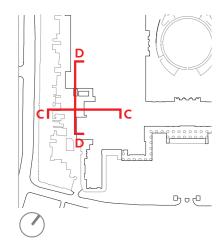
# PROPOSED LAND USE & ACCOMMODATION

#### 4.4.1 **Land Use Summary**



Plant

Risers

Engineering FC Centre

Office

Circulation

Mess Areas

Welfare - Lockers, Showers & WCs

Storage

Plant Access

Storage Access

Support Accommodation Access

Right:

Level 01 floor plan, RIBA Stage 03

Section DD, RIBA Stage 03

Axo view

Section CC, RIBA Stage 03

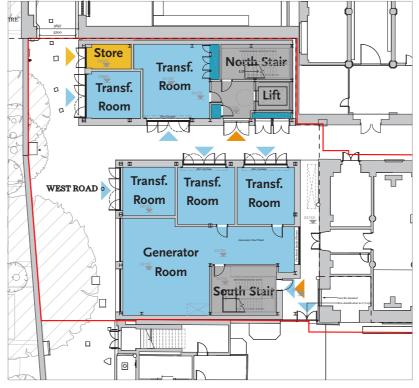
Summary Gross Internal Area (GIA) schedule

The proposed building is a ground plus four-storey plus external rooftop plant building comprising plant infrastructure and support accommodation including office spaces, mess, changing, WC welfare facilities and storage spaces. It effectively forms an infill block between the southern transept of the Duveen Gallery to the north and the New Wing to the south.

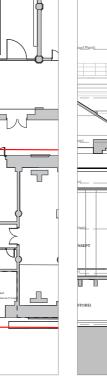
Its height from ground to the uppermost occupied floor level is 16.05m and from ground to top of the plant enclosure is 24.25m (top of plant enclosure is 48.40m AOD). It totals c. 1,940 sqm GIA (excluding rooftop plant enclosure) and delivers 698sqm NIA of support space (295sqm office, 247sqm welfare, 154sqm storage).

Floor-to-floor heights are sized on a floor-by-floor basis to house required plant and support spaces, and the building sits tight against the Lycian Building, with a small light-well retained adjacent to the existing windows.

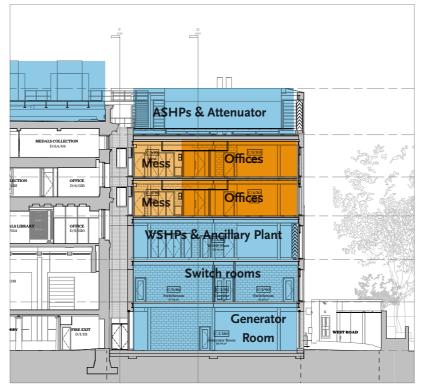
	GIA (sqm)		
	GIA Plant	GIA Support	
Roof	17.8		
Level 05		397.7	
Level 04		403.7	
Level 03	403.3		
Level 02	316.1	88.8	
Level 01	303.1	9.0	
Totals	1040.4	899.2	
	1939.6		



Level 01 Floor Plan



Section DD - North to South



Section CC - East to West



ASHP & Attenuator

WSHPs & Ancillary Plant

Transformer &

Generator Rooms

Axo View

#### **Ground Floor & Access** 4.4.2

The arrangement of the proposed SWEC can be thought of in principle as two separate blocks, north and south, which will be delivered in separate phases.

Each block has its own access core. To the south, this consists of a stair only; to the north, a stair, lift, and shared lobby. These cores are both accessible from the same joined floorplate from first floor and above. Neither core is a fire-fighting core, however, the lift provided will be an evacuation lift to meet London Plan requirements. These cores are placed in the dark recesses of the plan, allowing good access from the road for plant, and good access to south-western daylight and sunlight on the upper accommodation floors.

To the south, the space delivered at ground accommodates plant only, consisting of Generator and Generator Fuel rooms, and 3 No. Transformer rooms.

The northern block delivers an additional 2 No. Transformer rooms, as well as the main access lobby for the support accommodation and a ground floor maintenance storeroom suitable for storing bulky goods.

A tunnel is maintained between the two blocks, replicating the existing condition to the east of the site where a tunnel is formed underneath the link between Galleries 13 and 15 at level 02. The clear heights achieved under the tunnel are no lower than the existing constraints under Gallery 14 to the east of the site leading into the Great Court.



# Right:

Level 01 floor plan, RIBA Stage 03

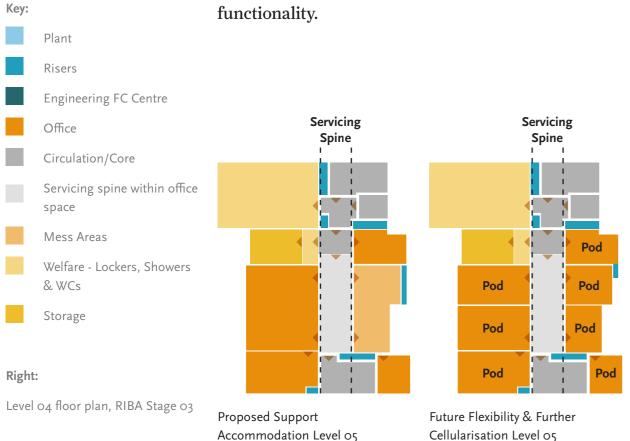


#### 4.4.3 **Support Accommodation Floors**

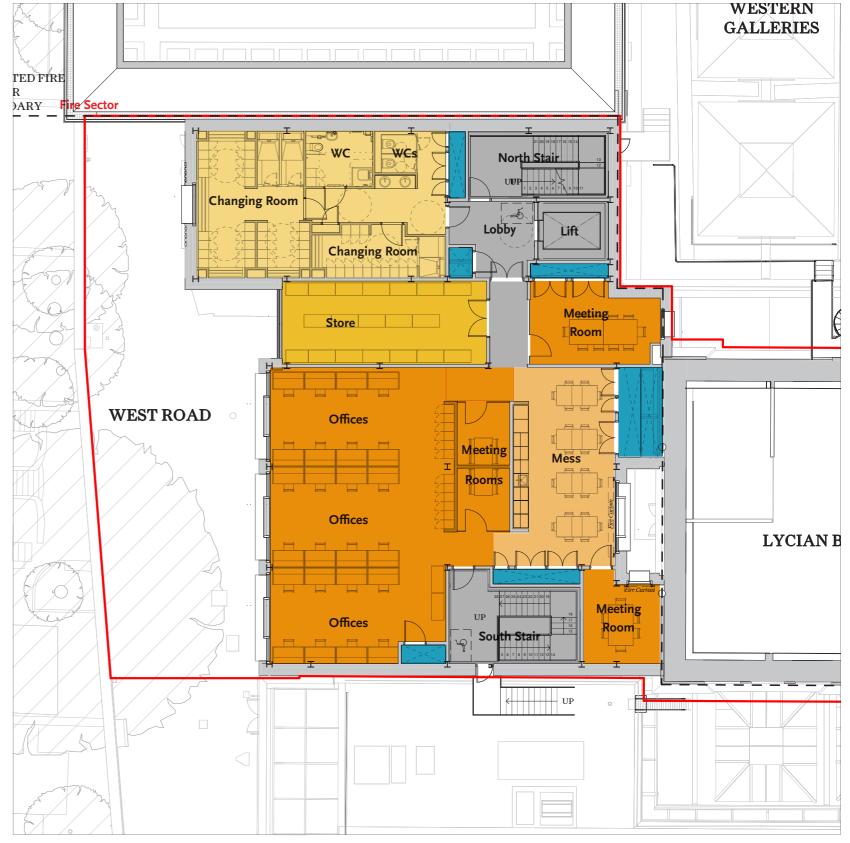
Broadly, the support accommodation floors at levels 04 and 05 present a repeated plan arrangement containing office and meeting spaces, mess with tea point, and changing rooms with associated showers and WCs.

