

Planning Applications Sub-Committee PRESENTATION PACK

Date: TUESDAY, 11 JUNE 2024

Time: 10.30 am

Venue: LIVERY HALL - GUILDHALL

4. 1-8 LONG LANE, LONDON, EC1A 9HF

For Decision (Pages 3 - 94)

5. 38 - 41 FURNIVAL STREET LONDON EC4A 1JQ (CITY SITE) & 31 - 33 HIGH HOLBORN WC1V 6AX (CAMDEN SITE)

For Decision (Pages 95 - 198)

Ian Thomas CBE
Town Clerk and Chief Executive







1 – 8 Long Lane, EC1A

Planning Applications Sub-Committee

11th June 2024

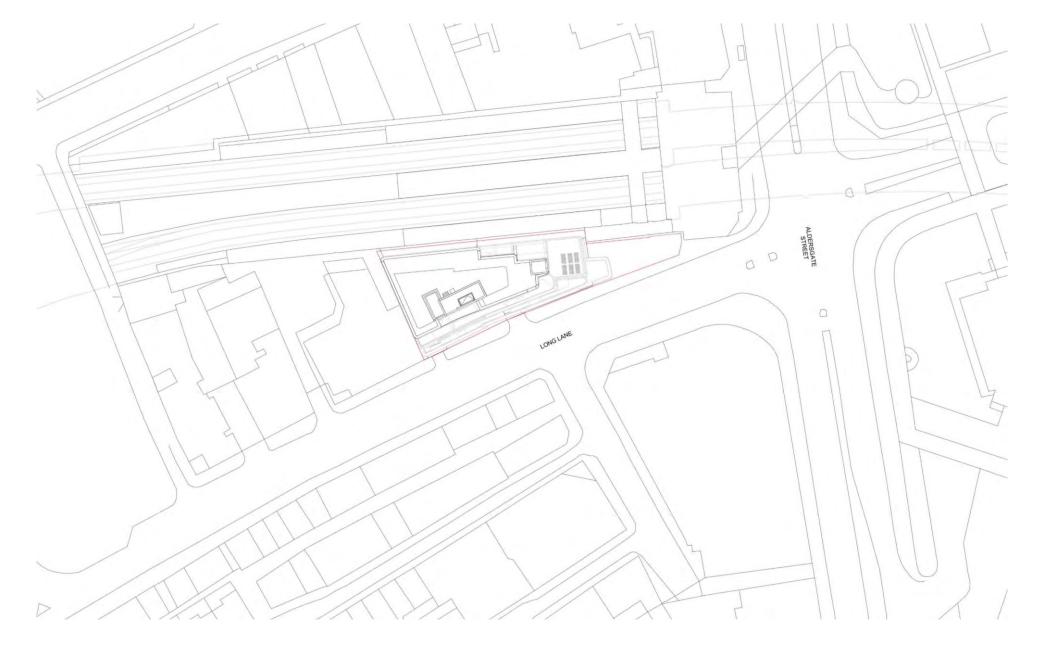


Location Plan with Conservation Area and Listed Buildings





Aerial view of the site



Site Plan



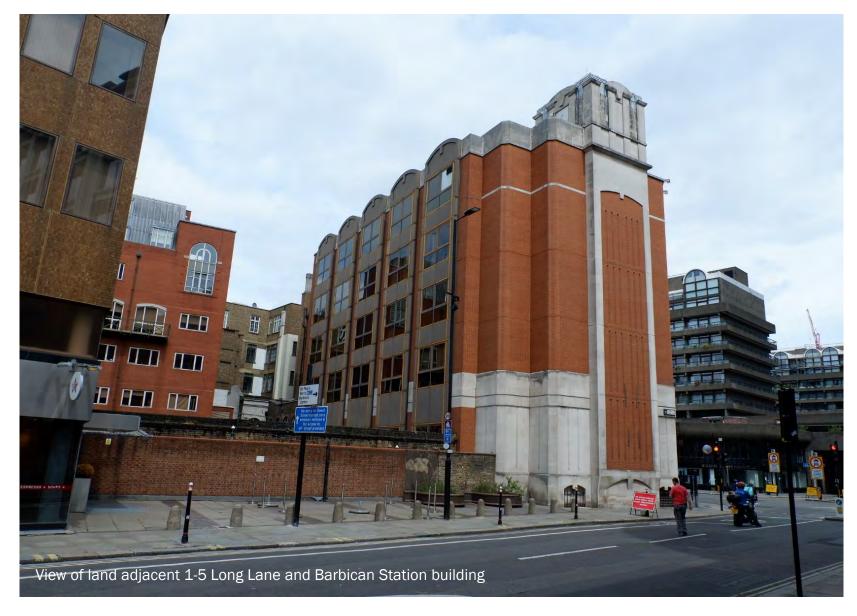
Existing Site Photos



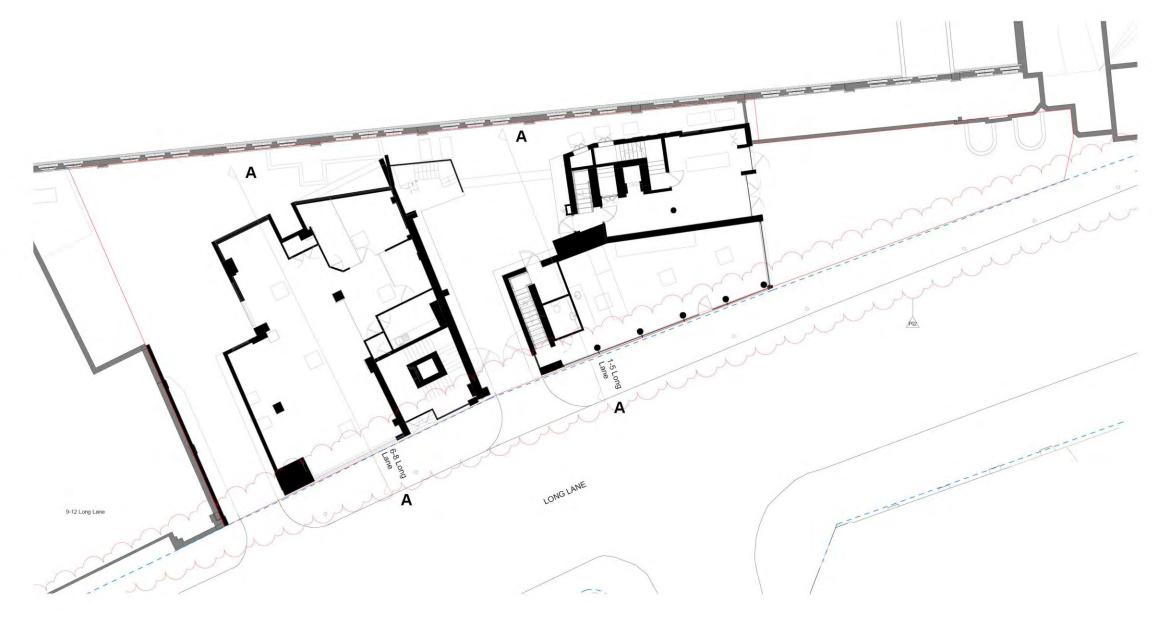




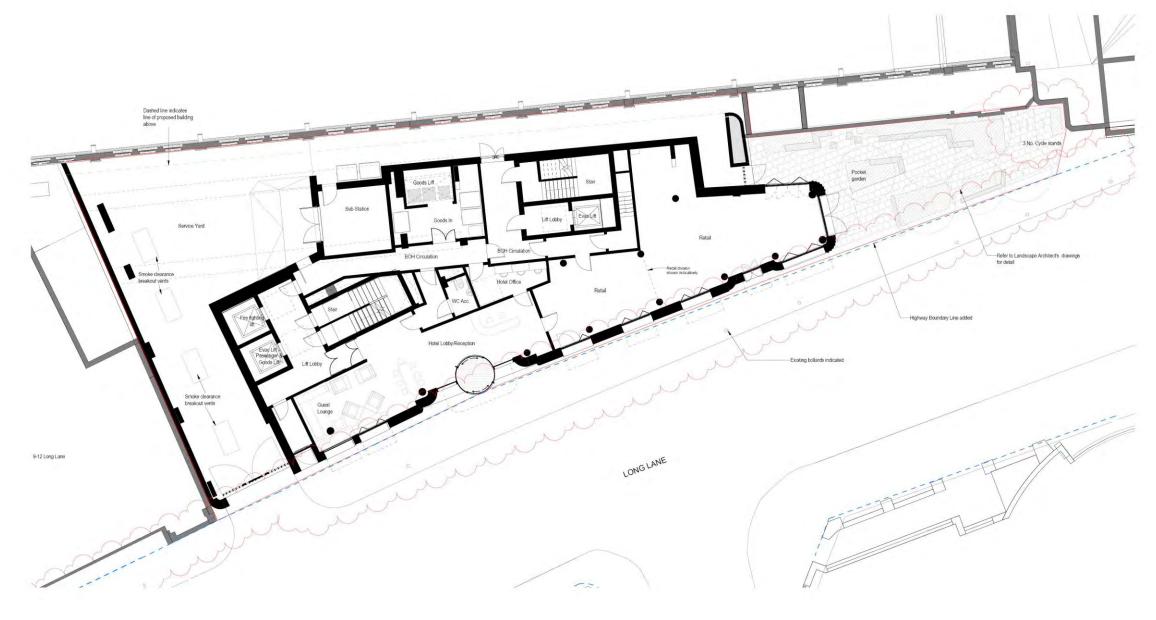
Existing Site Photos



Existing Site Photos

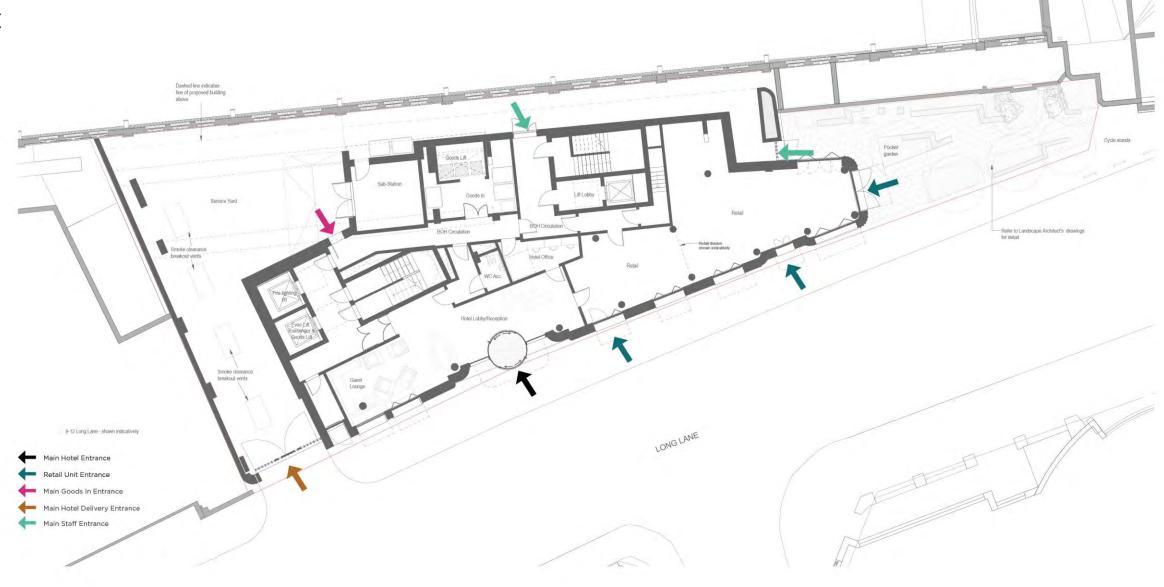


Ground Floor Plan - Existing



Ground Floor Plan - Proposed

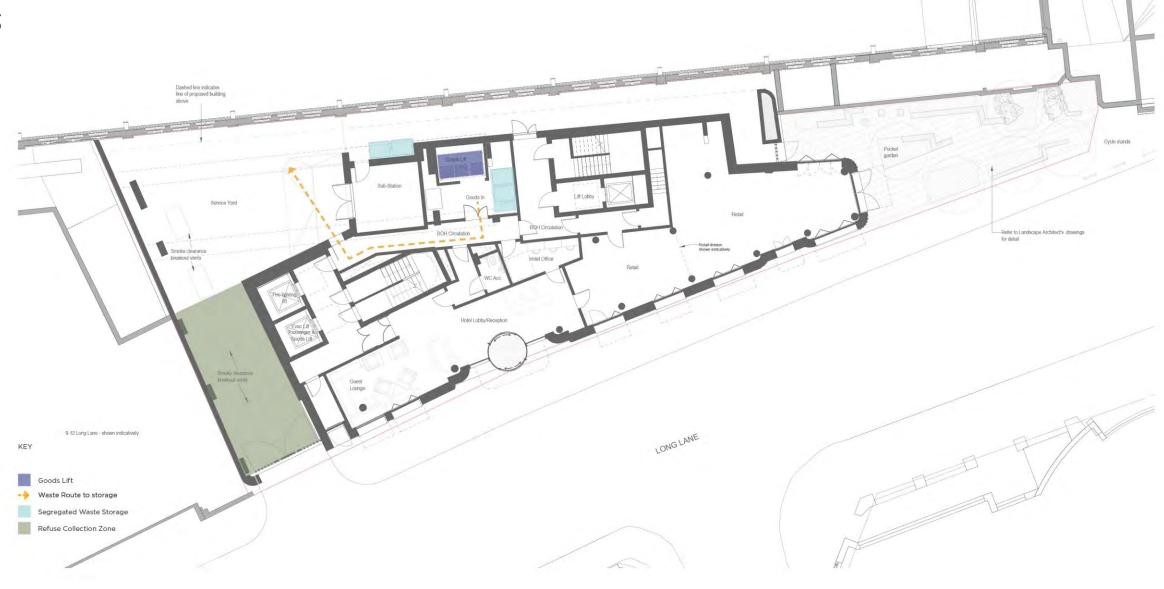
Ground Floor Plan - Proposed Public Realm Improvements



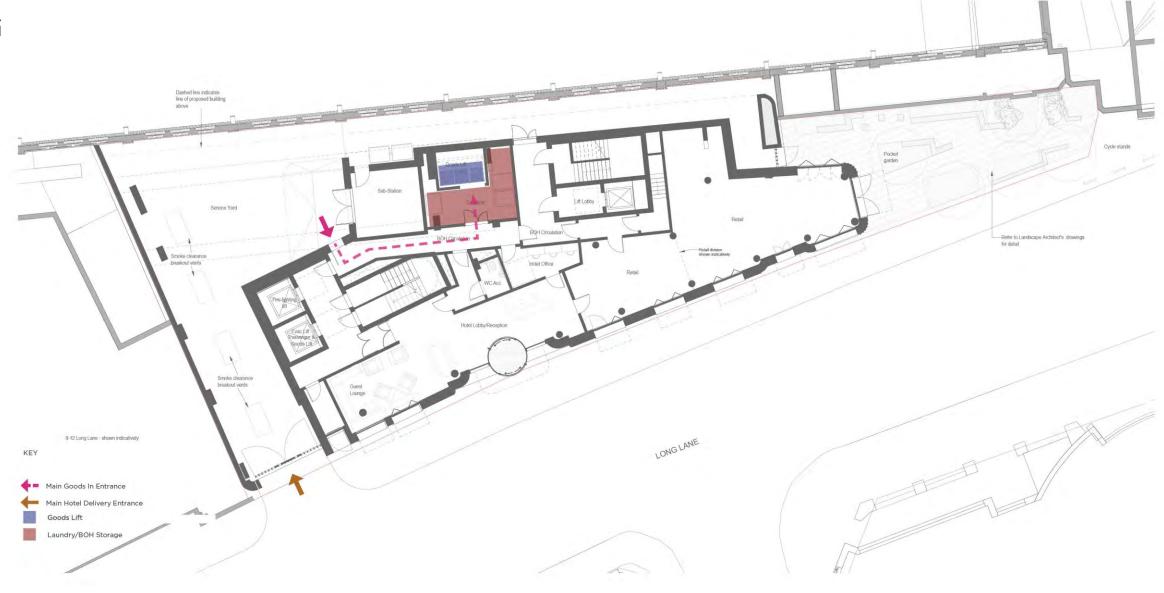
Ground Floor Plan – Proposed Site Entrances



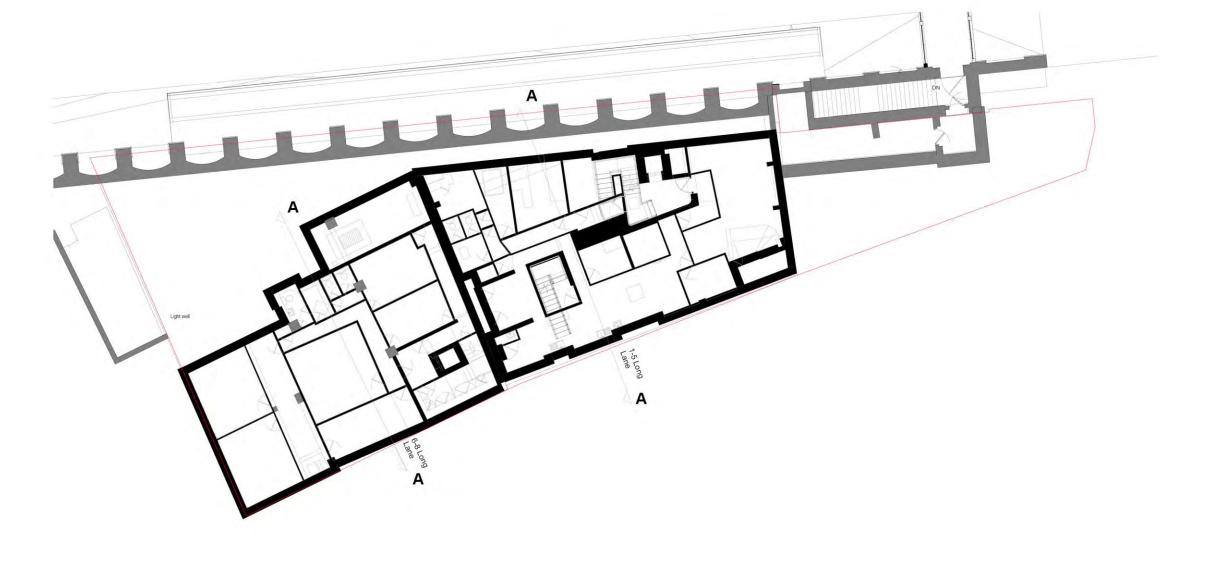
Ground Floor Plan - Proposed Pedestrian / Cycle Access

