Public Document Pack



Planning Applications Sub-Committee

PRESENTATION PACK - 1 UNDERSHAFT, LONDON, EC3A 8EE

Date: TUESDAY, 2 JULY 2024

Time: 10.00 am

Venue: LIVERY HALL - GUILDHALL

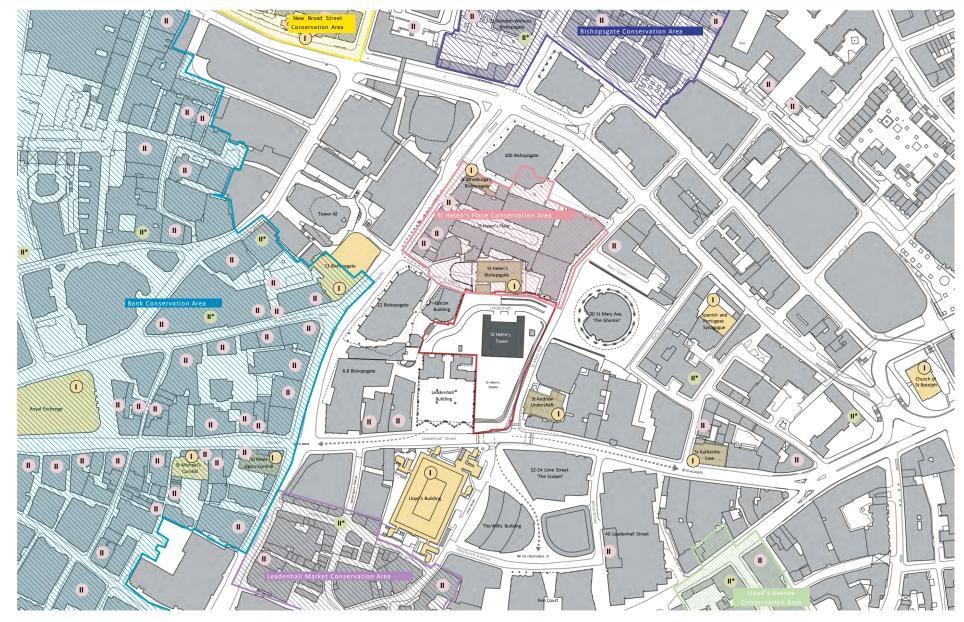
4. 1 UNDERSHAFT, LONDON, EC3A 8EE

For Decision (Pages 3 - 118)

Ian Thomas CBE Town Clerk and Chief Executive This page is intentionally left blank



1 Undershaft Planning & Transportation Committee 2 July 2024



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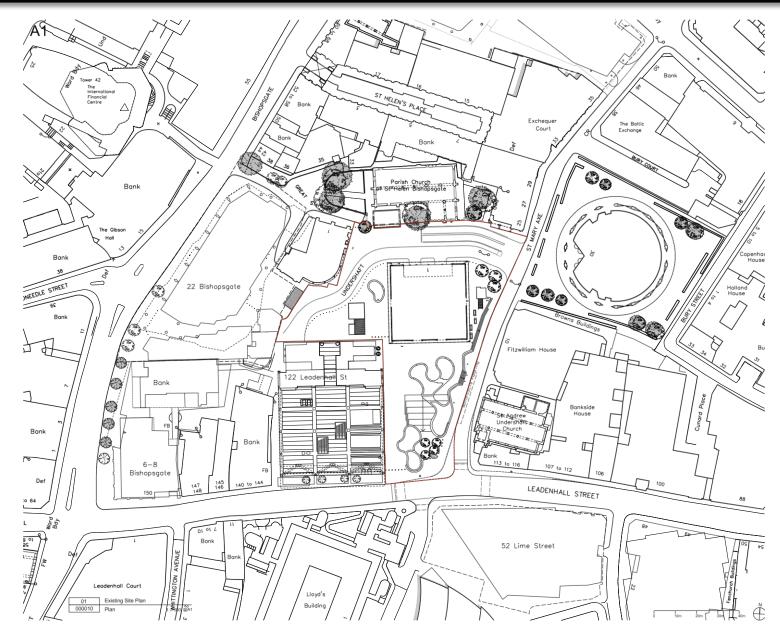
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Location Plan