The office, meeting and mess spaces are accessed and serviced off a central utility zone containing the tea-point, meeting rooms, and storage. This creates a high degree of flexibility with regards to the cellularisation of the office and mess spaces to meet the changing requirements for privacy and cellularisation year on year.

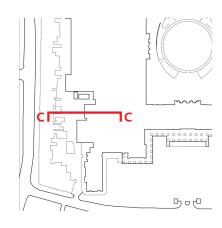
The welfare and storage spaces are accessed off the shared lobby of the northern core, maintaining a separation between 'dirty' and 'clean' space



Right:



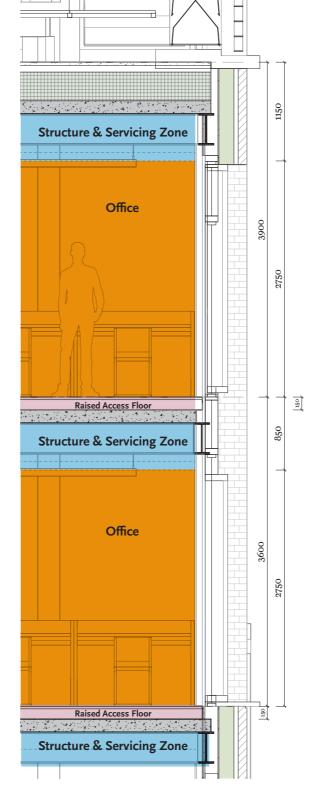
#### 4.4.4 **Support Accommodation Structure & Servicing**

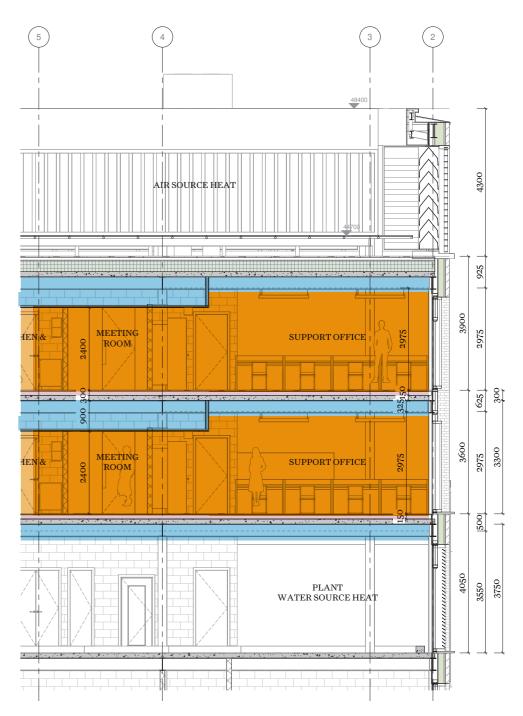


Typical support accommodation bay section zones are based on a 550mm steel structural zone with 150mm composite steel and concrete deck slab supported directly atop downstand UB section steelwork as advised by structural engineers Alan Baxter Ltd.

Above the structure, a 150mm zone including floor finishes to accommodate low-level power and data services within the raised access floor system (RAF) has been allowed. High-level Mechanical Ventilation and Heat Recovery (MVHR) and Fan Coil Units (FCUs) will sit within the structural steel zones between primary and secondary beams, with ducted distribution to supply and return diffusers running through penetrations within the centre of the structural beams. A 150mm zone for tolerance and deflection of steelwork and a suspended ceiling zone has also been allowed for (should the client want to install a suspended ceiling in future), resulting in a 2,750mm min clear height to the underside of structure above desk spaces, the minimum height guidance set by the British Council of Offices.

This clear height is reduced within the central servicing and utilities spine to 2,400mm clear to the underside of ceiling to the central meetings rooms and corridors/lobby in order to accommodate the larger MVHR units within the ceiling void in addition to duct crossovers below steel beams. This is a compromise accepted by the Museum in order to limit the overall height of the proposed building.





#### Right:

Section of typical bay section highlighting servicing strategy for the support accommodation floors

# 4.4.5 Office Spaces

The proposed offices within the SWEC are relatively deep in plan, with good western aspect out towards the mature trees which sit between the Museum Estate and neighbouring Perimeter Properties.

The steel downstand structure and underside of the composite structural slab will be exposed, as will high level ventilation, cooling, and lighting services. Power and data services will be delivered through the raised access floor via floor-boxes. Due to the deep nature of the plan, it is proposed high level services and structure will be painted white to prevent the interior from feeling oppressive.

Cork tiles will be utilised on the floor to help provide some acoustic dampening to the open plan office environment. Wood wool fibre acoustic panels will also be located on blank sections of walling to provide aesthetic texture but also further acoustic treatment.

# **Desk Capacity**

In total the SWEC delivers 48 desks + 4 additional desks within the new Building Management Suite room at Level 04, which will double as a secondary Fire Command Centre for the Museum in case of fire emergency.

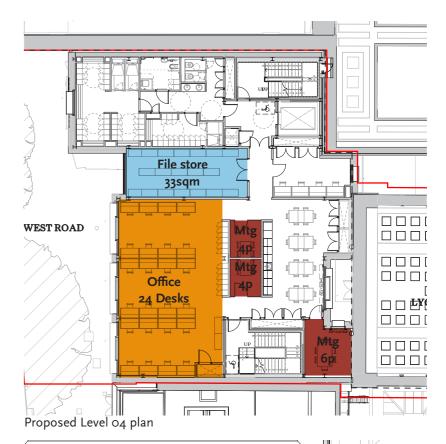
The needs case for this desking capacity is provided in detail in Chapter 2 of this document.

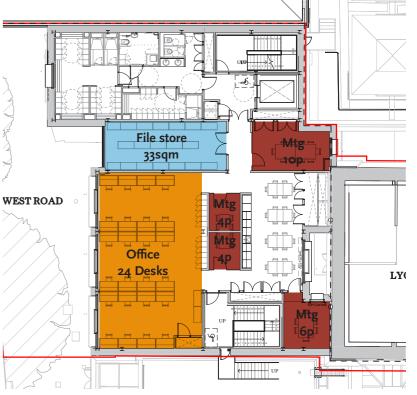
# **Supplementary Spaces**

The desk occupants in open plan office spaces will be from various contractor teams that will at times be having commercially sensitive conversations and meetings. They therefore require private meeting rooms with immediate adjacency to the desk provision.

Additionally, local file stores are required for the Museum's operational and maintenance archival material which is accessed on a day to day basis by maintenance contractors.

Consequently, the proposals will also deliver 7 meeting rooms of various sizes and 2 office based filing storage rooms totalling 66sqm NIA.