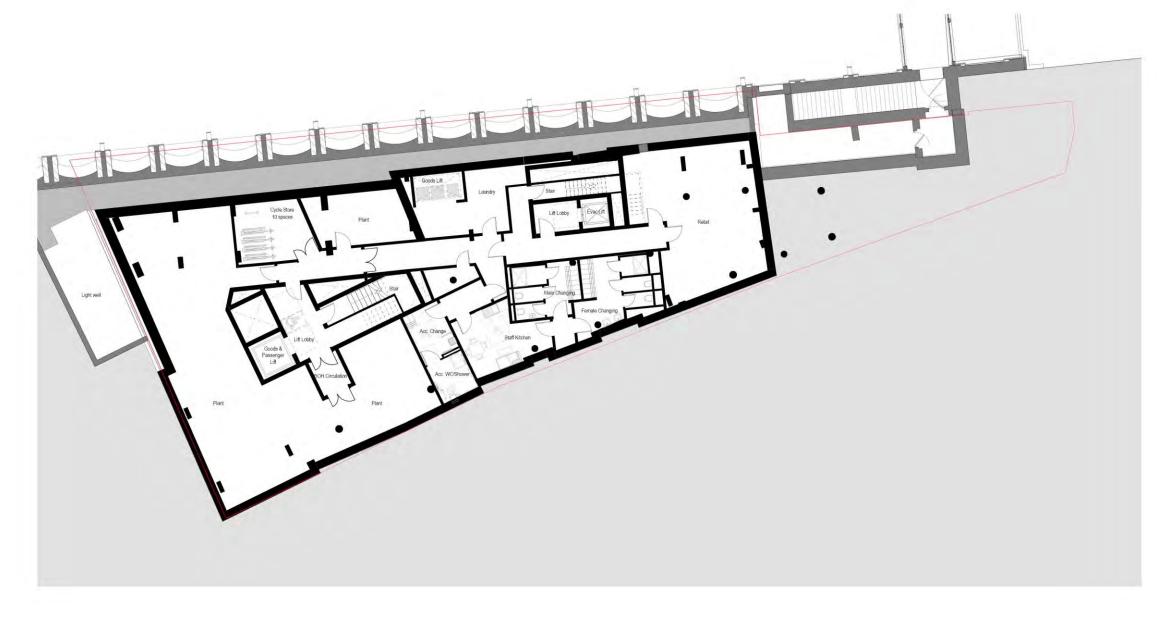


Ground Floor Plan - Proposed Waste Strategy Diagram

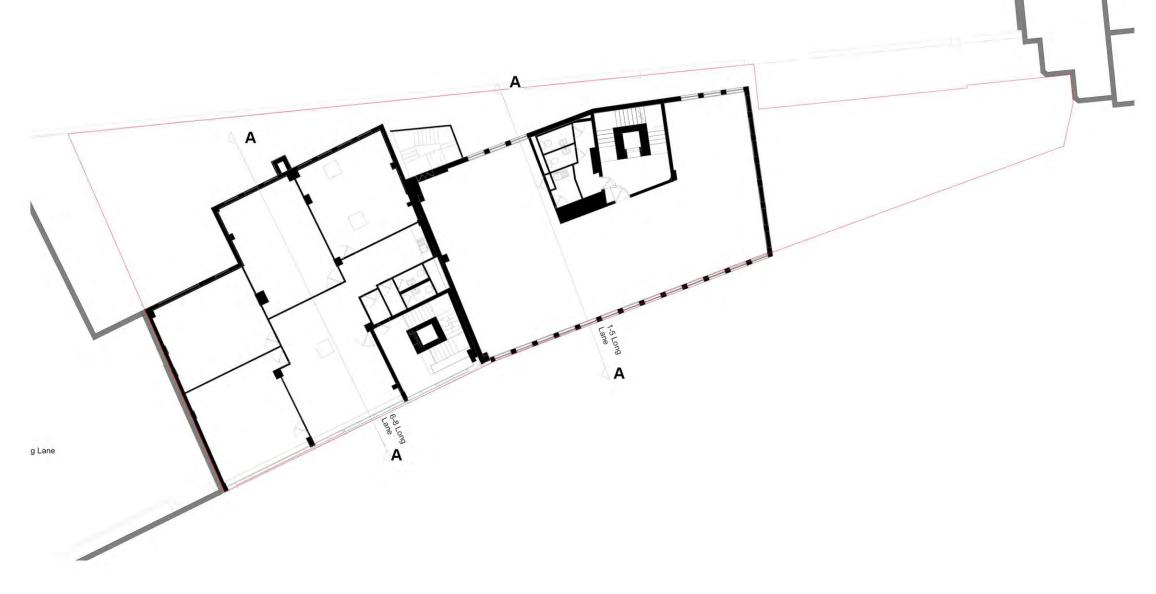


Ground Floor Plan - Proposed Deliveries & Servicing Principles

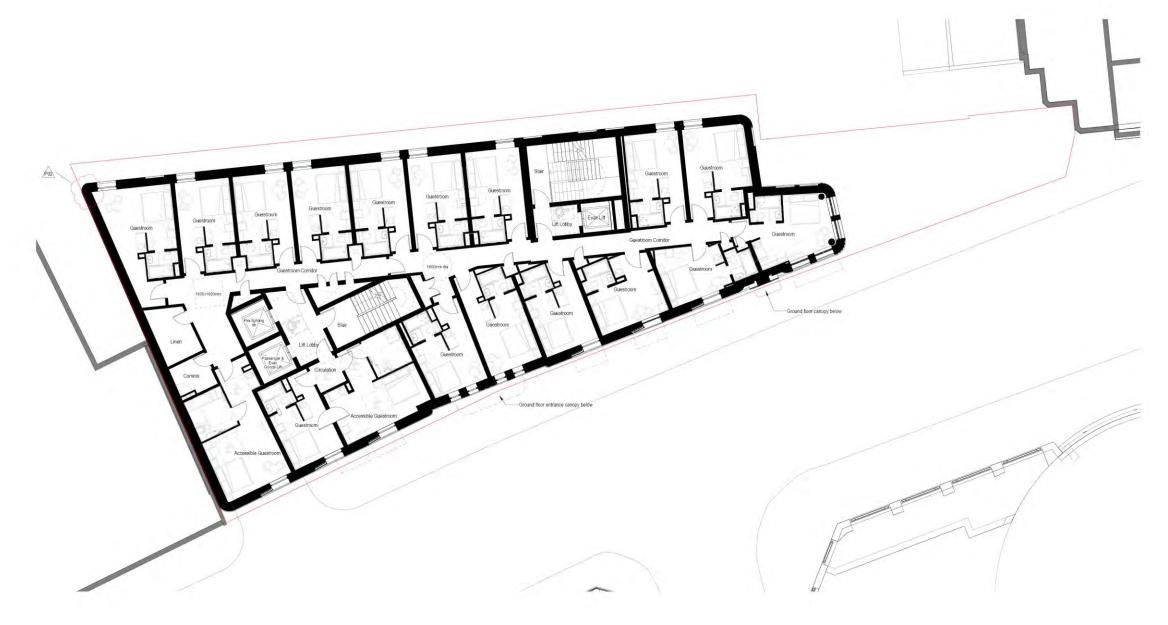




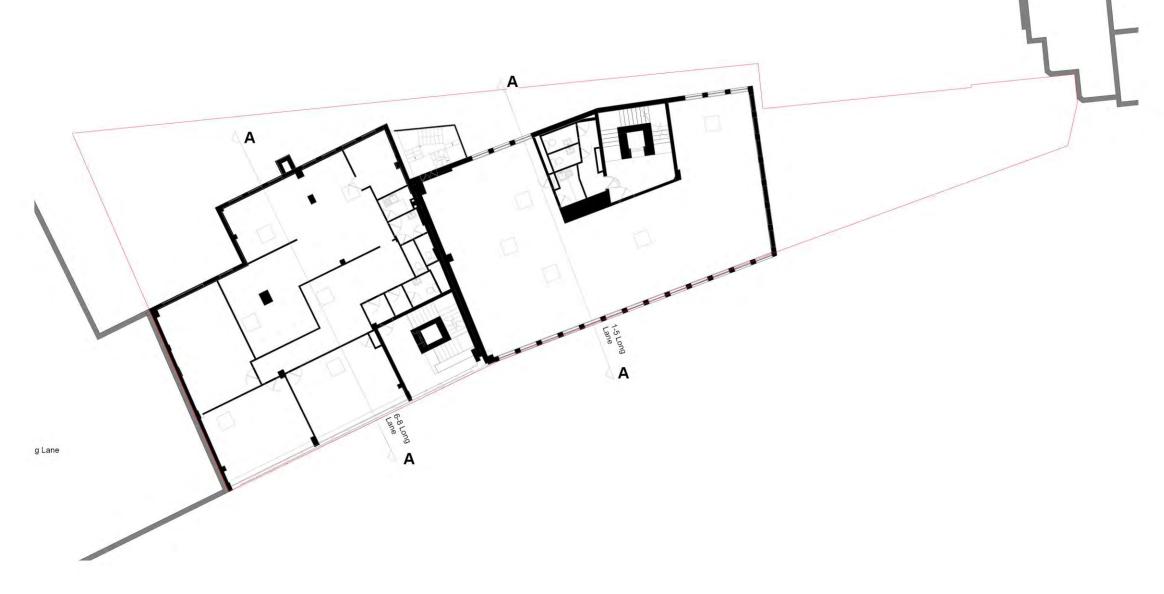
Basement Floor Plan - Proposed



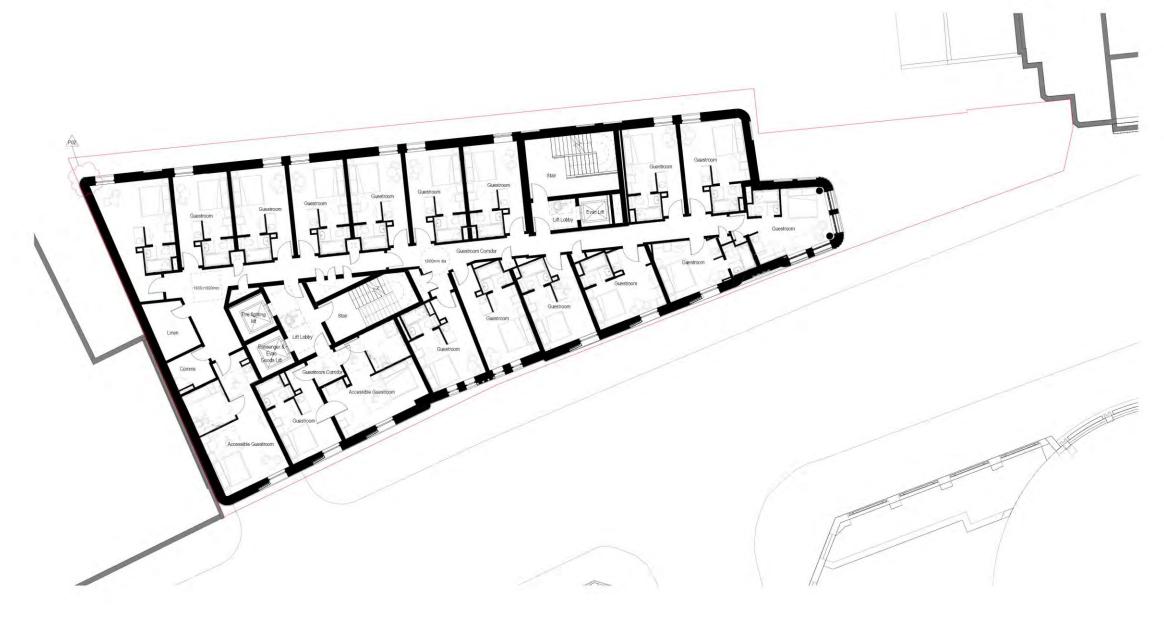
First Floor Plan - Existing



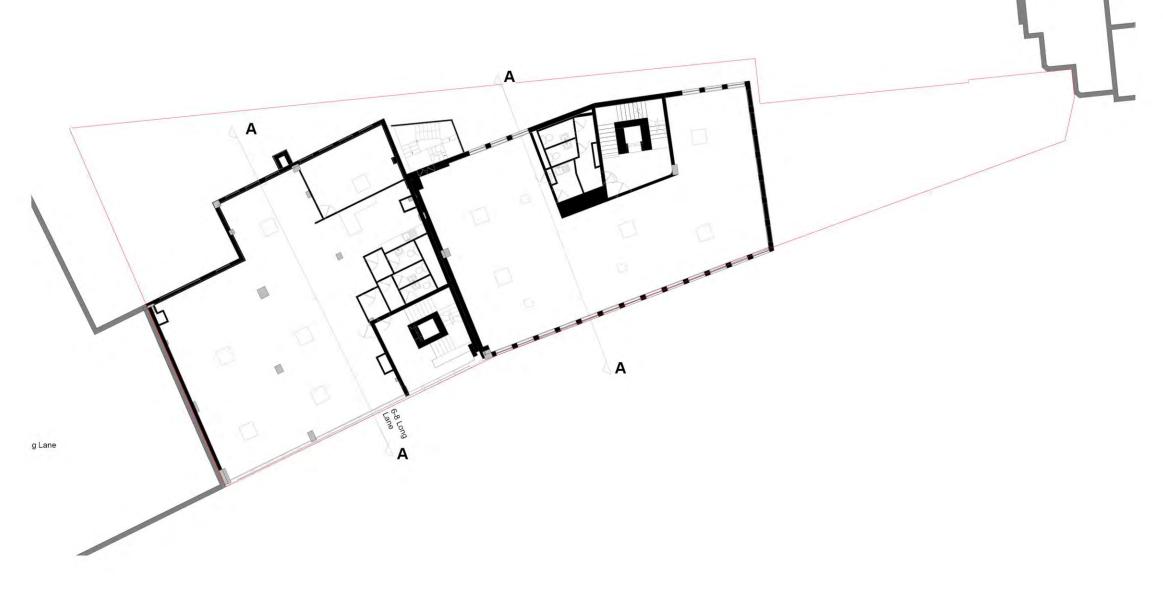
First Floor Plan - Proposed



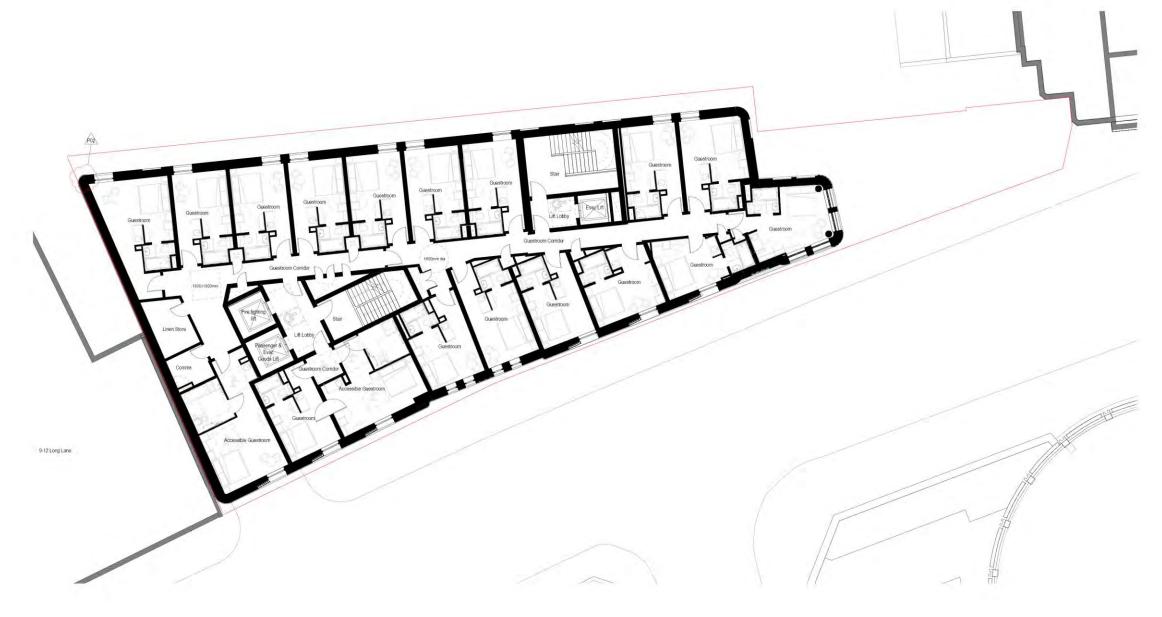
Second Floor Plan - Existing



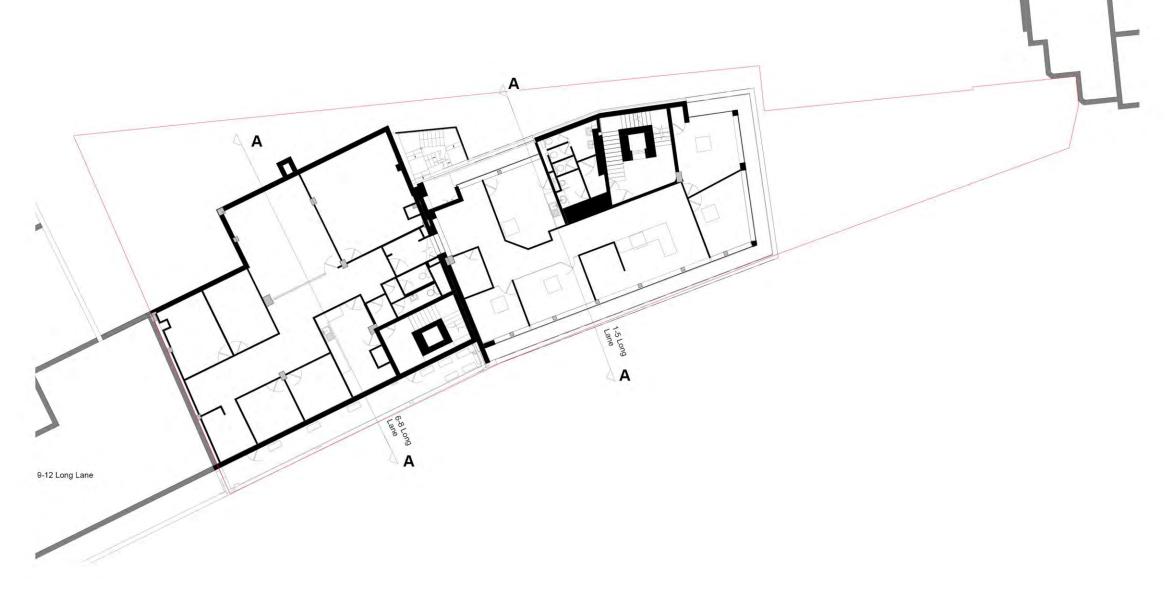
Second Floor Plan - Proposed



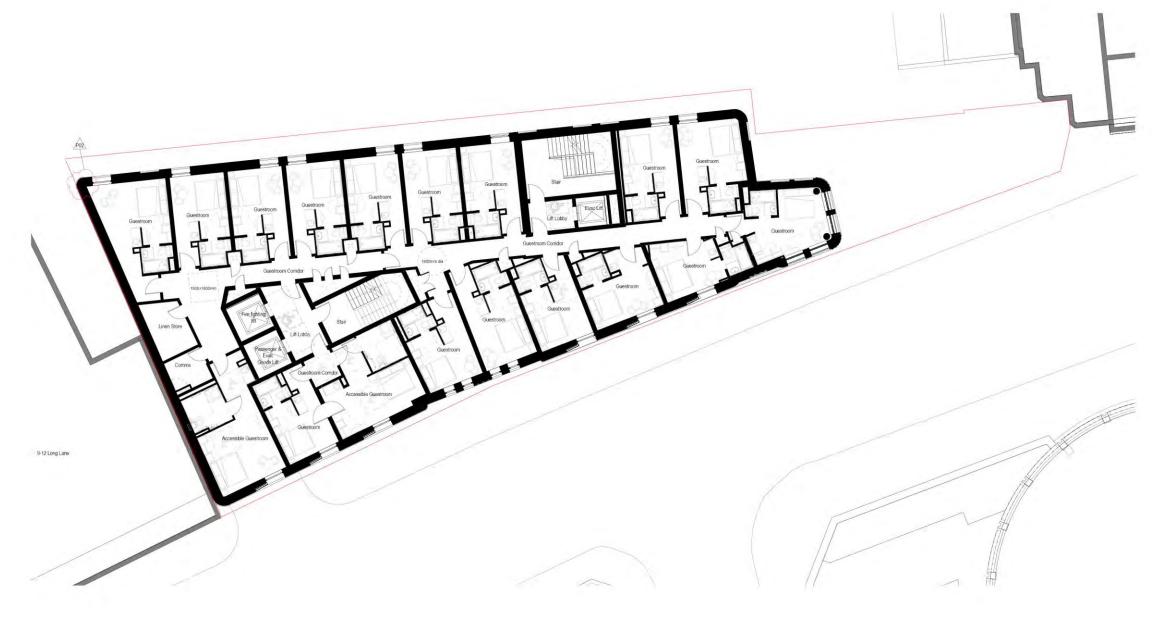
Third Floor Plan - Existing



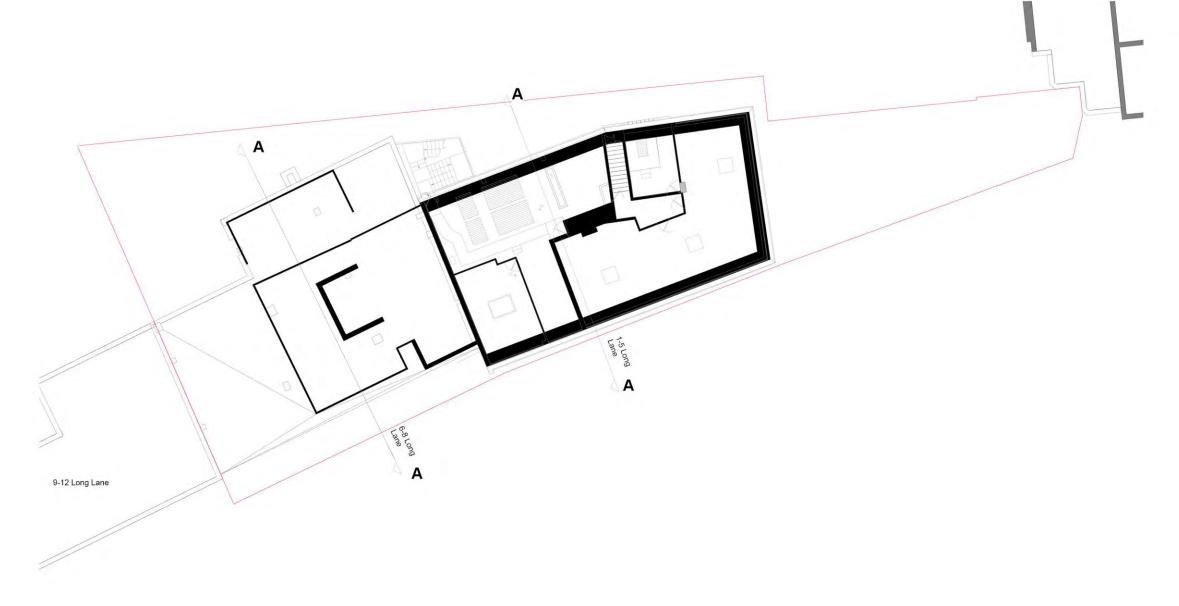
Third Floor Plan - Proposed



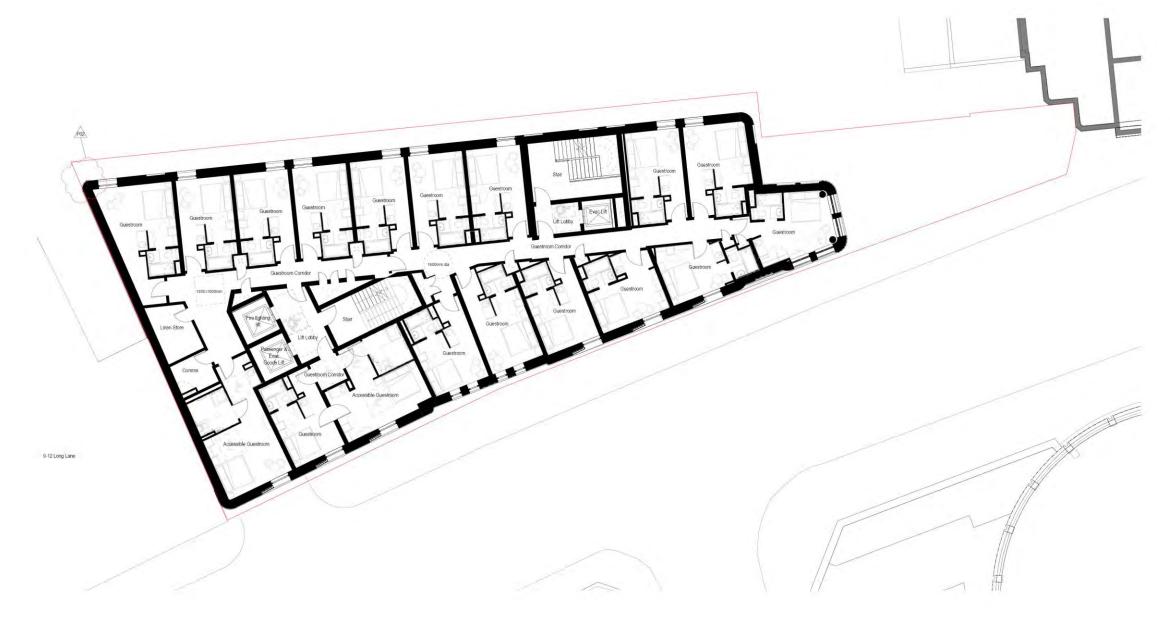
Fourth Floor Plan – Existing



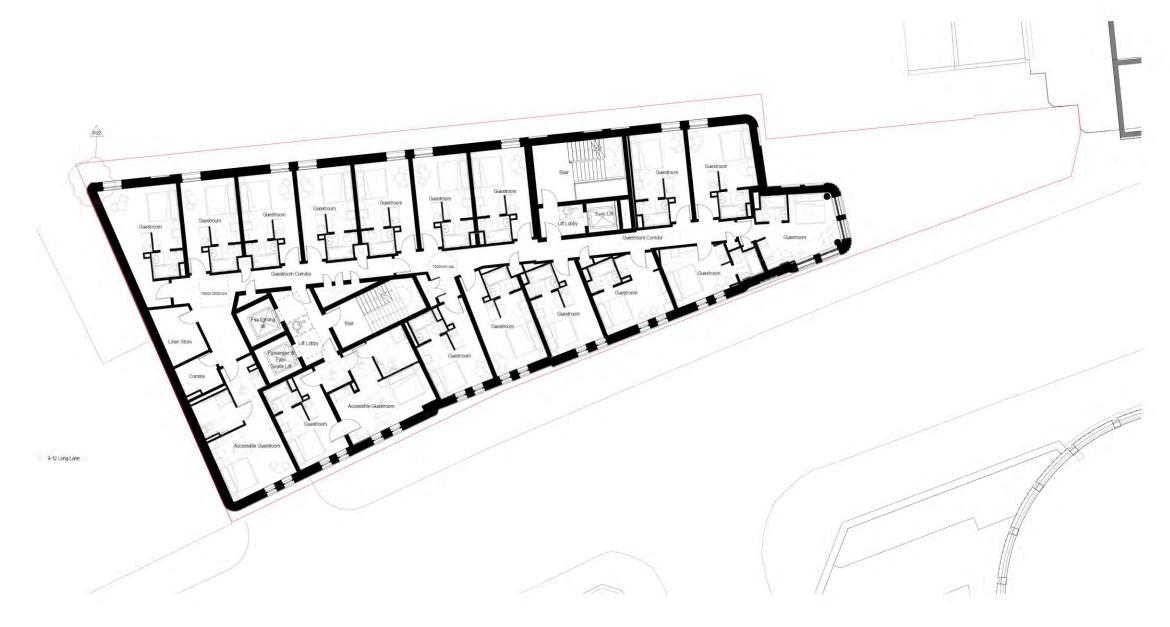
Fourth Floor Plan – Proposed



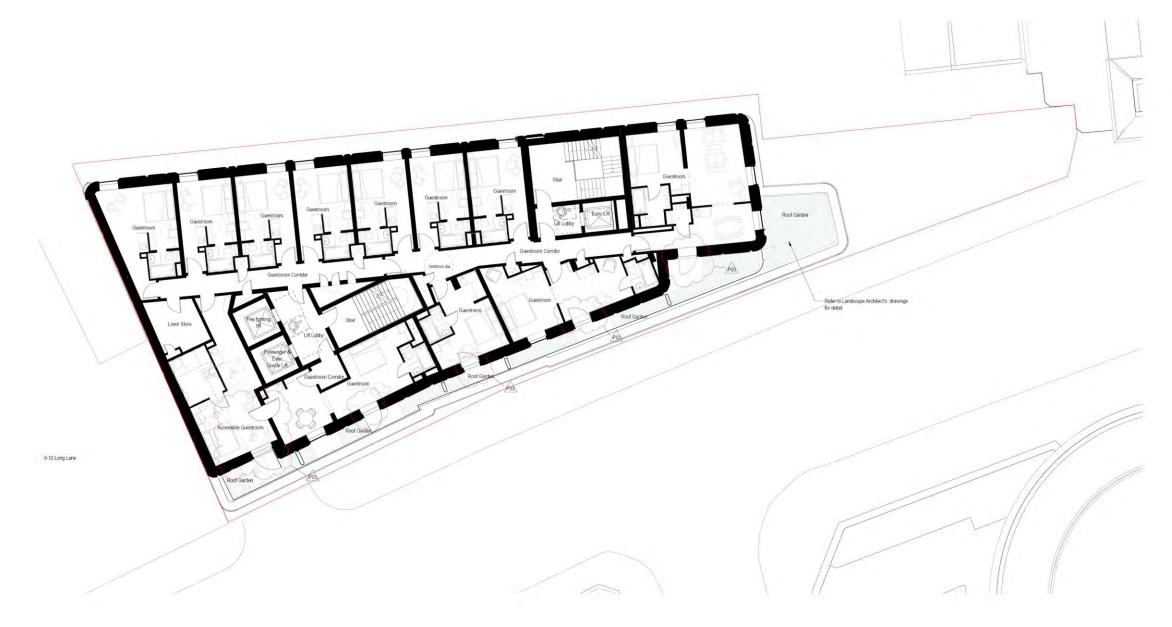
Fifth Floor Plan – Existing



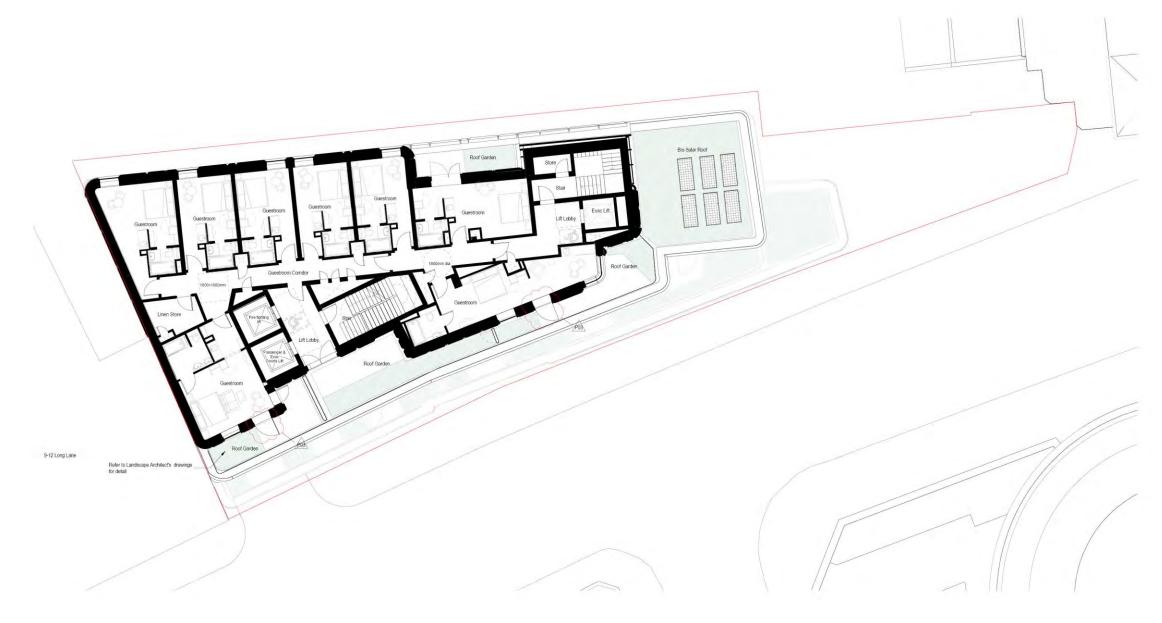
Fifth Floor Plan – Proposed



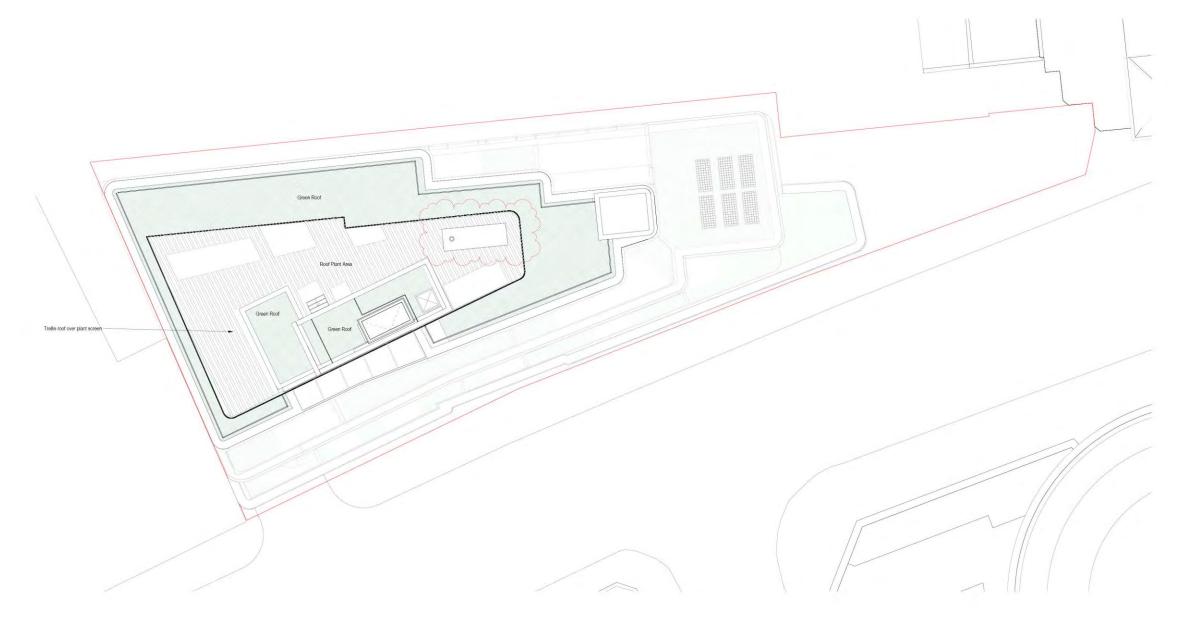
Sixth Floor Plan – Proposed



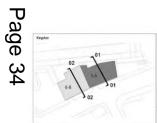
Seventh Floor Plan – Proposed

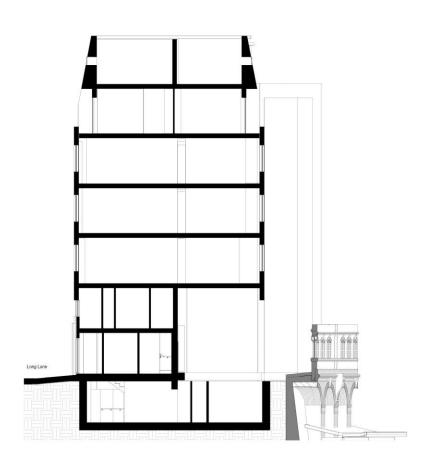


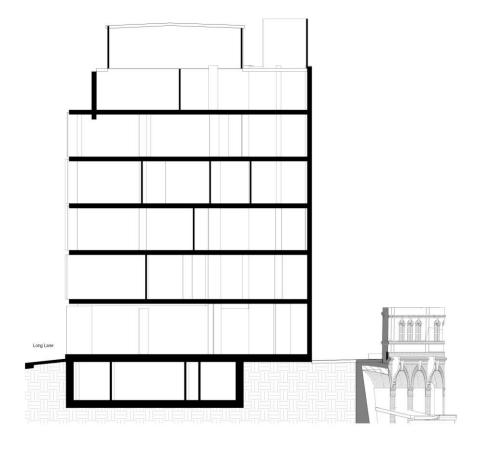
Eighth Floor Plan – Proposed



Roof Plan – Proposed







Cross Sections – Existing



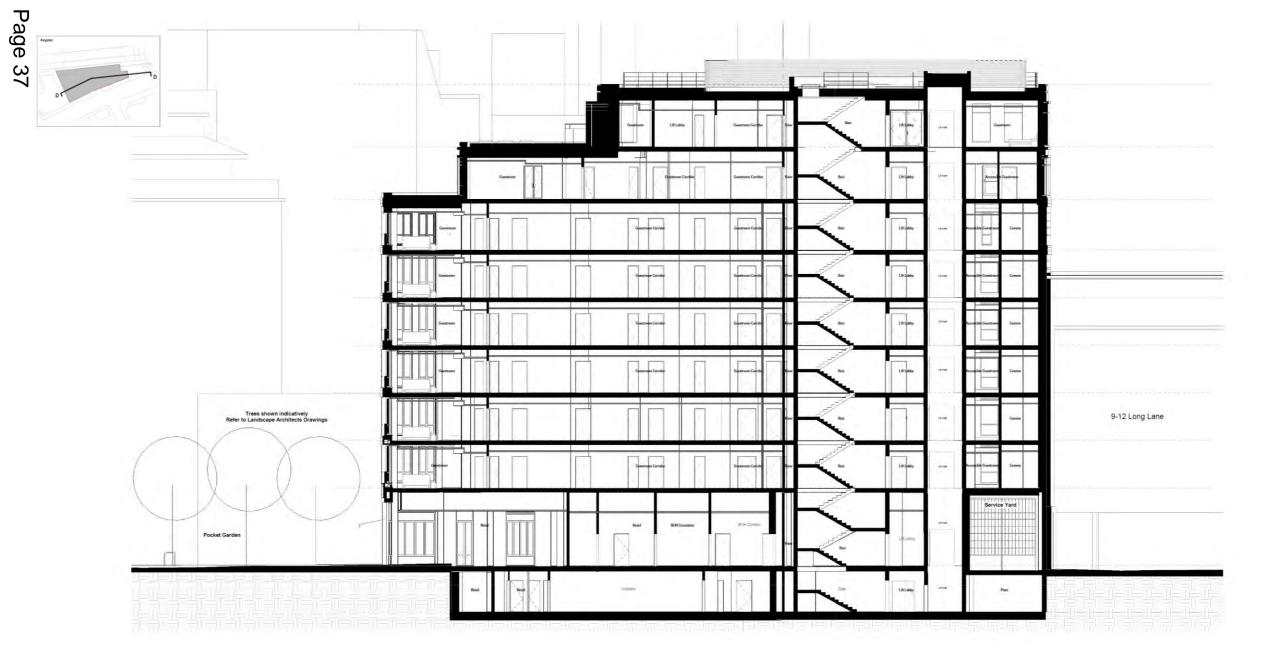
Cross Sections – Proposed

Page

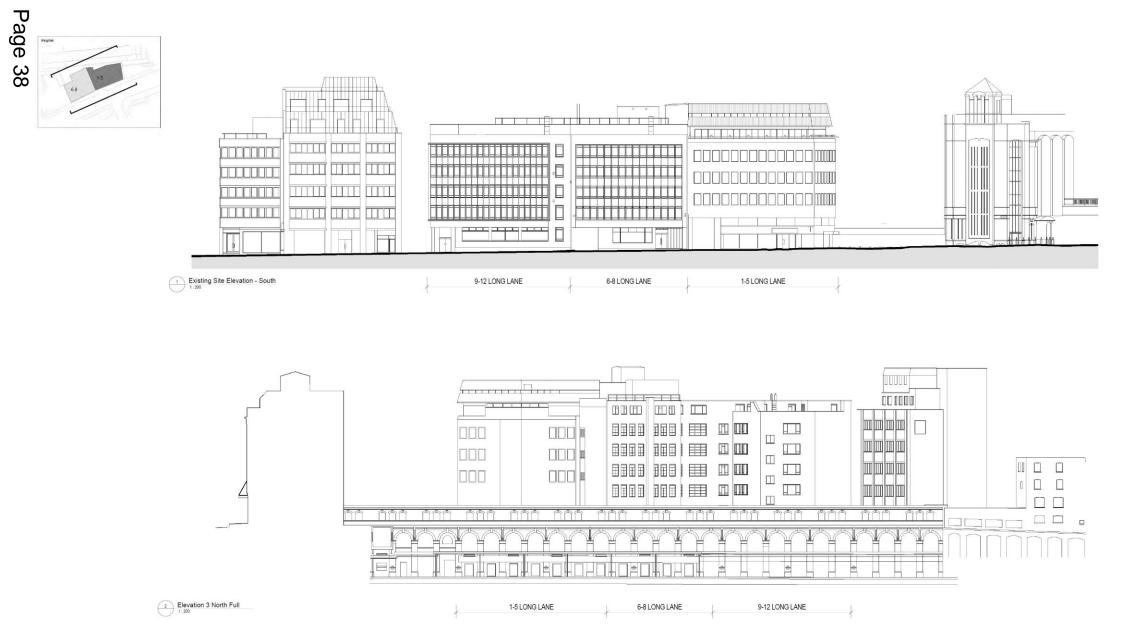
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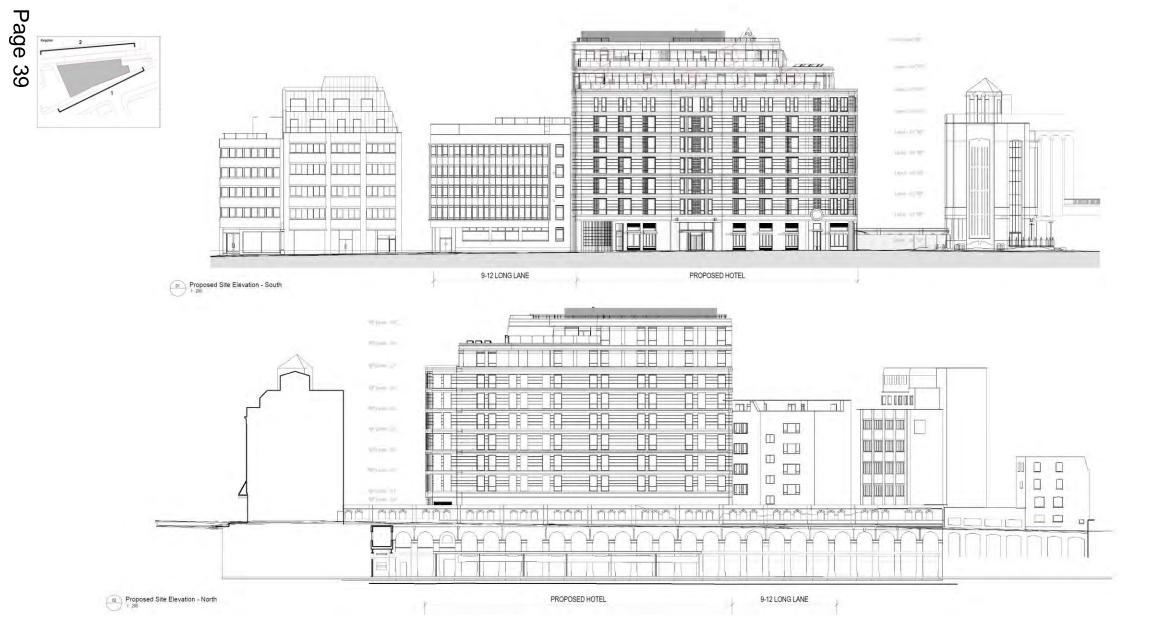
Long Sections – Proposed



