DESIGN REPORT

Power Hall and Decarbonisation Project – Package 4b
Listed Building Consent

#161

Power Hall Interpretation Design

FOR Science & Industry Museum
REV 01
DATE 28.06.24

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image: Entrance View

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1.0
Introduction

This Design Report has been prepared by Studio MUTT on behalf of the Science and Industry Museum, Manchester to support a Listed Building Consent application in relation to the new Power Hall and Decarbonisation project based at the Science and Industry Museum (SIM) in Manchester.

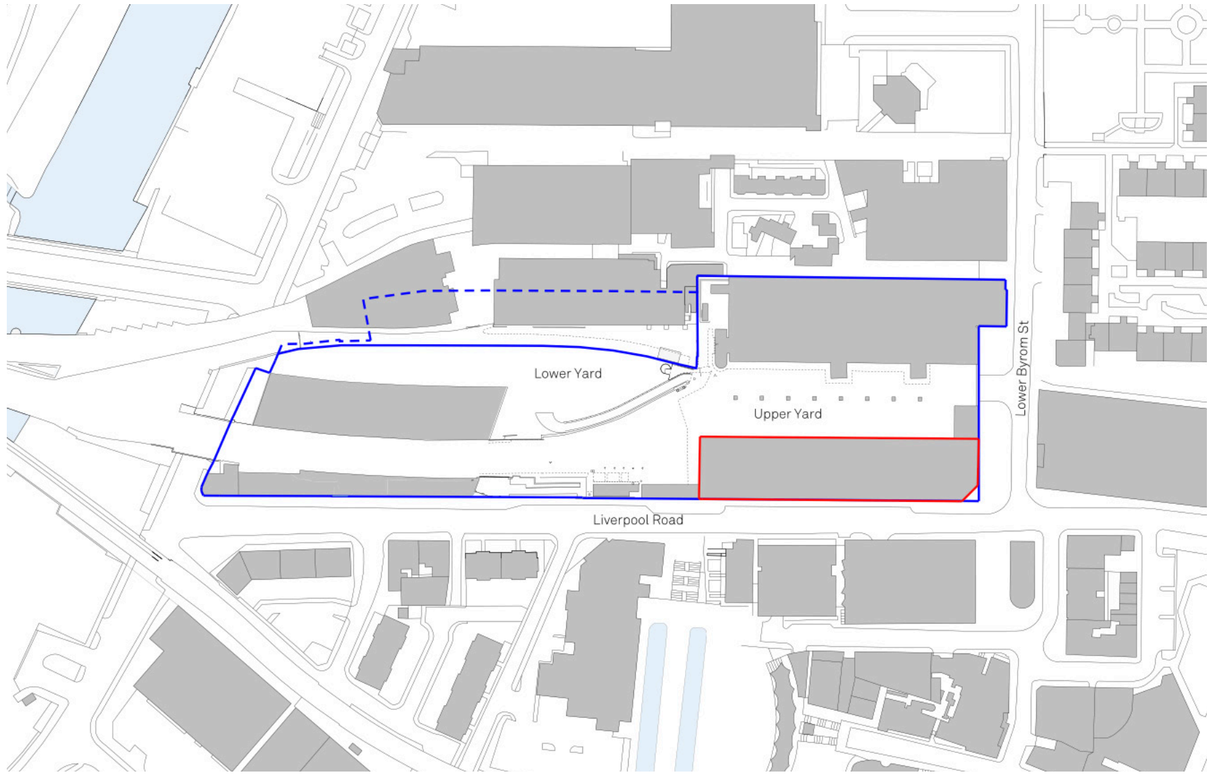
This document details proposed works for the insertion of exhibition and interpretation design elements of the Power Hall only. Architectural/building refurbishment proposals are dealt with elsewhere.

The exhibition / interpretation design proposal includes:

- Interpretation panels and labels
- Smaller object showcases
- Main entrance gathering space (threshold)
- Large scale 2D atmospheric imagery
- LED neon signage

The proposed lifespan of the intepretation design is 15 years.

Site Plan



drawing by Carmoady Groarke, base build architects

Location Plan





image: Long View w/ typical interpretation panels and balustrade mounted labels

2.0
Existing Building

An Historic goods shed transformed into one of the most significant industrial heritage galleries in the country with Europes largest collection of 19th and early 20th century steam engines.

For the context of the exhibition and interpretation design (of which this document relates to) , the existing building constitutes the newly renovated and previously consented proposals to upgrade the building.

The original building, built in 1855 was formerly used as a goods transfer shed. It has a long rectangular plan with double pitched industrial warehouse roof.

The building consists of a red brickwork shell with a timber roof structure that includes a series of rooflights and slate tiled roof. The floor includes areas of existing and new stone cobbles, concrete and timber decking, with segments of railway track to the locomotive section. A newly inserted timber deck reinstates the historic warehouse raised level and provides an accessible route around many display objects.

Once opened, Power Hall: The Law Family Gallery will be a permanent gallery showcasing Europe's largest collection of 19th and early 20th century steam engines.

Existing site photos









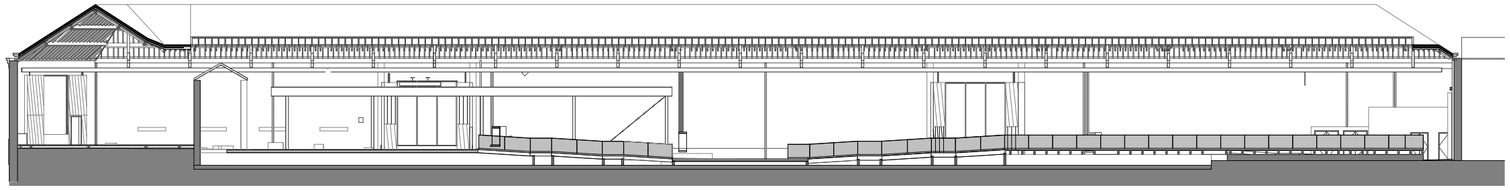
2.0
Existing Building

Basebuild/refurbishment works to the historic building which have already been consented in previous applications form the base for the exhibition and interpretation design. Key principles/design moves include:

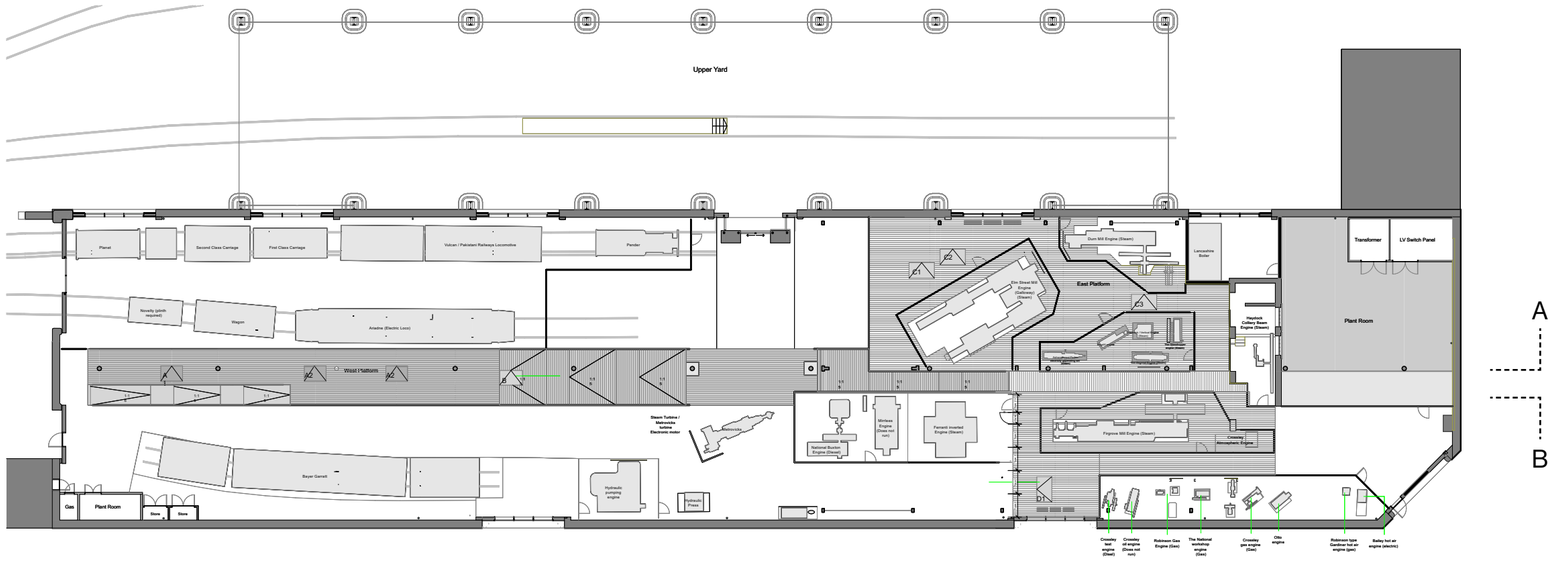
- new high quality windows and doors
- a central raised timber platform and deck
- new sustainable power, lighting and heating systems
- new balustrading and safety screens around objects.
- various floor treatments including new accessible cobbles.
- general building fabric upgrades and restoration work

NOTE: In the context of this application (for intepretation design elements only), the ‘Existing’ represents The Power Hall following previously consented refurb/restoration works

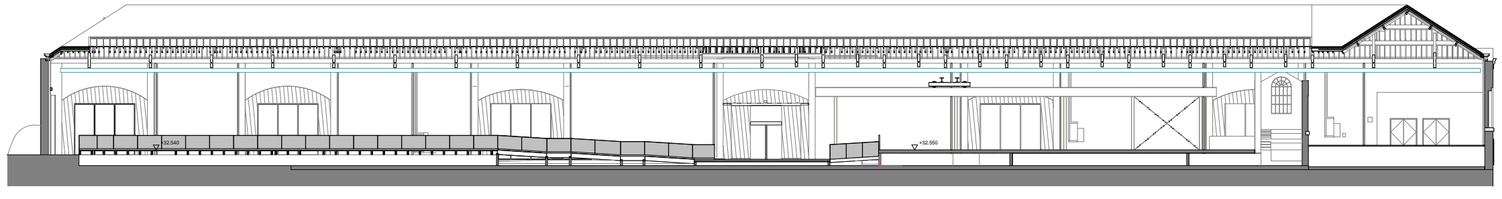
Internal
Elevation A-A



Ground Floor
Plan



Internal
Elevation B-B



3.0
Design Proposal

The interpretation design builds on the existing atmosphere and architectural features to create a cinematic and accessible experience which foregrounds the unique collection and historic setting.

Our approach seeks to foreground the collection objects and enhance the architectural character of the space through subtle and elegant materiality, working at a human scale and consolidating and condensing the amount of interpretation panels required.

The exhibition / interpretation design proposal includes:

- Interpretation panels and labels
- Smaller object showcases
- Main entrance gathering space (threshold)
- Large scale 2D atmospheric imagery
- LED neon signage

Key Design Principles

- A simple and strong material palette that does not detract from the collection.
- Emphasise the architectural atmosphere and scale of the building with large scale cinematic back-lit imagery and LED neon lighting which draws the eye through the space.
- Slim proportioned, human scale typical panels reduce the impact on long views through the gallery to maintain the experience of the existing hall as well as creating legibility between gallery sections for visitors.
- Create a renewed, accessible and legible visitor experience.