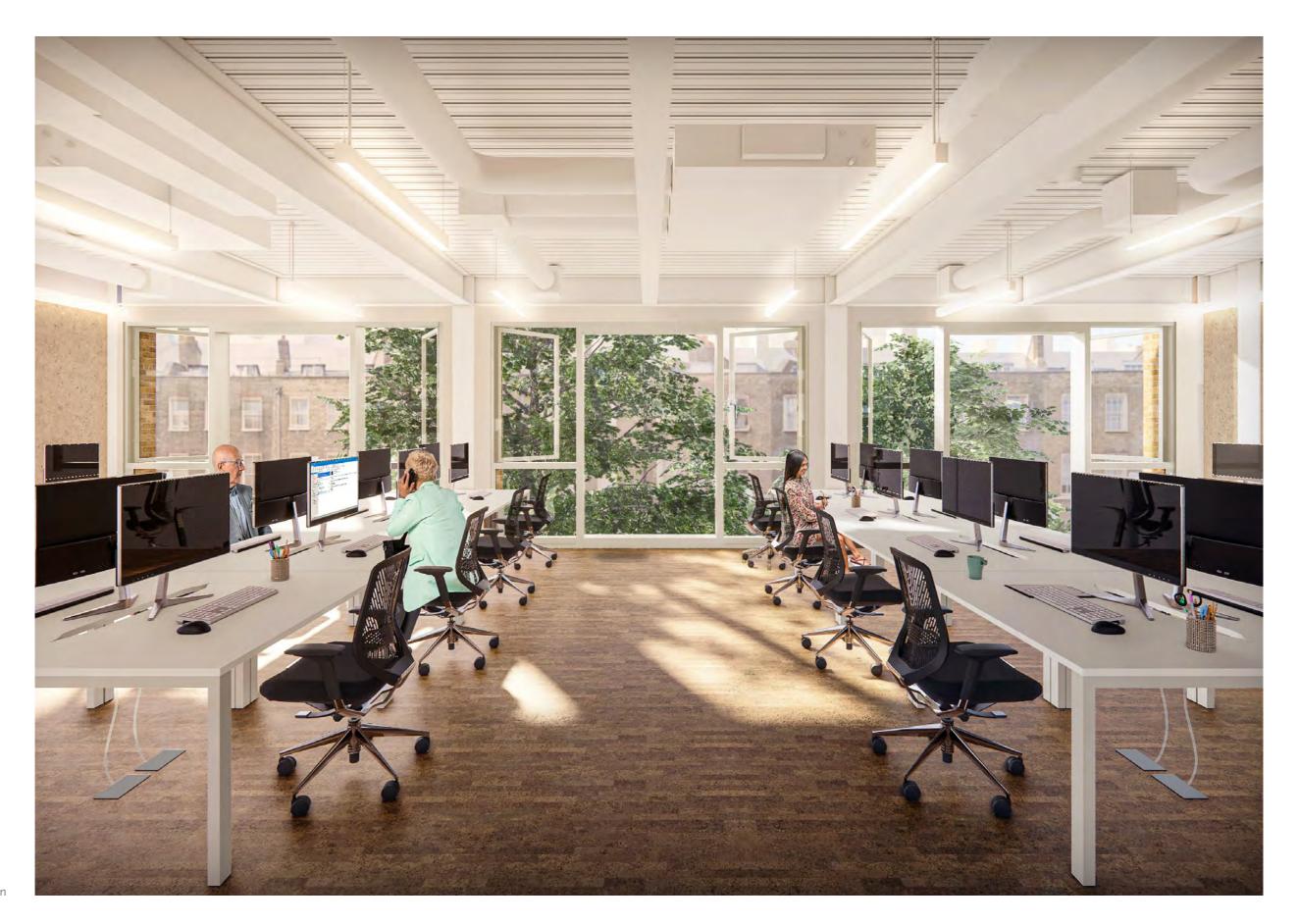


Proposed Level 05 plan

# Key:Office desk provisionShared meeting roomsShare office based file storage

#### Right

Level o4 and o5 SWEC office plan showing potential location of reallocated desk functions

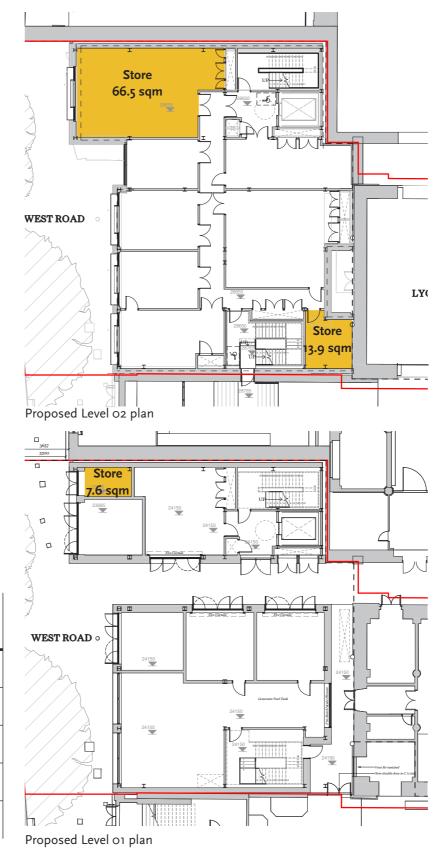


Right:

Indicative internal CGI of the proposed Office accommodation

# 4.4.6 Storage Spaces

In addition to the office based filing store at Levels 04 and 05 described on the previous page, additional storage for maintenance functions is proposed at Level 01 and 02 within the SWEC. This will be utilised to store spare parts required for plant infrastructure within the SWEC, as well as wider estate maintenance equipment and a bulky goods store at ground level



# Key:

Spare desk provision following reallocation

Shared meeting rooms

Share office based file storage

#### Right

Level 04 and 05 SWEC office plan showing potential location of reallocated desk functions

#### **Proposed Storage Provision**

Mess Location	Area m²	
Level 01	7.6 m2	
Level 02	80.4 m2	
Level 04	33.3 m2	
Level 05	33.3 m2	
Total	154.5m2 total	

#### 4.4.7 **Welfare Spaces**

Proposed WC, locker, and shower provision is split equally across the two support floors, with access provided directly off the north core lobby so as to demarcate 'dirty' changing spaces from 'clean' office and mess accommodation.

Provision of WCs will meet BS 6465 and BREEAM requirements for the office desk population proposed within the SWEC building (i.e. 48desks). These new WCs within the building are supplemented by the WCs that alredy exist around the wider Museum estate.

WCs are provided on a unisex basis, but separate male and female changing/locker rooms and showers are provided. An additional accessible WC and shower cubicle is provided at each accommodation level, oversized to fit lockers within the cubicle, to provide DDA compliance.

The % split for lockers assumes a majority male provision (52.5% total) with the remainder split almost equally between female (25% total) and Unisex lockers (22.5%) located within the open plan office space. Locating these here also provides some flexibility for occupants who prefer a locker space adjacent to their workdesk rather than in a designated changing room.

The mess areas are also split across the two support accommodation floors in essentially equal provision to align with the equal provision of desking.

A linear kitchenette unit with zip tap, fridge, microwave, and sink with associated storage will be located at each level fronting onto the mess seating area. The mess spaces will be accessible from both the northern and southern access cores.

Proposed WC, Locker and Shower Provision
--

WCs	Lockers	WCs	Showers	Washbasins	Area m²
Male	56 per floor	N/A	2 per floor (4	N/A	31m2 per floor
	(112 total)		total)		(62 total)
Female	26 per floor	N/A	1 per floor (2 total)	N/A	12m2 per floor
	(52 total)		,		(24 total)
Unisex	24 per floor	3 per floor (6 total)	1 per floor (2 total)	3 per floor (6 total)	24m2 per floor
	(48 total)				(48 total)
Total	212 Total	6 Total	8 Total	6 Total	134m2 total

\*% Locker Split:

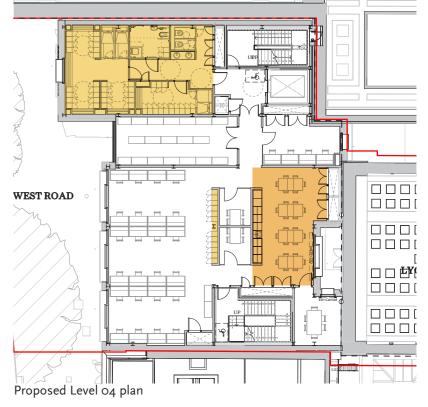
Male = 52.5%

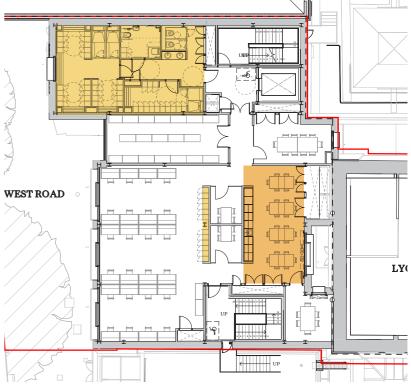
Female = 25%

Unisex (open to office) = 22.5%

#### **Proposed Mess Provision**

Mess Location	Number of Seats	Area m²
Level 04	24	58.9 m2
Level 05	24	54.7 m2
Total	48 Total	113.6m2 total





Proposed Level 05 plan

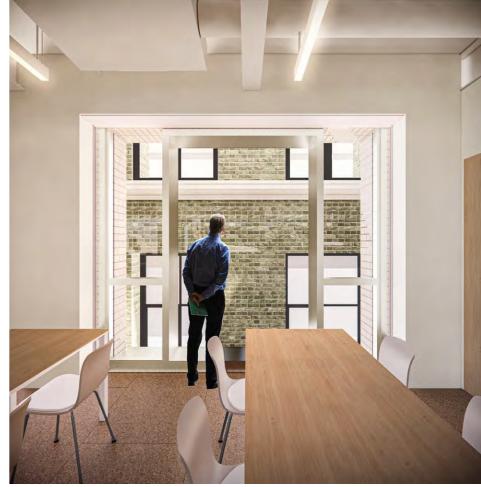
#### Key:

Proposed WC, showers, changing rooms, and lockers

Proposed Mess facilities

Level 04 and 05 SWEC office plan showing location of welfare facilities





# Right:

Indicative interior CGIs illustrating the proposed interior materiality within the Level 04 and 05 Mess spaces.