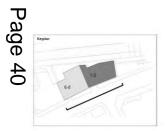
Long Sections – Proposed

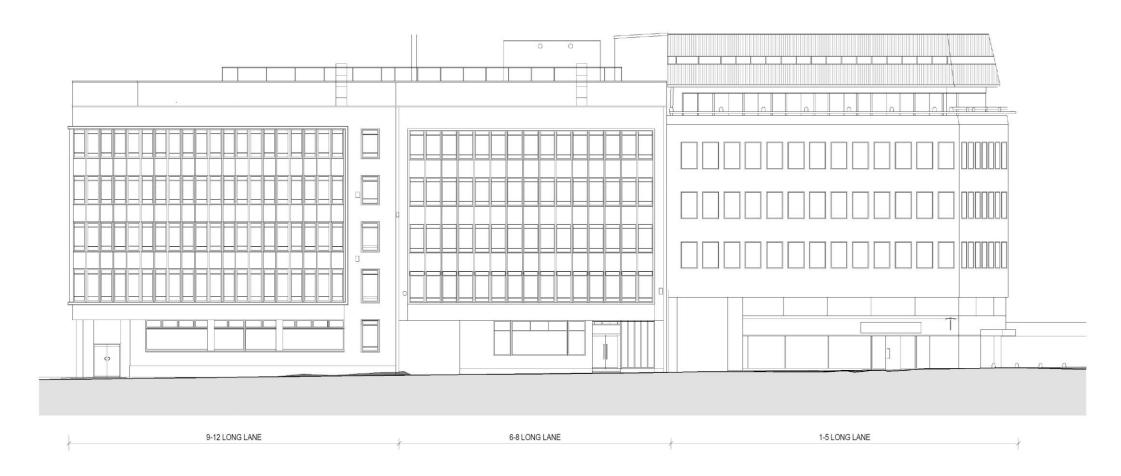


Site Wide Elevations - Existing

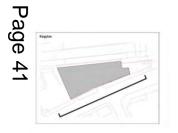


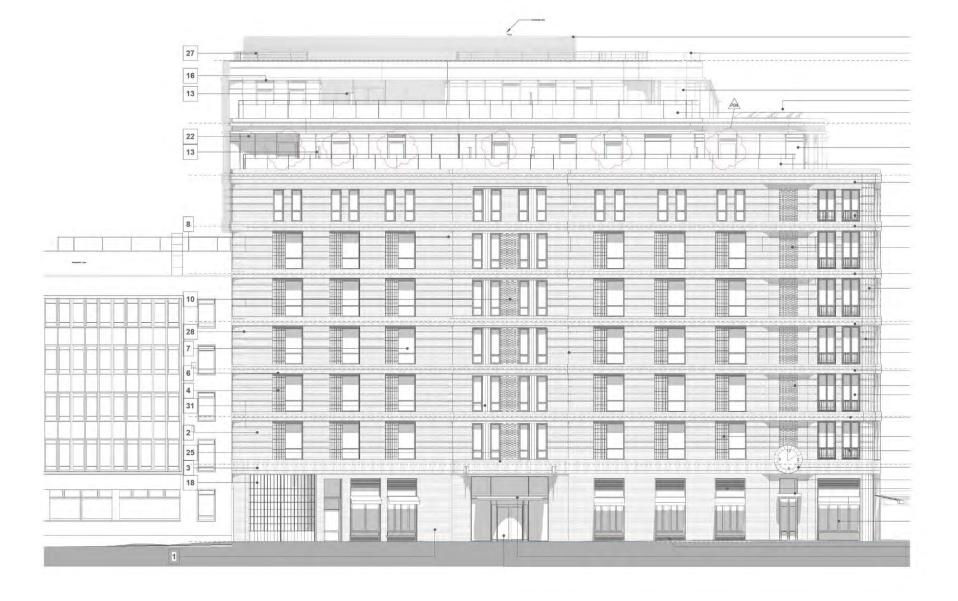
Site Wide Elevations – Proposed

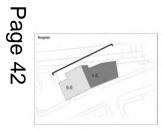




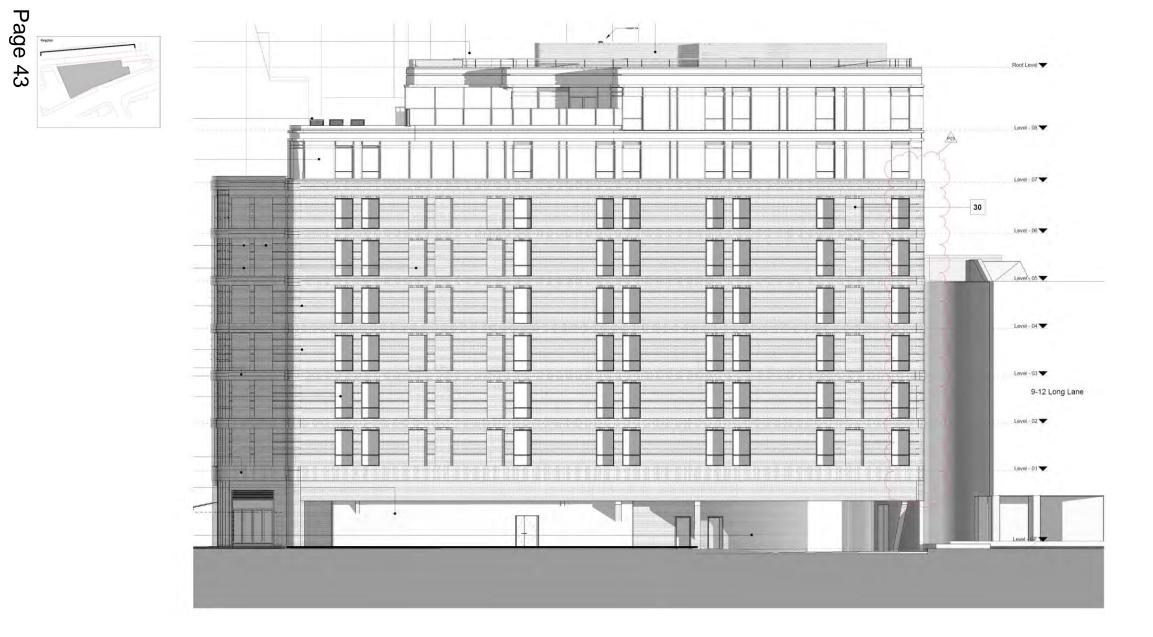
South Elevation – Existing



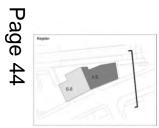


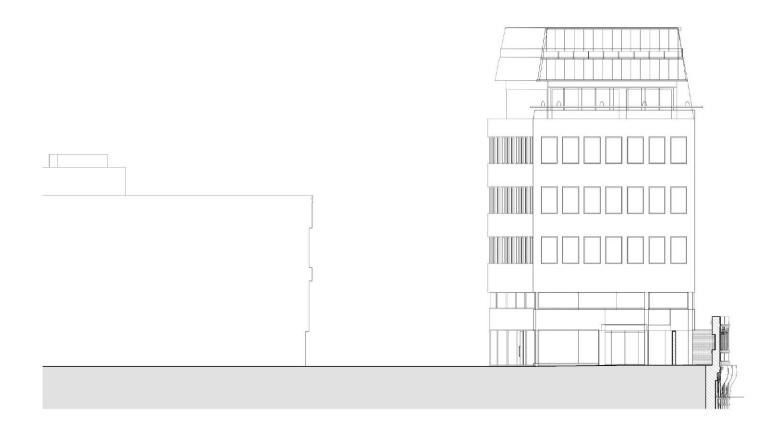




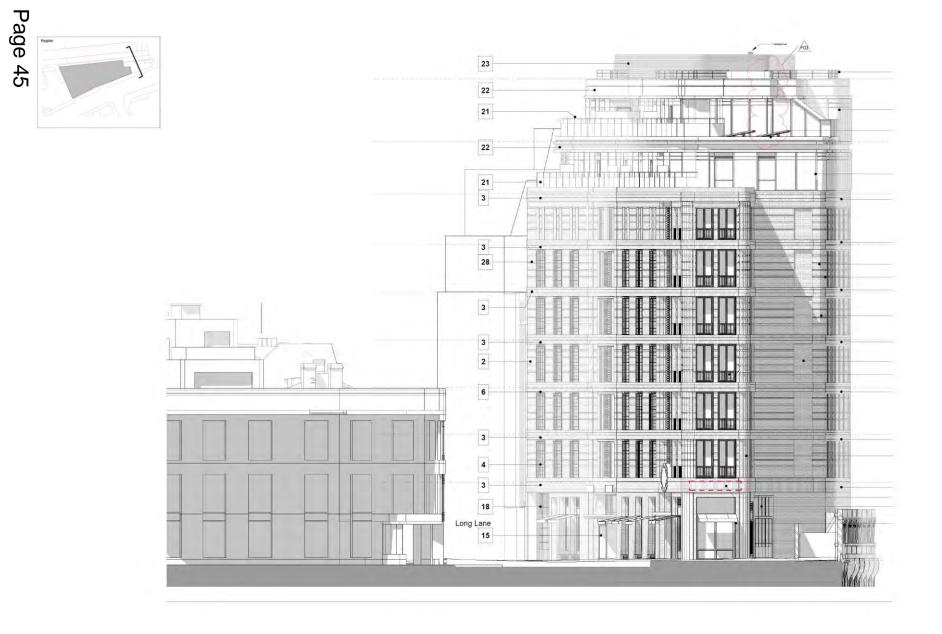


North Elevation – Proposed

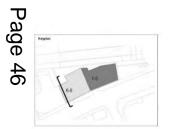


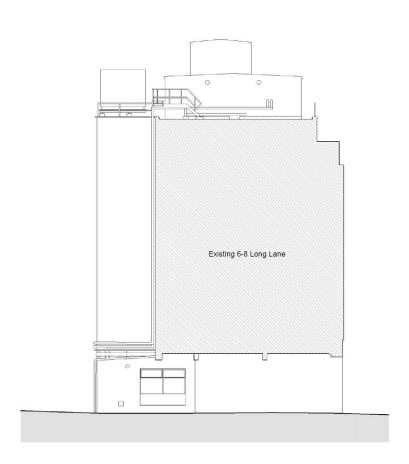


East Elevation – Existing

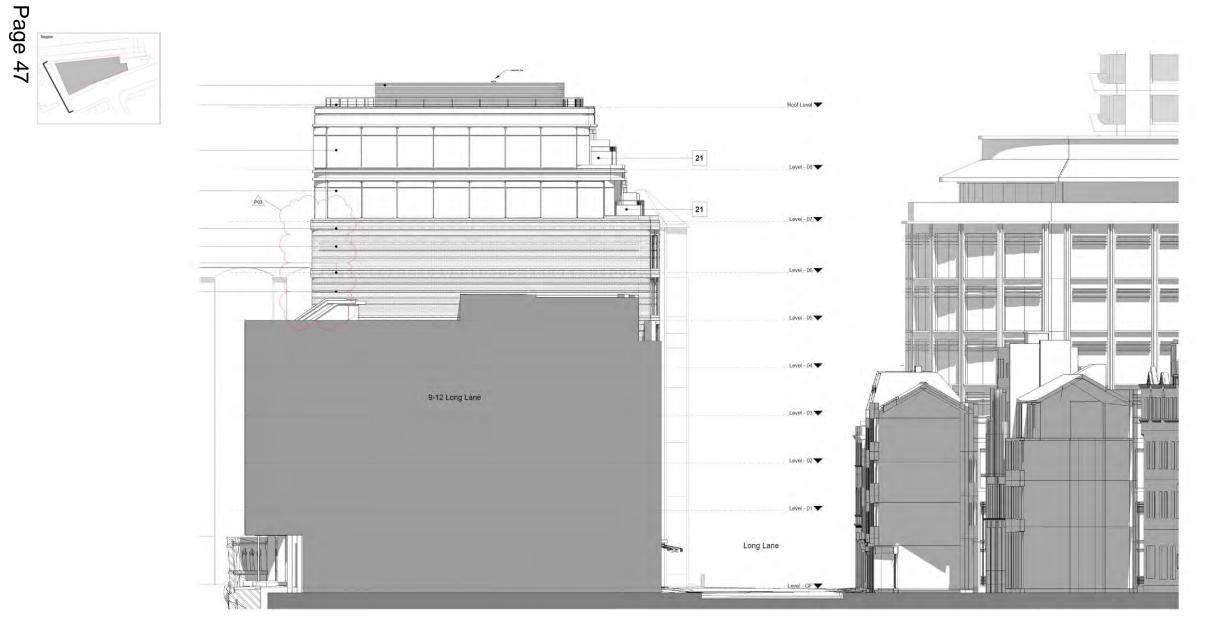


East Elevation – Proposed





West Elevation – Existing



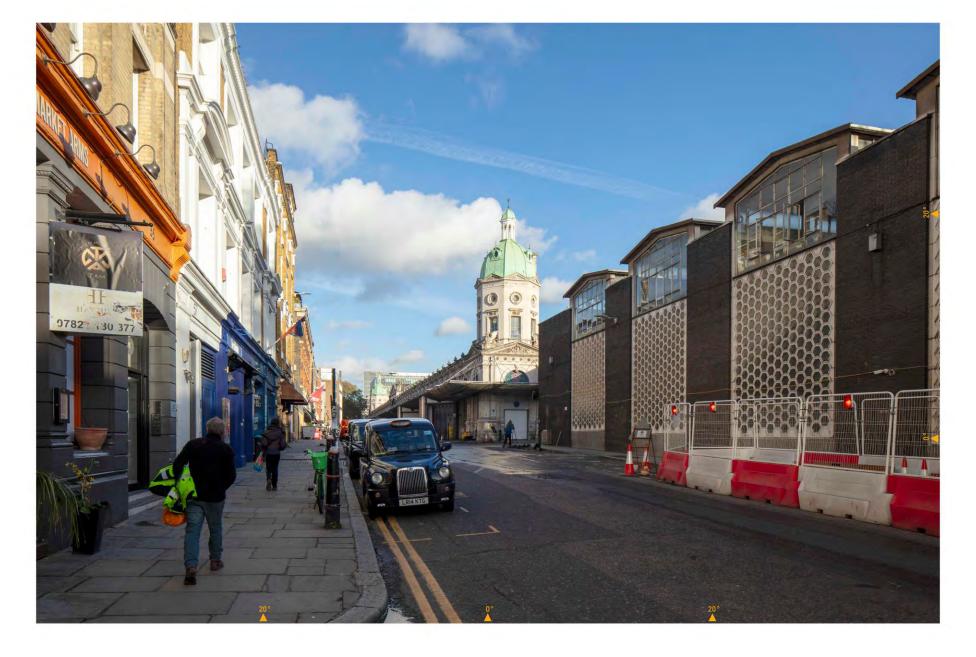
West Elevation – Proposed



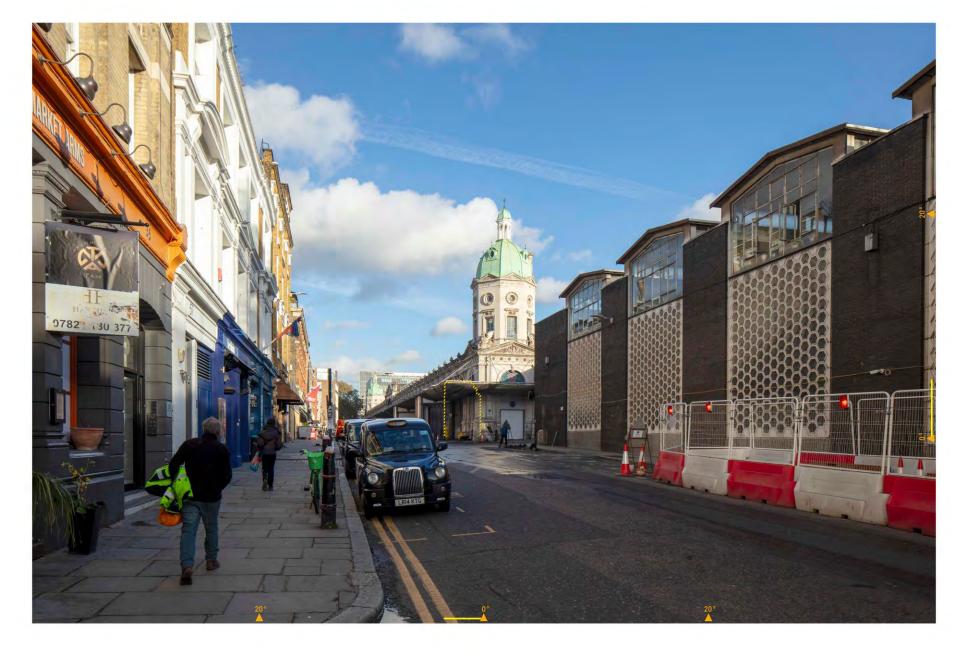
Verified View 01 - Baseline



Verified View 01 - Wireline



Verified View 02 - Baseline



Verified View 02 - Wireline



Verified View 03 - Baseline



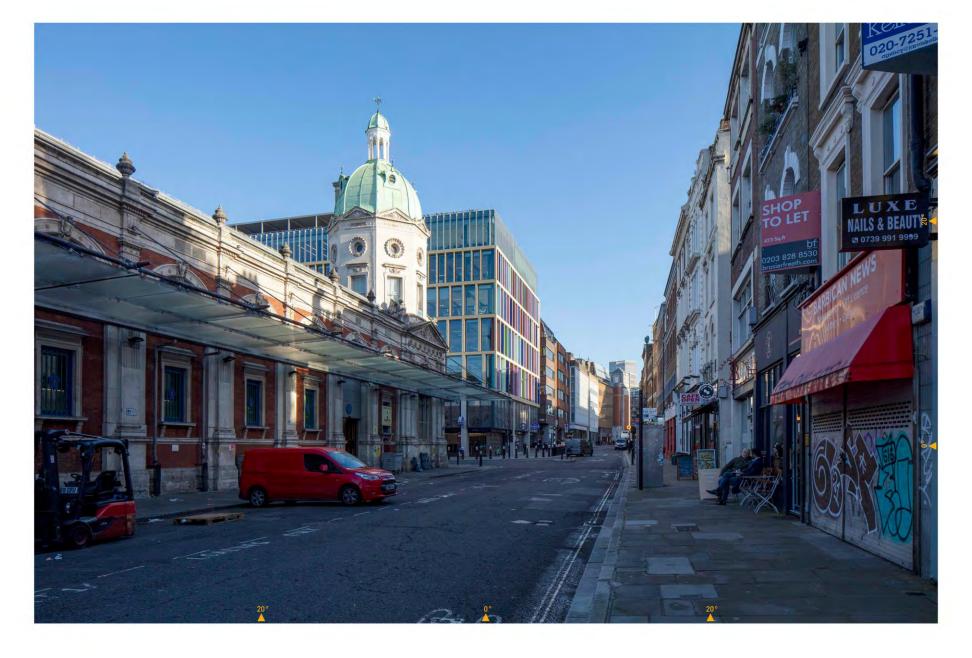
Verified View 03 – Proposed View



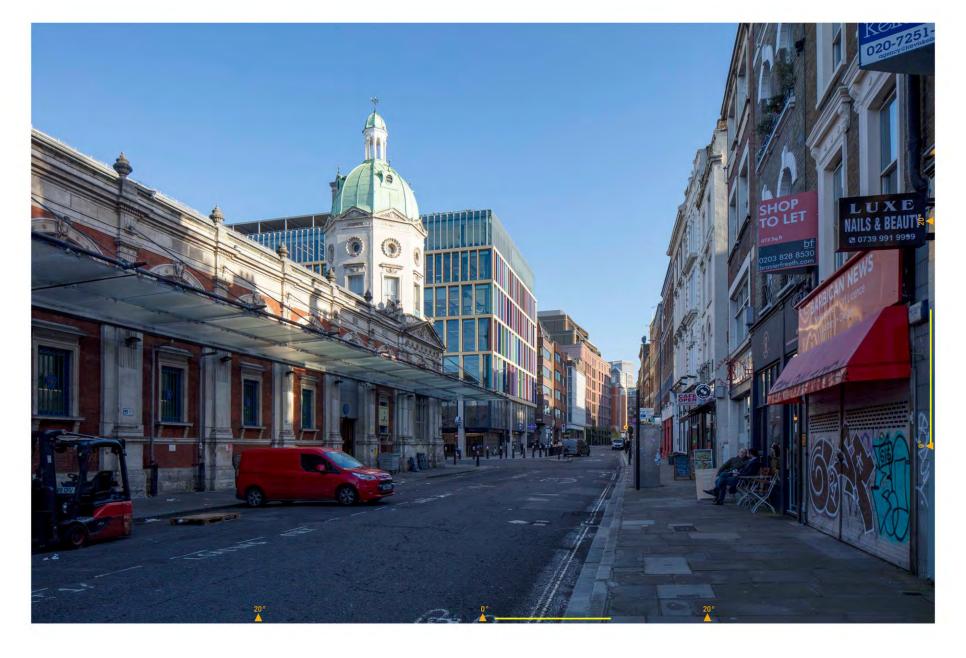
Verified View 04 - Baseline



Verified View 04 - Wireline

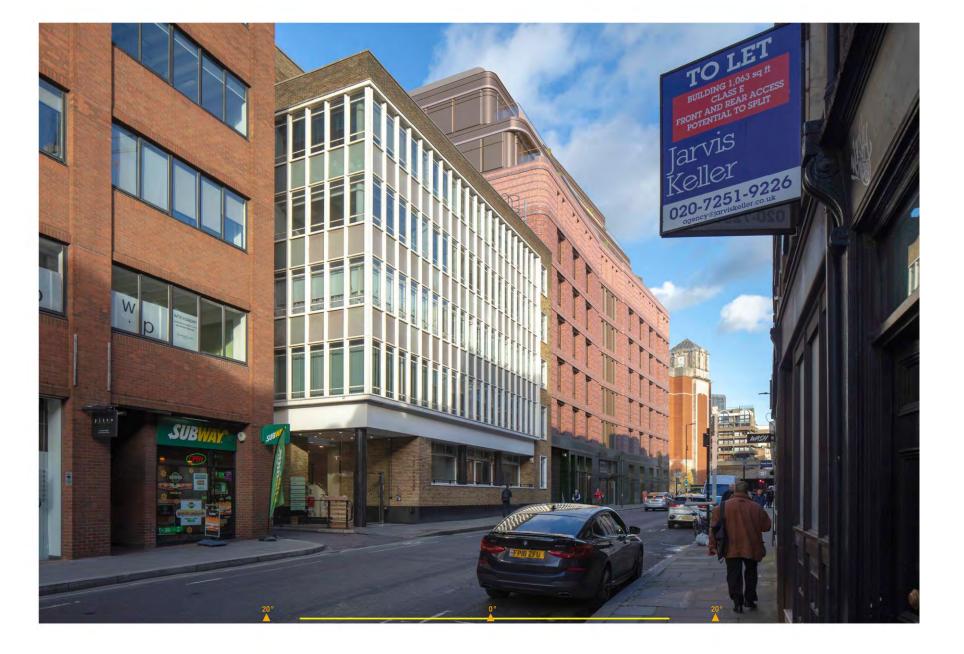


Verified View 05 - Baseline



Verified View 05 – Proposed View









Verified Views 07 & 08 - Baseline





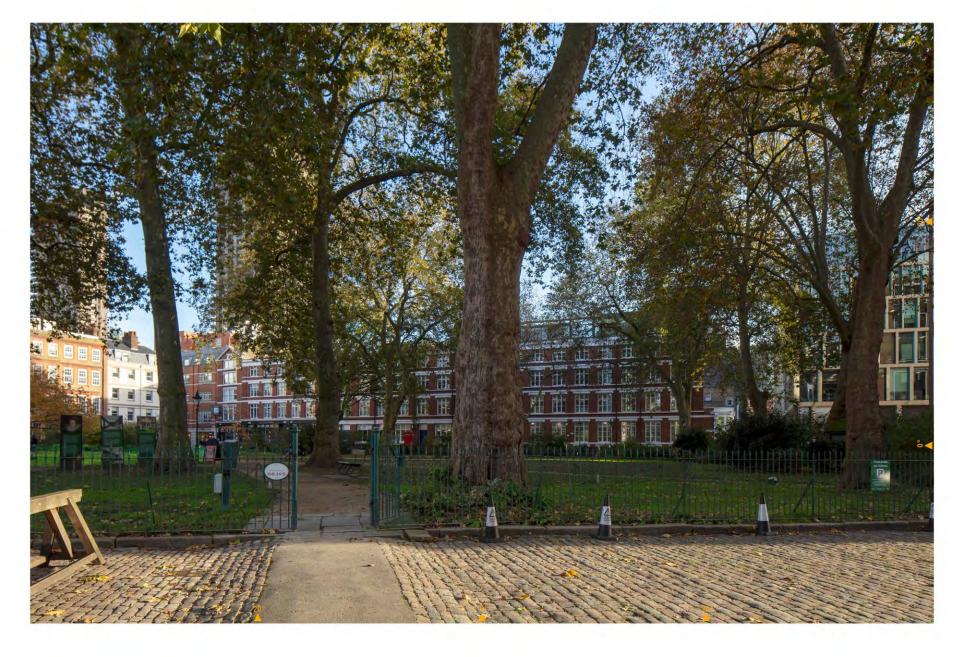
Verified Views 07 & 08 - Proposed Views



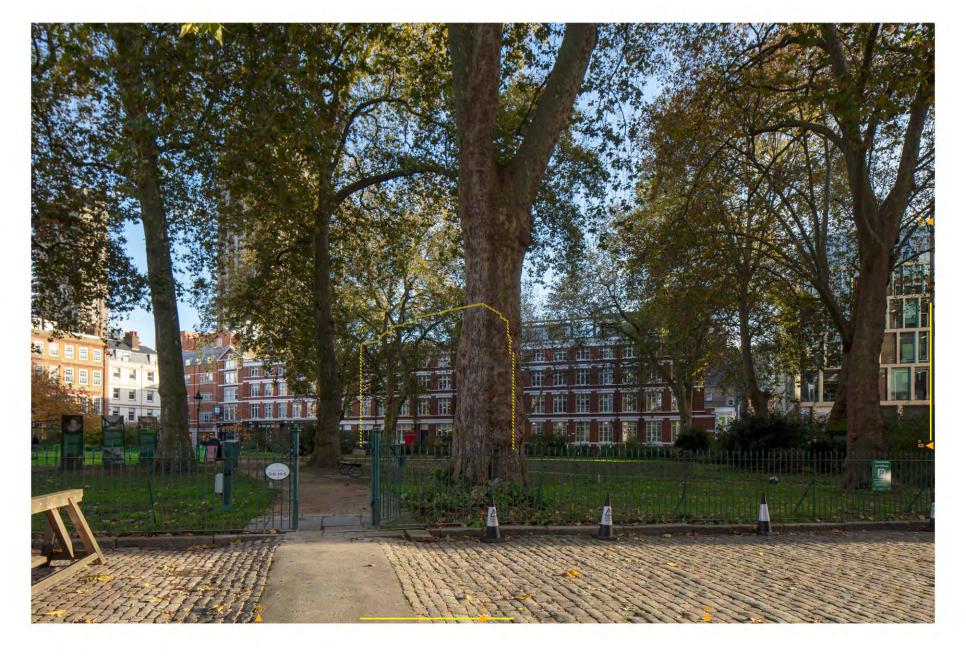
Verified View 09 - Baseline



Verified View 09 – Proposed View



Verified View 10 - Baseline



Verified View 10 - Wireline



Verified View 11 - Baseline



Verified View 11 - Wireline



Verified View 12 - Baseline



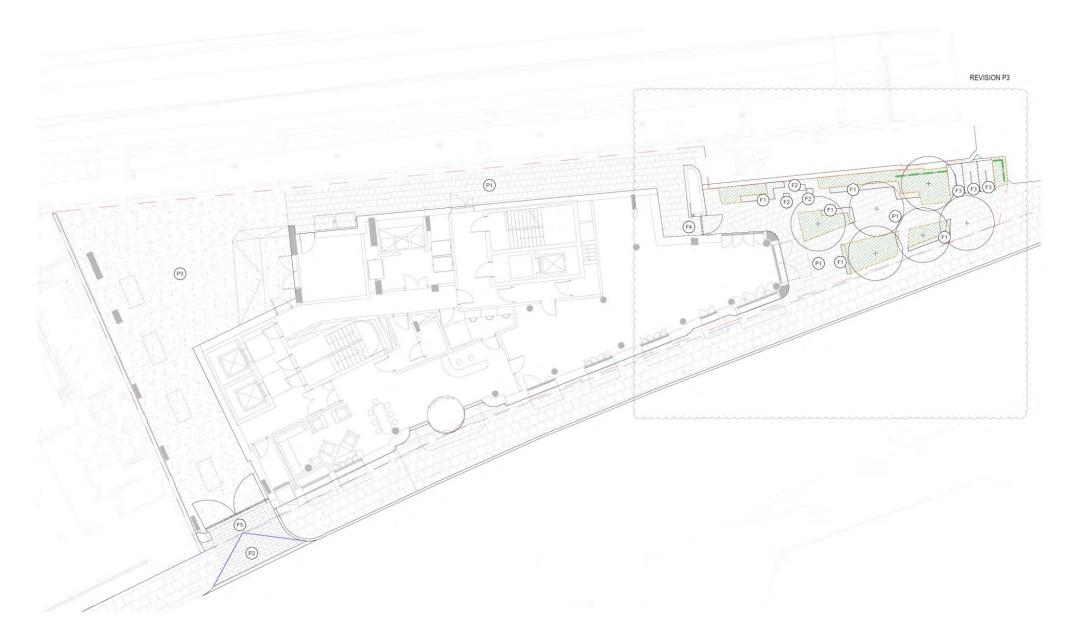
Verified View 12 - Wireline



Typical Façade Bay Detail



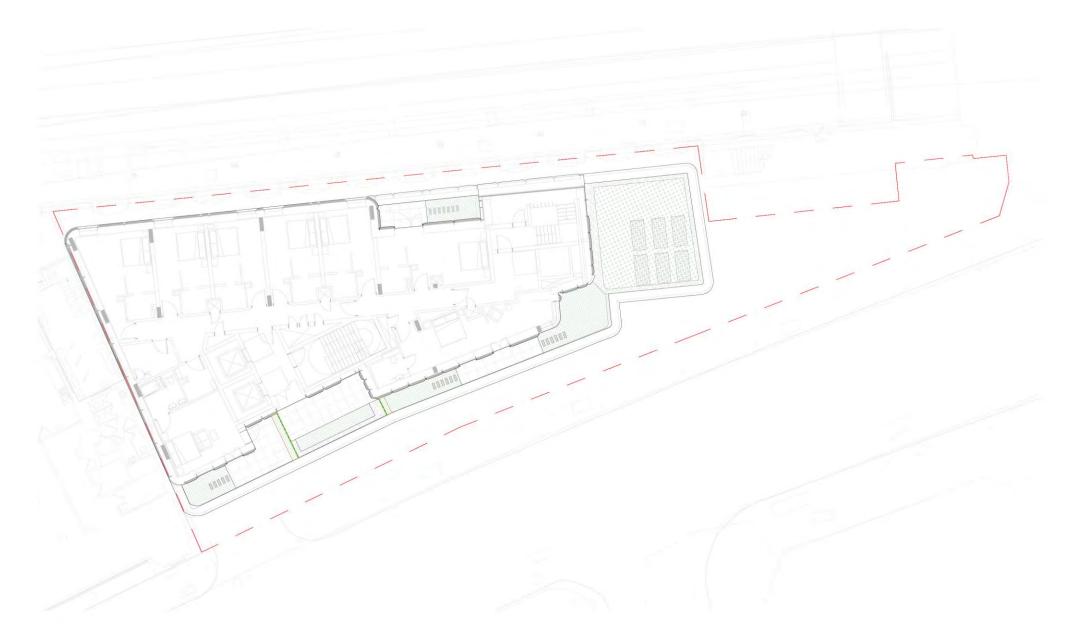
Landscape Plan – Masterplan Concept Image



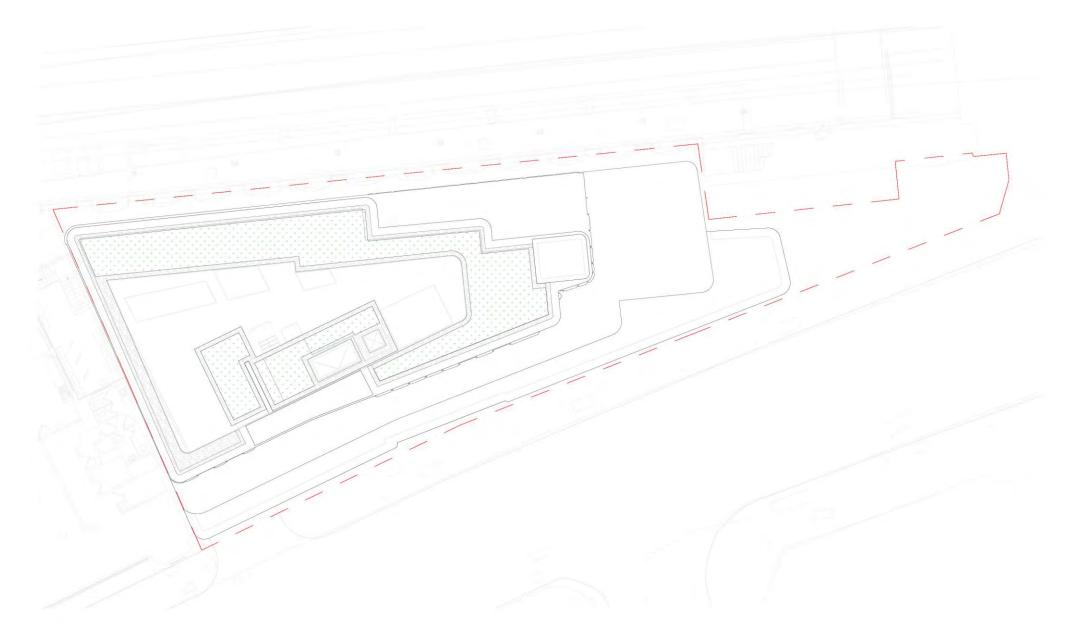
Landscape Plan – Proposed Ground Floor



Landscape Plan – Proposed 7th Floor

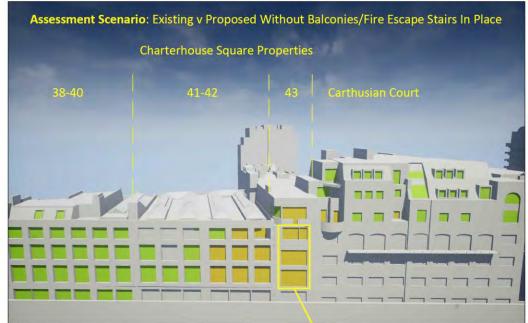


Landscape Plan – Proposed 8th Floor



Landscape Plan – Proposed Roof Plan





Site Plan Showing View Location

Window Colour Key Percentage Reductions under 20% (in line with the BRE guidelines) Percentage Reductions are under 30% Percentage Reductions are under 40% Percentage Reductions are over 40% Non Habitable Window

Window Experiencing Highest Reductions

With the balconies in place, the windows experiences a percentage reduction of up to 47%.

However, without the balconies, this window experiences a percentage reduction of up to only 25% and retain a VSC of at least 18.99%.

This level of retained daylight is considered good for an urban area and exceeds the commensurate target values we have established for the local area.

Elevations of Surrounding Residential Properties and Sensitive Uses



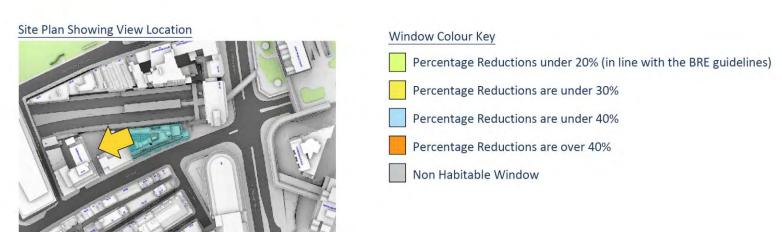
Notes:
All windows meet the BRE guideline VSC test



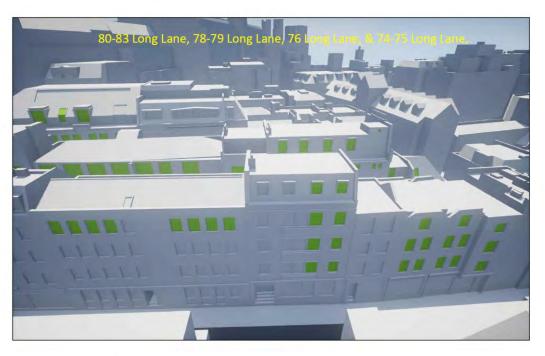
Elevations of Surrounding Residential Properties and Sensitive Uses



Notes:
All windows meet the BRE guideline VSC test



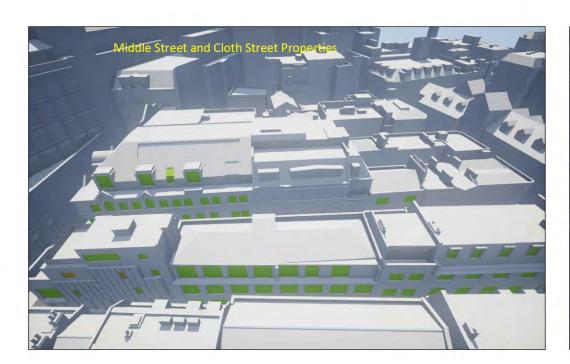
Elevations of Surrounding Residential Properties and Sensitive Uses



Notes:
All windows meet the BRE guideline VSC test



Elevations of Surrounding Residential Properties and Sensitive Uses

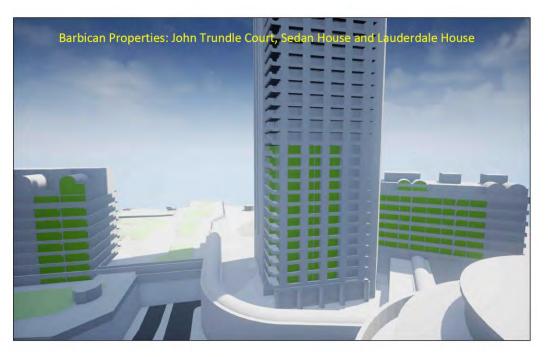


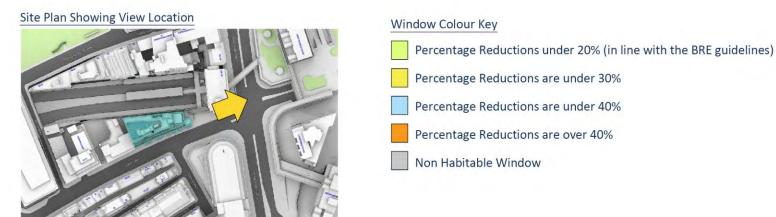




Window Colour Key Percentage Reductions under 20% (in line with the BRE guidelines) Percentage Reductions are under 30% Percentage Reductions are under 40% Percentage Reductions are over 40% Non Habitable Window

Notes: All but 2 windows meet the BRE guideline VSC test. The remaining 2 windows retain a VSC of at least 20% which is considered good for an urban area.





Notes: All windows meet the BRE guideline VSC test.

Address	Total No. of Windows that Meet BRE Guidelines	Below BRE Guidelines		
		20-29% Loss	30-39.9% Loss	>=40% Loss
Griffin Court, 13-17 Long Lane	14	0	0	0
3 Hayne Street	9	0	0	0
Nursery,38 Charterhouse Square	2	0	0	0
39 Charterhouse Square	2	0	0	0
40 Charterhouse Square	8	0	0	0
41 Charterhouse Square	3	3	0	0
42 Charterhouse Square	2	6	2	0
43 Charterhouse Square	5	3	0	3
12 Carthusian Court	32	3	0	0
15 Carthusian Court	38	0	0	0
80-83 Long Lane	8	0	0	0
78-79 Long Lane	16	0	0	0
76 Long Lane	5	0	0	0
74-75 Long Lane	8	0	0	0
24-25 Middle St	2	0	0	0
23 Middle Street	19	0	0	0
22 Middle Street	8	0	0	0
18-21 Middle Street	23	0	0	0
15-17 Middle Street	11	2	0	0
3 Cloth Street	51	0	0	0
4-5 Middle Street	5	0	0	0
Sedon House, Barbican	52	0	0	0
Lauderdale Place	96	0	0	0
John Trundle Court	51	0	0	0
Total	470	17	2	3

Address	Total that Meet BRE Guidelines	Below BRE Guidelines		
		20-29% Loss	30-39.9% Loss	>=40% Loss
Griffin Court, 13-17 Long Lane	9	0	0	0
3 Hayne Street	3	0	0	0
Nursery,38 Charterhouse Square	1	0	0	0
39 Charterhouse Square	1	0	0	0
40 Charterhouse Square	4	0	0	0
41 Charterhouse Square	3	0	0	1
42 Charterhouse Square	4	0	2	1
43 Charterhouse Square	3	1	0	0
12 Carthusian Court	21	1	2	0
15 Carthusian Court	16	0	0	0
80-83 Long Lane	3	0	0	0
78-79 Long Lane	4	0	0	0
76 Long Lane	3	0	0	0
74-75 Long Lane	6	0	0	0
24-25 Middle St	2	0	0	0
23 Middle Street	14	0	0	0
22 Middle Street	2	0	0	0
18-21 Middle Street	12	0	0	0
15-17 Middle Street	4	2	0	2
3 Cloth Street	25	0	0	0
4-5 Middle Street	4	0	0	0
Sedon House, Barbican	50	0	0	0
Lauderdale Place	60	0	0	0
John Trundle Court	17	0	0	0
Total	271	4	4	4

Address	Meet BRE Guidelines	Below BRE Guidelines		
		20-29% Loss	30-39.9% Loss	>=40% Loss
Griffin Court, 13-17 Long Lane	1	0	0	0
3 Hayne Street	1	0	0	0
Nursery,38 Charterhouse Square	1	0	0	0
39 Charterhouse Square	1	0	0	0
40 Charterhouse Square	4	0	0	0
41 Charterhouse Square	4	0	0	0
42 Charterhouse Square	6	1	0	0
43 Charterhouse Square	1	1	2	0
12 Carthusian Court	24	0	0	0
15 Carthusian Court	16	0	0	0
78-79 Long Lane	4	0	0	0
23 Middle Street	1	0	0	0
22 Middle Street	2	0	0	0
15-17 Middle Street	1	0	0	0
4-5 Middle Street	1	0	0	0
Lauderdale Place	60	0	0	0
John Trundle Court	17	0	0	0
Total	145	2	2	0

ARUP

Sustainability – Fact Sheet

1-8 Long Lane

SUSTAINABLE DRAINAGE

Blue roofs being considered to contribute to climate.