Design Proposal Views







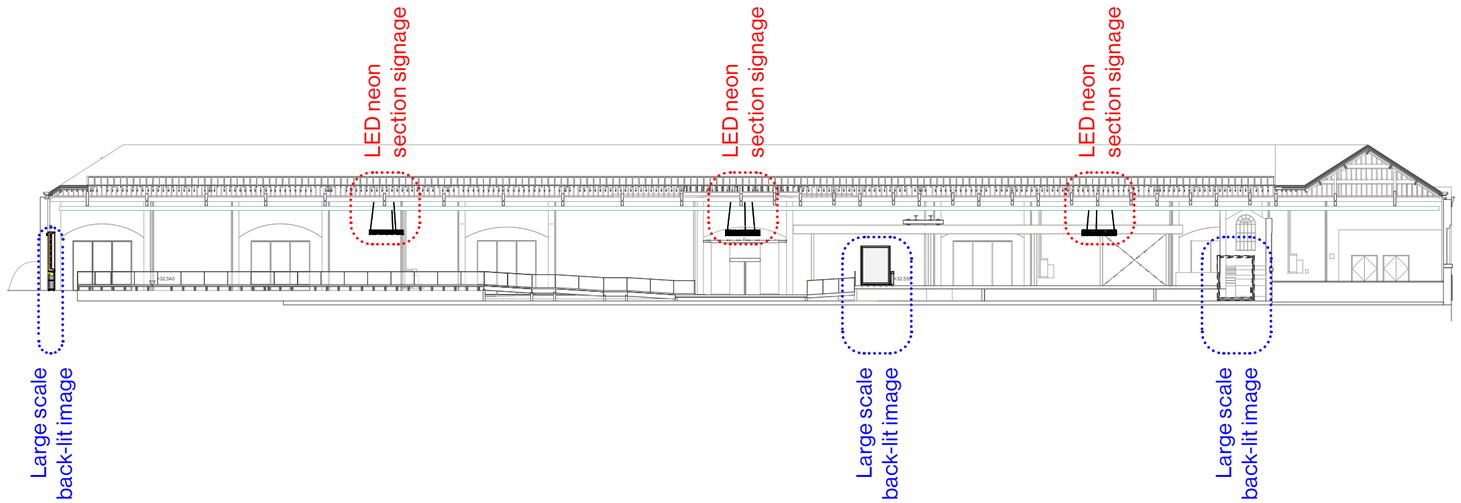


3.0
Design proposal

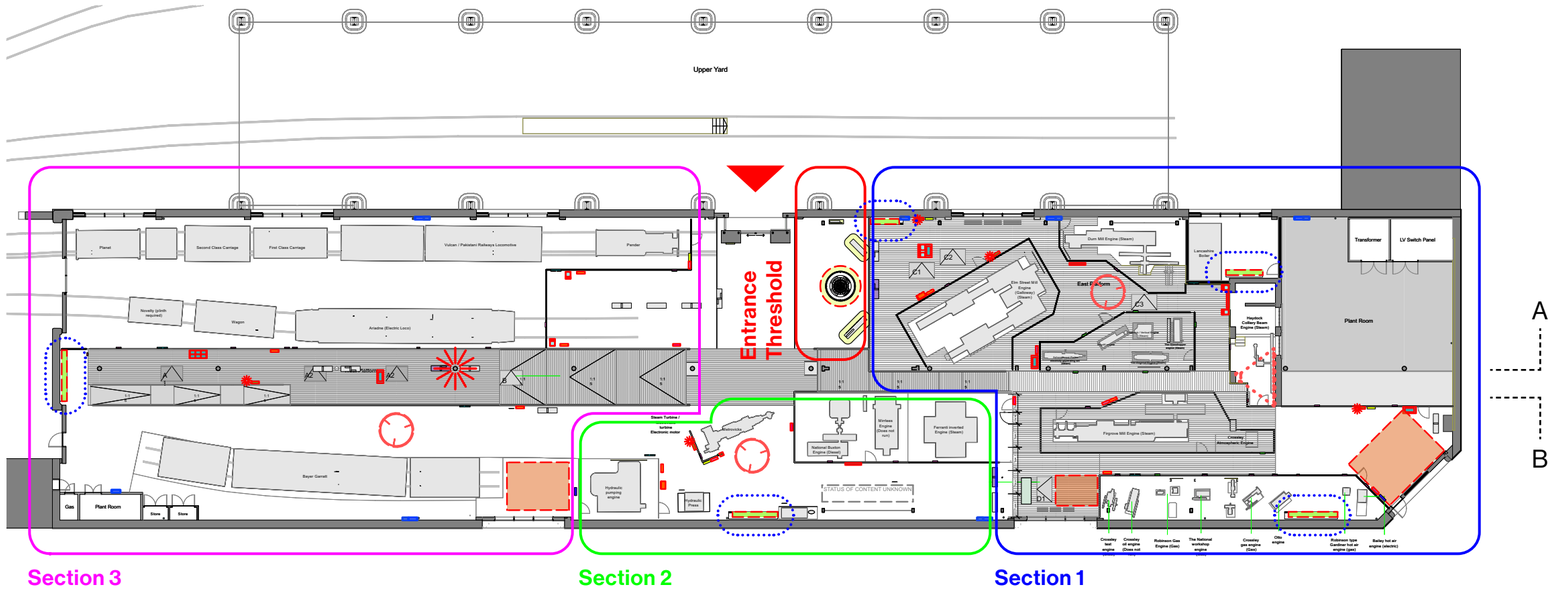
The curatorial approach has divided the exisiting collection into 3 sections across the gallery. This is made up of the large scale, permanent engines within the space plus additional images and ancillary objects.

A new entrance orientation space is proposed for visitor information and gathering space.

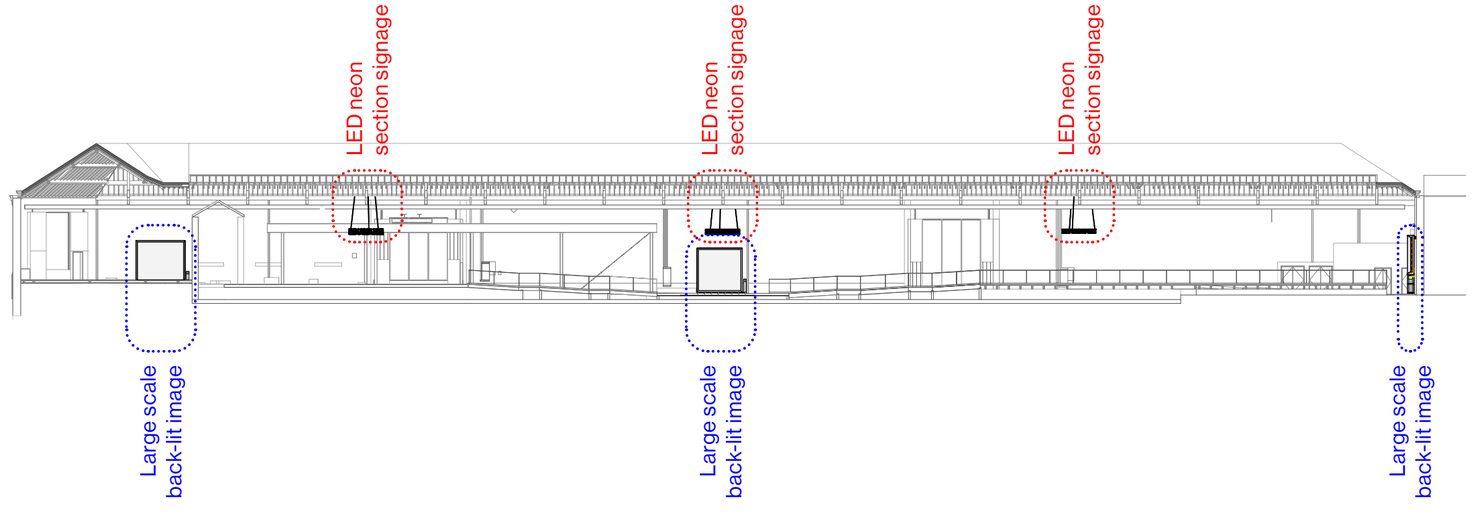
Internal
Elevation A-A



Proposed
Ground floor



Internal
Elevation B-B



4.0
Materials & Appearance

A refined and elegant material pallette is proposed with high quality finishes and cinematic impact.