Existing Site Plan

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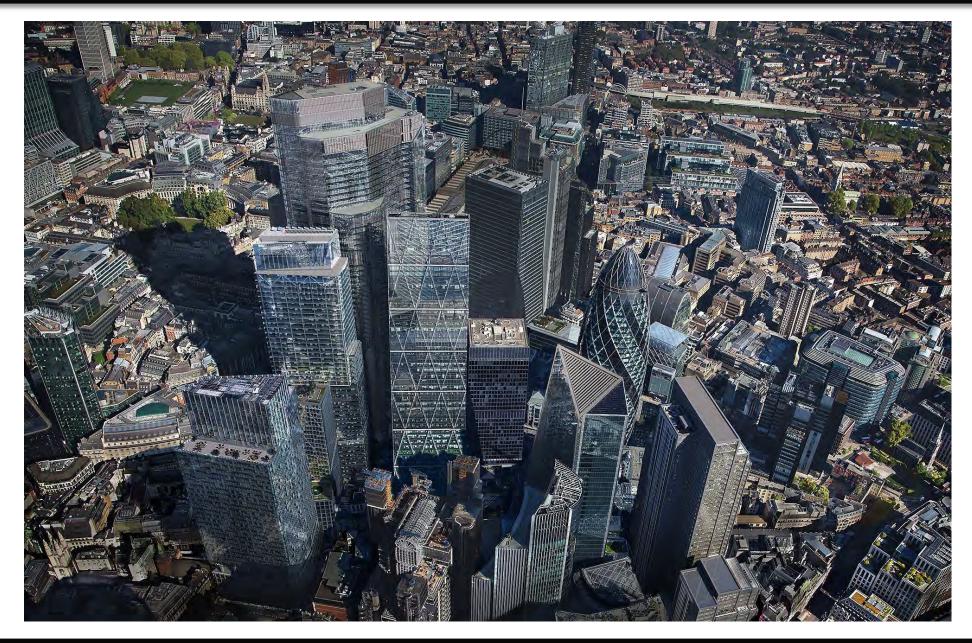


0 10m 20m 30m 40m

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Existing Site Plan

Je 6



Aerial View of Site

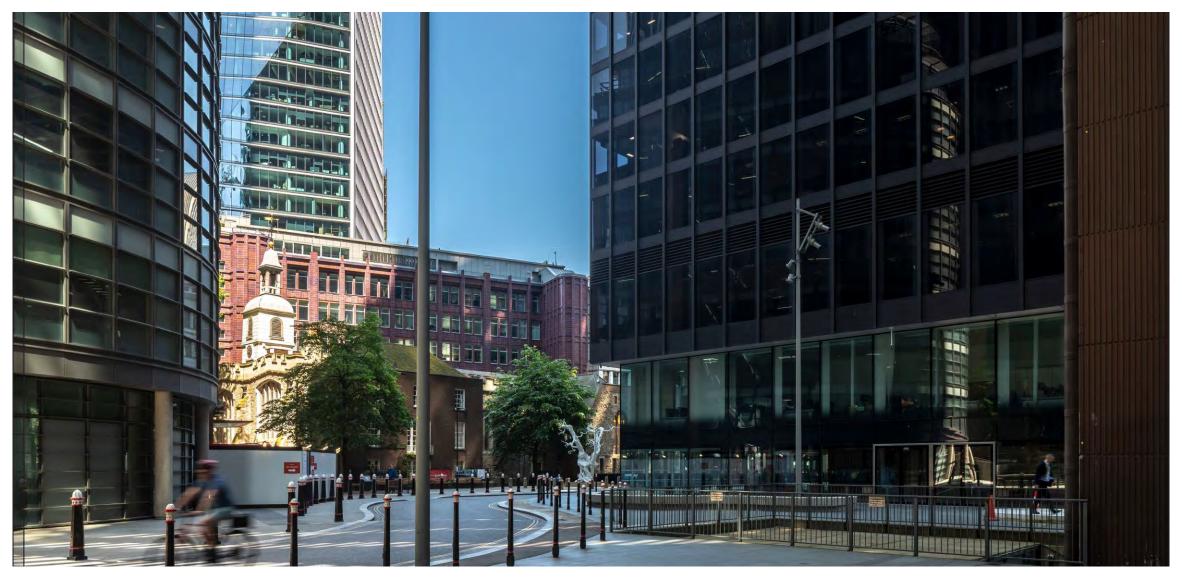
View of the existing St Helen's Square, from the top of the perimeter step at the south of the site

je 7



View of St Helen's Church with the existing ramp and Undershaft in the foreground

