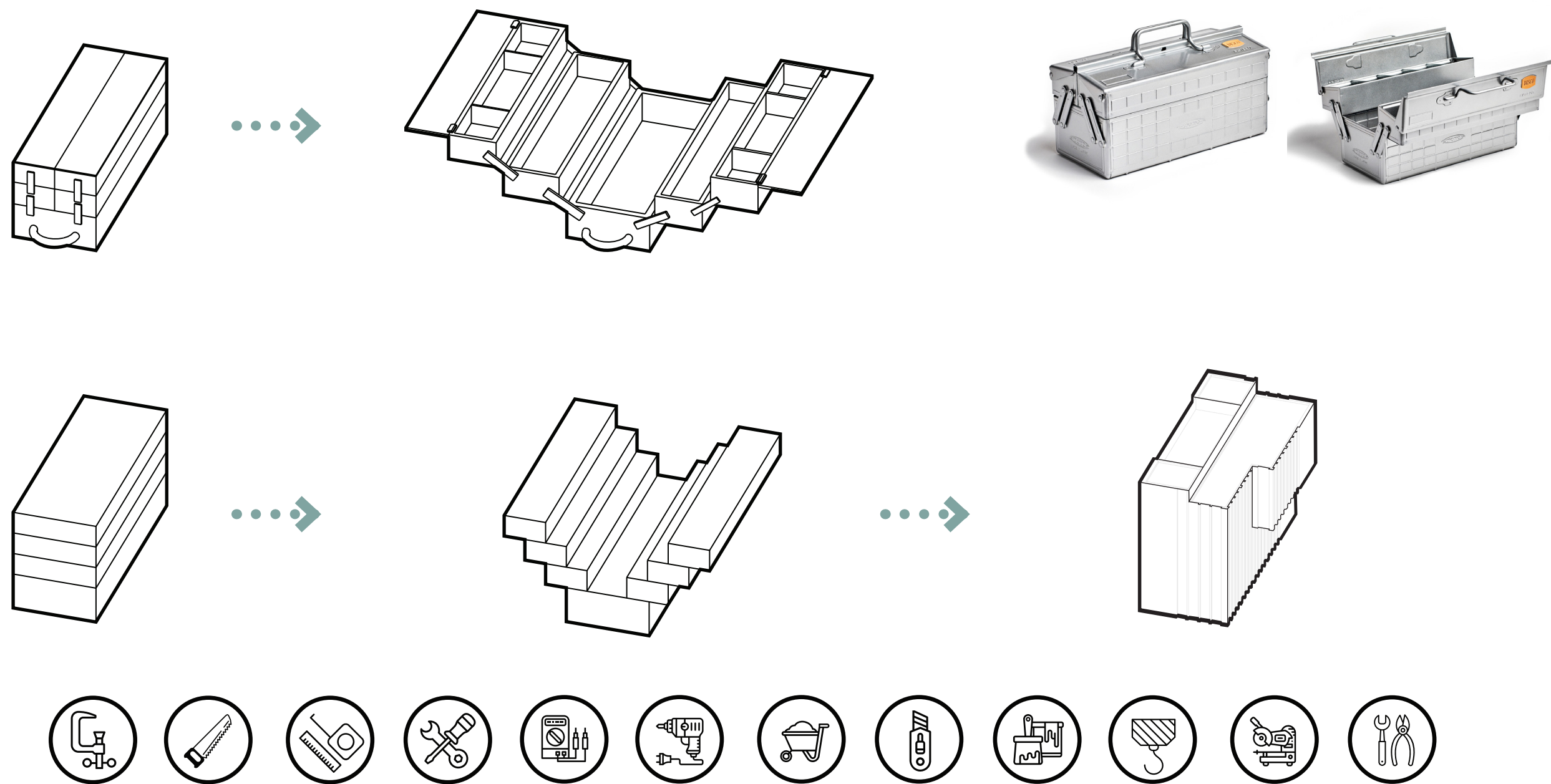


03.03 The Concept

Container of Making: Maximising space, minimising footprint

The Construction and Engineering Centre can be thought of as a toolbox. It has a modest footprint but it opens up and out and extends beyond on the upper levels with a cantilever to maximise the buildings space.

Like a toolbox, the building can have many compartments to house the different Construction and Engineering facilities the college need for current and future students.