Three Main Materials
The interprative design elements are made up of three primary materials:

- Black Valchromat with a low sheen lacquer finish.
- Bead blasted stainless steel
- Mirror polished stainless steel.

Each of these serve a purpose, creating an elegant proposal that works with the existing gallery and base build.

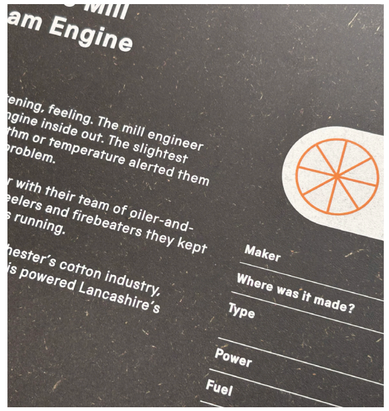
Atmospheric Components
Alongside the main material pallette there are also lighting components / design devices that help to create an atmospheric and legible vistor experience:

- Large scale back-lit cinematic imagery.
- LED neon signage to each section of the gallery.

This approach creates impact and character that adds to and accentuates the existing qualities of the architecture and historic engines.

2D / Printed Elements
Text and images are printed directly to the valchromat and bead blasted metal substrates to create a cohesive and robust design.

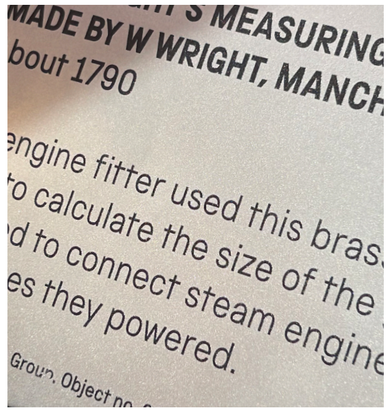
General Build



Black
Valchromat



Frames and Fixings



Bead Blasted
Stainless Steel



Edges and Skirts



Mirror polished
Steel

Atmospheric components



Large scale back-lit cinematic imagery





LED neon signage



image: view of section 1 with LED sub section title and typical interpretation panels and labels.

5.0
Layout

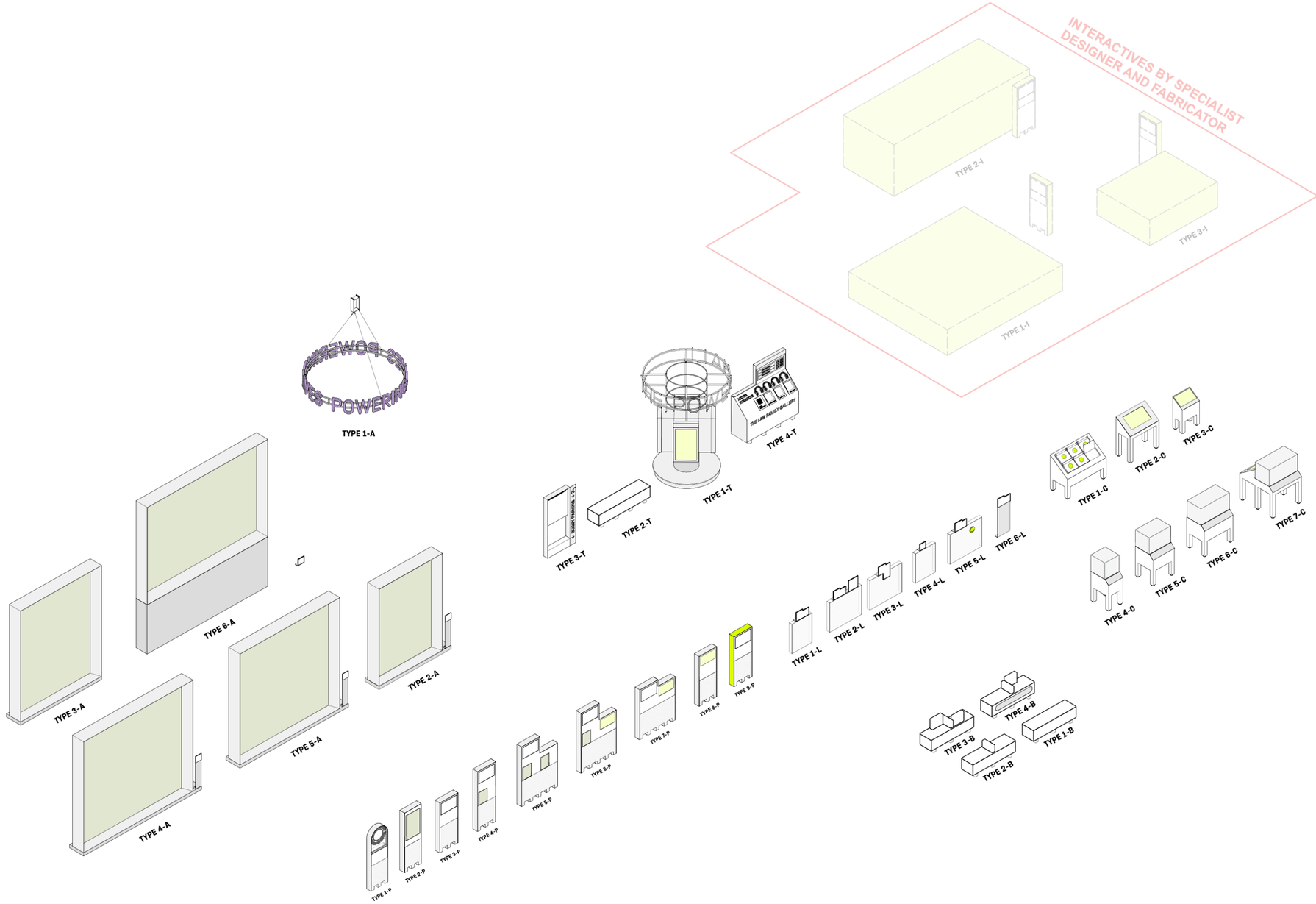
Layout

The proposal is for a series of largely furniture scale elements that are strategically placed throughout the space. Care has been taken to reduce the amount required to a minimum, and consolidate where possible to declutter the previous installation. The majority of these fix to the newly installed balustrading around the gallery.