DESIGN FOR DISASSEMBLY

Design for disassembly approach of hand laid brick facade and brick slip systems.



RECYCLE MATERIALS

Opportunity for glazing recycling in closed loop being pursued.



DESIGN FOR LONGEVITY

High quality, durable materials and facade design to maximise delight and longevity.



REUSE SUBSTRUCTURE

Opportunity for substructure and foundation reuse being interrogated.







MAXIMISE BIODIVERSITY

Opportunities to maximise greening and biodiversity being pursued, including roof gardens, green facade and pocket garden.



Facade design being optimised to maximise daylight and views whilst minimising overheating and energy consumption.

CARBON SAVINGS

Opportunity to plug into Citigen district heat network being explored to minimise plant embodied carbon. Citigen decarbonisation strategy an important WLC consideration.

HEALTHY MATERIALS

Commitment to specify healthy materials (e.g. low VOC) to maximise occupier wellbeing.

CLIMATE RESILIENCE

Pocket garden and public realm designed to maximise user comfort through microclimate design and attract / accommodate diverse users.



Whole Life-Cycle Carbon Assessment

1-8 Long Lane – A Low Carbon Hotel

Process undertaken for low carbon design

Pre-redevelopment audit: Commitment to ~30-35% basement retention

Stage 2 Design: Strategies undertaken

- Concrete Mix with 50% GGBS

- Shift from precast concrete façade with mounted bricks to brick-slip facade

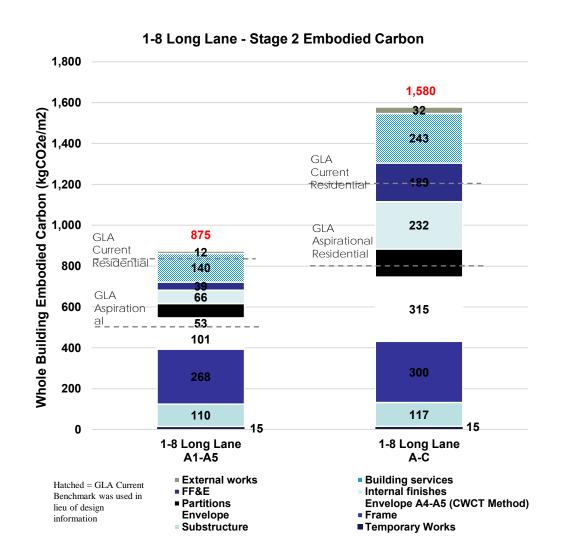
Carbon reduction savings achieved by low carbon design: 11% (A1-A5)

End of Stage 2 Status: 1-8 Long Lane is a A Low Carbon Hotel

- Benchmark comparability: GLA benchmarks are defined for residential buildings. Comparison does not fully capture the proactive measures to minimize carbon emissions.
- **Key differences**: Hotel typologies typically feature more carbon intensive elements notably partitions, finishes and FF&E, compared to residential projects.

Next: Further carbon reduction opportunities

- **Optimization:** Rationalise number and extent of transfer structures, optimize column, core, substructure assumptions.
- **Optioneering:** Explore low carbon alternatives for façade SFS, aluminium rainscreen, plasterboard, insulation and FR doors



Public Art Intention:

The building and grounds of the proposed development offer opportunities for art work to be displayed. These could be in a variety of artistic mediums, with a programme of display periodically rotated and curated in collaboration with local artists and stakeholder groups.

Some examples of the type of potential art works that could be displayed are illustrated here, but there is broad opportunity for creativity.

All the concepts shown are subject to permission from any relevant authorities, including the Clty of London Planning Dept. & Transport for London.

Copyright of the art work images presented in this document remains with the artist/owner.

EXAMPLES OF ARTISTIC MEDIUMS:

- Sculpture
- Relief Sculpture
- Material Art
- Printed Artworks
- · Light Installations

















Sculpture

Relief Sculpture

Material Art

Printed Artworks

Light Installations

Architectural Glass / Panel Art

This proposal illustrates a possible solution to add 2D artwork, fixed into the false window reveals. This art work can be done on a variety of mediums, glass, solid panels etc. and can feature artwork inspired by local history, people, and communities.





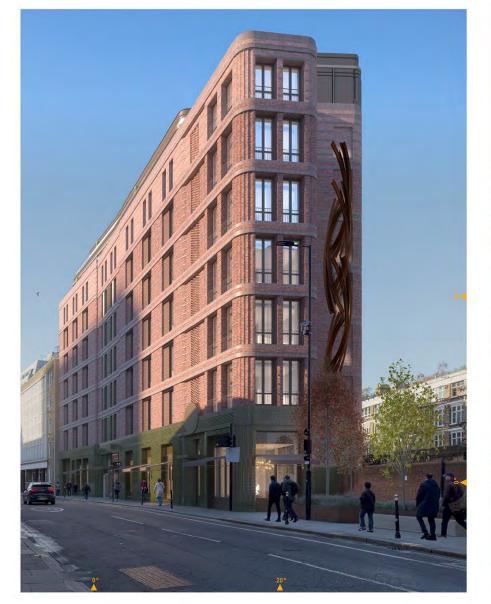




Precedent images by Martin Donlin

Metal Sculpture

This proposal illustrates an idea to add a 3D sculpture to the facade of the building. This artwork can feature designs inspired by local history, infrastructure, people, or places, fixed to the brick facade.



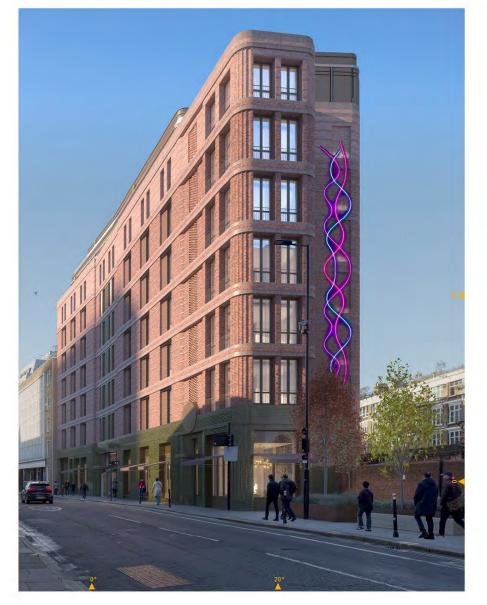




Precedent images by Bernar Venet

Light Installation:

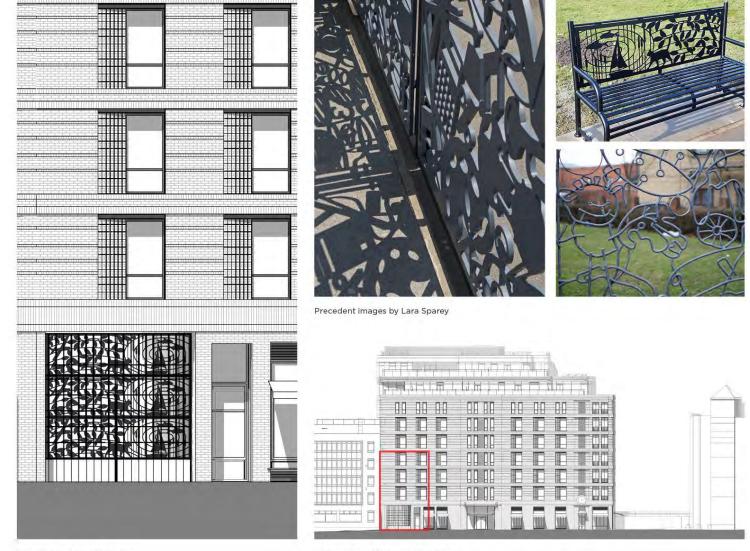
This concept idea shows an option to put fluorescent tube lighting up the facade wall of the building. This could be fixed to the brick work in a similar manner as the sculpture concept, and would offer an opportunity to illuminate the facade and immediate surroundings.







This proposal illustrates an idea to add feature artistic metal work to the vehicular entrance gates to the proposed development. Metalwork artist Lara Sparey works with local communities and stakeholder groups to create bespoke metal work gates for schools and other buildings, based on their designs. A similar approach could be taken on this project.



Gate Design Artwork Concept

1-8 Long Lane Proposed Elevation



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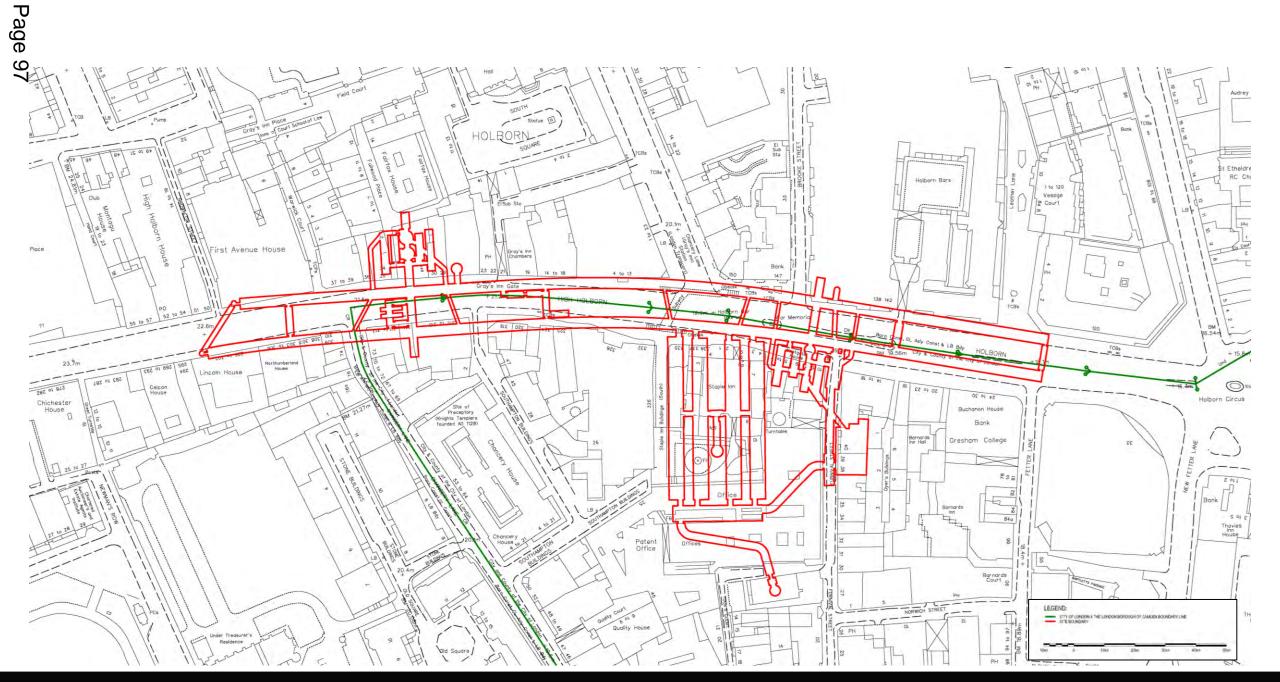


38 - 41 Furnival Street London EC4A 1JQ (CoL site) 31 - 33 High Holborn WC1V 6AX (Camden site)

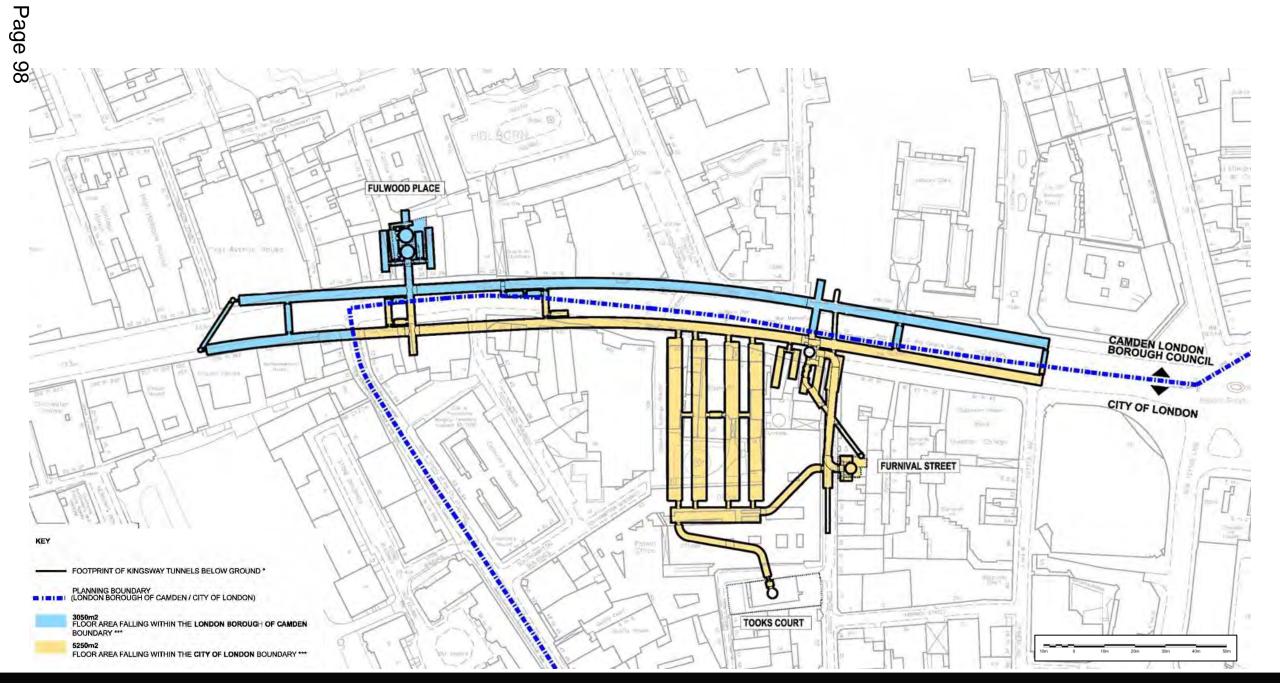
Planning & Transportation Committee
11 June 2024



Location Plan



Site Plan Below Ground



Site Plan Below Ground

38 - 41 Furnival Street London (EC4A 1JQ) & 31 - 33 High Holborn (WC1V 6AX)