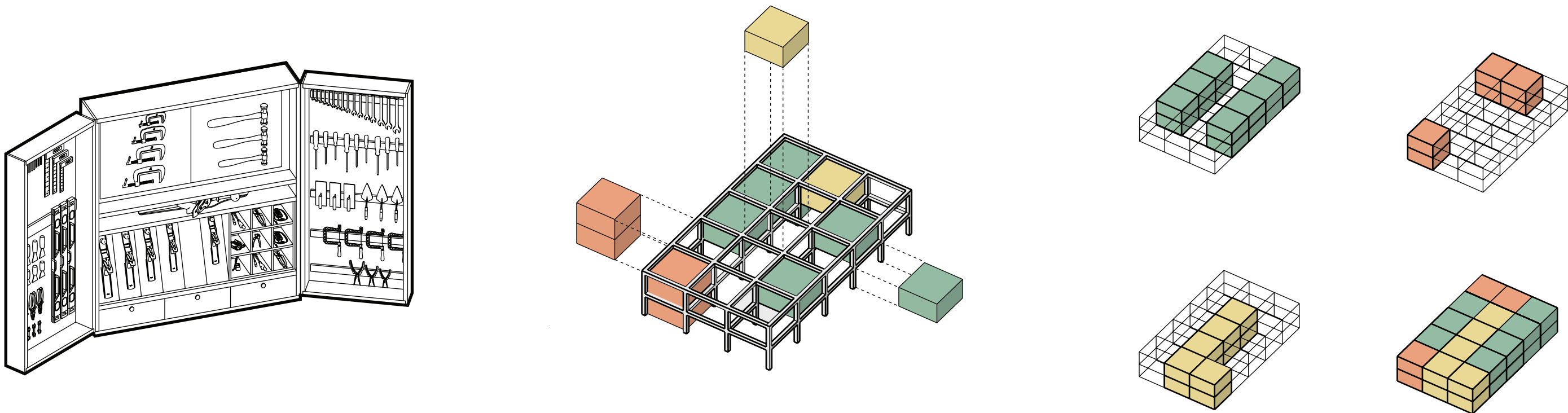


03.04 The Concept

Container of Making: A flexible framework

In development with the structural engineer this container for making can sit on a standardised grid that allows for flexibility and adaptability of an array of different teaching pedagogy. These dynamic teaching and workshop spaces can be set up for all to see.

This flexibility and adaptability can support a long term sustainable building.



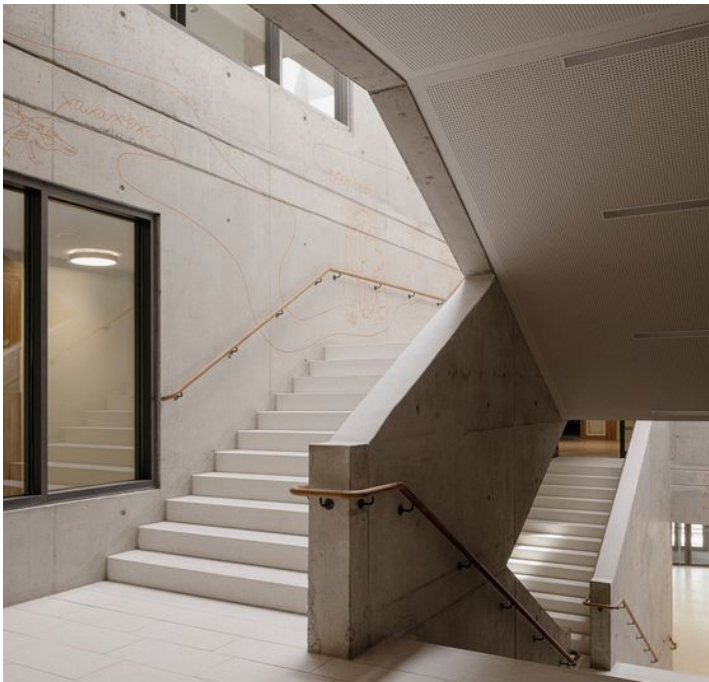
03.05 Concept To Refine The Facade Iterations

The photos below show the different types of functions that will be accommodated in the new building.

On a constrained site several functional types expressed outwards could make the facade look extremely busy, therefore we sought to simplify the functions into groups. The exploded views illustrate the functional group locations within the building.