There are situations where components must sit against the perimeter wall, setworks, deck, hang from the roof or be fixed to the deck or cobbles below.

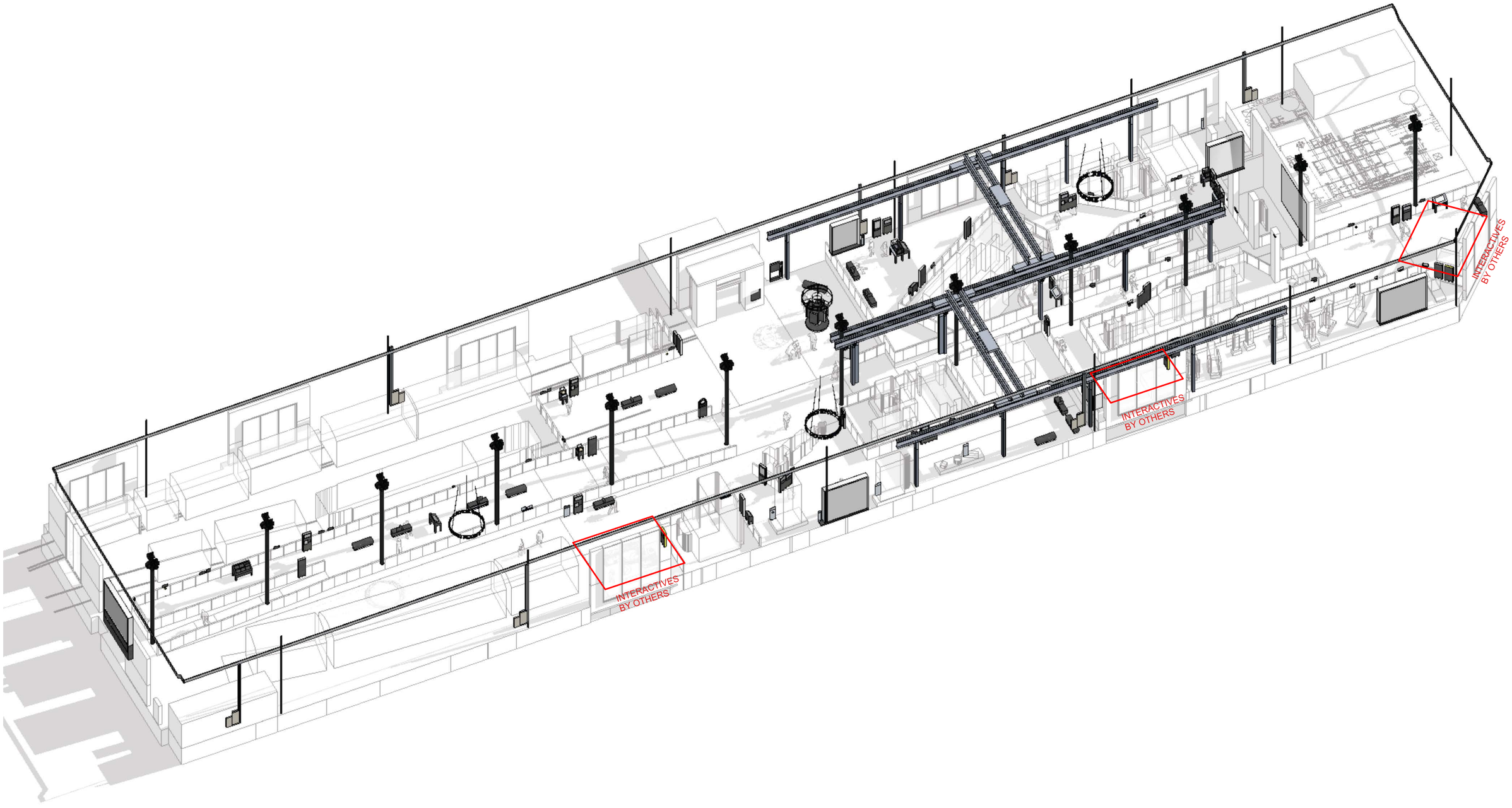
The interpretation components can be categoraised in to the following sections:
- Type A - Atmospheric
- Type T - Threshold
- Type P - Panel
- Type L - Label
- Type C- Console
- Type B - Bench

The series of components and their locations can be seen on the following pages as an overview of their type and location.