Location Plan – Conservation Areas & Listed Buildings

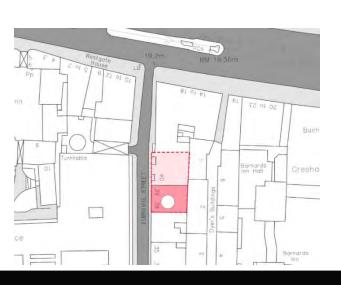


Location Plan – Residential Properties



Aerial View of Site





38-41 Furnival Street - Site Photos

40 – 41 Furnival Street 38-39 Furnival Street





Nos.40-41 and 38-39 Furnival Street - Site Photos



















31 – 33 High Holborn venue louse

Fulwood Place



Fulwood Place



31 33 High Holborn (The Camden site) - Site Photos





High Holborn

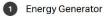






Fulwood Place







4 Energy Generator



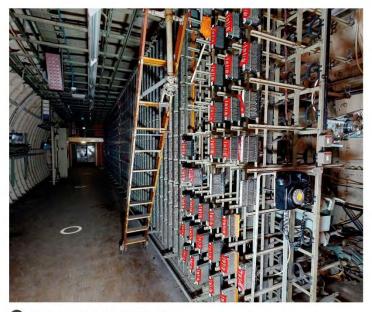
2 Energy Generator



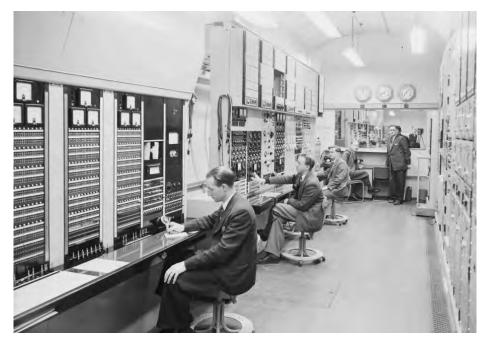
5 Ventilation Plant



3 Control Panel

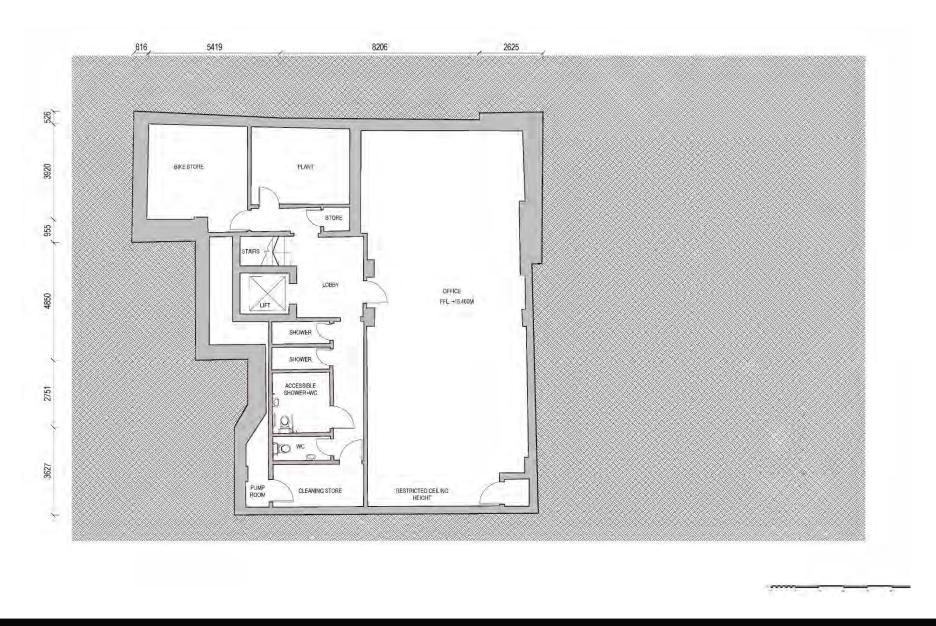


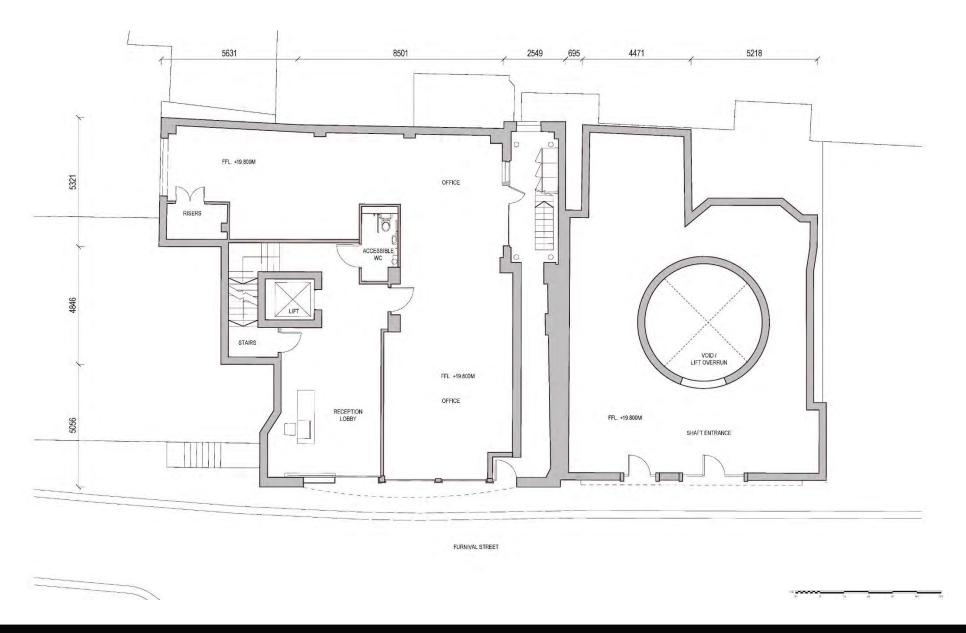
6 Telephone Main Distribution Frame

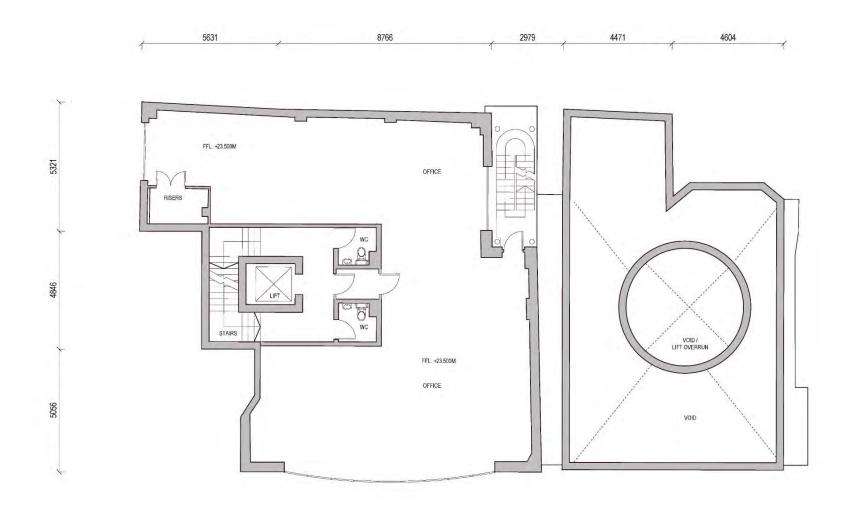


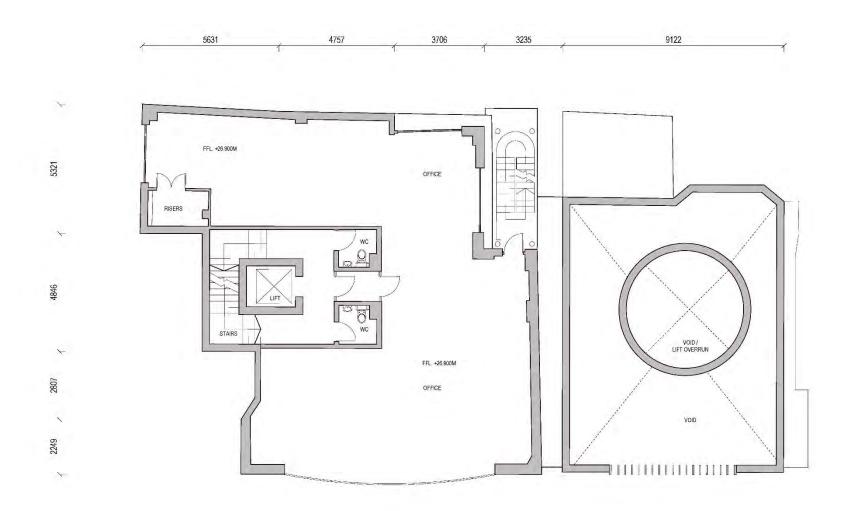


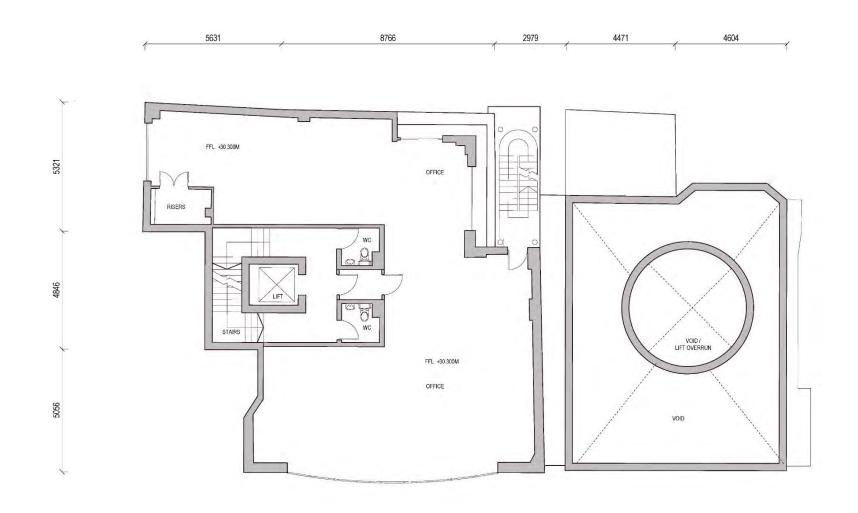


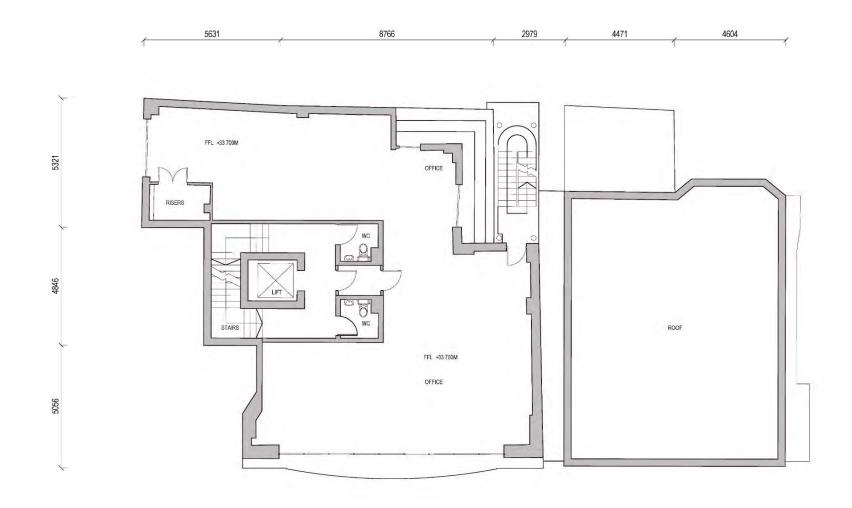


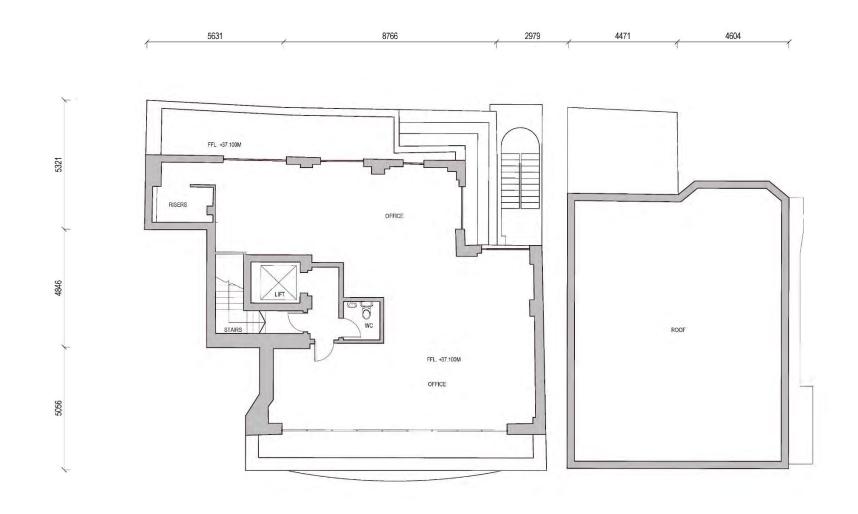


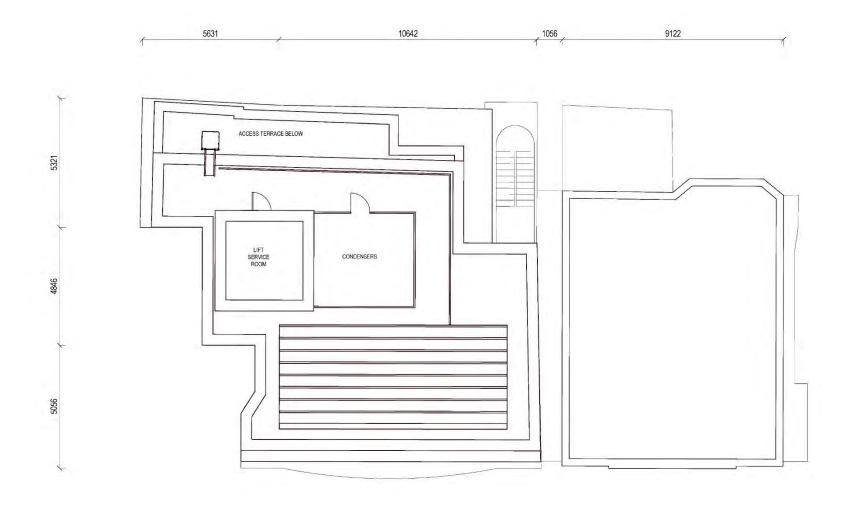


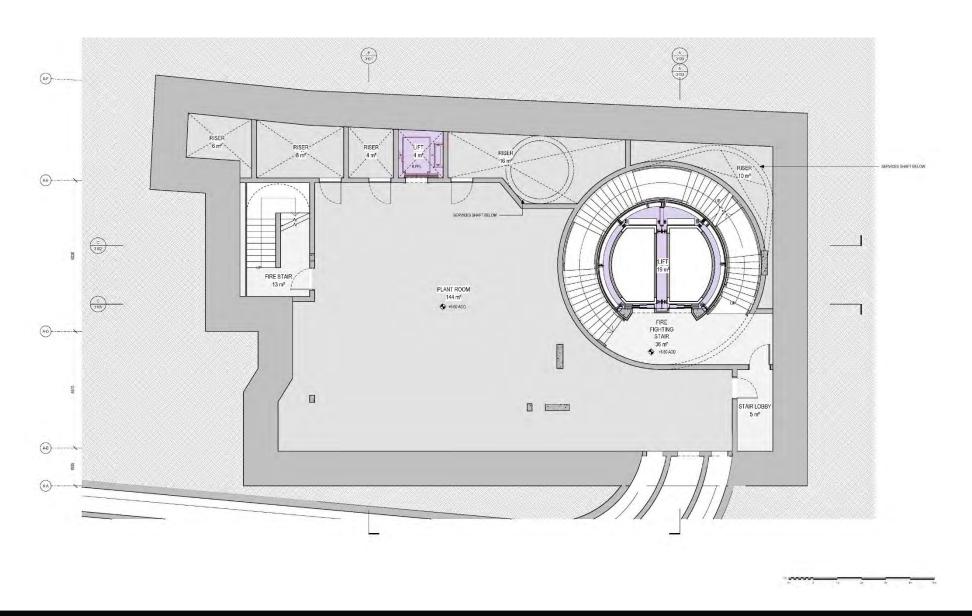


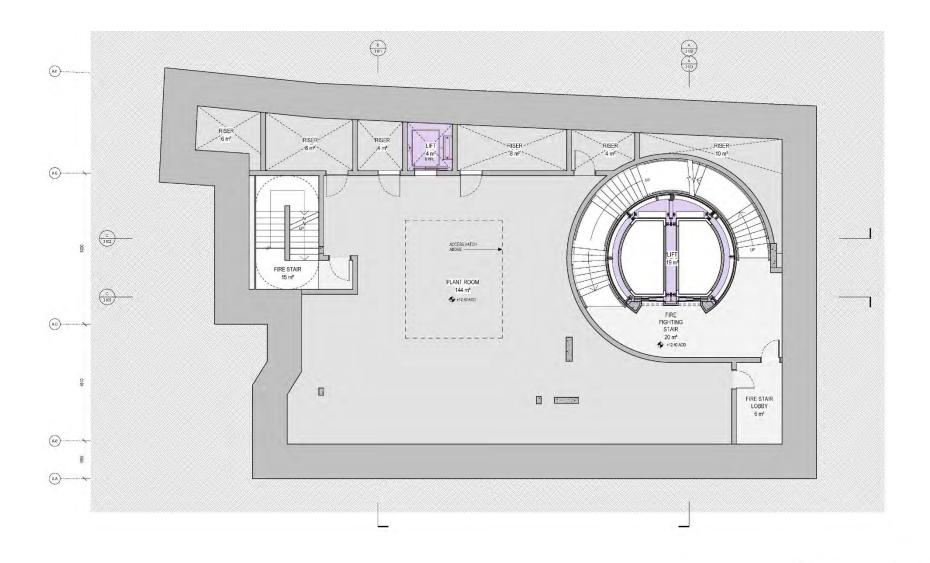


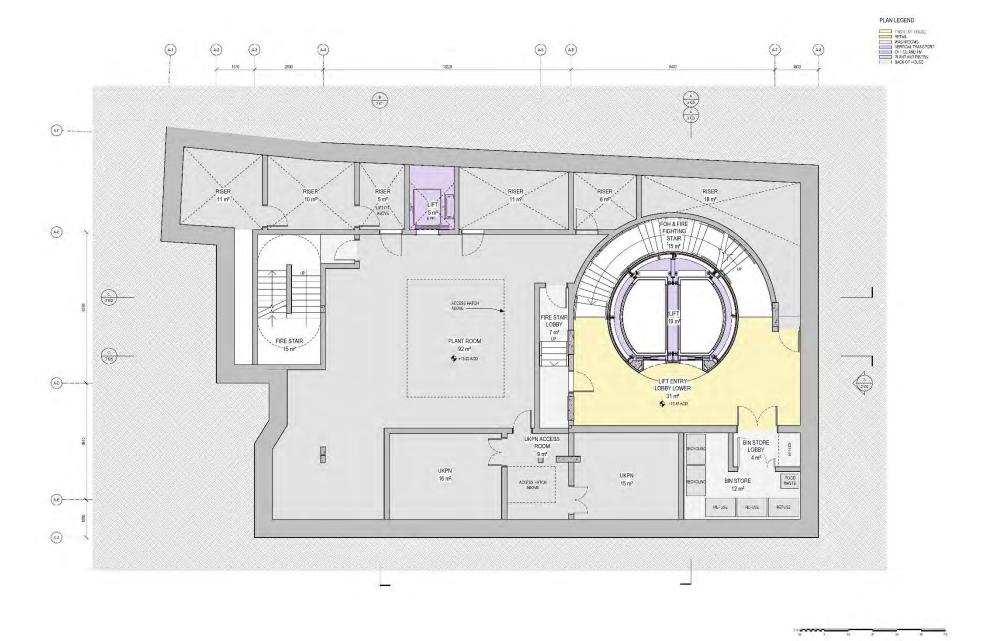


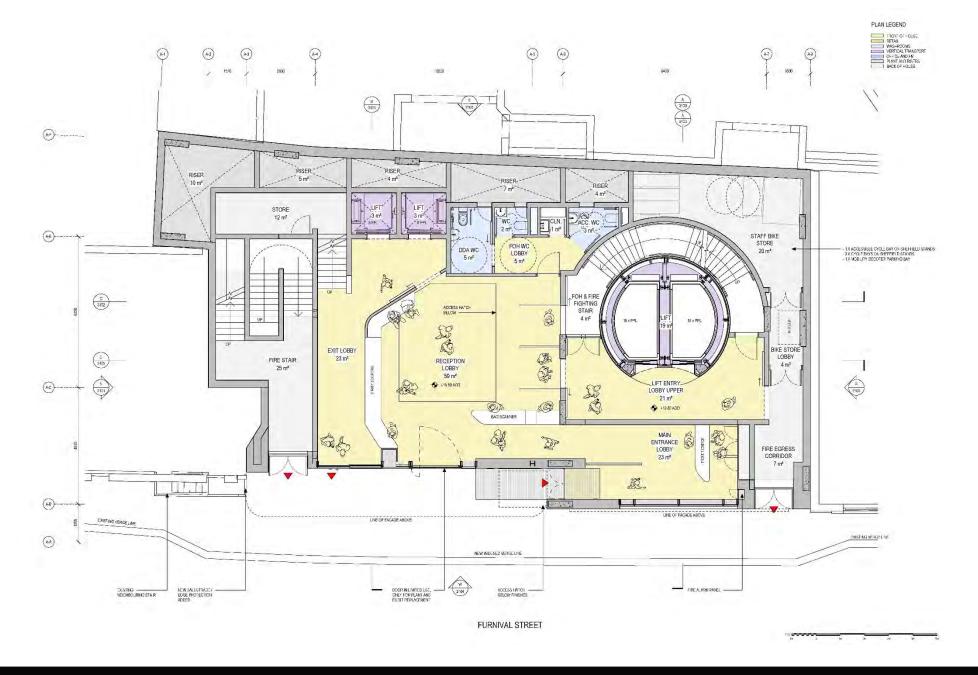


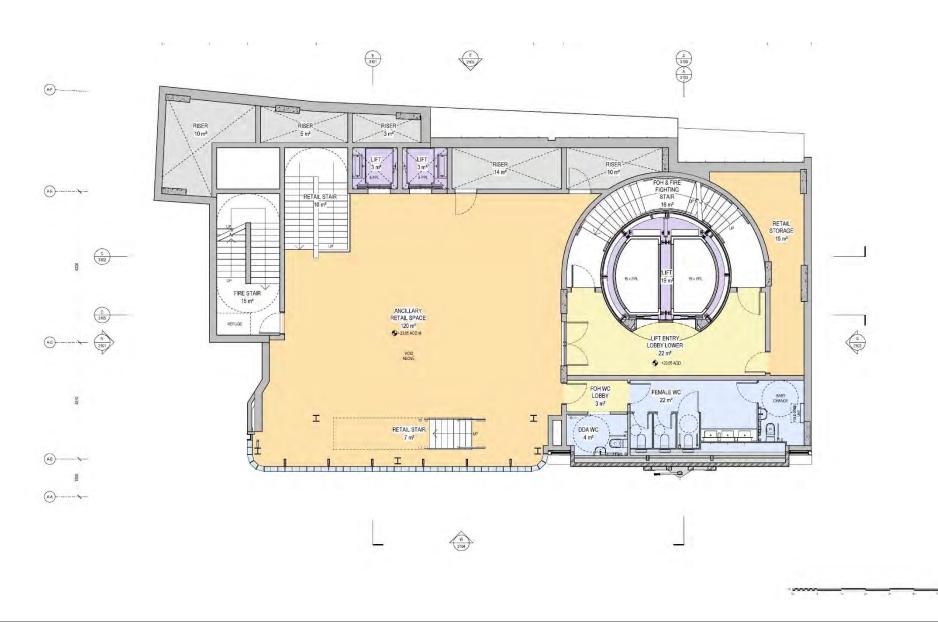


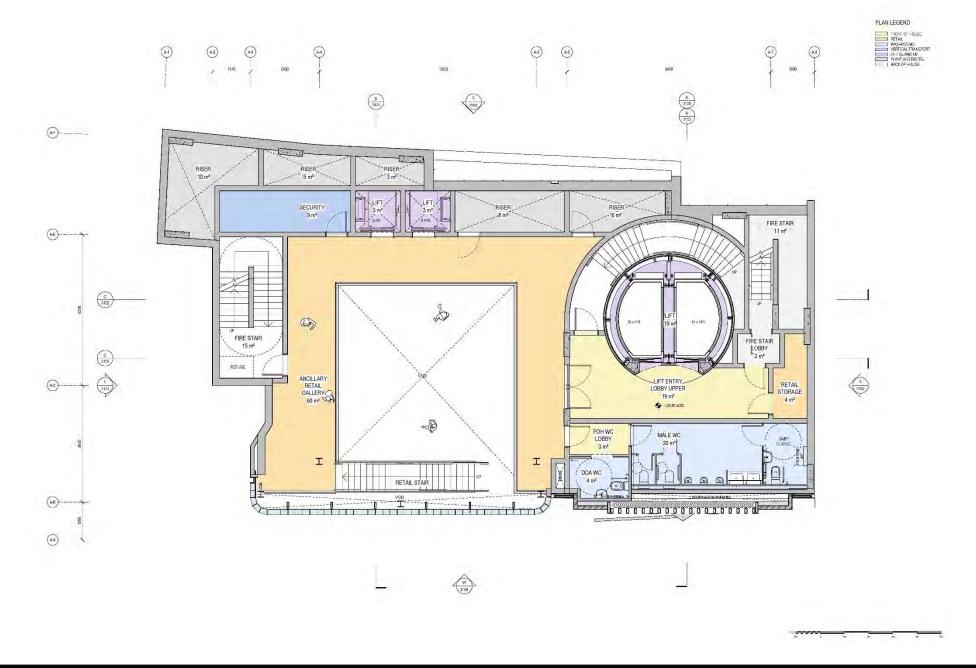


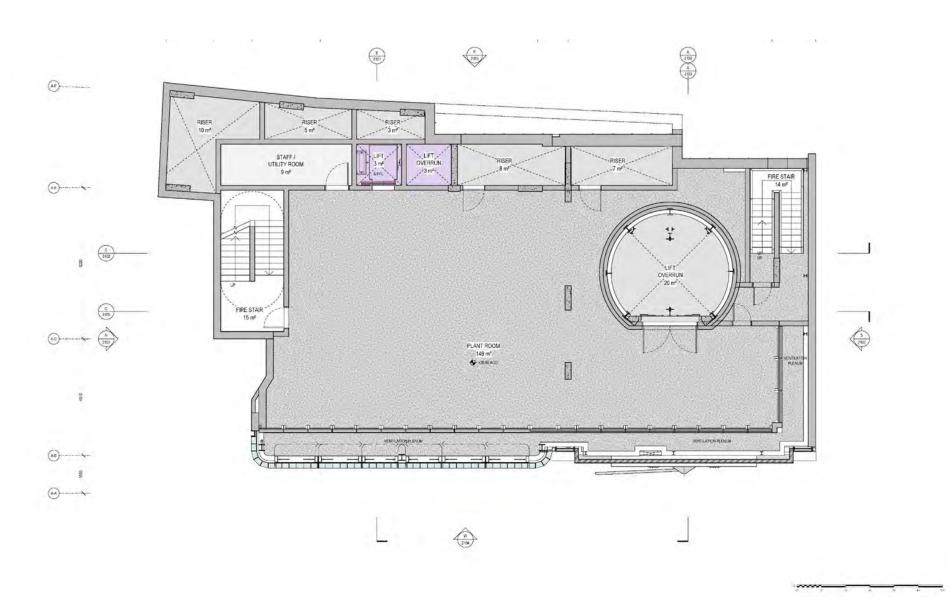






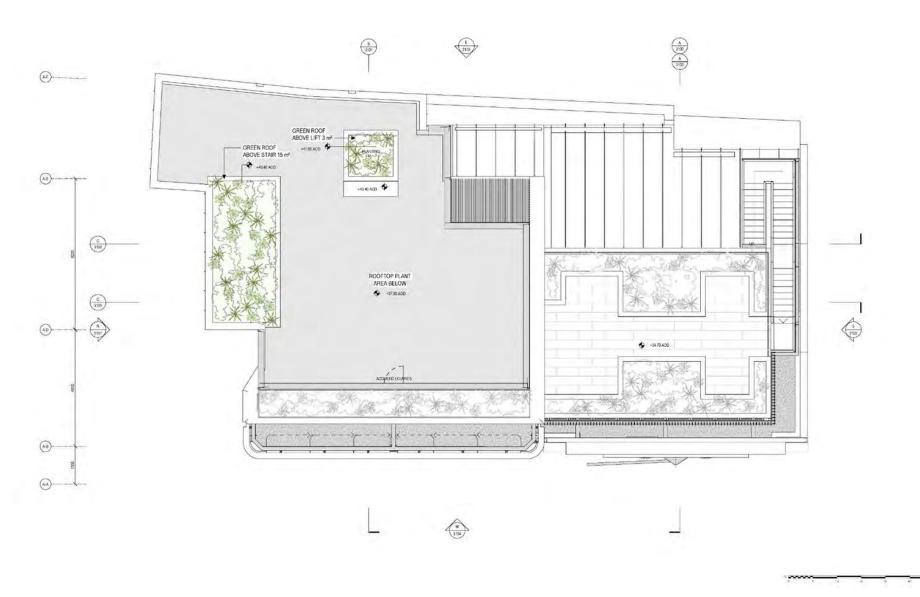


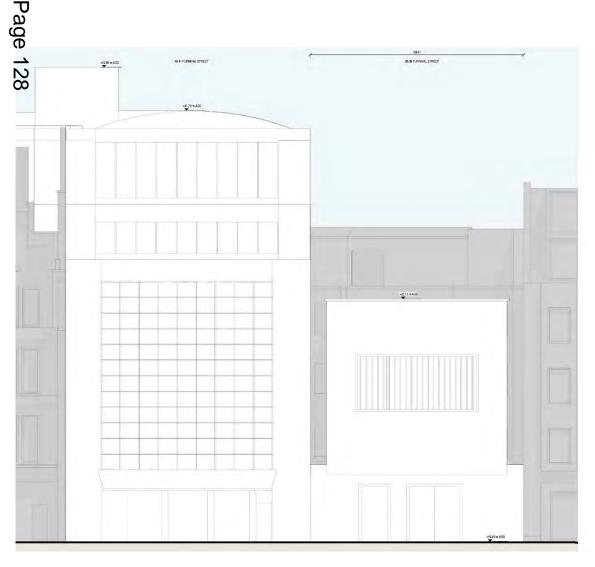


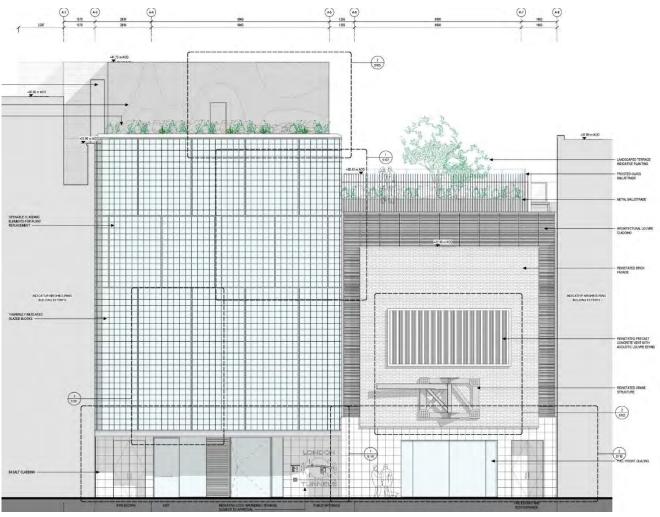






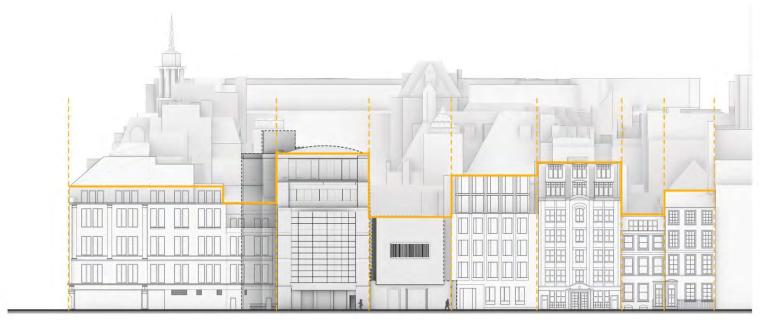






Existing

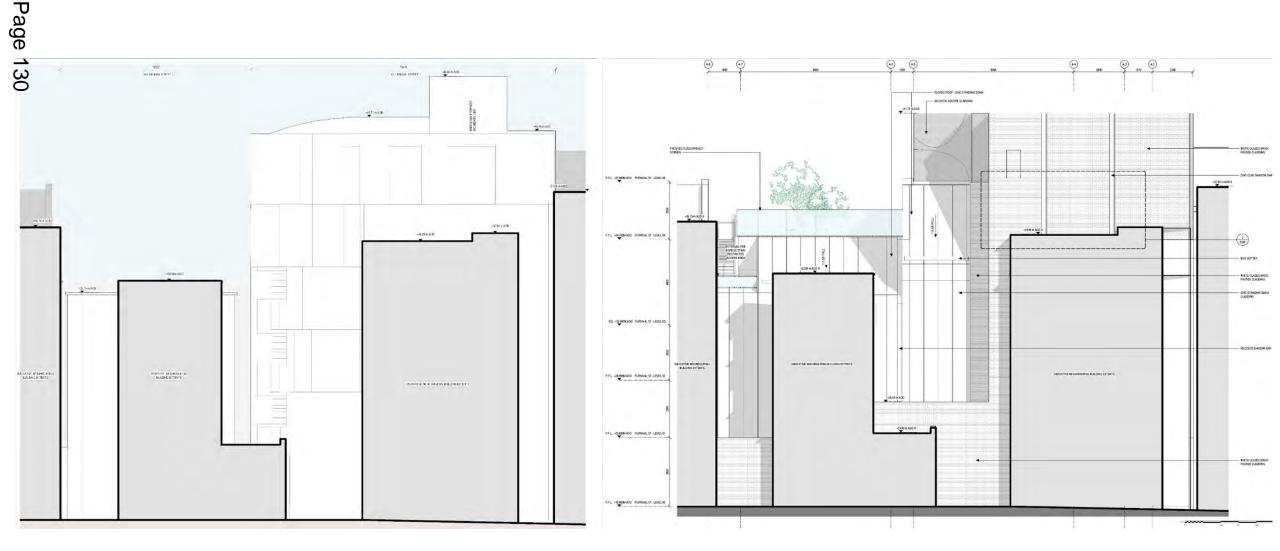
Proposed



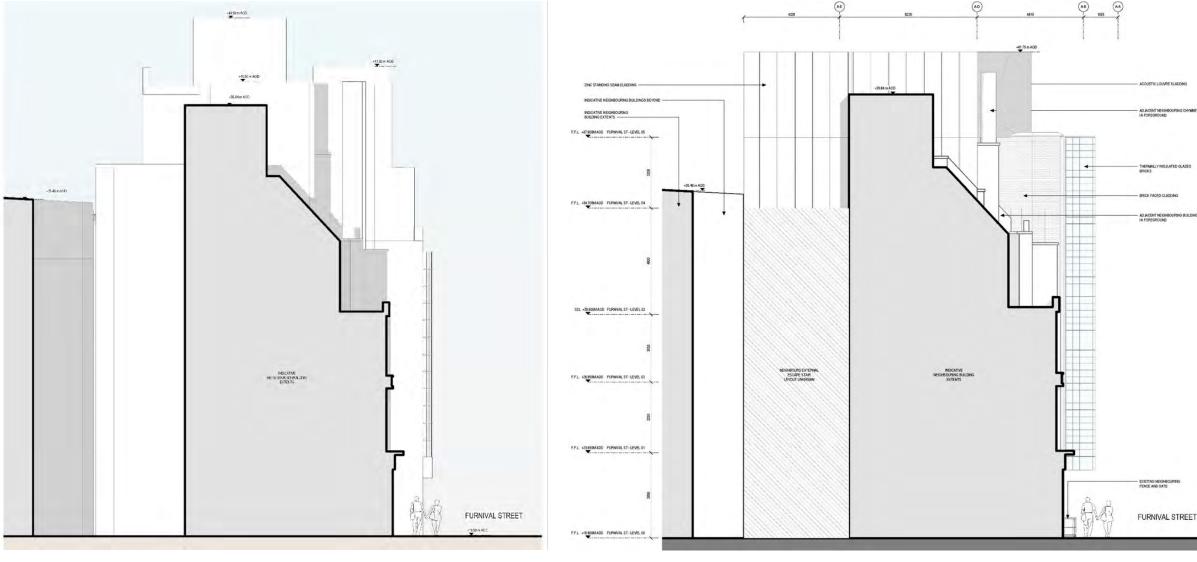
Existing Elevation



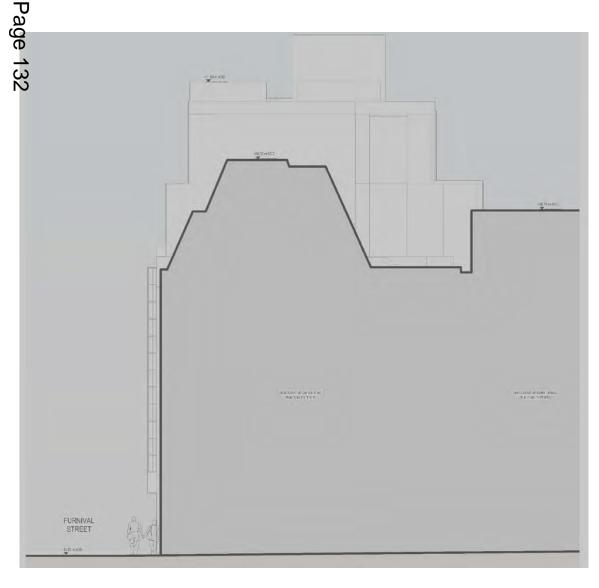
Proposed Elevation

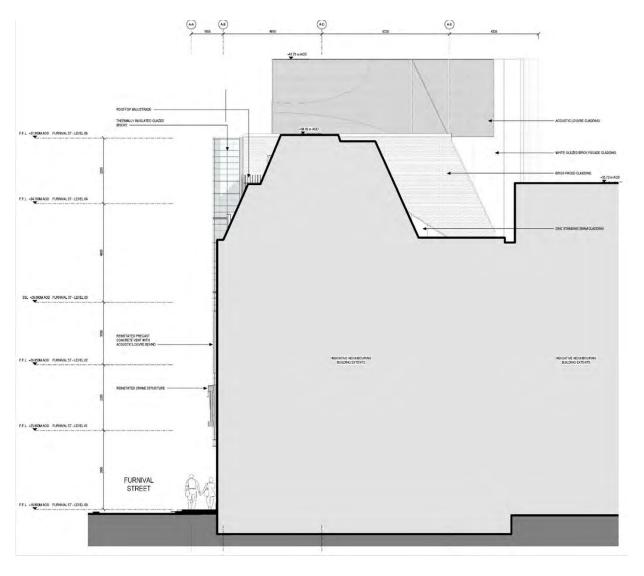


Existing Proposed

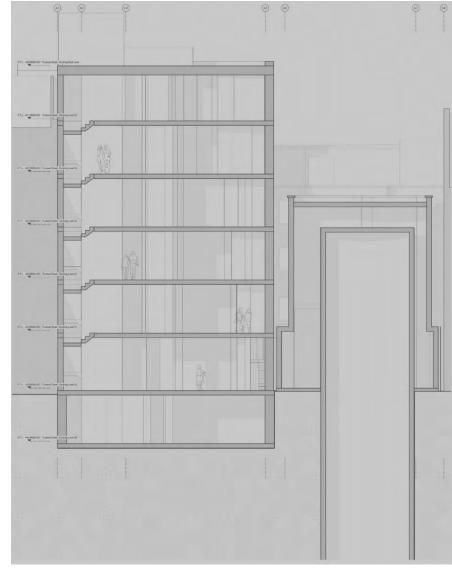


Existing Proposed

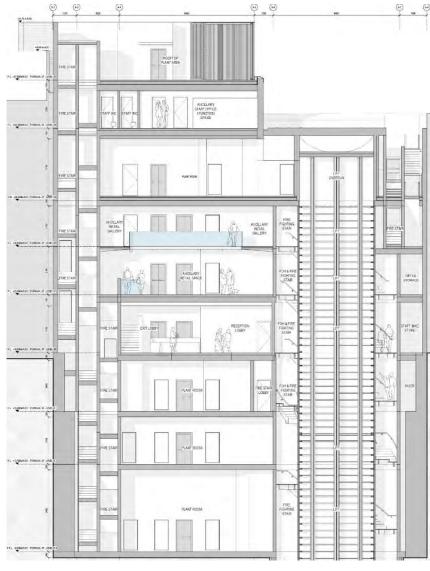




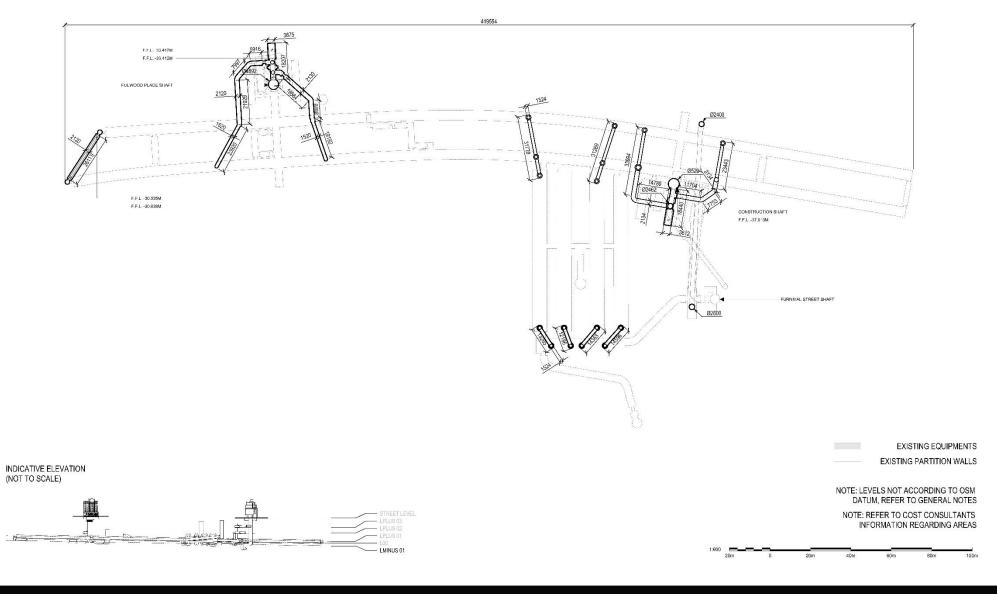
Existing Proposed



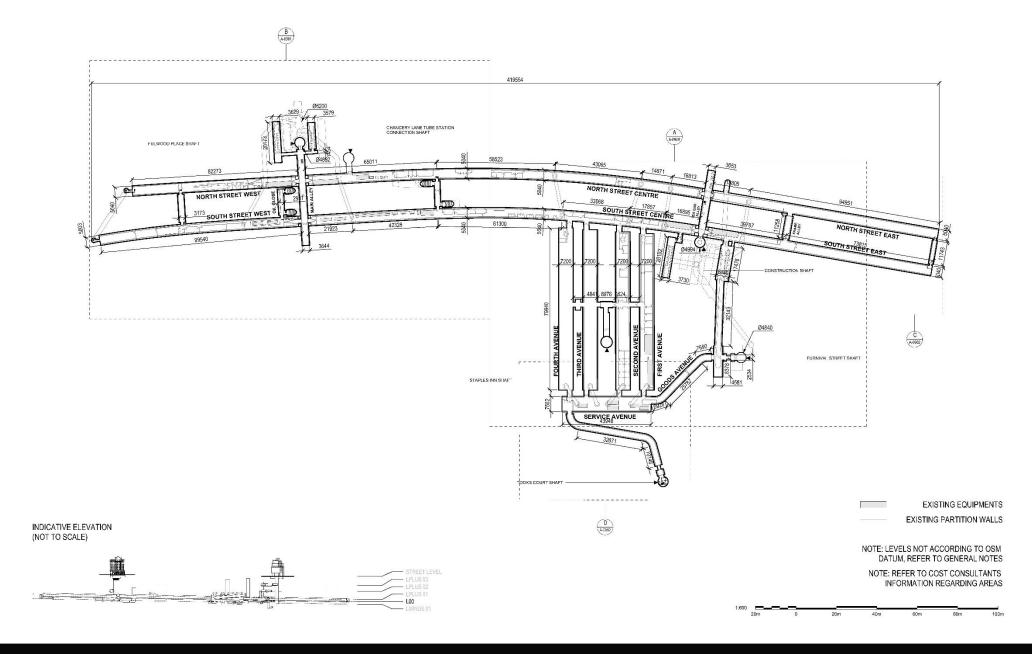
Existing

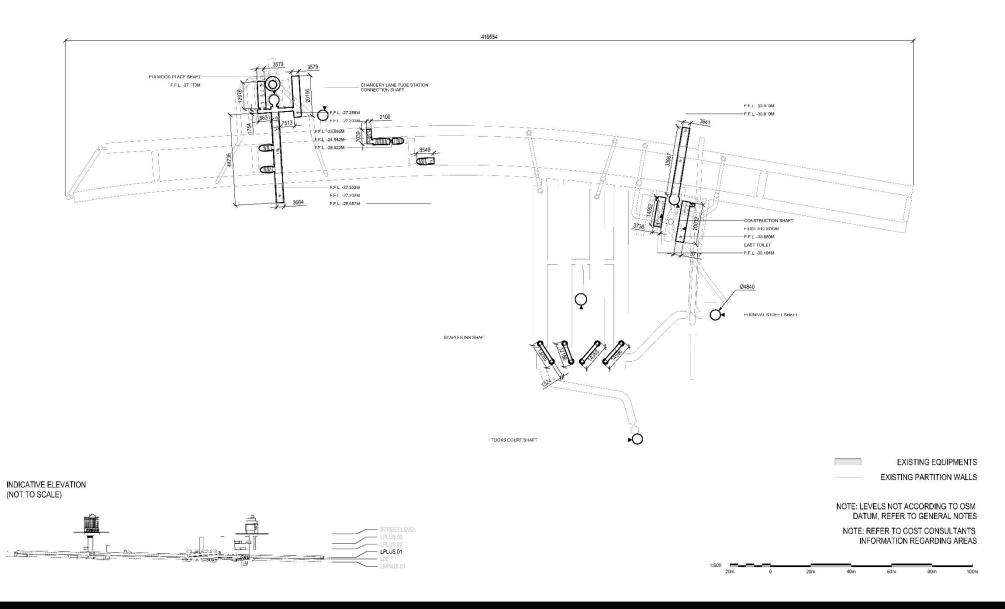


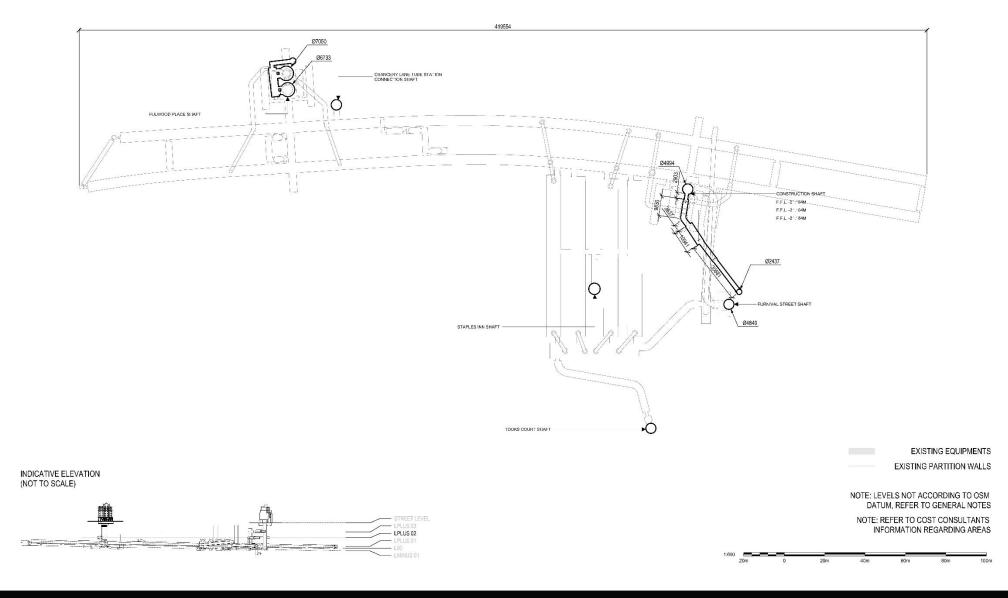
Proposed



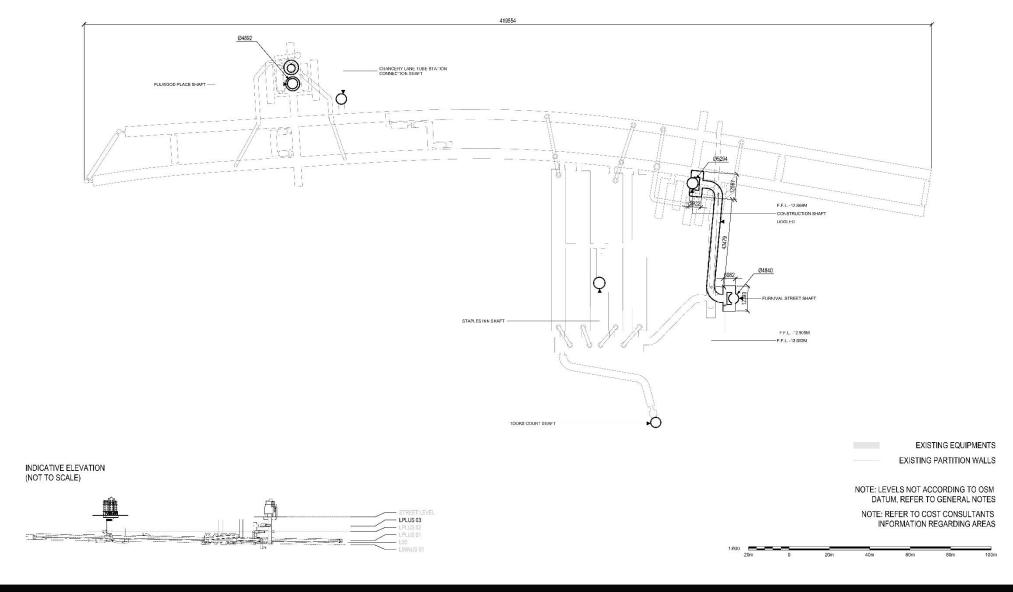
The Tunnels – Existing Plan – Level -1



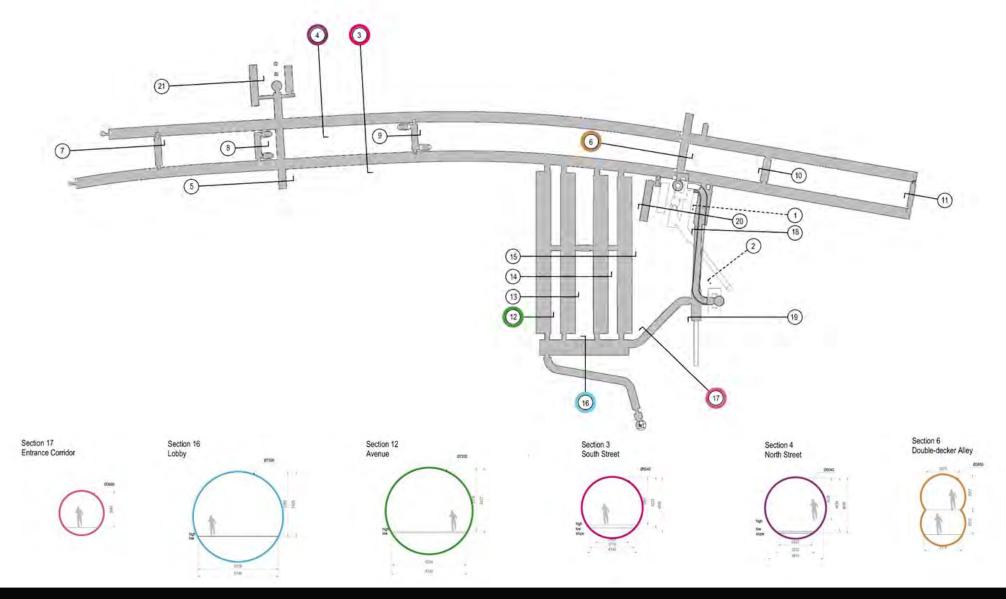




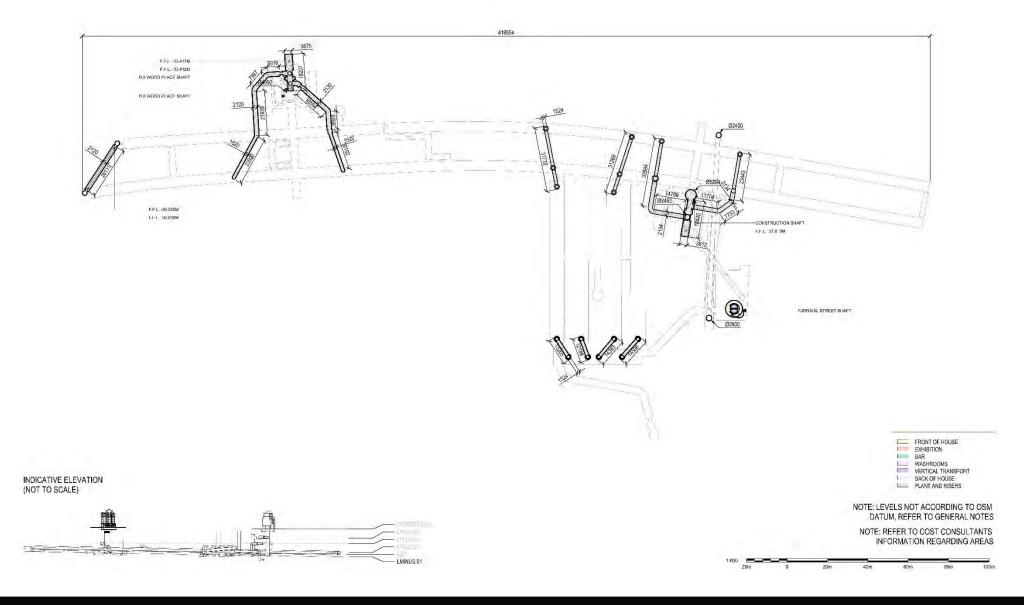
The Tunnels – Existing Plan – Level 2



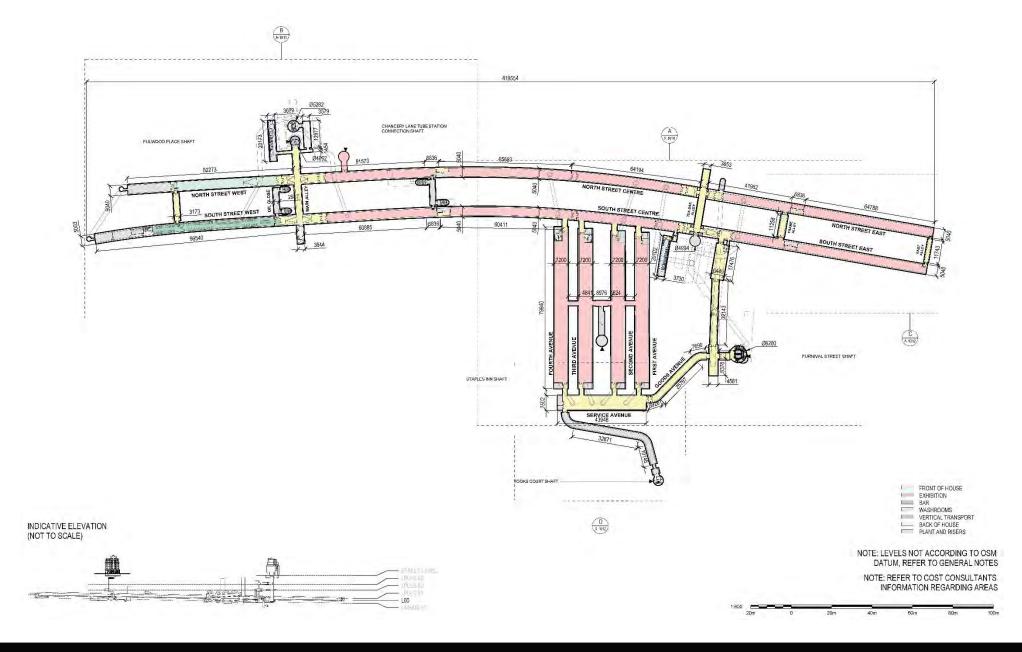
The Tunnels – Existing Plan – Level 3

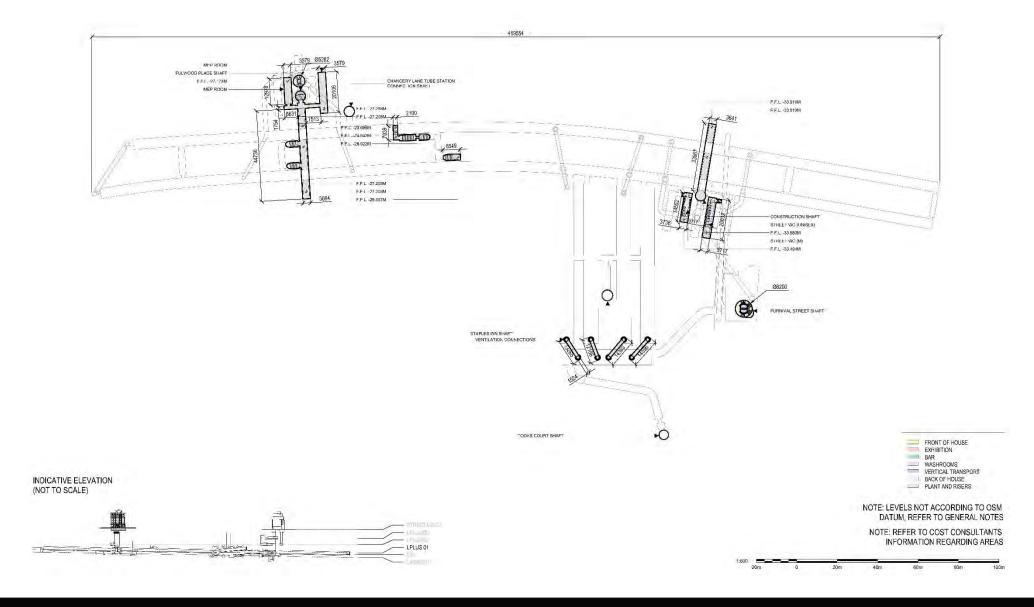


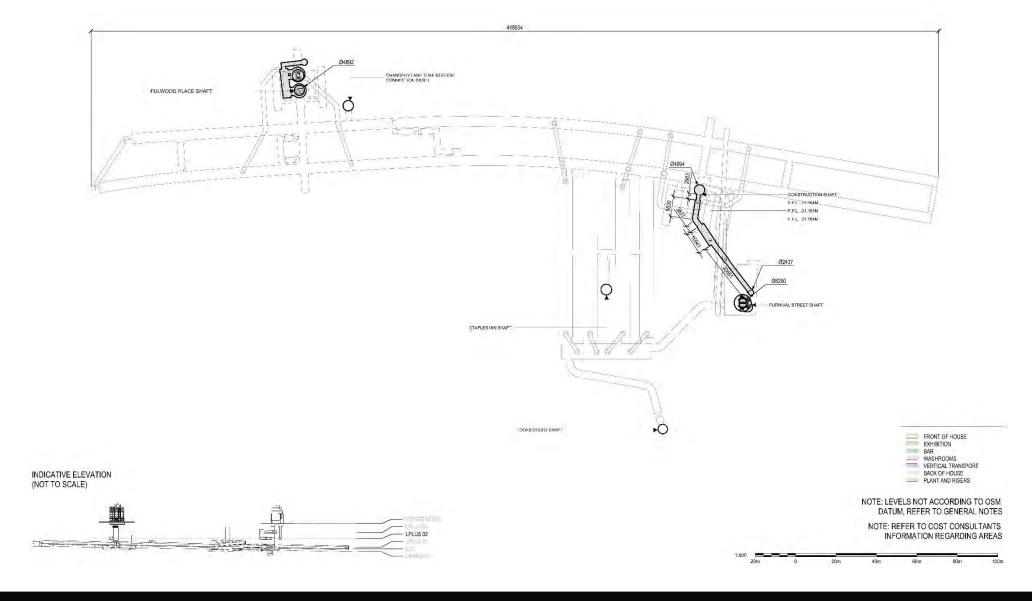
The Tunnels – Existing Tunnels Sections



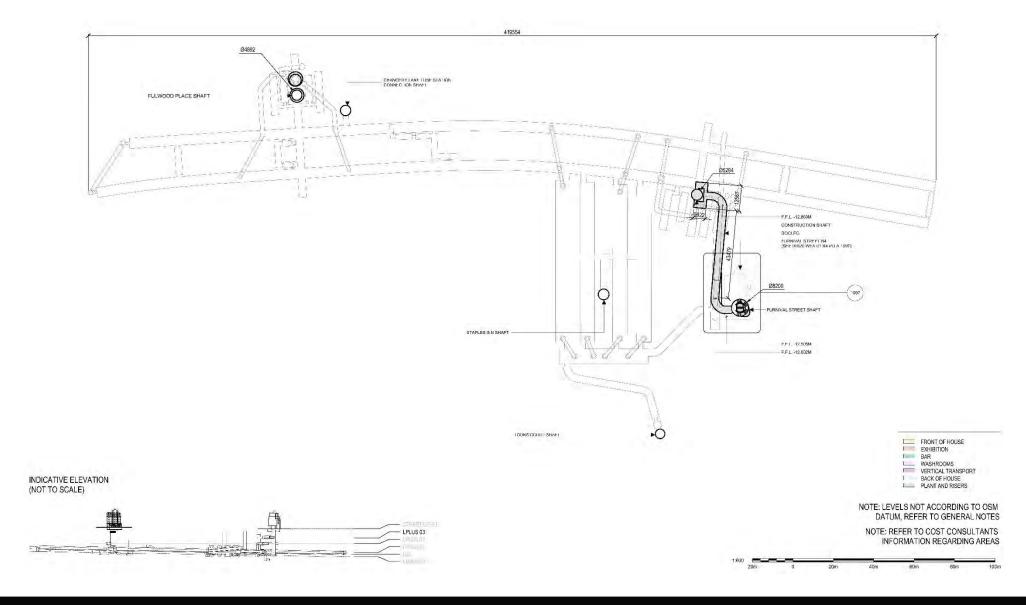
The Tunnels - Proposed Plan - Level -1







The Tunnels – Proposed Plan – Level 2



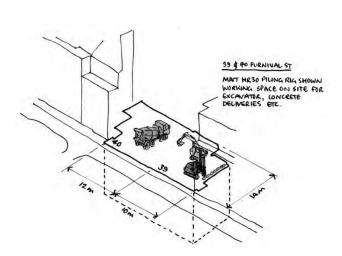
The Tunnels - Proposed Plan - Level 3

The requirement for the shaft enlargement dictates the need for an open excavation at 38-39 Furnival Street.

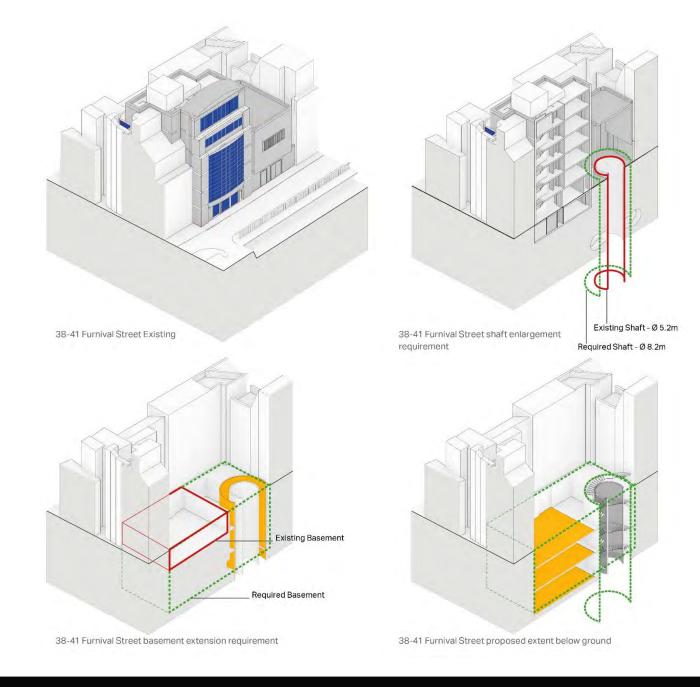
In addition to this, the new building at 38-41 Furnival street is required to host the majority of equipment to serve the tunnels.

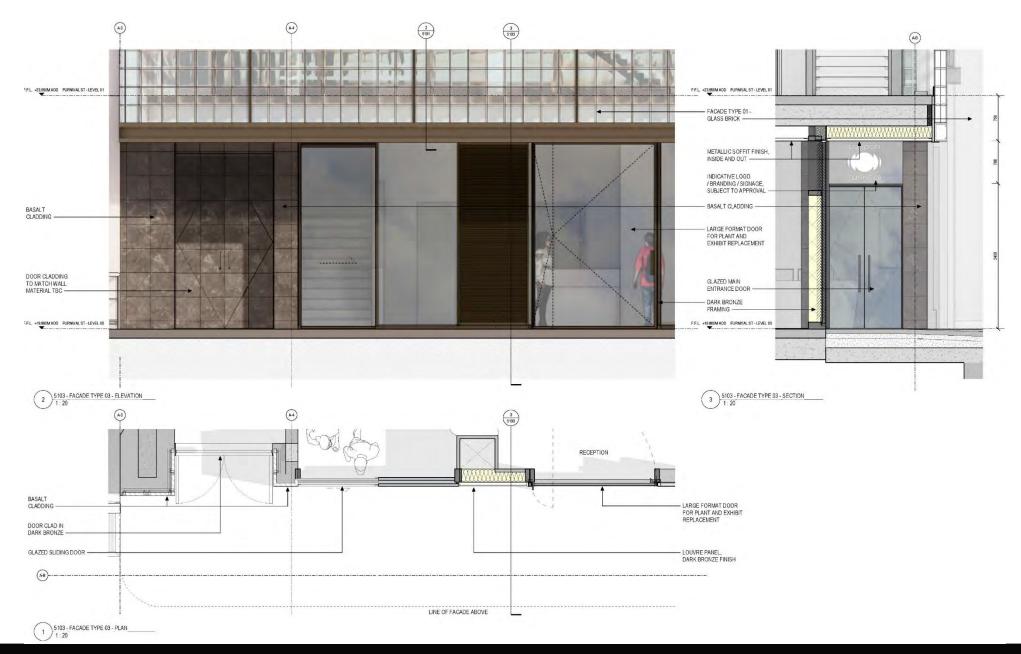
The plant space requirement can not be accommodated above ground as it will exceed the permitted massing.

The retention of the buildings at 38-39 Furnival Street and 40-41 Furnival street has been carefully considered and deemed unfeasable, both practically and financially,