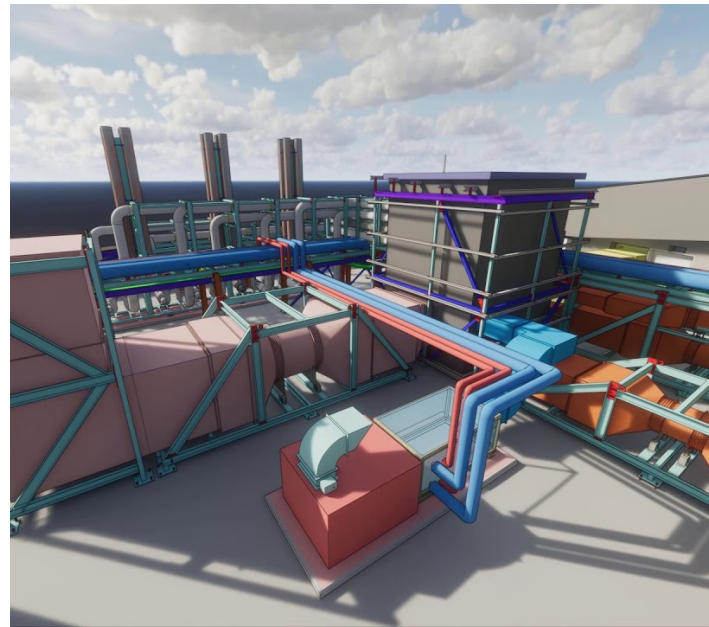
Workshops



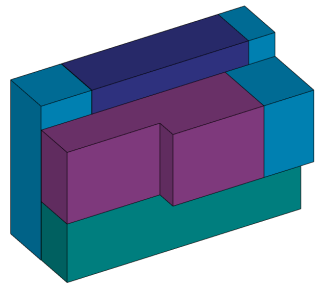
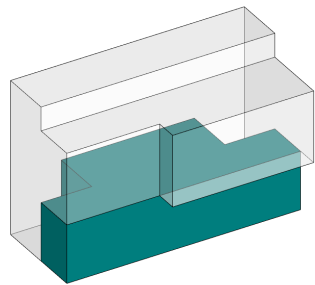
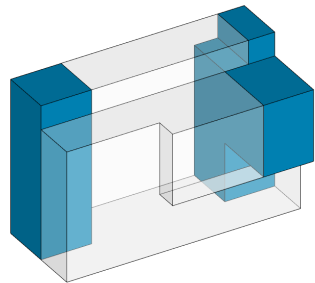
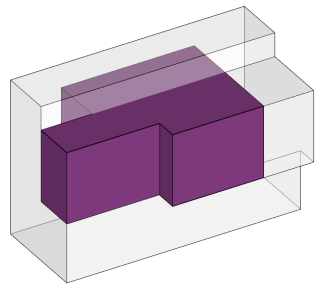
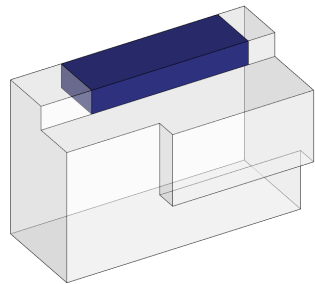
Stair Cores