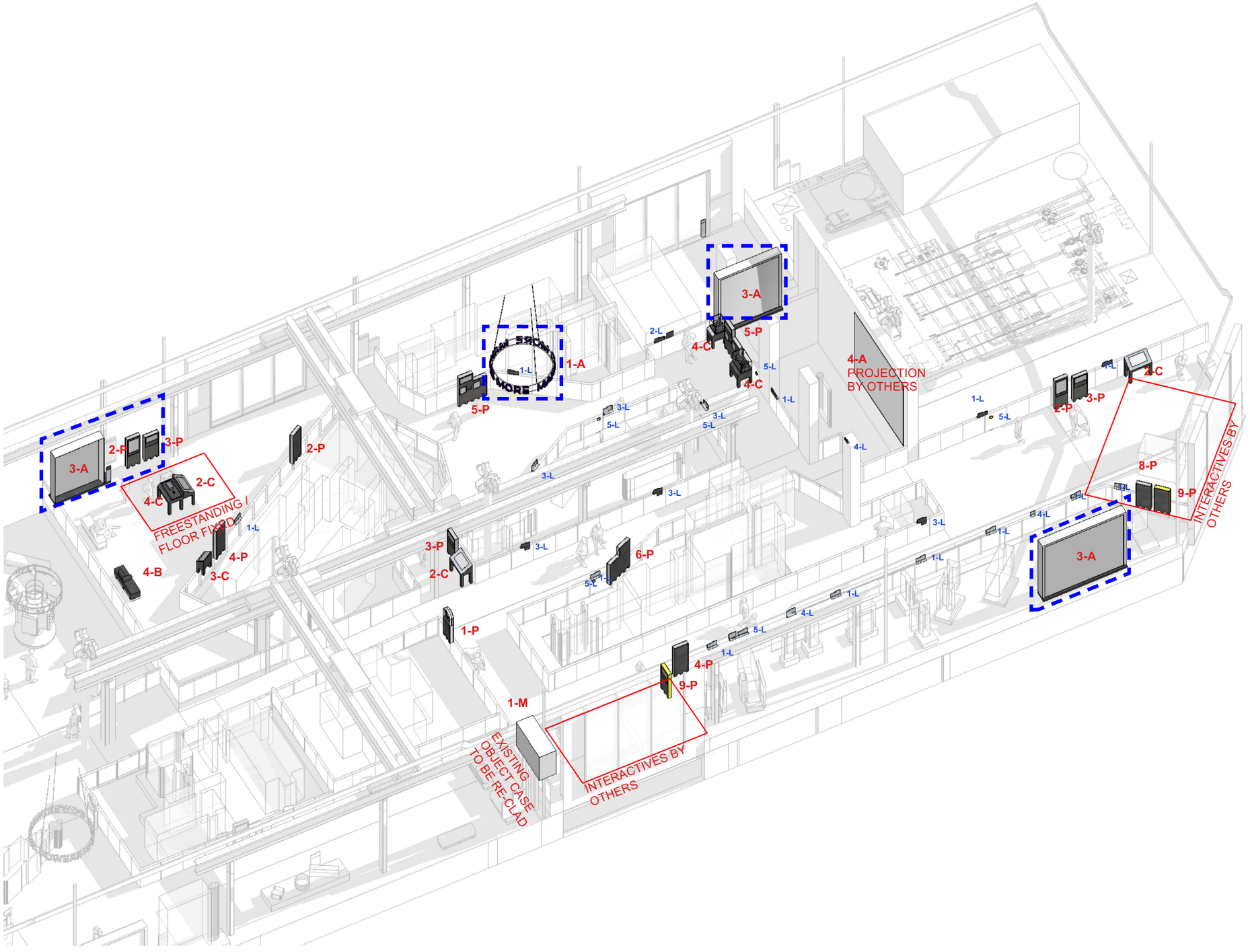
Interpretation
Component Overview

5.0
Layout



General Layout Overview

5.0
Layout

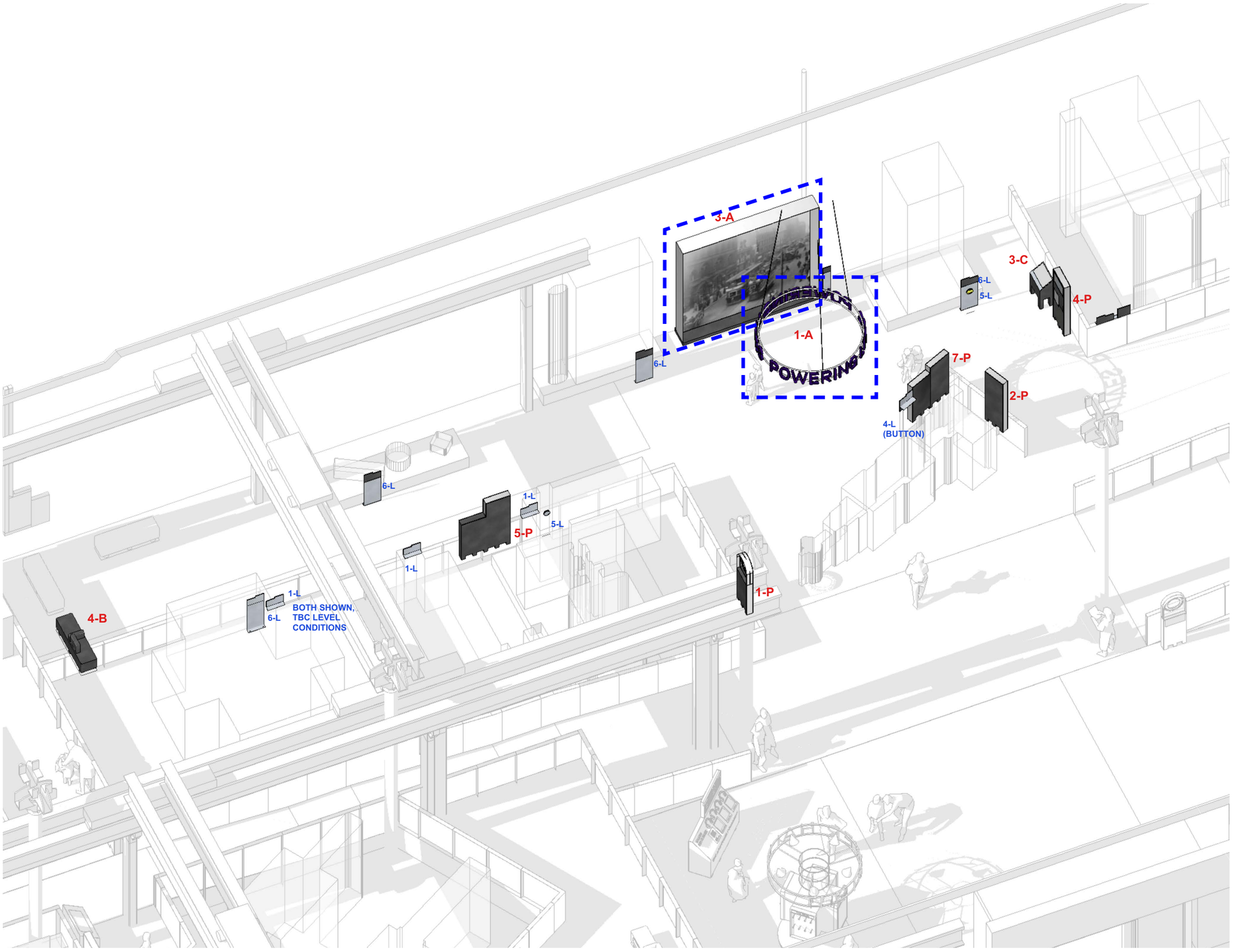


Section 1 Overview

KEY:

Fixed to building

5.0
Layout

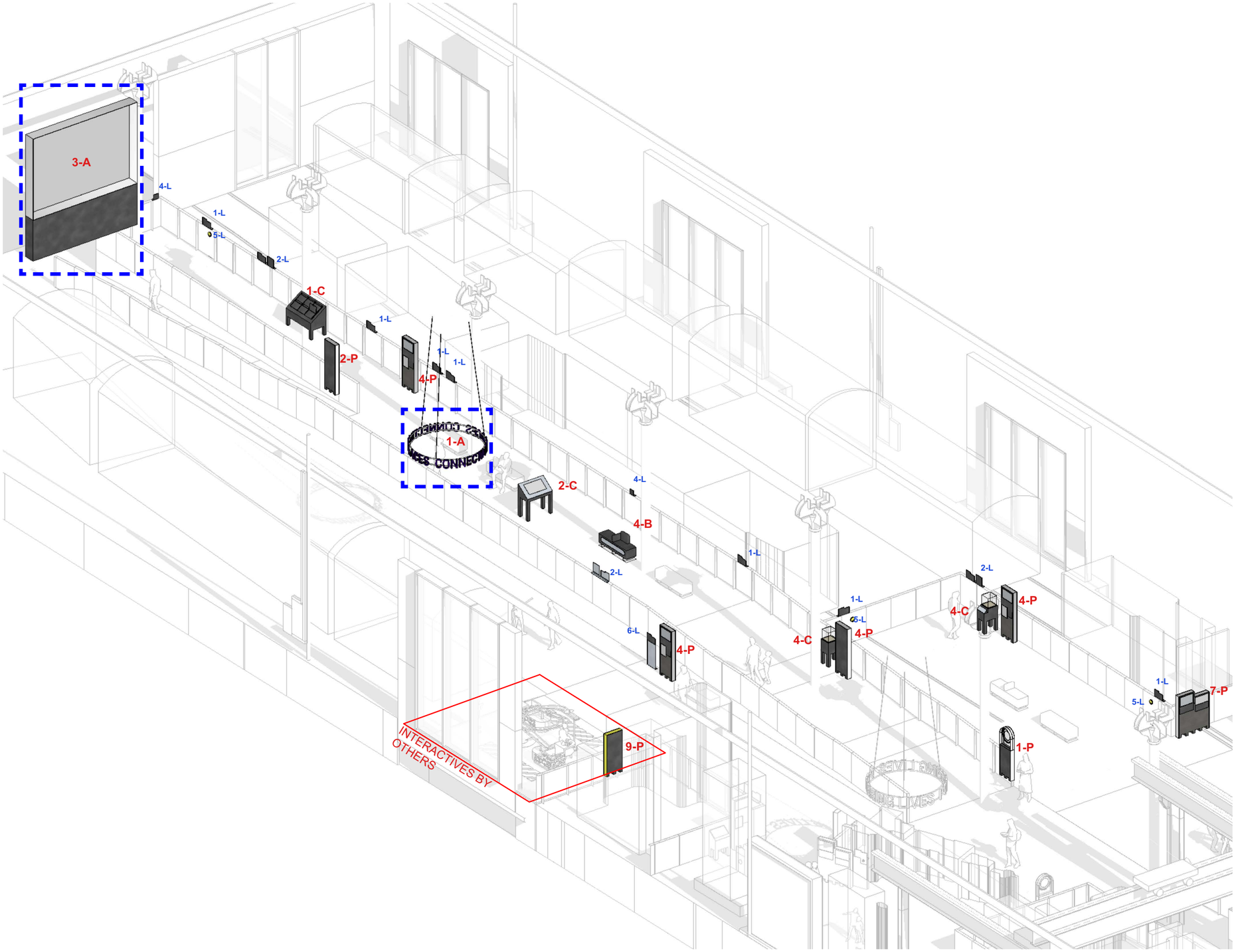


Section 2 Overview

KEY:

Fixed to building

5.0
Layout

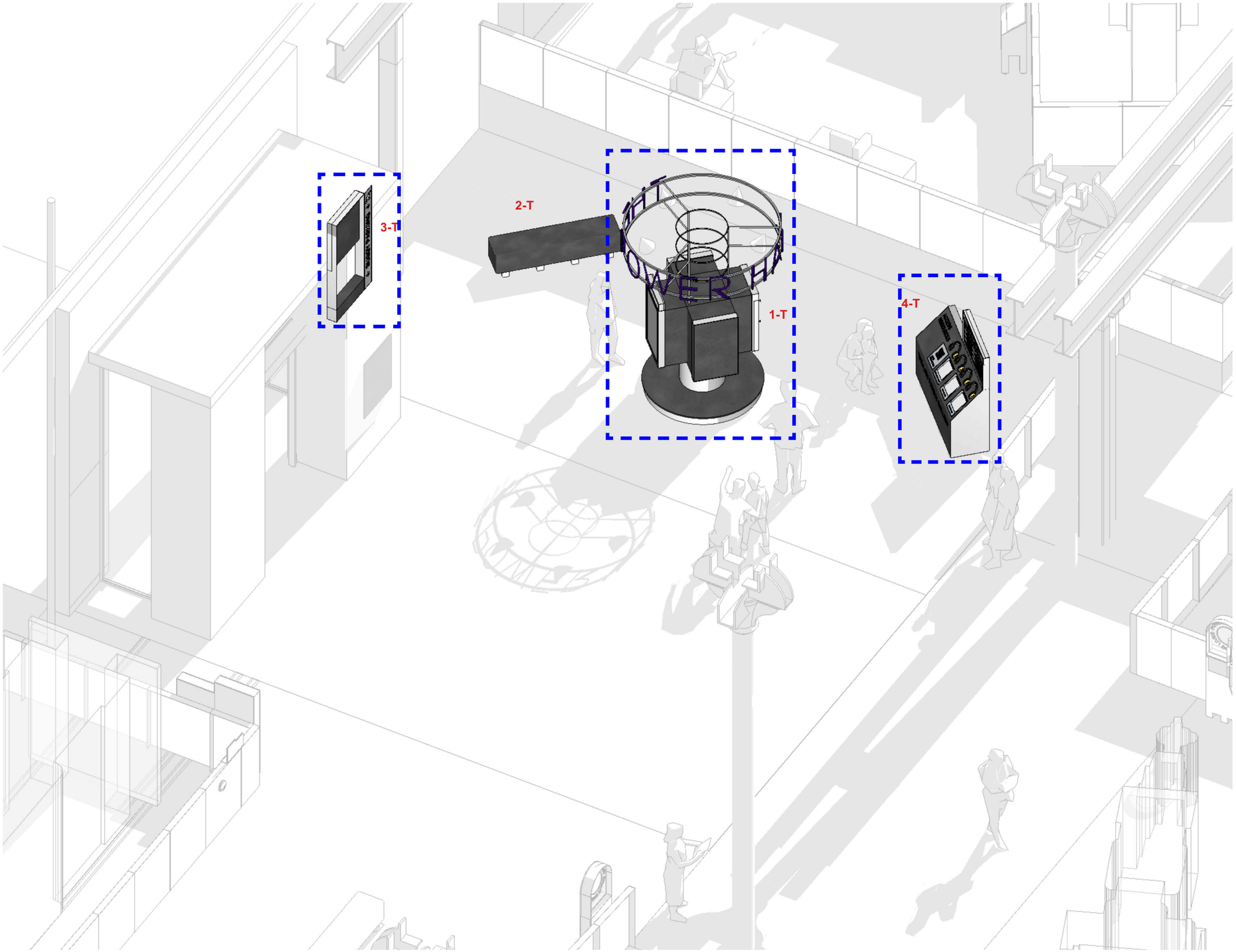


Section 3 Overview

KEY:

Fixed to building

5.0
Layout



Entrance Threshold Overview

KEY:

Fixed to building

6.0
Impact on Existing

The proposed is a light touch and largely loose fit installation of furniture type objects. Where required, fixings in to the historic structure have been carefully considered and are reversible.