Indicative sketch comparing the size of the required pilling rigs and trucks relative to the combined site footprint.

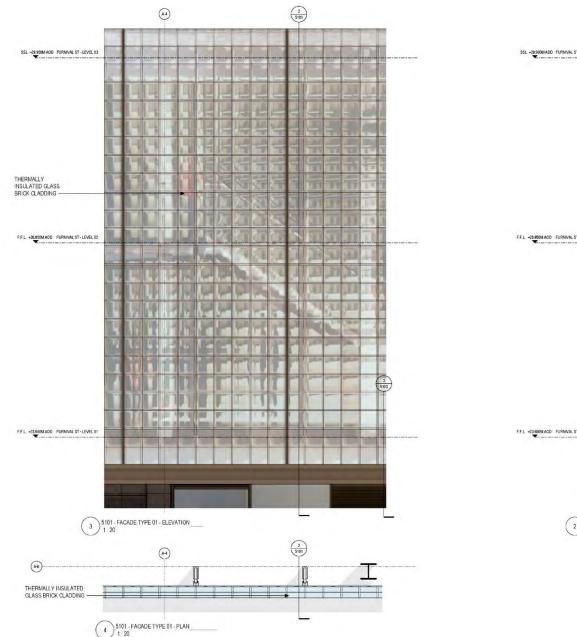


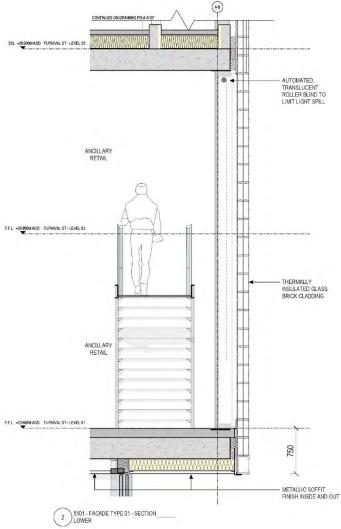


38-41 Furnival Street – Entrance – Ground Floor

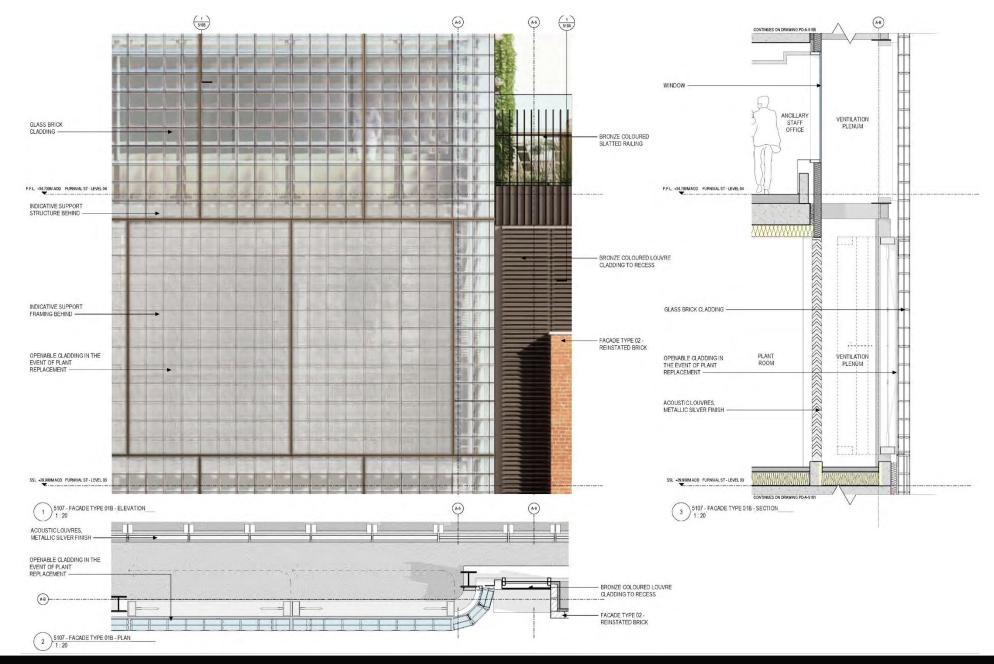


38-41 Furnival Street – Entrance – Ground Floor

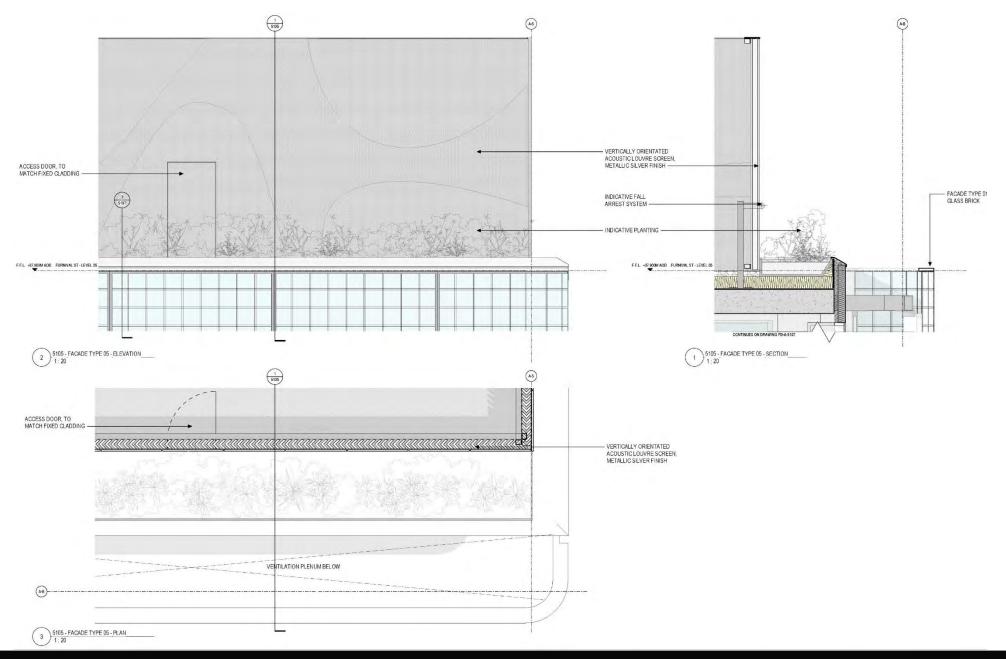




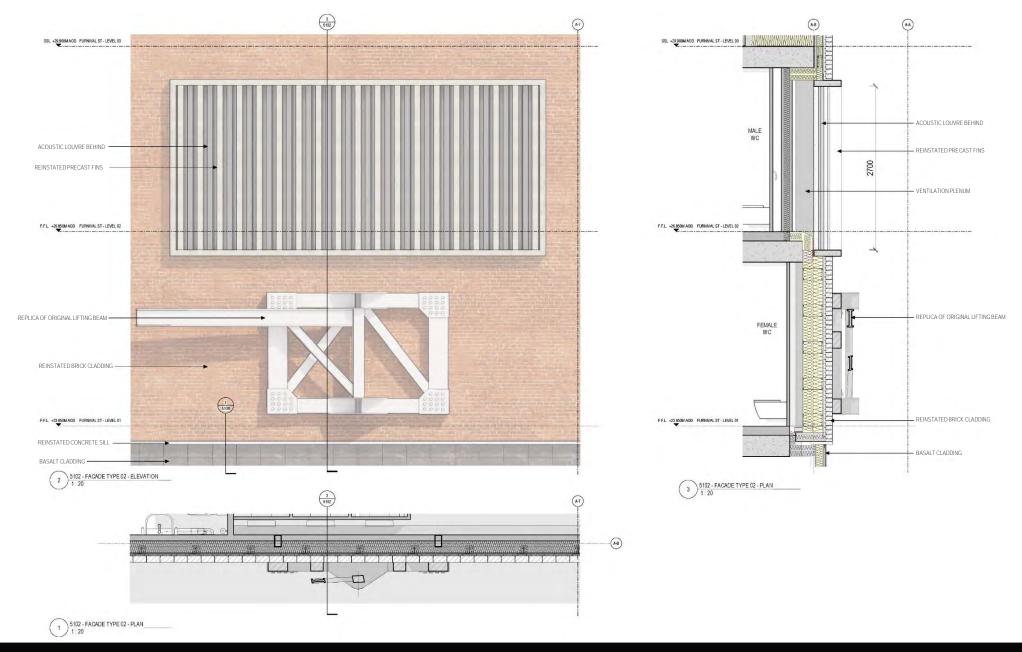
38-41 Furnival Street - Typical Facade Bay 01



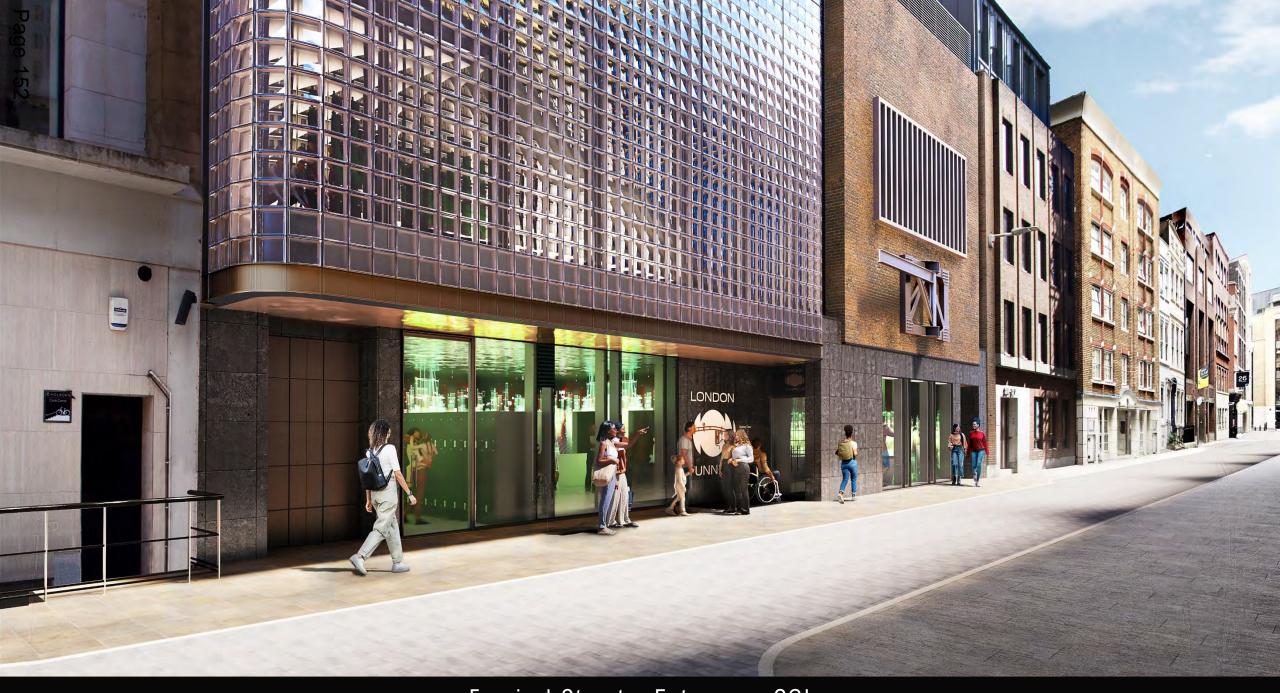
38-41 Furnival Street – Typical Facade Bay 02



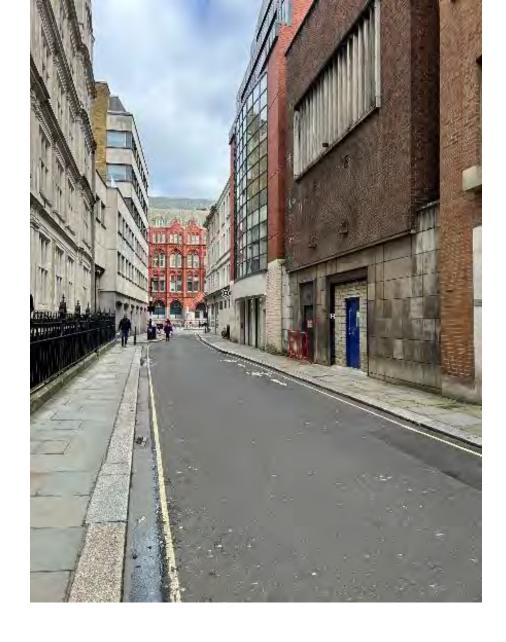
38-41 Furnival Street – Typical Facade Bay 03



38-41 Furnival Street - Typical Facade Bay 04



Furnival Street – Entrance - CGI





The left image is not taken from the same angle, it is used for reference.





The left image is not taken from the same angle, it is used for reference.



Furnival Street - CGI

The Ground Floor of the combined Furnival Street building provides the main public entrance to the Proposed Scheme. This is where the public will be greeted and security checked before making their way via the double deck lifts to Tunnel level.

There are some BOH support spaces such as lockers and WC.s located centrally.

The FOH areas are constrained to the north and south by dedicated evacuation corridors and to the east by risers serving the tunnels.

The facade line to 40-41 Furnival is set back 1.6 meters from its original alignment to provide a covered space on entrance and exit.

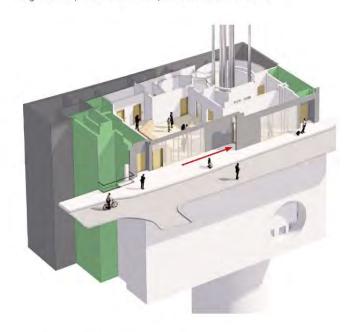
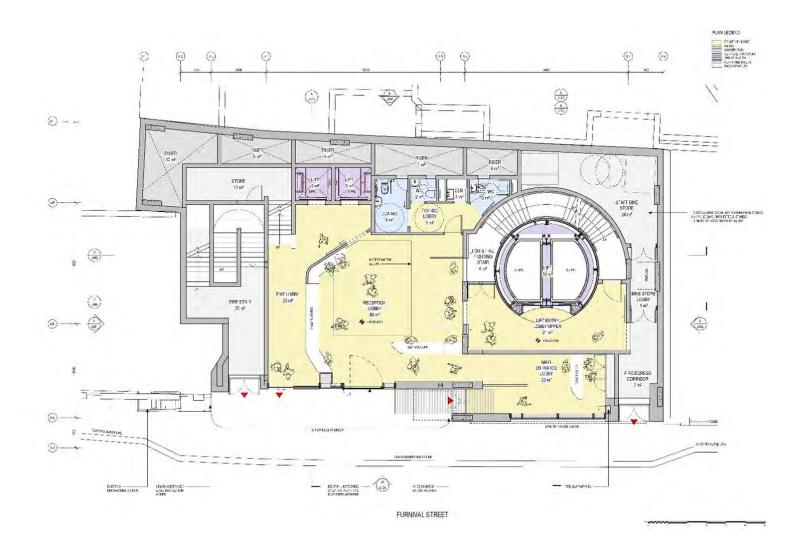
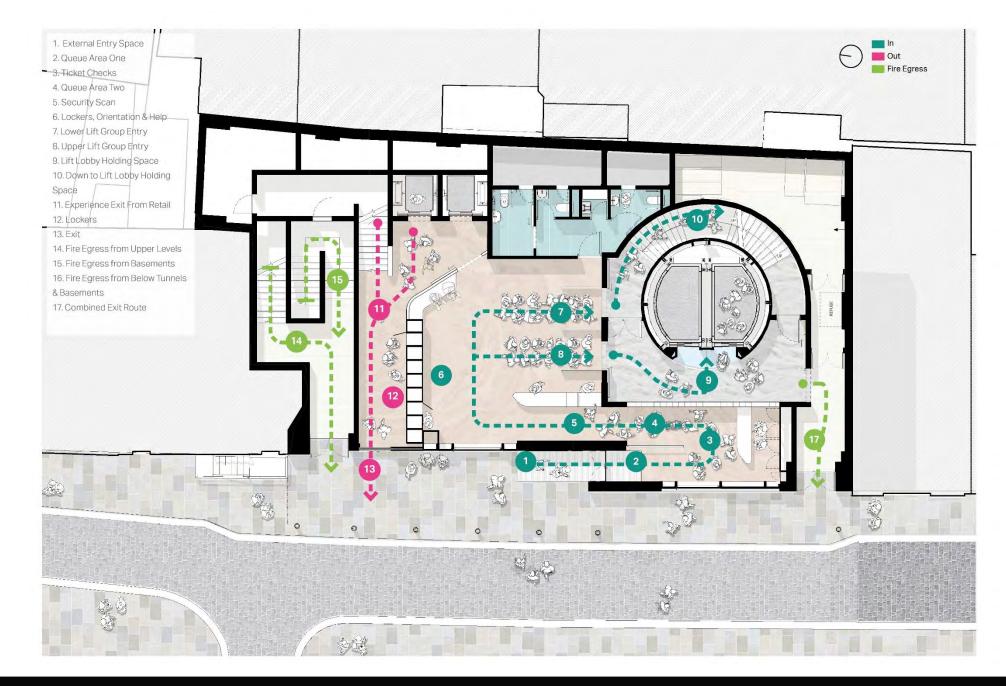


Figure 96. Ground Floor axonometric view





The Security Strategy looks at protecting the tunnels from an internal attack within the tunnels (a Person Borne IED or a bladed MTA). Therefore mitigations have featured heavily around the management of visitors into the tunnels and their associated luggage.

CTSA and DOCO engagement has been carried out with both City of London and Metropolitan Police, to inform design and to advise on threat levels.

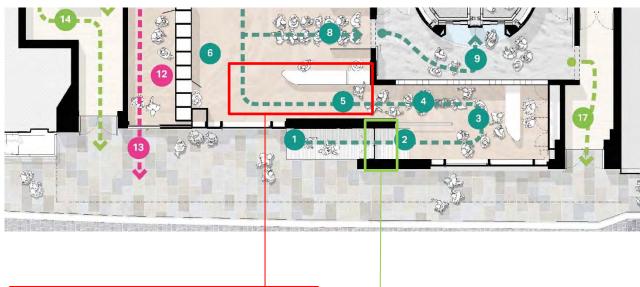
Robust search and screening will be carried out at both building entrances, a scanner for individuals, supplemented by bag scanning and searching. Security personnel will manage the screening within the reception areas.

All visitors will be required to pre-book, at this point recommendations on luggage and a list of prohibitive items will be provided to help reduce the amount of luggage being brought into the exhibition. Lockers will be available within the Furnival Street reception to secure items that do not need to be taken down into the tunnels.

Visitors will be split into smaller groups who will be escorted at all times and access control will be in place to prevent unauthorised access into back of house areas. The site will benefit from Video Surveillance Systems (VSS) which will be monitored by an on-site Security Control room (SCR).

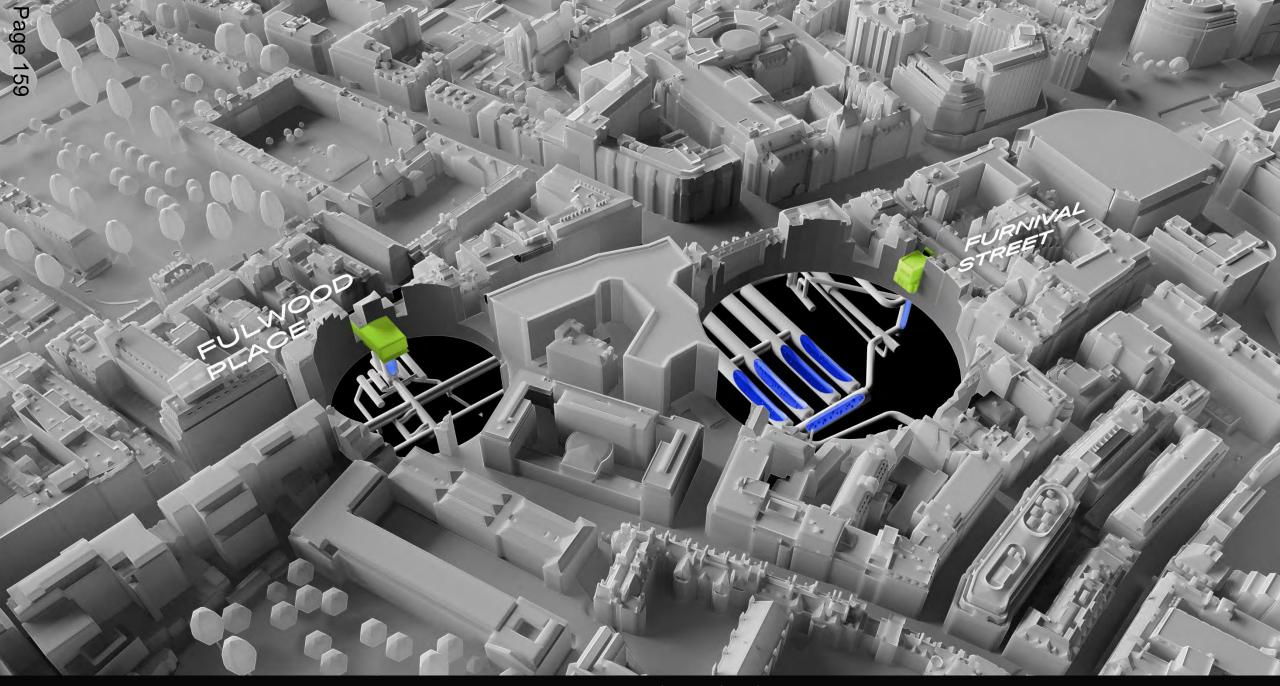
For visitors just using the bar, Fulwood Place entrance will be used, pre booking will be required and search and bag checks are to be carried out. As the bar will be open outside of exhibition hours, access control will be designed to ensure there is no access from the car to any other areas within the tunnels.