Teaching Classrooms



Plant



- Functions Key
- Workshops
 - Teaching Classrooms
 - Stair Cores
 - Plant

03.06 Concept To Refine The Functions through the Facade Iterations

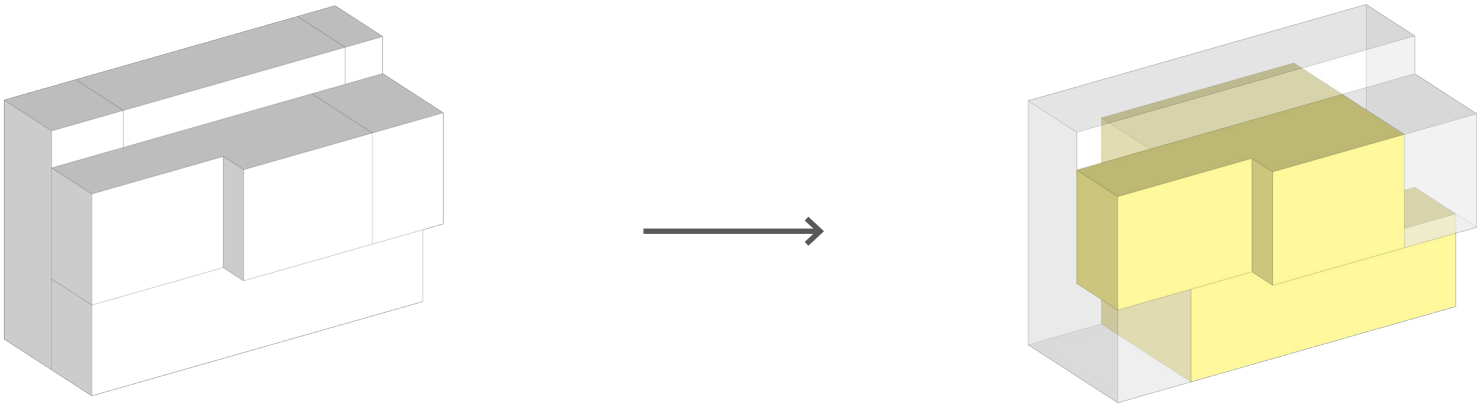
The diagrammatic sequence below looks at the idea of expressing the facade by 'fixed and flexible' spaces.

Functions Key

- Workshops
- Teaching Classrooms
- Stair Cores
- Plant
- Flexible
- Fixed

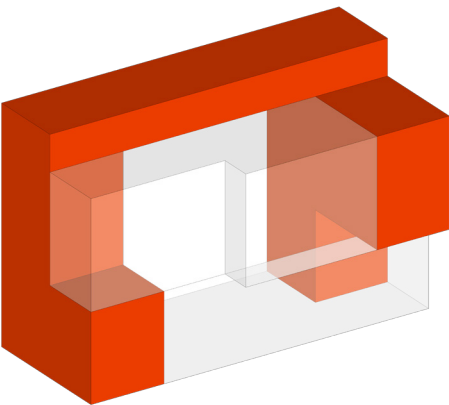
Plan Key

- Fixed
- Flexible

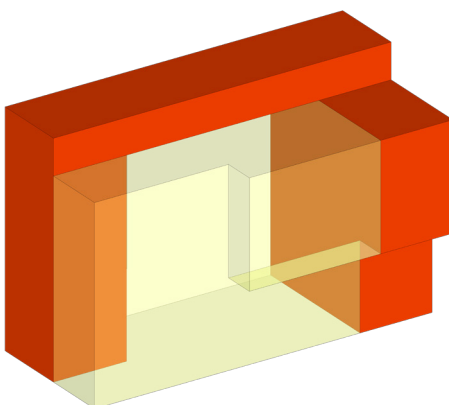


Our starting point, the building block with its functions outlined

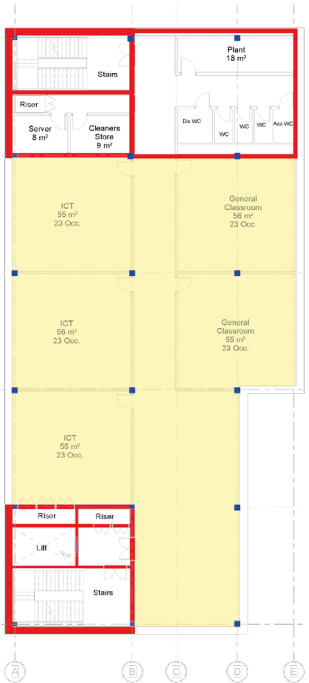
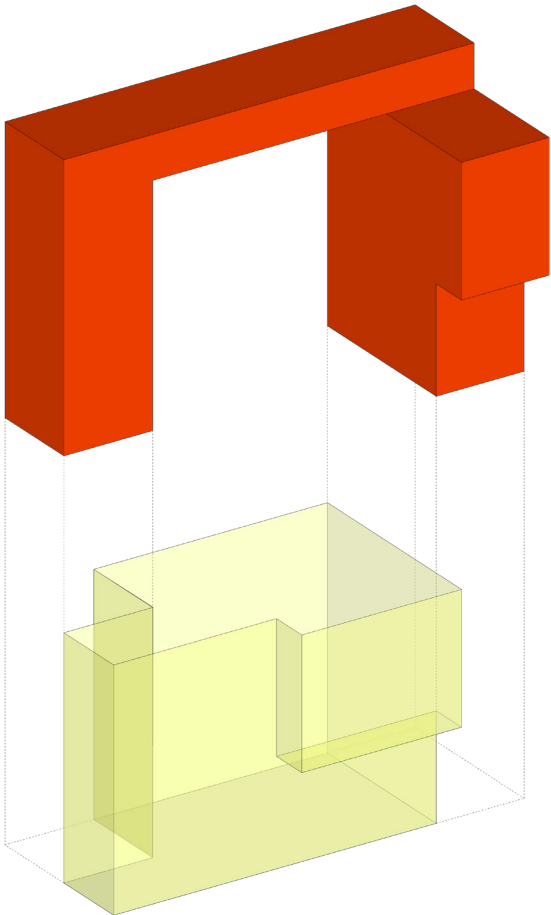
This image identifies the spaces that are flexible, these represented by the teaching and all the workshop areas.