#### 4.4.8 **Plant & Ancillary Accommodation**

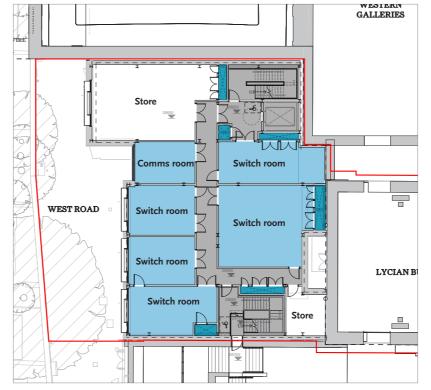
# Levels 02, 03, and Roof levels

The remainder of accommodation provided within the SWEC is composed of plant infrastructure.

At level 02, transformers located at Level 01 feed up into electrical switch rooms on both the northern and southern ends of the plan, with the remainder of space providing maintenance support storage space adjacent to the northern core lift.

Level 03 contains the water-source heat pump units and ancillary buffer vessels, press sets etc. as well as the building's Building Maintenance Unit (BMU) system, an electric boiler to meet peak heating demand, and provision for a connection to the Bloomsbury District Heating Network should it be made in future.

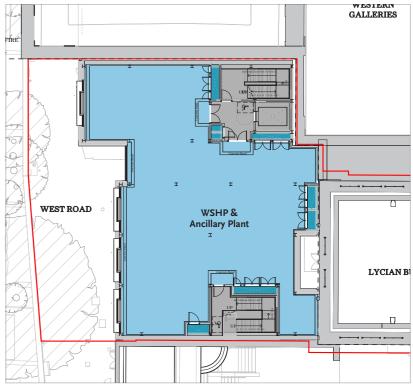
Level o6 consists of the open rooftop plant enclosure, bounded by a screen wall which acoustically attenuates plant noise. The air-source heat pumps are also attenuated themselves to meet acoustic requirements. At a half level above, atop the Lycian Building roof, 2 further air-source heat pumps will be located. These replace 4 No. chillers which currently exist in the same location.



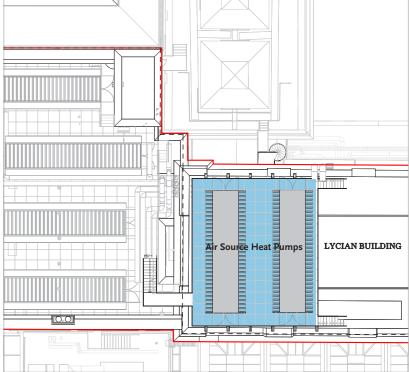
Level 02 Floor Plan



Level o6 Floor Plan



Level 03 Floor Plan



Level o7 Floor Plan

# Engineering FC Centre Office Circulation

- Welfare Lockers, Showers
- Storage

### Top left clockwise:

Level 02 floor plan, RIBA Stage 03 Level 03 floor plan, RIBA Stage 03 Level 07 floor plan, RIBA Stage 03 Level o6 roof plan, RIBA Stage o3

# 4.5

# **ELEVATIONS**

### 4.5.1

# **Materiality, Context & Precedent**

Top row, left to right:

Existing aerial photograph of the SWEC site

Existing photo of brickwork to the Duveen Gallery

Existing photo of brickwork to the Lycian Building

Photo of the existing west elevation of the Lycian Building in London stock brick and Portland stone

#### Middle row, left to right:

Existing aerial photograph of the rear elevations of the perimeter properties

Existing photo of brickwork to the Perimeter Properties

Existing photo of brickwork to the garden party wall

Existing photo of the rear elevations of the perimeter properties taken from the West Road

#### Bottom row, left to right:

Proposed predominant materiality for the proposals, London stock brickwork with charcoal grey painted metalwork

# Materiality precedents (left to right):

- Rochester Way, Peter Barber, Greenwich, London
- Creek Road, BPTW, Greenwich, London
- Stockwell House, Phillips Tracey Architects, Lambeth, London

The surrounding context is most heavily influenced by the rear elevations of both the Museum Lycian, New Wing, and Duveen Gallery elevations as well as the rear elevations of the perimeter properties which front onto Bloomsbury Street. Both are backof-house rear facing elevations in yellow toned London Stock brickwork in predominantly Flemish bond in various states of sooted patina, with the New Wing being most notably different due to its age. The existing elevations are generally paired with timber framed windows painted either white or black.

The proposed materiality will align strongly with this existing context, with elevations predominantly of yellow tone London stock brickwork in Flemish and soldier bond with charcoal coloured metal work.

The rear lightwell elevations against the Lycian building will be constructed from off-white glazed brickwork to help daylight extend down the depth of the lightwell.



Proposed Elevation Materiality - Yellow London stock brickwork with inset charcoal colour painted metalwork























Elevational Materiality Precedents - London stock brickwork with dark metalwork

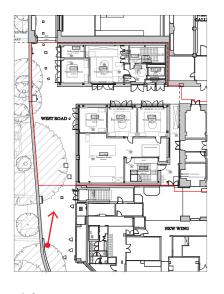
#### 4.5.2 **Proposed Facade Materiality and Detail**

The principal façade of the SWEC is the West facade which fronts onto the Wests Road. All other façades abut neighbouring buildings for the majority of the North, East, and South elevations.

The West elevation reflects the split of the building in two distinct blocks, constructed in phases, north and south. The southern portion (right) consists of a simple but crisply detailed form of post and lintel construction with inset metalwork and glazing.

The northern portion will form a bookend against the Duveen Gallery, and be more predominantly masonry-faced with punched fenestration. The gap between the north and south masonry will be treated in glazed and spandrel panels to create an expressed cleft between the two masonry blocks.

Regarding materiality the West, North, East and South Elevations will all be clad in yellow London Stock brickwork in Flemish bond with feature soldier courses to reflect the materiality of the surrounding context.



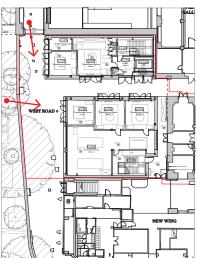
Right:

CGI of proposed West Elevation looking north along the West Road



View looking north along West Road





# Left to right:

CGI of proposed West Elevation looking south along the West Road

Proposed perspective CGI of SWEC West Elevation





Proposed West Elevation

# 4.5.3

# **Technical Design**

The detail of the SWEC facade design has been developed to balance cost, programme, aesthetic, heritage, and other aspects to present a viable and considered proposal which will deliver on the aspirations for the Energy Centre Programme during construction and in the long term.