As there will be no queuing on the street (at either entrances) HVM will not be required for this project.

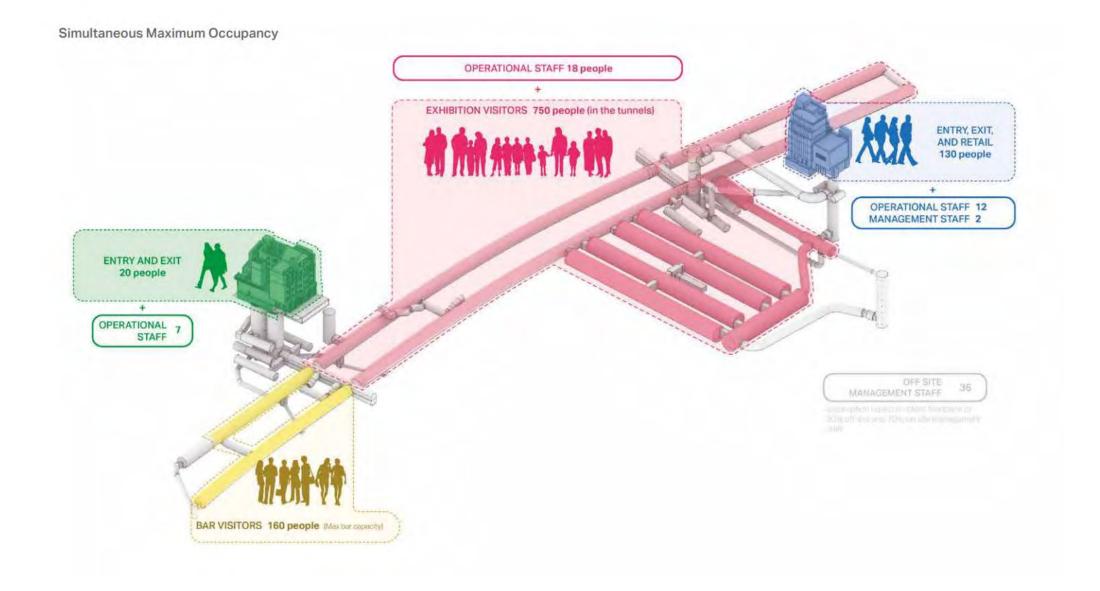


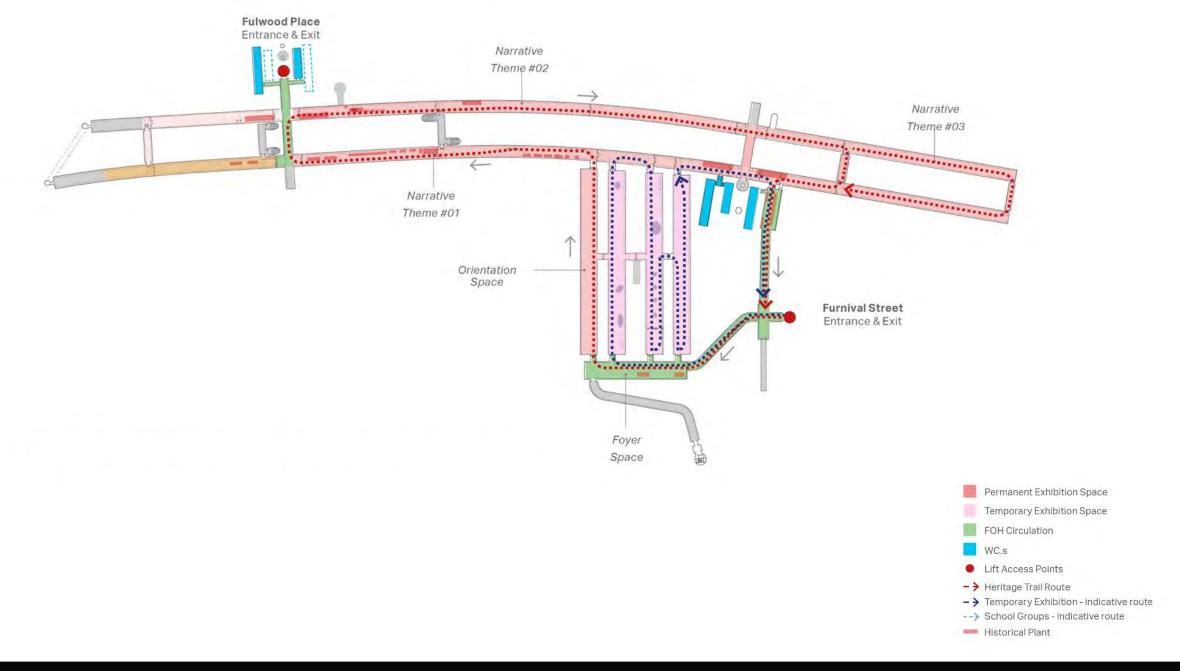


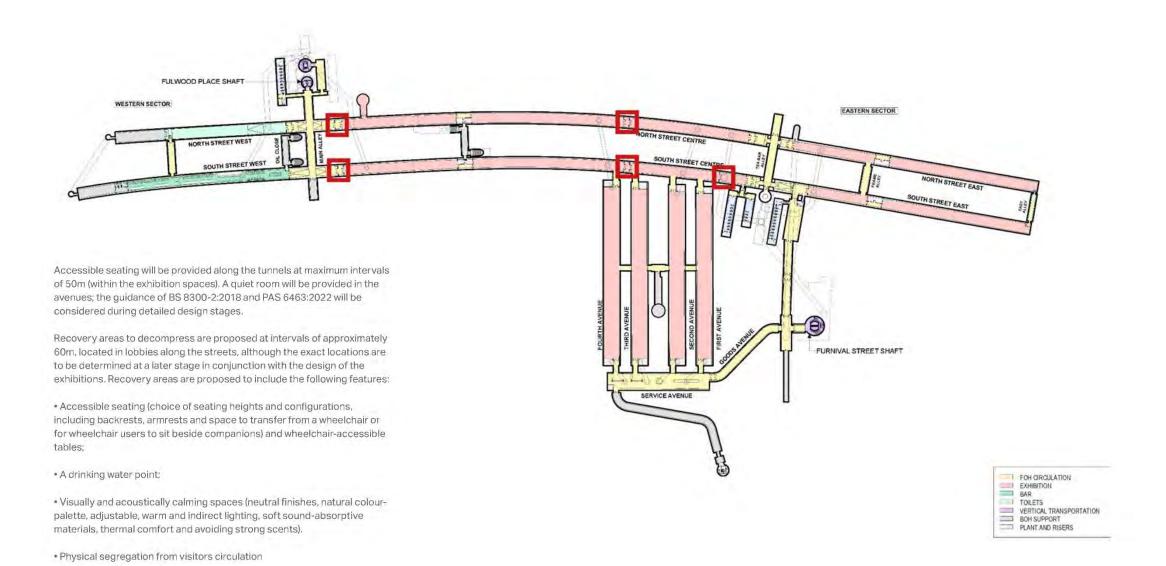




Tunnels Access from Surface







The permanent heritage exhibition will bring to life the fascinating history of the tunnels and the people that used them.

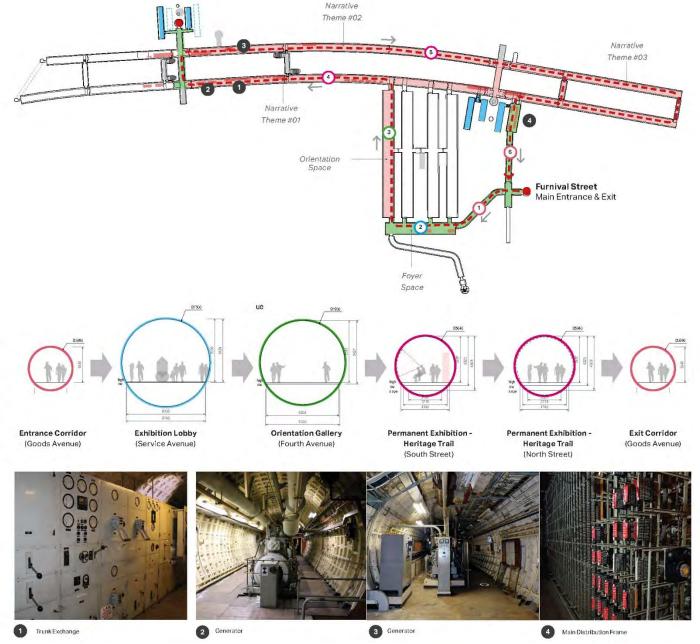
The thematic arrangement will focus on three key narrative themes;

- The London Blitz and the building of the Deep Level Shelters.
- The Use of The Tunnels by the Special Operations Executive (SOE) formed in 1940 as a secret service under the aegis of the Minister of Economic Warfare.
- The Cold War and the Tunnels secret life as the TZK or Trunk Zone Exchange Kingsway and the London terminal of the first Transatlantic telephone cable TAT 1.

It is intended that these narratives will be brought to life through the immersive use of large scale AV and digital interactivities.

It is anticipated that the key elements of the heritage infrastructure that can be incorporated in the heritage trail and narrative whilst delivering a safe and accessible circulation route will remain.









The Tunnels – Heritage Exhibition - CGI

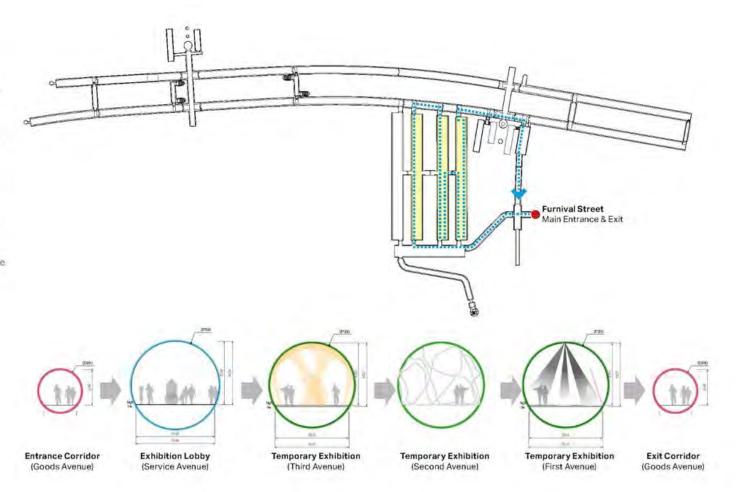
Alongside the heritage aspects of the tunnels, their unique environment provides a perfect background for a wide range of multi-sensorial cultural experiences, where sounds, smell, light levels and temperature can be carefully curated.

The Avenue tunnels offer the greatest volume (at over 7m diameter) and therefore flexibility to suit a wide range of events.

The Avenues surfaces will be used to showcase different digital environments, either with the use of cutting edge digital screens or with high resolution projectors. The setting will allow these spaces to create fully immersive environments that will transport visitors to unique real or imaginary spaces.

The digital nature of the content will provide the opportunity to collaborate with digital artists and alike to showcase the latest trends in digital art.

These spaces can also be adapted for a multitude of cultural events, expanding the use of the asset for other creative disciplines.





The Tunnels – Cultural Exhibition – CGI

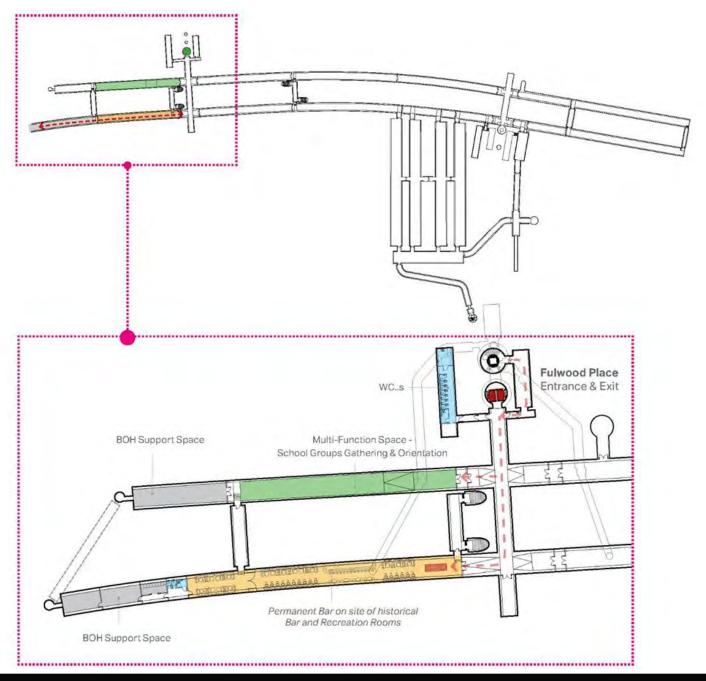
The Bar will sit on the site of the historical Bar and Recreation Rooms.

It is intended that this will provide a timely and atmospheric amenity break along the Heritage route. The Bar area will also be available for after hours events.

The Multi-function space within the North Street West will support these functions and can act as a Orientation/Class Room Space during the period of School Visits.

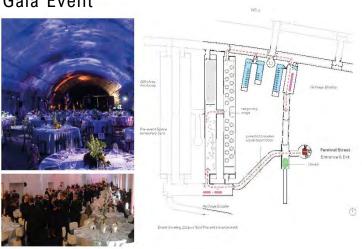






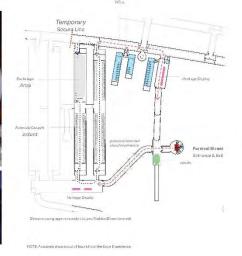


Gala Event



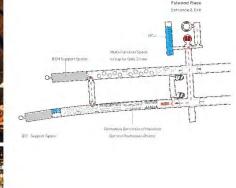
Fashion Show





Bar - Corporate Event



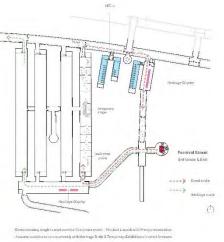




Product Launch



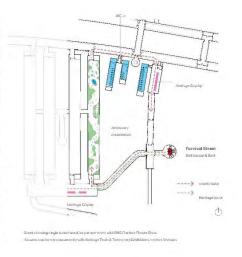




Flower Show



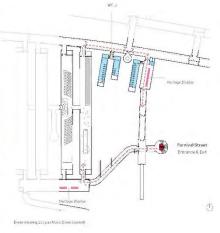


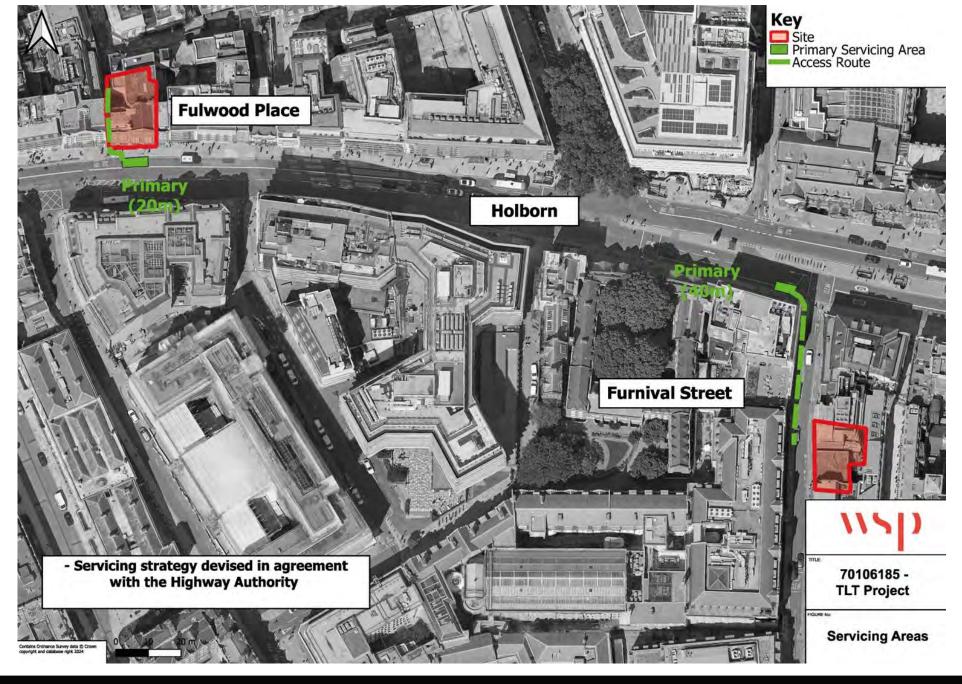


Music Event

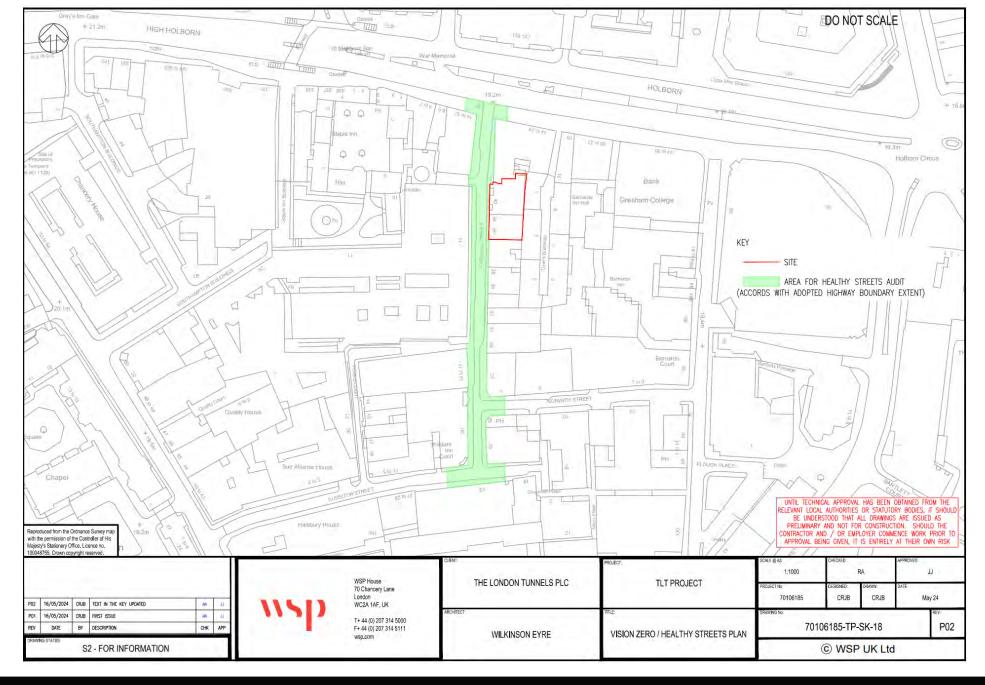






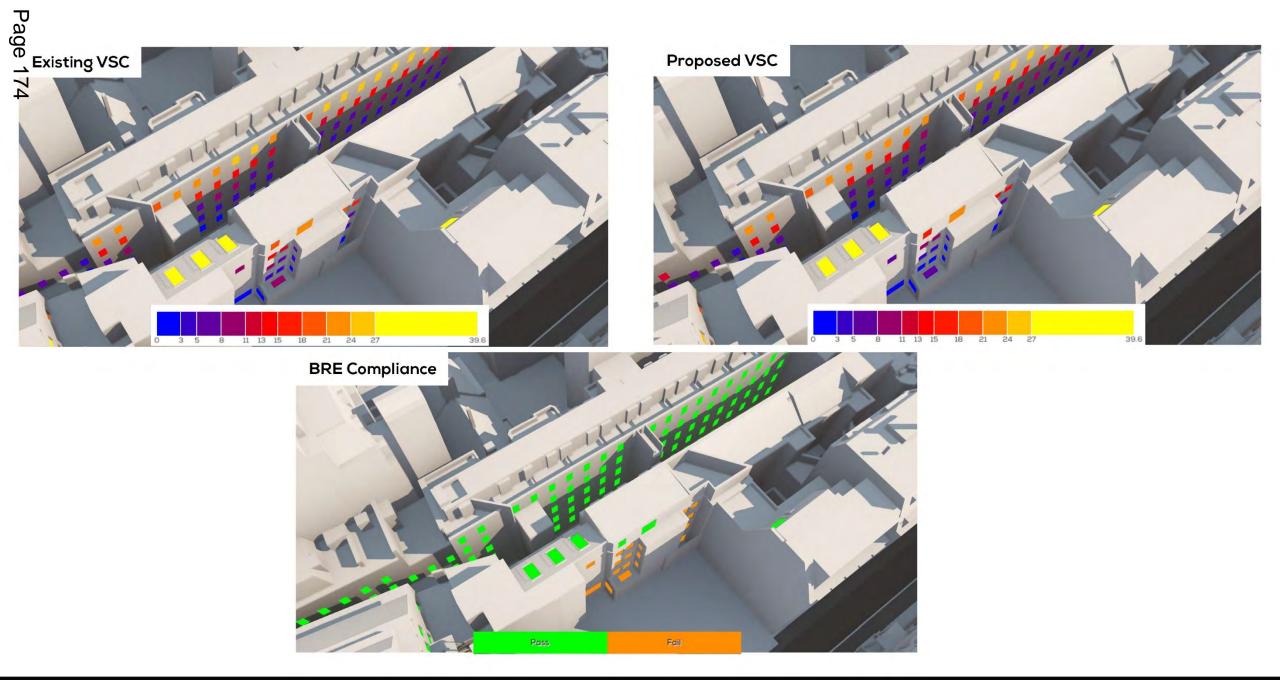


Loading and Unloading Areas for Deliveries – Primary from Holborn

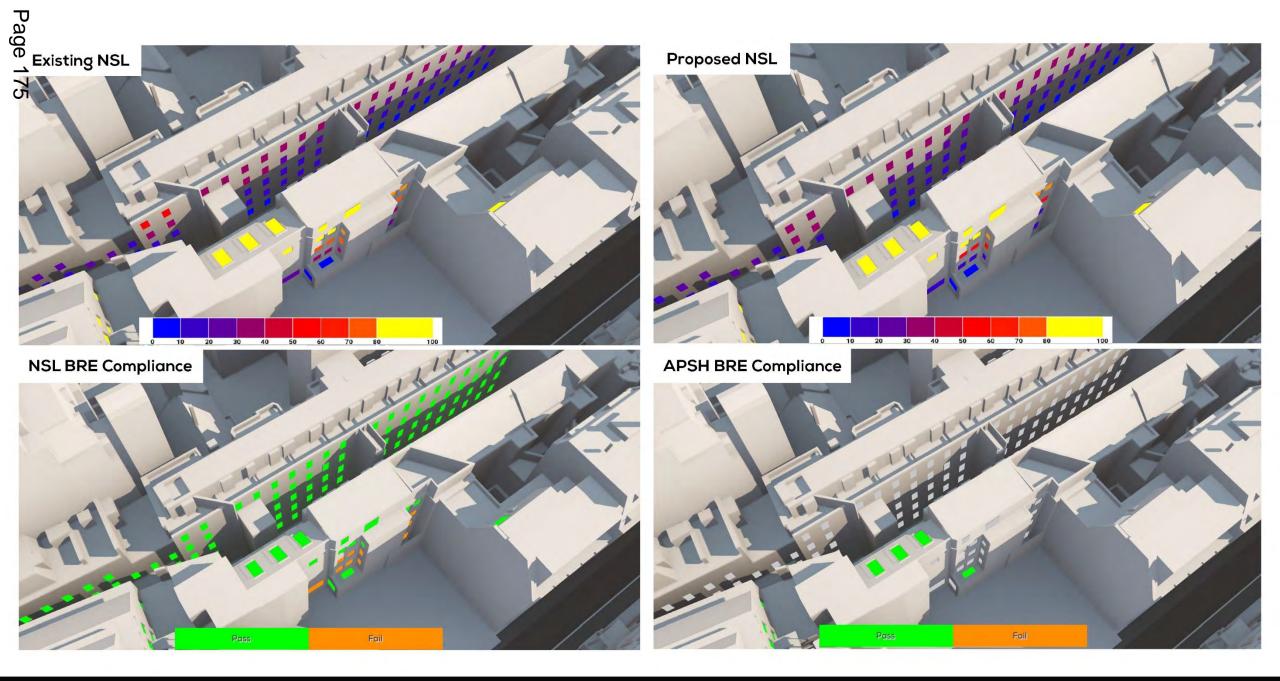


Furnival Street - Extent of Section 278 works in line with Healthy Street Plan





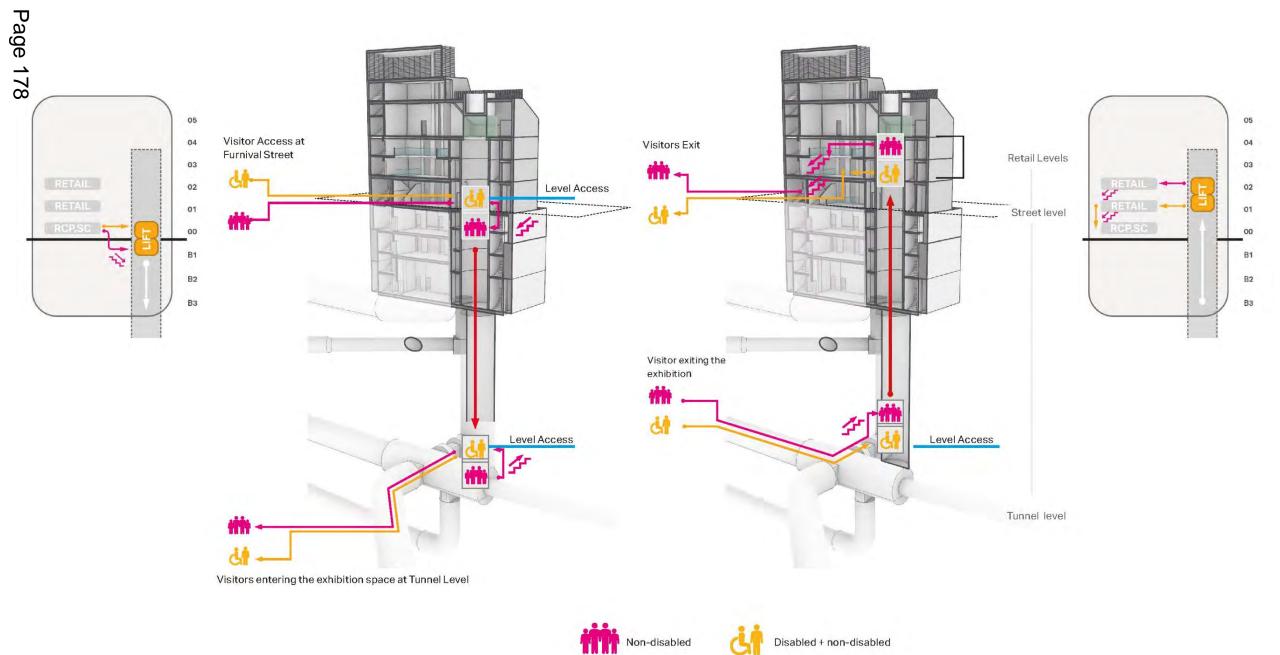
Furnival Street - Daylight / Sunlight Impacts - VSC

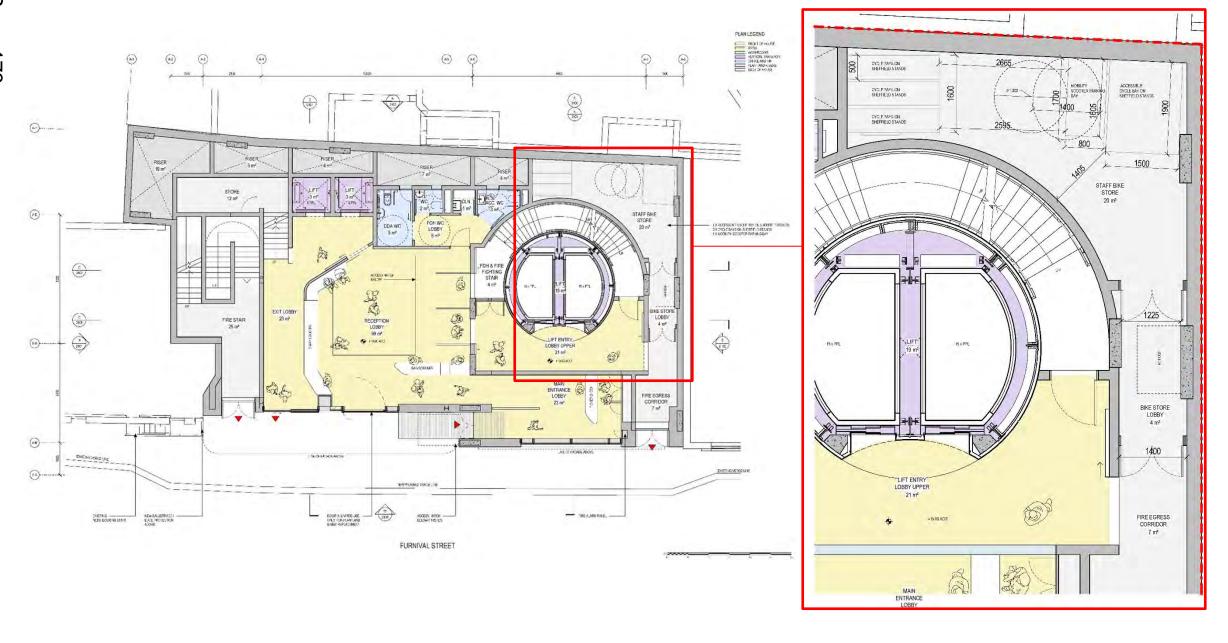


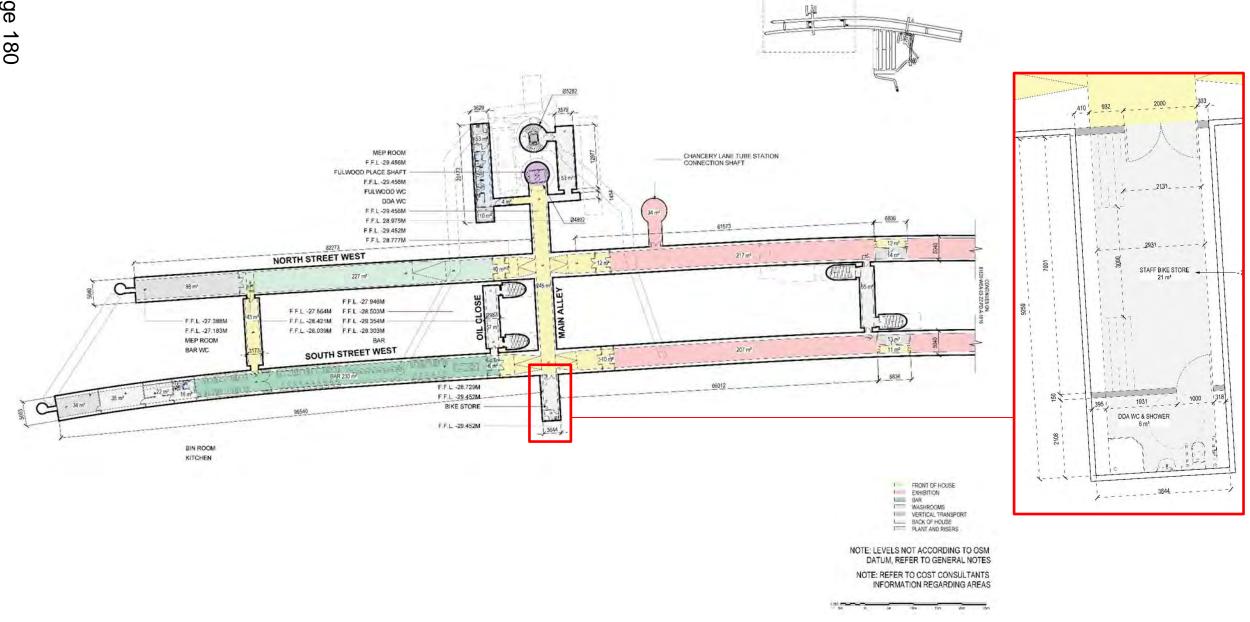
Furnival Street - Daylight / Sunlight Impacts - NSL + APSH