This image identifies what is fixed, the staircore, toilets and plant area.



Refining it even further. We see that the flexible spaces do not stack up neatly, therefore we make an adjustment and include the entrance area as it deserves to be expressed differently to the staircore, plant and toilet areas. The workshop stores are included into the fixed spaces.



By creating this clear distinction for the façade 'fixed and flexible' spaces we have sought to rationalise the design and create an ordered façade that reflects our structural grid.





04

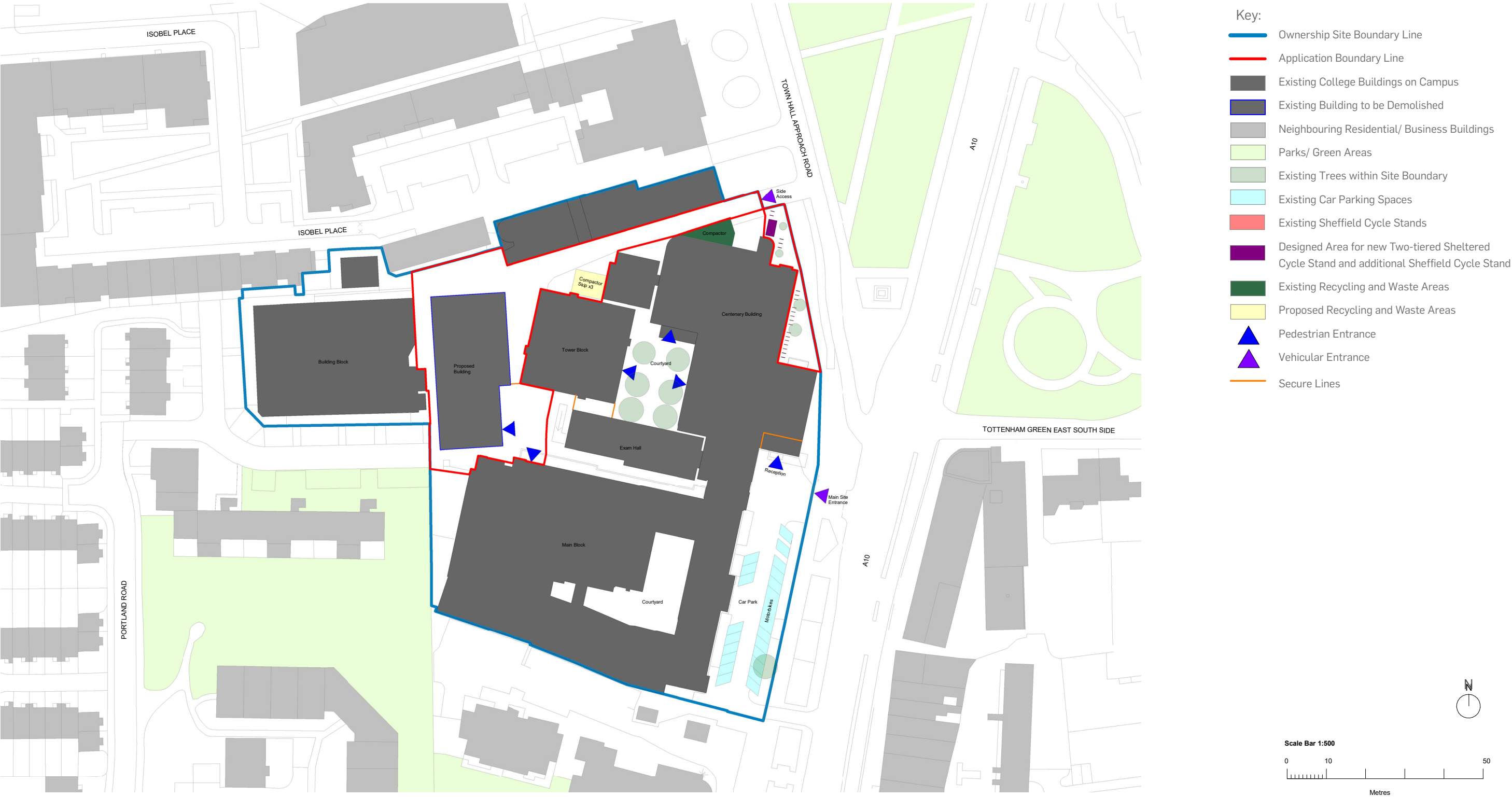
Design Proposal,
Facade Approach,
Sustainability,
Material Palette &
Facade Composition.