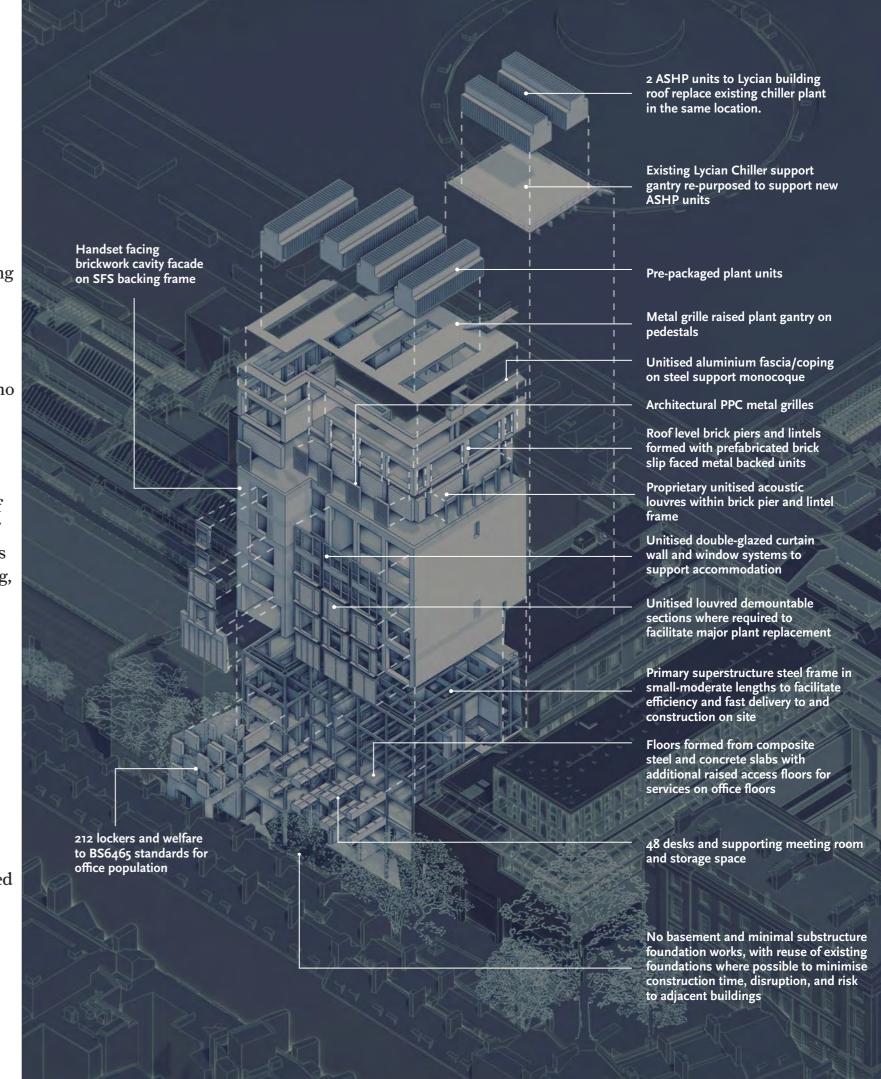
The structural design is based on the use of a lightweight steel frame and composite deck, which can be bolted together as a kit of parts, like a Meccano set, quickly on site. Bolted steel connections also enable the frame to be easily demounted for reuse and recycling at the end of the building's lifespan. All of the above contributes to the ability to have a lighter foundation substructure, based on the use of concrete strip and pad foundations and the reuse of existing foundations where appropriate. This avoids the need for heavy basement construction and piling, which reduces risk to adjacent building fabric.

MEP elements will be brought to site in prepackaged kits as much as possible and craned into place. Key larger elements will be installed on skids and gantries to facilitate ease of longer-term major plant replacement. Where possible, the structural slab will be utilised as the floor finish to reduce the need for wet screed construction and reduce embodied carbon emissions.

Regarding the façades, handset brickwork will be utilised in conjunction with pre-made, manufactured off site brick slip panels, fixed back to secondary steelwork SFS framing and the building's steel superstructure. Hardwearing steel framed window and louvre panels will provide robustness and be demountable where required to facilitate replacement of larger M&E plant.

Clockwise from top left:

Exploded axonometric showing the proposed SWEC building elements



#### 4.5.4 **Relationship with East Road Building**

The SWEC elevations, in their materiality and detailing, will have a relationship with the proposed ERB, the second largest building proposed as part of the Energy Centre Programme. As it is an advanced piece of work within the overall programme, planning submission for the ERB was made in April of 2023. Reference should be made to the documents contained within that application for further information on the ERB proposals. The material and detail relationship between the two proposed buildings will create a coherence and consistent quality to the Museum's back-of-house areas. The ISS, being a public facing building adjacent the White Wing, will have a different approach to ensure the proposals work well with the immediate context of the proposed building. Please refer to chapter 5 of this document for further information.









Proposed CGI looking north along the West Road showing proposed

Proposed CGI looking south along the East Road showing proposed exterior materiality and detailing of

Proposed CGI looking south along the West Road showing proposed exterior materiality and detailing of

the East Road Building

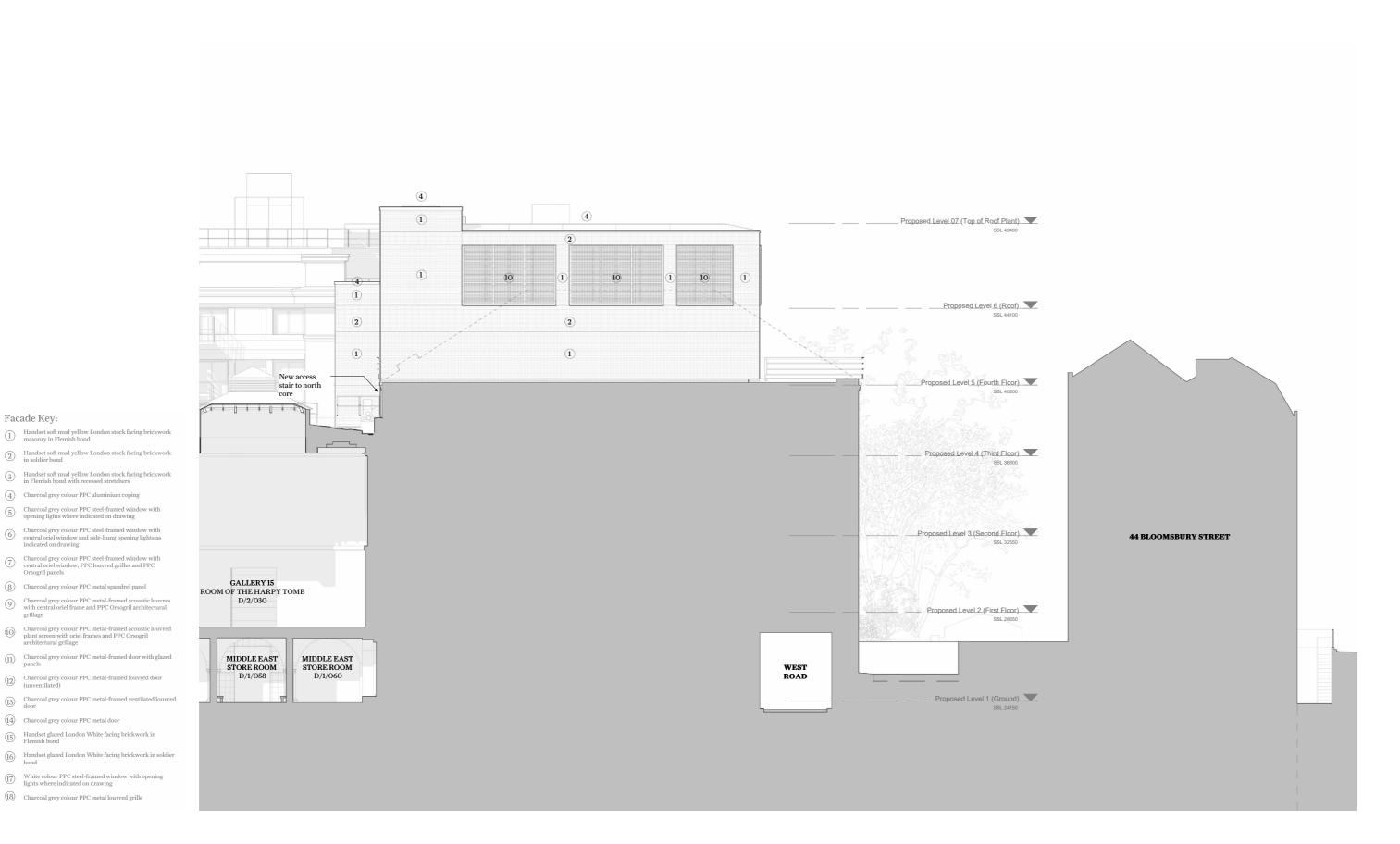
the SWEC Building

Left to right:

# 4.5.5 Proposed West Elevation

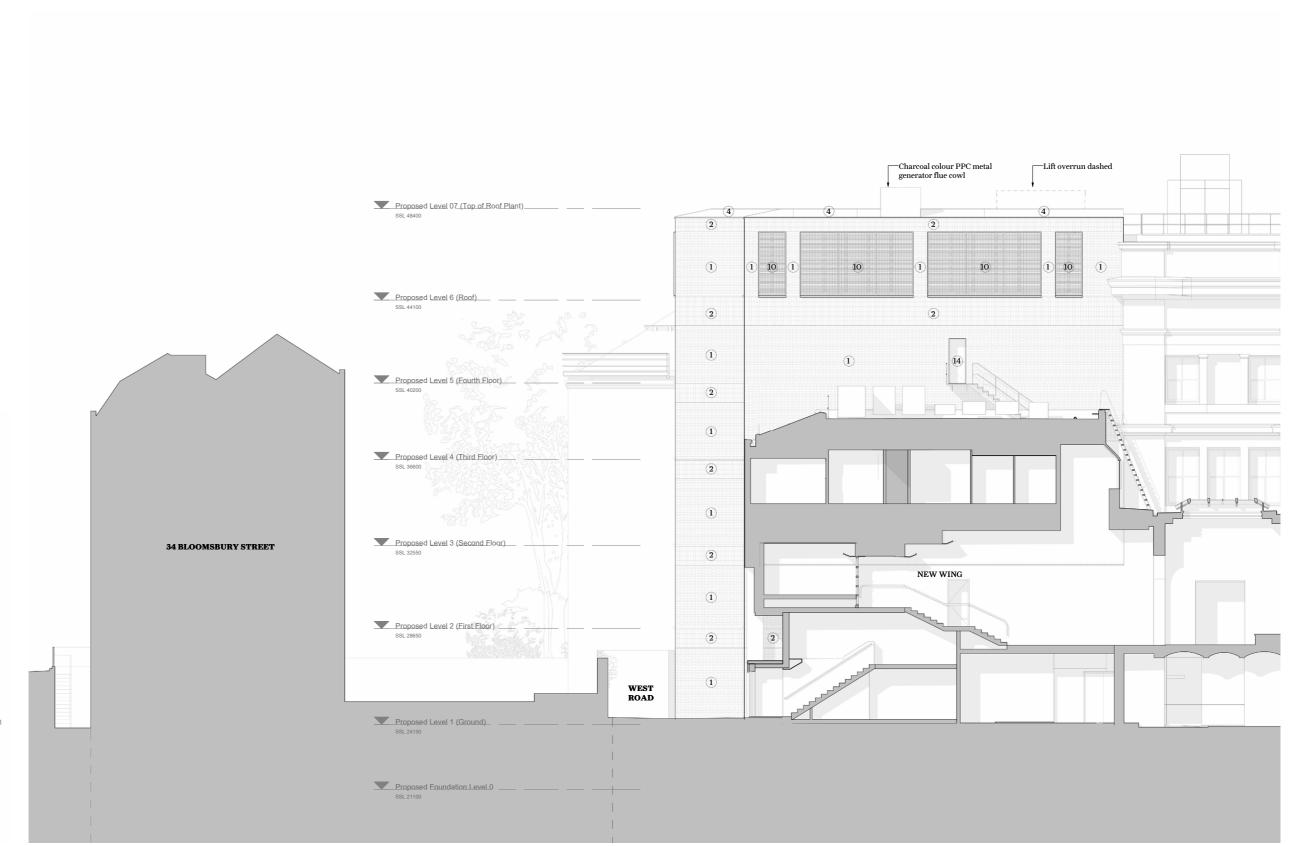


- Handset soft mud yellow London stock facing brickwork masonry in Flemish bond
- (3) Handset soft mud yellow London stock facing brickwor in Flemish bond with recessed stretchers
- 4 Charcoal grey colour PPC aluminium coping
- 5 Charcoal grey colour PPC steel-framed window with
- 6 Charcoal grey colour PPC steel-framed window with central oriel window and side-hung opening lights as indicated on drawing
- Charcoal grey colour PPC steel-framed window wi central oriel window, PPC louvred grilles and PPC
- 8 Charcoal grey colour PPC metal spandrel panel
- Charcoal grey colour PPC metal-framed acoustic louvres with central oriel frame and PPC Orsogril architectural grillage
- O Charcoal grey colour PPC metal-framed acoustic louvred plant screen with oriel frames and PPC Orsogril architectural grillage
- (I) Charcoal grey colour PPC metal-framed door with glazed panels
- (12) Charcoal grey colour PPC metal-framed louvred door (unventilated)
- (13) Charcoal grey colour PPC metal-framed ventilated louvred door
- (14) Charcoal grey colour PPC metal door
- Handset glazed London White facing brickwork in Flemish bond
- (16) Handset glazed London White facing brickwork in soldier bond
- White colour PPC steel-framed window with opening lights where indicated on drawing
- (18) Charcoal grey colour PPC metal louvred grille