Where possible,the proposed avoids fixings ino the existing fabric of the building, where this can't be avoided a series of standard fixing principles are proposed.

These have been designed to have minimal impact on the existing building fabric and are removable / repairable after the lifespan of the exhibition.

Typical Building fabric fixings principles:
- Timber roof beam fixings are removeable without fixing in to the structure itself.
- Fixings to the perimeter brick wall are located in the mortar joints between brickwork.
- Floor fixings for occasional freestanding objects fixed to slab below newly laid stone cobbled floor.

Where interpretive elements need to be fixed horizontally in to the new timber deck or object setworks, the principles remain the same but in these cases the fabric is not historic.

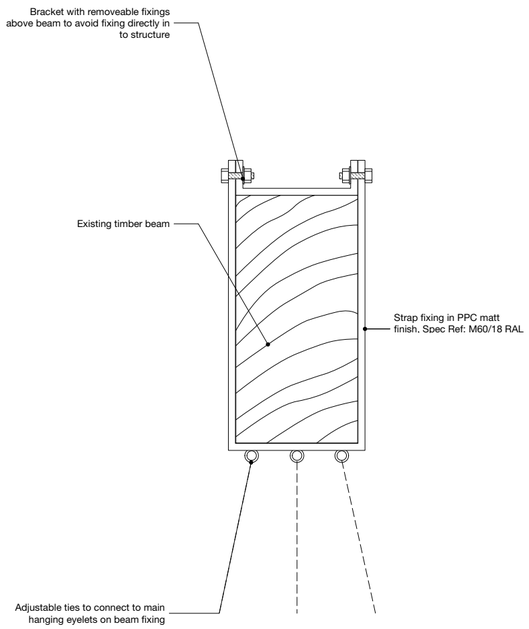
All fixings to the balustrade are demountable for future rearrangement or removal.

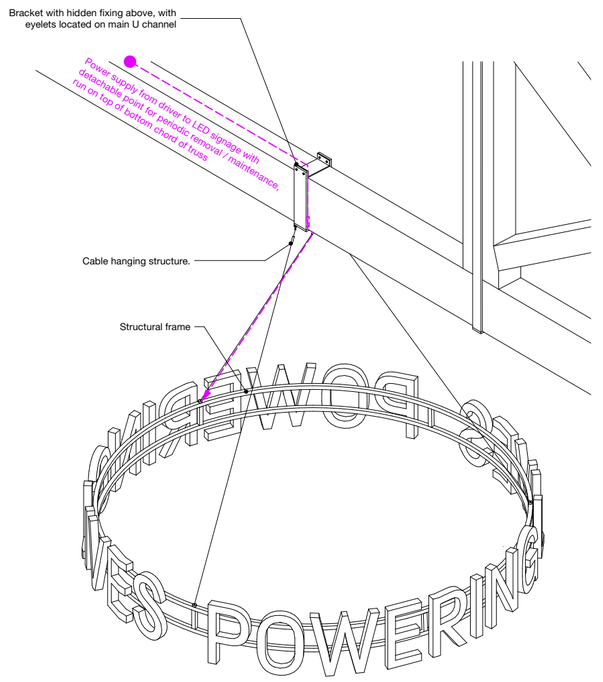
Freestainding consoles are fixed into the newly installed timber deck.

Fixing to Timber Roof Structure

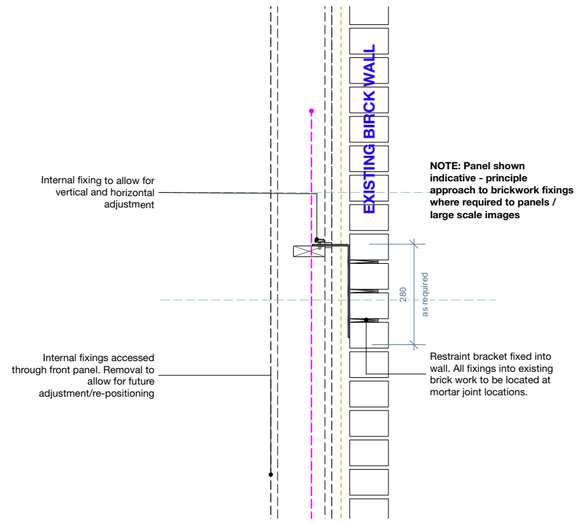


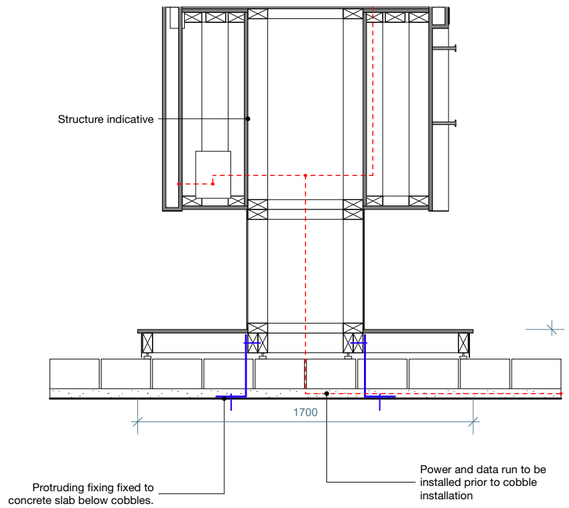
Historic truss metal strap





Fixing to Mortar Joints / Between Cobbles





7.0
Access

The proposed aims to create an accessible exhibition experience for all.

Key accessible design principles include:

- Wheelchair knee recesses to consoles to allow for unrestricted use of touch screens etc.
- Entrance gathering space/ threshold area is located on newly accessible cobbles to create an inclusive and well functioning entrance experience. Where visitors can access site wide orientation and accessible resources to help experience the exhibition.
- Interpretation panels, consoles and labels have been located on floor areas with accessible finishes where possible. Including new accessible cobbles and timber deck.
- 2d Design has accessible fonts and colour contrasts.
- Images and text have been set out at accessible heights.
- Benches and seating is provided throughout the gallery.
- accessible circulation routes set out in the base build have been maintained.
- Refer to associated updated base build floor finish / cobble strategy.



image: Entrance/threshold space view