04.01 Proposed Site Plan

This new rectangular shaped Construction and Engineering Centre sits on the footprint of the existing building block and external ramp line. The upper floors cantilever out, maximising the internal layout. Pedestrian access for staff, student and

visitors is still via the Centenary building block reception area. This is an access-controlled area, where visitors are required to sign in and pass through security gates. Once through the existing security system students and staff can entrance

the new building from a series of internal courtyards which connect the existing buildings. To the north of the site is the existing service yard which remains for vehicle access only for deliveries and collections.



04.02 Proposed Ground Floor Layout

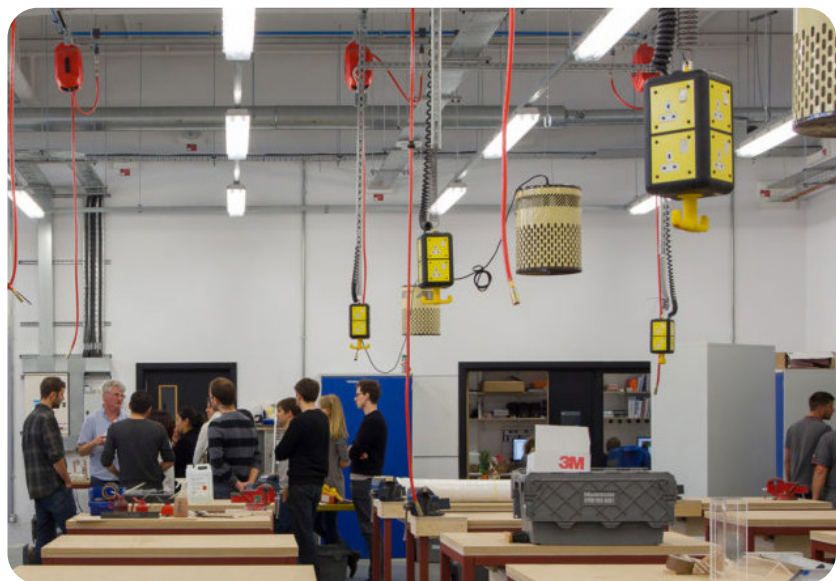
Accommodation Overview

This building has two stair cores with toilet provision on every floor. The 2 largest workshops are located on this level with associated technicians' rooms and storage.

Key spaces:

- Double height Brick laying workshop
- Double height Engineering workshop

Design Inspiration images



Drop down electrical supplies



Double height workshops



04.03 Proposed First Floor Layout

Accommodation Overview

This floor has two large workshops with mezzanine levels, that accommodate specialist bays for students to do independent working. Changing facilities and a general classroom are also located on this level.

Key spaces

- Heating and Plumbing workshop
- Electrical Installation workshop

Design Inspiration images



Two tier study bays for independent working



Heating and Plumbing displays



04.04 Proposed First Floor Mezzanine Layout

Accommodation Overview

This floor accommodates the upper tier of study bays for students carrying out independent working. This stacked configuration allows staff to monitor students effectively.

Key spaces:

- Heating and Plumbing bays
- Electrical Installation bays