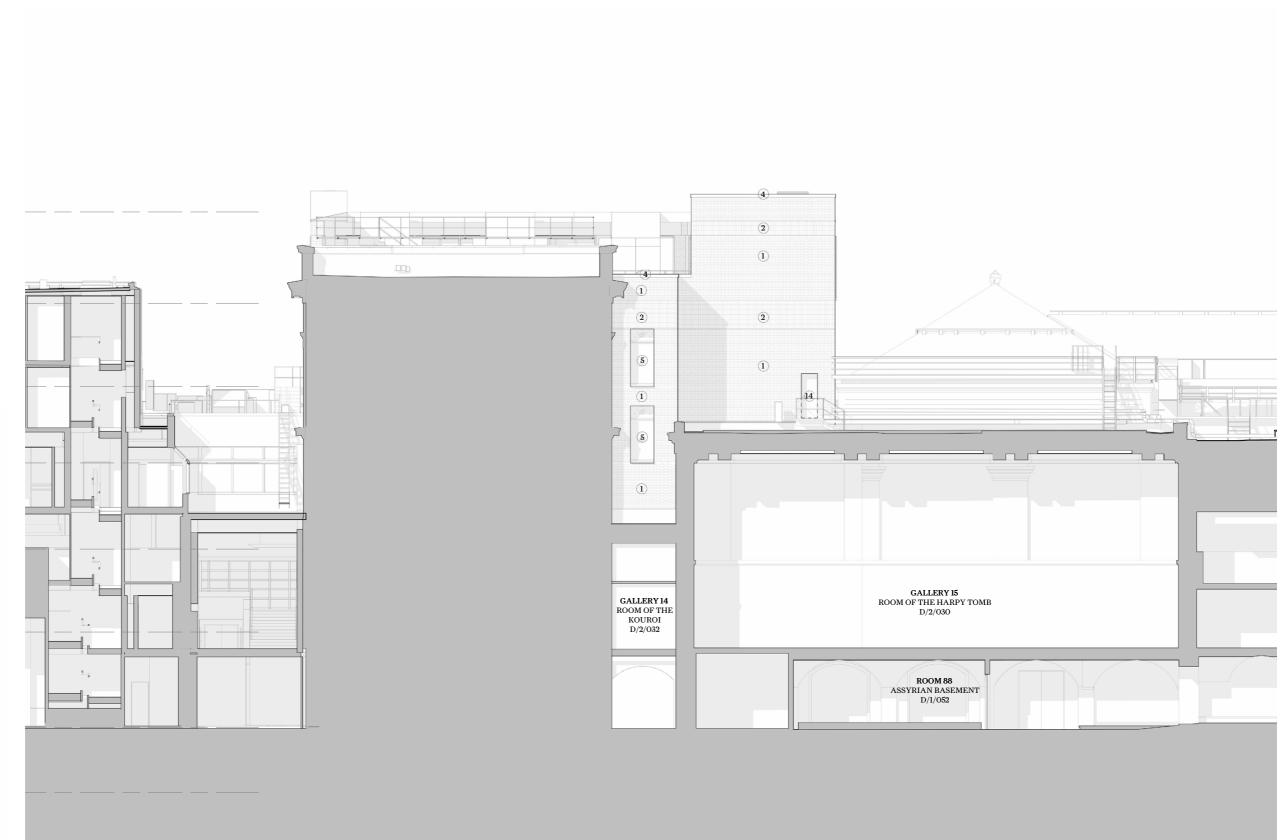


(14) Charcoal grey colour PPC metal door

# 4.5.7 South Elevation



- Handset soft mud yellow London stock facing brickwork masonry in Flemish bond
- Handset soft mud yellow London stock facing brickwork in soldier bond
- Handset soft mud yellow London stock facing brickwork in Flemish bond with recessed stretchers
- Charcoal grey colour PPC aluminium coping
- opening lights where indicated on drawing
- 6 Charcoal grey colour PPC steel-framed window with central oriel window and side-hung opening lights as indicated on drawing
- Charcoal grey colour PPC steel-framed window with central oriel window, PPC louvred grilles and PPC Orsogril panels
- 8 Charcoal grey colour PPC metal spandrel panel
- O Charcoal grey colour PPC metal-framed acoustic louvres with central oriel frame and PPC Orsogril architectural grillage
- Charcoal grey colour PPC metal-framed acoustic louvred plant screen with oriel frames and PPC Orsogril architectural grillage
- (II) Charcoal grey colour PPC metal-framed door with glazed panels
- Charcoal grey colour PPC metal-framed louvred door (unventilated)
- (13) Charcoal grey colour PPC metal-framed ventilated louvred door
- (14) Charcoal grey colour PPC metal door
- (15) Handset glazed London White facing brickwork in Flemish bond
- (16) Handset glazed London White facing brickwork in soldier bond
- White colour PPC steel-framed window with opening lights where indicated on drawing
- (18) Charcoal grey colour PPC metal louvred grille



- (1) Handset soft mud yellow London stock facing brickwork masonry in Flemish bond
- (2) Handset soft mud yellow London stock facing brickwork in soldier bond
- Handset soft mud yellow London stock facing brickwork
- $\begin{tabular}{ll} \hline $4$ & Charcoal grey colour PPC aluminium coping \\ \hline \end{tabular}$
- 5 Charcoal grey colour PPC steel-framed window with
- Charcoal grey colour PPC steel-framed window with central oriel window and side-hung opening lights as indicated on drawing
- Charcoal grey colour PPC steel-framed window wi central oriel window, PPC louvred grilles and PPC Orsogril panels
- 8 Charcoal grey colour PPC metal spandrel panel
- Charcoal grey colour PPC metal-framed acoustic louvres with central oriel frame and PPC Orsogril architectural grillage
- Charcoal grey colour PPC metal-framed acoustic louvred plant screen with oriel frames and PPC Orsogril architectural grillage
- (11) Charcoal grey colour PPC metal-framed door with glazed panels
- (12) Charcoal grey colour PPC metal-framed louvred door (unventilated)
- $\fbox{14} \quad \text{Charcoal grey colour PPC metal door}$
- Handset glazed London White facing brickwork in Flemish bond
- (16) Handset glazed London White facing brickwork in soldier bond
- White colour PPC steel-framed window with opening lights where indicated on drawing
- (18) Charcoal grey colour PPC metal louvred grille

# 4.5.9 Access Tunnel Façades

The north and south elevations facing the external ground level tunnel through the centre of the site will match in materiality to the principal elevations, being clad in yellow London stock brickwork in Flemish bond with feature soldier coursing. The soffit of the tunnel will be clad with painted suspended aluminium soffit tiles matching the colour of the inset metalwork and windows of the elevations.

#### Facade Key:

- Handset soft mud yellow London stock facing brickwork masonry in Flemish bond
- 2 Handset soft mud yellow London stock facing brickwork in soldier bond
- Handset soft mud yellow London stock facing brickwork in Flemish bond with recessed stretchers
- 4 Charcoal grey colour PPC aluminium coping
- Charcoal grey colour PPC steel-framed window with opening lights where indicated on drawing
- 6 Charcoal grey colour PPC steel-framed window with central oriel window and side-hung opening lights as indicated on drawing
- (7) Charcoal grey colour PPC steel-framed window with central oriel window, PPC louvred grilles and PPC Orsogril panels
- (8) Charcoal grey colour PPC metal spandrel panel
- Charcoal grey colour PPC metal-framed acoustic louvres with central oriel frame and PPC Orsogril architectural grillage
- Charcoal grey colour PPC metal-framed acoustic louvred plant screen with oriel frames and PPC Orsogril architectural grillage
- (11) Charcoal grey colour PPC metal-framed door with glazed
- (12) Charcoal grey colour PPC metal-framed louvred door (unventilated)
- (13) Charcoal grey colour PPC metal-framed ventilated louvred door
- (14) Charcoal grey colour PPC metal door
- Handset glazed London White facing brickwork in Flemish bond
- (16) Handset glazed London White facing brickwork in soldier bond
- White colour PPC steel-framed window with opening lights where indicated on drawing
- (18) Charcoal grey colour PPC metal louvred grille

#### Right top to bottom:

Section & Elevation BB, RIBA Stage 03

Section & Elevation EE, RIBA Stage 03



Section & Elevation BB



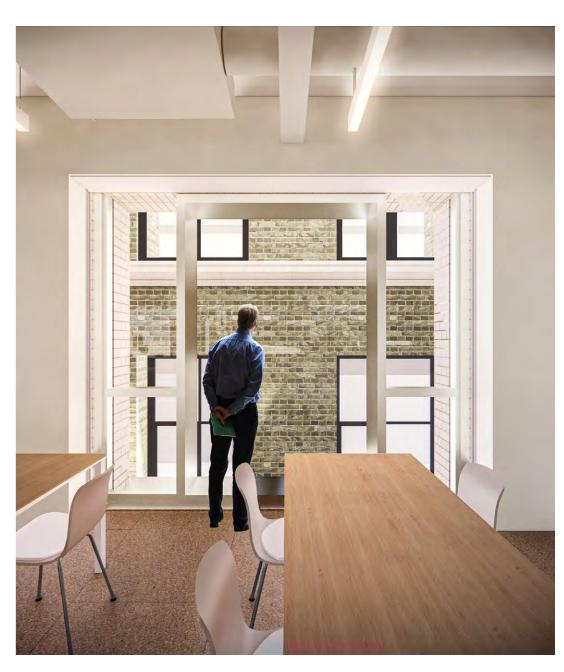
Section & Elevation EE

# 4.5.10 Lightwell & Lycian Elevations

Glazed bricks will be utilised in the rear lightwell elevations adjacent the Lycian Building to increase the reflectance of daylight and sunlight. Generous windows to office storey mess areas will provide a unique view of the historic Lycian facade for occupants, as well as bring a source of light and air into the Mess spaces.

Where visible from the new building or left exposed, the existing West elevation of the Lycian Building will be repaired where required and cleaned. This will include replacement on a like-for-like basis of defective brick and stone masonry and pointing, and refurbishment of existing windows and leadwork.