Mary and		ROOM			VSC (WINDOW)				NSL				100000000000000000000000000000000000000	WINDOW)				
ROSHI	PROPERTY TYPE		ROSM NOTES	WINDOW	EX.	FR.	LOSS	10.86	EX.	PR.	LOSS	LOSS		EX.		FR		LS:85%
		USE			86	95		*	86	%	SOM	×.	ANNUAL	WINTER	амина	WINTER	ANNUAL	WINT
E-UILIDINGS																		
K1	RESIDENHAL	LKD	LOORPLANS	MI\R01	0.4	0.3	0.1	25.0%	23.6	23.1	0.3	2.2%						
		LKD		W//B01 / HZ (2)	12.2	12.2	0	0.0%					5	0	5	0	0.0%	0.0%
		LKD		M8/B01 / HZ (2)	8./	8./	0	0.0%					10	2	10	5	0.0%	0.0%
H2	RESIDENTIAL	BEDROOM	LOORPLANS	W2/B01	0.3	0.2	0.1	33.3%	0.8	8.0	0.0	2.5%						
кз	RESIDENTIAL	BEDROOM	LOORPLANS	W3/B01	0.0	0.2	0	0.0%	1	1.	0.0	0.0%	Ů.	0	0	0	0.0%	0.0%
R4	RESIDENTIAL	LKD	I LOORPLANS	W4/B0L	0.3	0.3	0	0.0%	14.9	14.5	0.2	2.9%						
		LKD		W6/801 / HZ (2)	8.5	8.5	0	0.0%					0	0	0	0	0.0%	0.0%
HI	RESIDENIIAL	LOBBA	LOORPLANS	W1/1 00	1.2	0.7	0.5	41.7%	15.4	8.5	1.4	44.8%						
		FORBA		W6/L00	18	1.8	0	0.0%					3	o	3	0	0.0%	0.0%
		FORBA		W//1 00	18	1.8	o	0.0%					4	o	4	0	0.0%	0.0%
H2	RESIDENTIAL	BEDROOM	LOORPLANS	W2/F00	0.4	6,0	01	25.0%	62.5	424	20	321%						
		BEDROOM		W3/I 01 / HZ (2)	10.4	6.3	4.1	39.4%					5	o	٥	o	100.0%	0.0%
K3	RESIDENITAL	BEDROOM	LOORPLANS	W3/I 00	0.5	0.4	01	20.0%	2.2	21	0.0	0.8%	o	o	0	o	0.0%	0.0%
R4	RESIDENTIAL	HOME OF FICE	LOORPLANS	W4/I 00	1.2	0.6	0.6	50.0%	21.7	1	1.2	6/./%						
RE	RESIDENITAL	LKD	LOORPLANS	W2/I 01	4.3	1.2	3.1	/2.1%	30.6	135	8.5	55.8%						
		LKD		W4/I 01	3.2	1	2.2	68.8%										
		LKD		W5/I 01		1.4		30.0%										
		נאט			1.6		0.5						0	o	0	0	0.0%	0.0%
		LKD			2.8		1.2											
													4	2	4	2	0.0%	0.0%
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US)	DESIDENTIAL		TTOODDIANG						511	95.4	78	30.68					0.04	0.07
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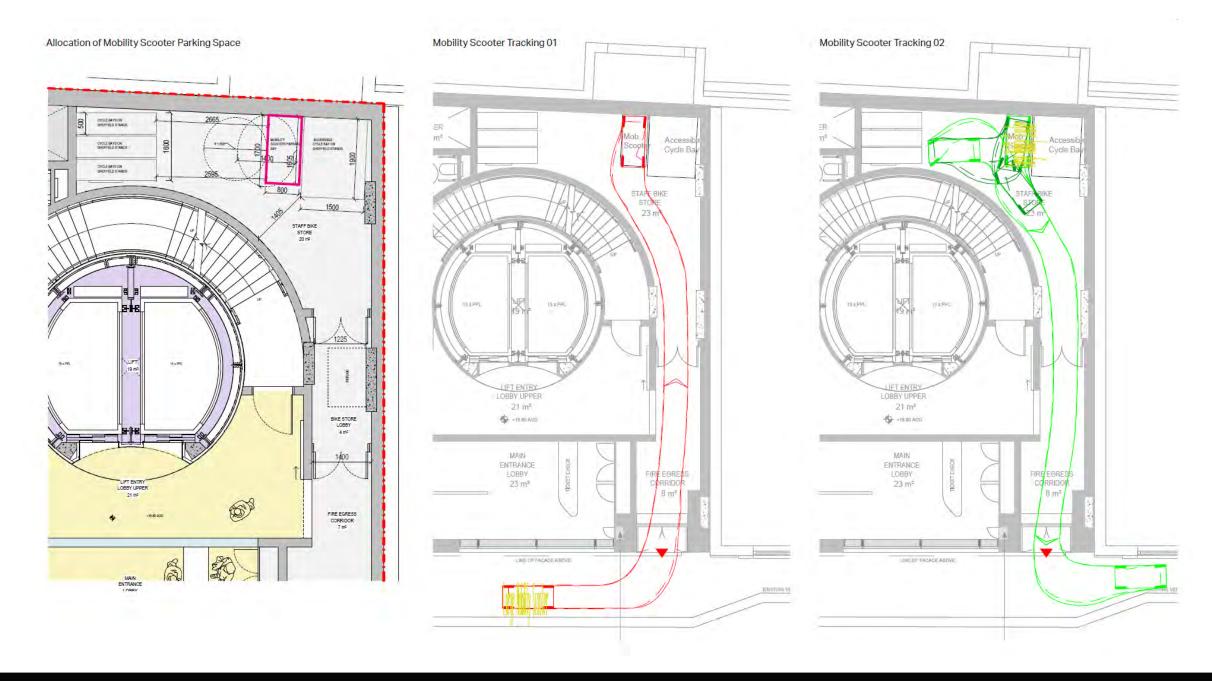
			ROOM	ROOM NOTES	WINDOW	VSC (WINDOW)				NSL	NSL				APSH (WINDOW)					
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		TKDE	USE			Ří.	*		%	*	%	SON	%	AMMUSE	WINTER	ZMNUZE	WINTER	ANNUAL	VVINTE	
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			LKD		W9/L02	8	8	0	0.0%					6	3	6	3	0.0%	0.0%	
			LKD		M10/I 05	9	9	0	0.0%					8	0	8	Ö	0.0%	0.0%	
			LKD		WII/I 02	9.3	9.3	0	0.0%					11	1	11	1	0.0%	0.0%	
			LKD		M15/1 05	9.2	9.2	0	0.0%					12	1	12	1	0.0%	0.0%	
)3 H5	H2	RESIDENTIAL	LIVING ROOM	LOORPLANS	W2/I 03 (dup.)	8.9	5.9	3	33.7%	95	925	0.4	2.6%							
			LIVING ROOM		M3/I 03	13.9	9.6	4,3	30.9%											
			LIVING ROOM		M2\103	12.2	8./	3.5	28.7%											
			LIVING ROOM		W14/I 03	18.2	18.2	0	0.0%					24	5	24	5	0.0%	0.0%	
			LIVING ROOM		W15/I 03	18.2	18.2	0	0.0%					24	6	24	6	0.0%	0.0%	
	кз	RESIDENITAL	UNKNOWN	LOORPLANS	M5/I 03	8.9	5.9	3	33.7%	100	100	0.0	0.0%							
			UNKNOWN		M16/I 03	18.6	18.6	O	0.0%					53	2	23	2	0.0%	0.0%	
			UNKNOWN		W1//I 03	18.5	18.5	O.	0.0%					2/	5	27	5	0.0%	0.0%	
			UNKNOWN		M19/1 03	15,/	15./	o	0.0%					22	5	22	5	0.0%	0.0%	
			UNKNOWN		W1/I 04 / INC (2)	77.9	14.7	3.2	41%					66	1/	6/	1/	-1.5%	0.0%	
R4			UNKNOWN		W2/I 04 / INC (2)	/6.1	/4	21	2.8%					59	5	58	5	1./%	0.0%	
			UNKNOWN		W10/I 04 / INC (2) (d	u /3.8	69.8	4	5.4%					63	1/	80	1/	4.8%	0.0%	
	R4	RESIDENIIAL	LKD	I LOORPLANS	W4/I 03	6.2	4.8	1.4	22.6%	57.8	57.4	0.2	0.8%							
			LKD		M1/I 03	18	14.1	3.9	21./%											
			LKD		W8/I 03	16.8	13.1	3./	22.0%											
			LKD		WIO/I 03	12.1	12.1	0	0.0%					21	5	21	5	0.0%	0.0%	
			LKD		MII/I 03	14.2	142	0	0.0%					12	4	12	4	0.0%	0.0%	
			LKD		WI2/I 03	16.3	16.3	0	0.0%					18	4	18	4	0.0%	0.0%	
			LKD		W13/1 03	17.9	1//9	o	0.0%					23	4	23	4	0.0%	0.0%	
и на	R2	RESIDENHAL	BEDROOM	LOORPLANS	W3/I 04	19.6	17.3	2.3	11.7%	98.2	98.2	0.0	0.0%							
			BEDROOM		W8/I 04	26.3	26.3	0	0.0%					3/	1	3/	1	0.0%	0.0%	
			BEDROOM		W9/I 04	26.3	26.3	o	0.0%					38	1	38	1	0.0%	0.0%	
	K3	RESIDENITAL	BEDROOM	LOORPLANS	W4/I 04	24	22.3	1./	/.1%	96.8	96.9	0.0	-0.1%							
			BEDROOM		W5/I 04	25.6	25.6	o	0.0%					33	6	33	6	0.0%	0.0%	
			BEDROOM		W6/I 04	25.8	25.8	0	0.0%					36	1	36	1	0.0%	0.0%	
			BEDROOM		W//I 04	26.2	26.2	o	0.0%					3/	8	3/	8	0.0%	0.0%	
	R4	RESIDENTIAL	BEDROOM	FLOORPLANS	W10/F04 / INC (2)	73.8	69.8	1	5.4%	851	85.1	0.0	0.1%	63	17	60	17	4.8%	0.0%	

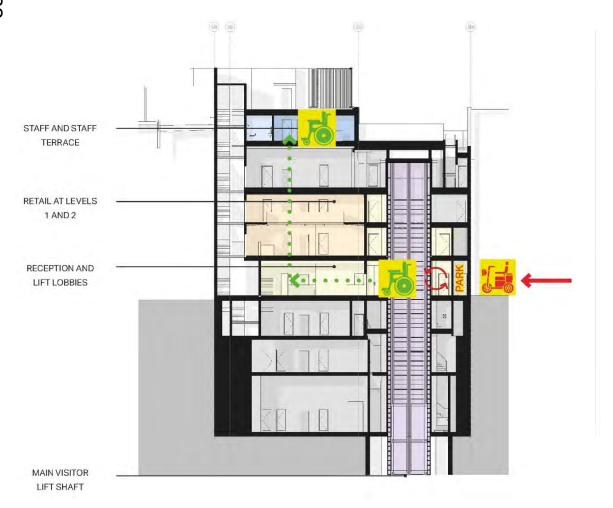


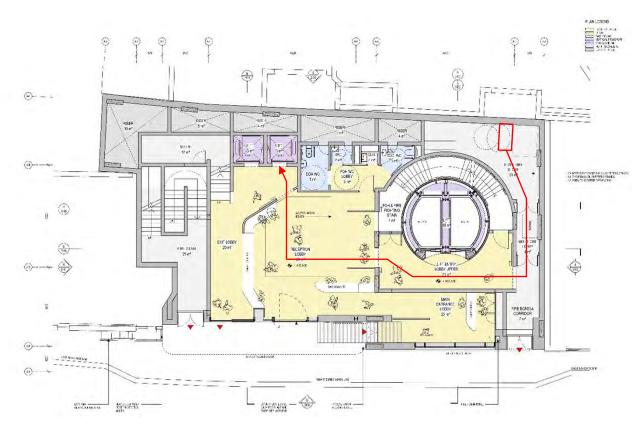


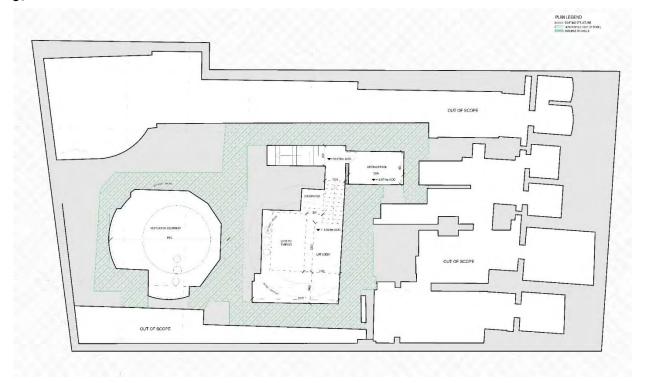


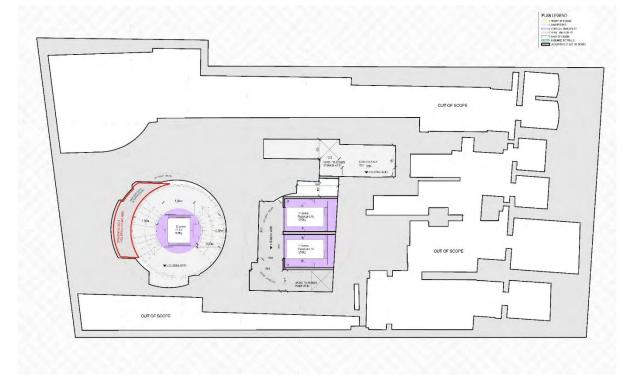
Tunnels - Staff Cycle Parking Space



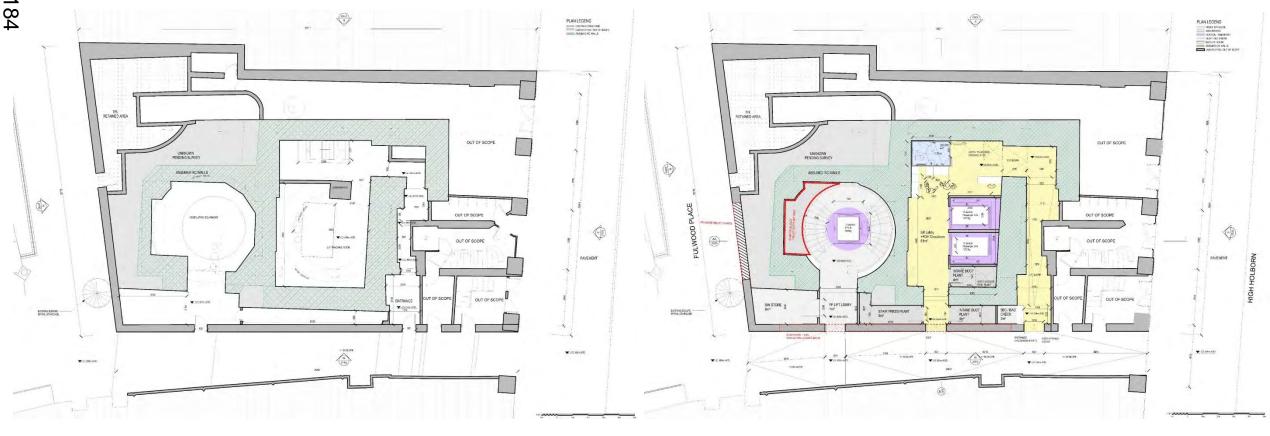






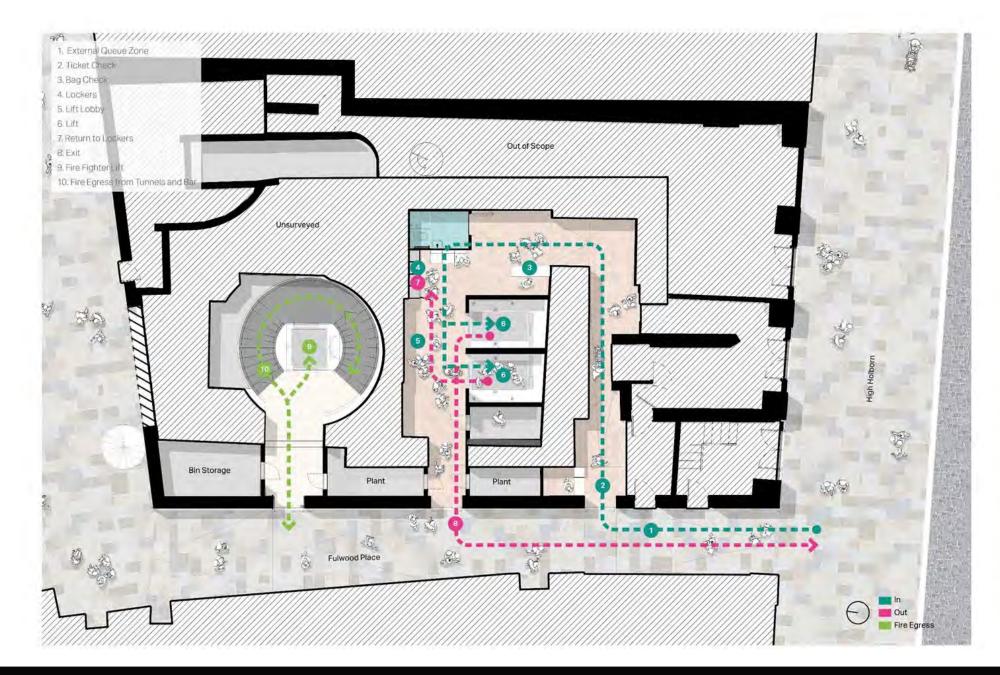


Existing Proposed



Existing

Proposed



(The Camden site) 31-33 High Holborn - Proposed Visitors Circulation



Existing Elevation

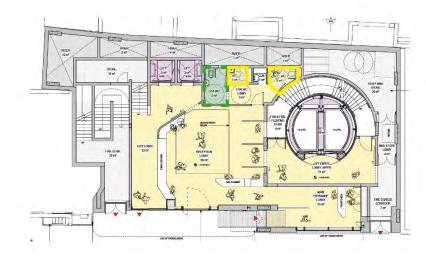


Proposed Elevation

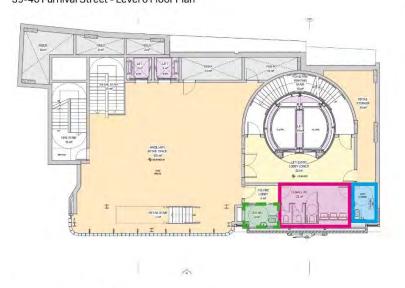
Sanitary accommodation

- · Bathroom facilities are detailed in section 7 of the DAS.
- · Gender Neutral Toilets are available on all floors and in the tunnels.
- Female-exclusive toilets are located at Level 2 and in the tunnels.
- Male-exclusive toilets are located at Level 1 and in the tunnels.
- · Accessible toilets are provided on all floors.
- · All accessible toilets are gender neutral
- Baby changing areas are available at L01 + L02 and in all tunnels.

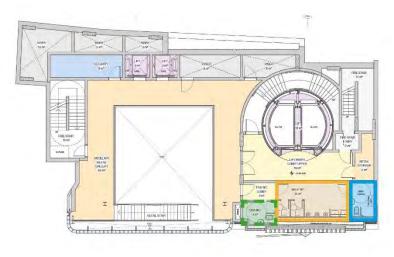




39-40 Furnival Street - Level 0 Floor Plan



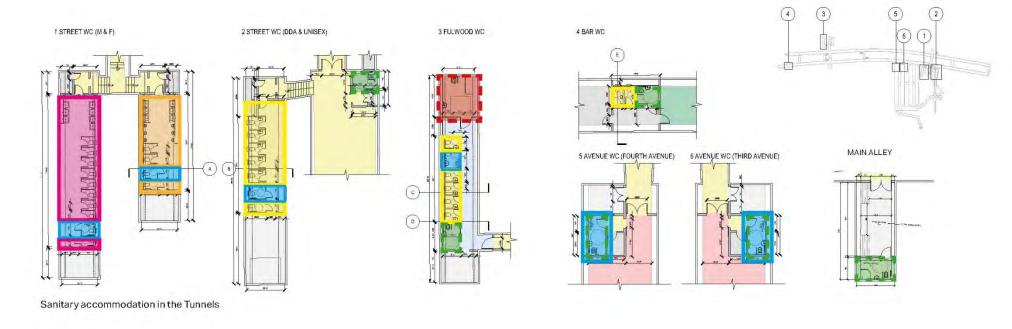
39-40 Furnival Street - Level 1 Floor Plan

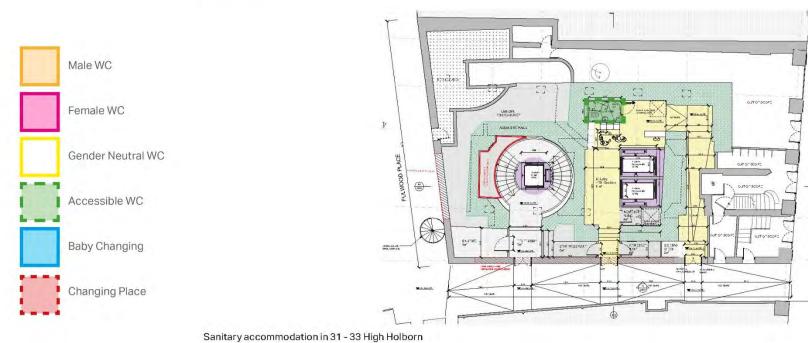


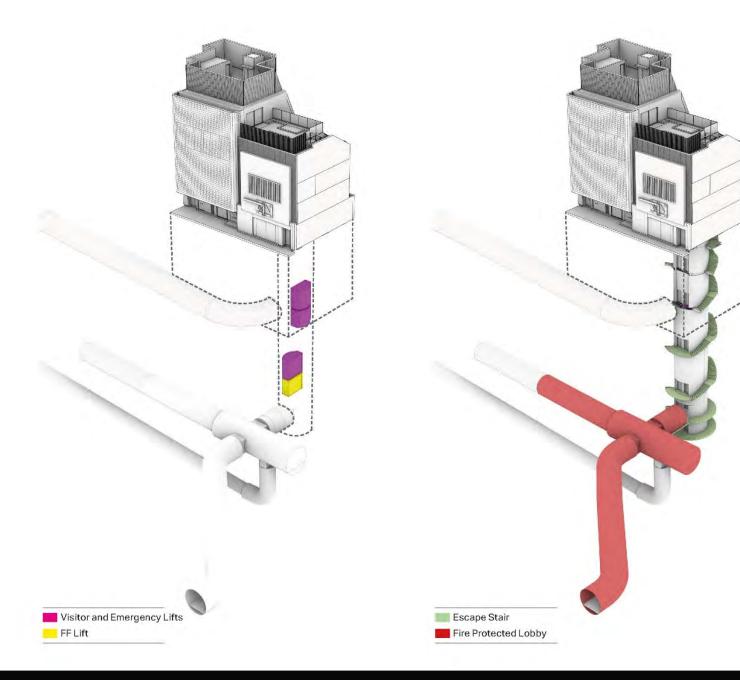
39-40 Furnival Street - Level 2 Floor Plan



39-40 Furnival Street - Level 4 Floor Plan







Furnival Street Shaft

38-41 Furnival Street and its associated shaft will function as the main entrance to the tunnels.

The shaft is also required to provide firefighters access to the tunnels and evacuation. For this, the shaft will be pressurised and connected to a fire protected lobby at tunnels level.

Requirements

The tunnel access requirements at this location are summarised below:

- 1 Fire Fighter lift Pressurized.
- · 1 Emergency lift Pressurized.
- · 1 spiral Escape stair Pressurized.
- · Escape stair and lift must share protected lobby.
- · Set of lifts must be provided for resilience rescue if needed.

In order to accommodate these requirements spatially, the strategy for Furnival Street proposes the construction of a new wider shaft, from grade, down to the level of the tunnels.

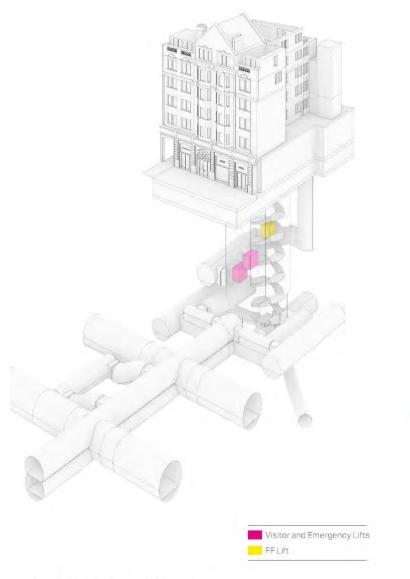


Figure 144. Fire Fighter and Visitor Lifts

Escape Stair Fire Protected Lobby

Figure 145. Escape Stairs and Fire Protected Lobby

The southern shaft at 31-33 High Holborn is designated for visitor access and emergency escape, while the northern shaft houses the firefighting lift alongside fire escape stairs.

The imperative for extending the northern shaft to tunnel level arises from compliance with the mandated minimum of 250 square meters for firesterile pressurized tunnels, ensuring optimal safety standards throughout.

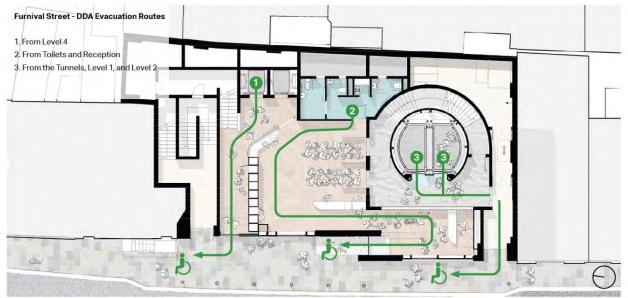


Figure 1. DDA Evacuation routes at 38-41 Furnival Street

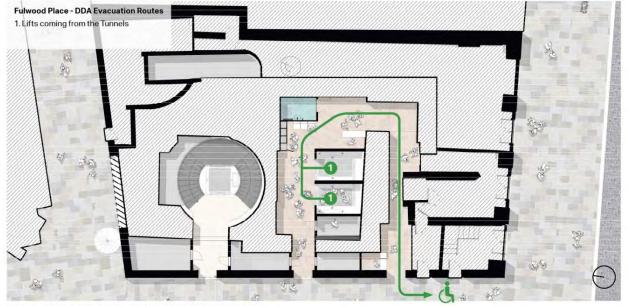


Figure 2. DDA evacuation routes at Fulwood Place (31-33 High Holborn)

The City site

The Camden site

Tunnels Evacuation and Firefighting

Public occupants within the tunnels are to have at least two means of escape from each fire compartment. Compartmentalisation is proposed as schematically shown to limit the design of the fire and smoked logged space, enable progressive evacuation, and facilitate effective firefighting.

Pressurized refuge/holding zones and shafts are to be considered at Furnival St and Fulwood Place shafts as places of relative safety. Occupants can queue in the protected refuge areas to evacuate via the evacuation stairs or lifts. The protected refuge areas are to have no fire load and non-combustible linings.

Smart signage and wayfinding are proposed to be installed in the tunnels to assist wayfinding, inclusive of "Exit" and "No Exit" signs that would activate on a cause-and-effect basis and depending on the location the fire is detected. An addressable fire detection system and voice alarm system are also proposed to be installed.

Firefighting Shafts

Furnival St and Fulwood Place shafts are pressurised firefighting shafts with firefighting stairs and lifts. Firefighting outlet connections will be provided in the protected lobby at the tunnel level as well as strategic locations within the tunnels. The water supply for manual firefighting would be the town's main water network, boosted in pressure by the fire engine.

Rendezvous Point

RVP (rendezvous point) in this building will be the Furnival St building (Euston Fire Brigade Zone).

Output Sequence of the detection system is proposed to be as follows (Per BS 9992):

- Single detector or MCP alarm leads to alert condition through the PA system to staff;
- No further manual intervention for a specific time interval (e.g., 2 minutes), an evacuation message shall be given;
- Staff intervention, a second timed interval for investigation or reset of the system if false alarm is allowed at panel;
- Failure to acknowledge leads to simultaneous Evacuation message;
- Activation of a sprinkler system or two separate detection devices initiates an alarm condition within the timer sequence;

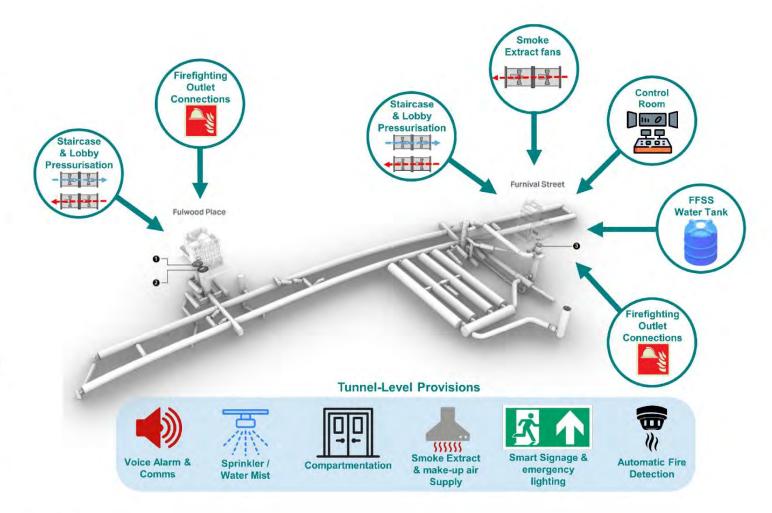
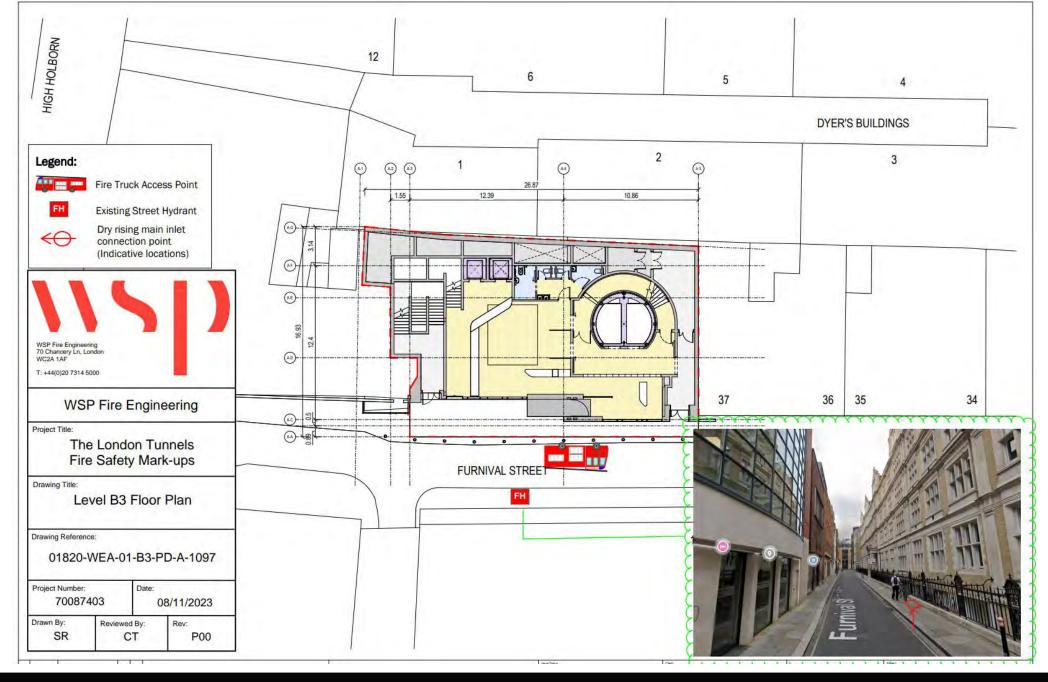
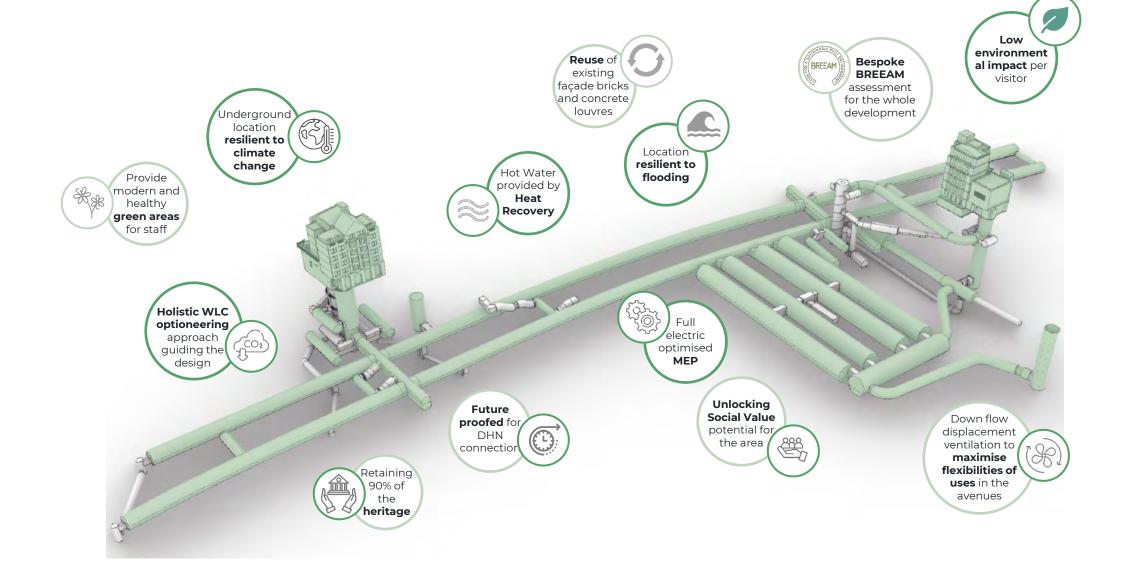


Figure 162. Fire Safety Measures



Fire Strategy - Fire Truck Access - 38-41 Furnival Street



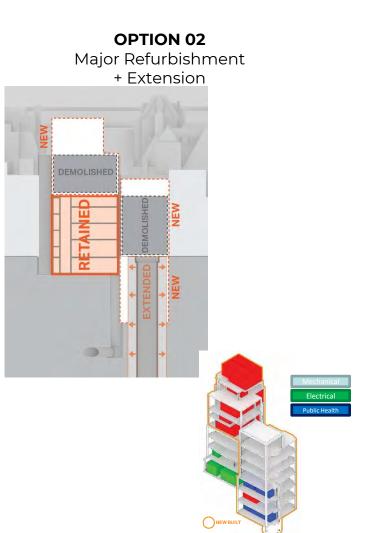
ASSESSED OPTIONS

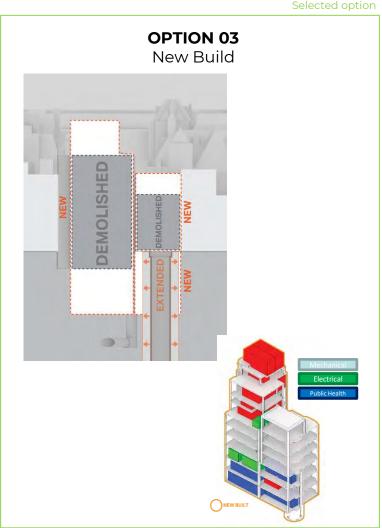
Various levels of retention for 40-41 Furnival Street have been considered.

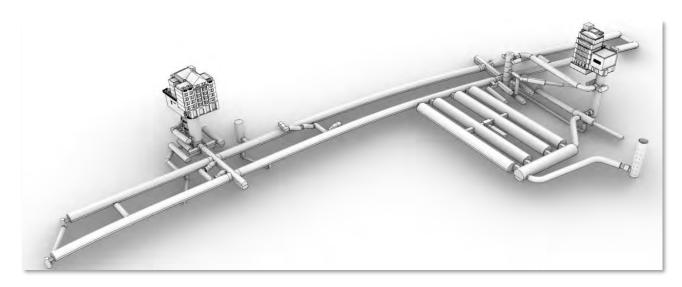
Retention of 38-39 Furnival Street has been investigated and shown to be infeasible. The building's demolition is necessary for safe construction and access to enable the London Tunnels project. Retention/reclamation of historic features are considered.

Maximum building retention + extension

OPTION 01







LONDON TUNNELS MUSEUM

• Year: 2029

• **Size**: 10,037 sqm

• Visitors/year: 2,000,000

• WLC total ~ 17,555 tCO2e

• **WLC/sqm** ~1,650 kg CO2e/m²

• WLC/visitor ~ 150 gCO2e/ visitor (60 years)



A NEW MUSUEM BUILD LIVERPOOL EVERYMAN THEATRE

• **Year**: 2013

• **Size**: 4,690sqm

• **Visitors/year**: ~120,000 (400 capacity)

• **WLC total** 4,845 tCO2e

• **WLC/sqm** 1,033 kg CO2e/m²

• WLC/visitor ~ 670 gCO2e/ visitor (60 years)



RETENTION FOCUS MUSEUM IN THE COL MUSEUM OF LONDON WEST SMITHFIELD

• **Year**: 2026

• **Size**: 49,996 sqm

• Visitors/year: 2,000,000 (~5000 capacity)

• **WLC total** ~ 29,997t CO2e

• WLC/sqm ~ 600 kg/co2e/m2 +(~ 300 for MEP TM65)

• WLC/visitor ~ 250 gCO2e/ visitor (60 years)



The Tunnels – Heritage Exhibition – CGI



Next Planning & Transportation Committee 2nd July 2024