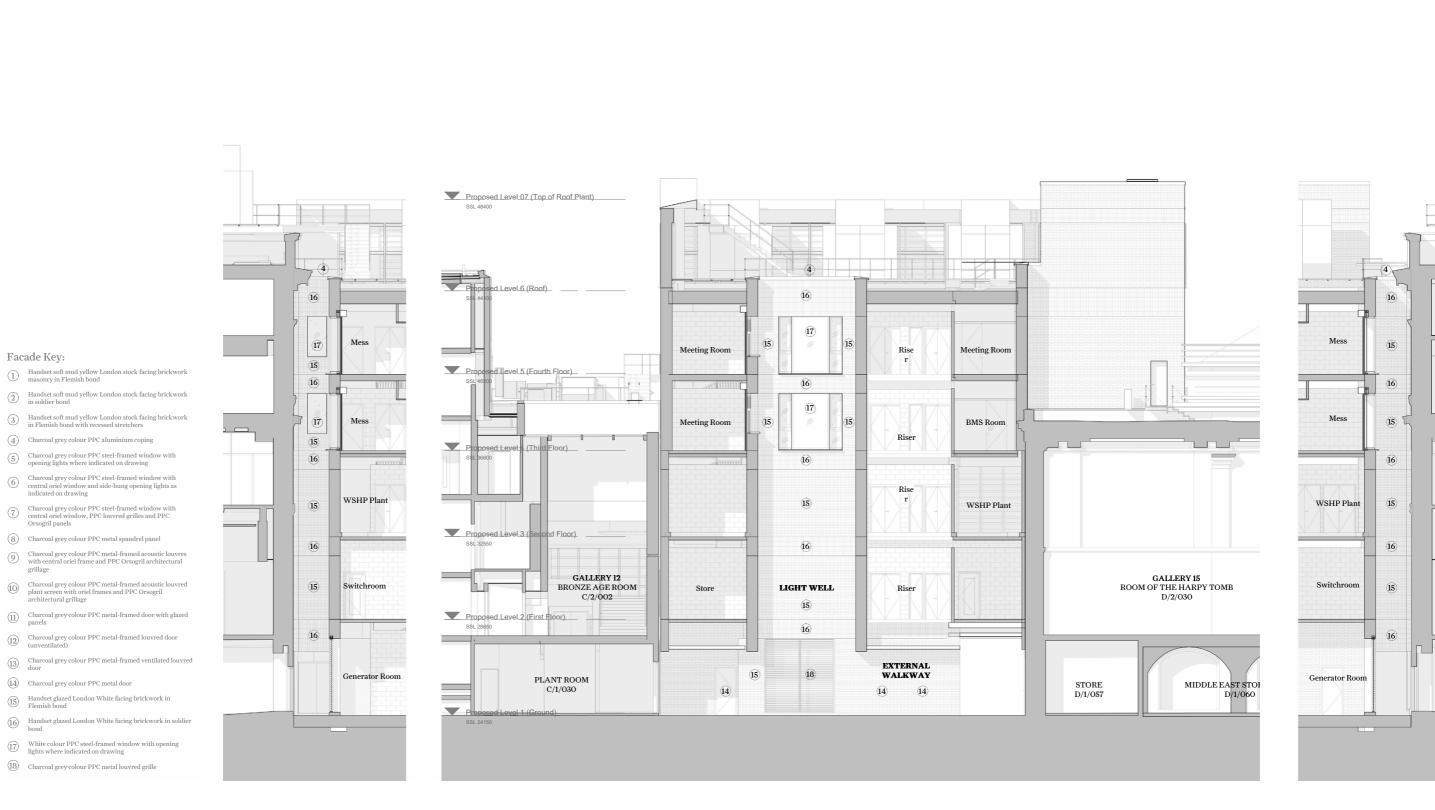




#### Left to right:

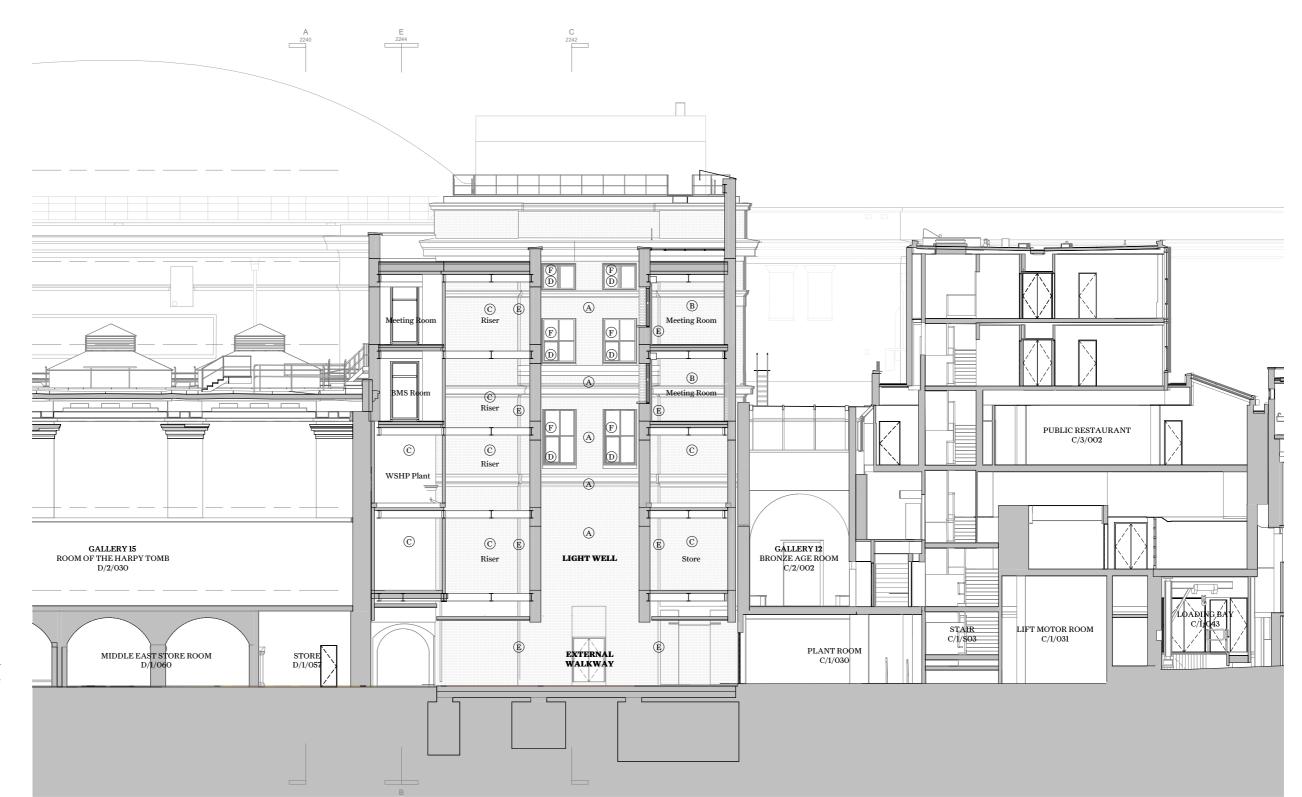
Exterior CGI showing the proposed internal lightwell elevations

Interior CGI showing the view of the Lycian building West elevation and windows from the proposed mess room



# (18) Charcoal grey colour PPC metal louvred grille

(14) Charcoal grey colour PPC metal door



#### Repairs Key:

- (A) Existing Lycian brickwork and Portland stone copings/cornicing to be cleaned and repointed where required within retained light well.
- B Existing Lycian brickwork and Portland stone copings/cornicing to be cleaned and repointed where required within proposed LO4 & O5 meeting rooms.
- © Existing Lycian brickwork and Portland stone copings/cornicing to be repointed where required within proposed riser and plant rooms
- required within proposed riser and plant rooms.

  (D) Existing leadwork flashing to be repaired where defective and oiled.
- (F) Existing Lycian windows to be redecorated. Localised repairs to be undertaken where existing frames are dilapidated.

Note: requirement for installation of new fire shutters to Lycian Wing windows to be confirmed with Fire Engineer.