Je 8



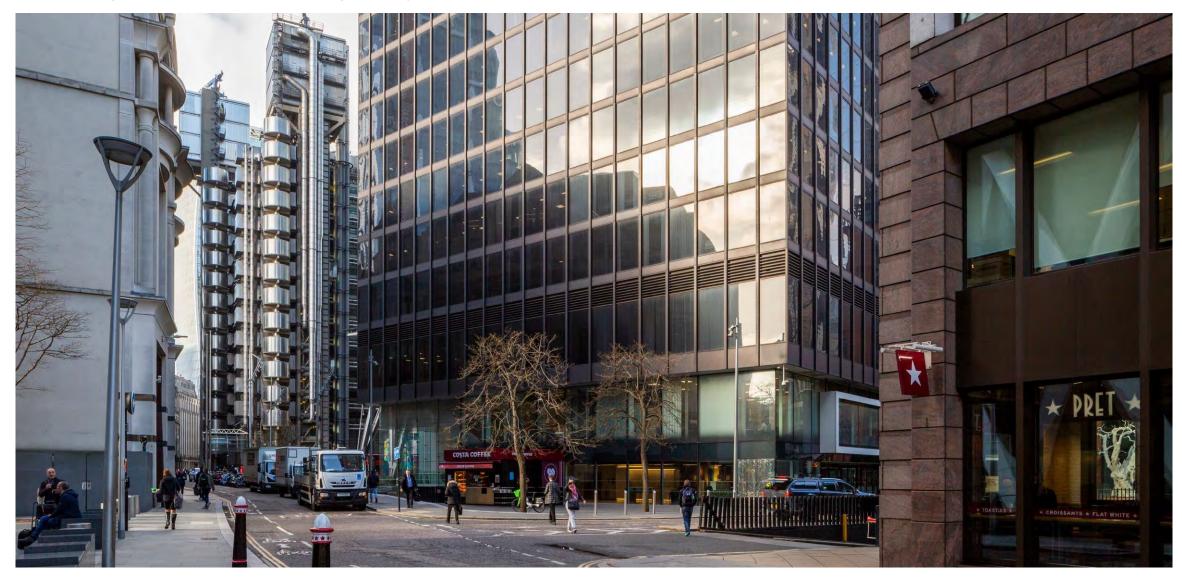
View of the existing ramp and railings adjacent to St Helen's Church, looking across to 30 St Mary Axe

je 9



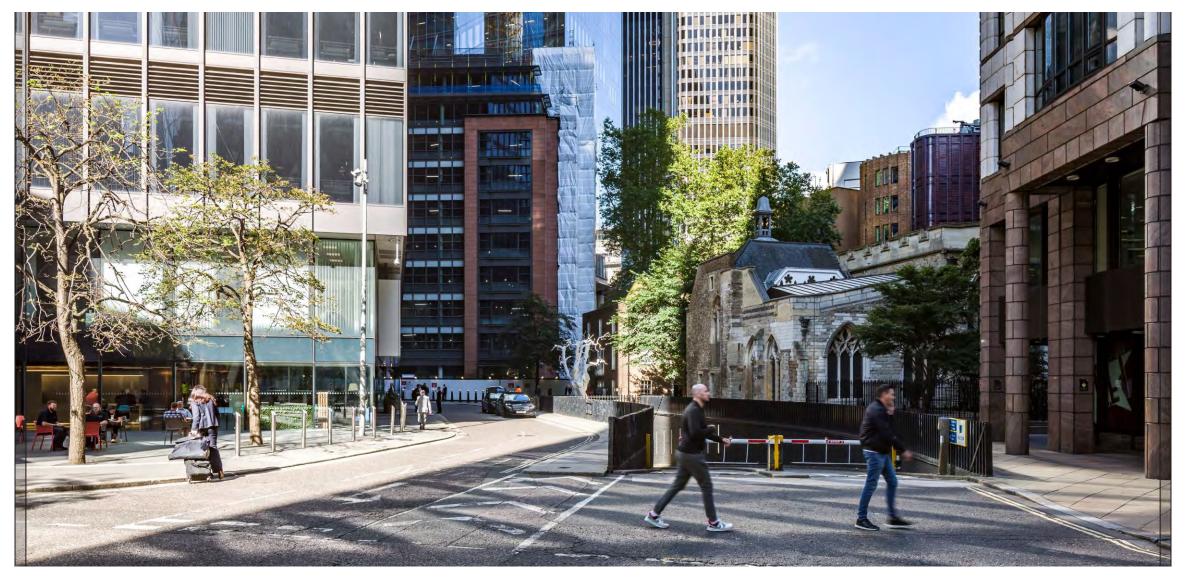
View looking south towards the site along St Mary Axe

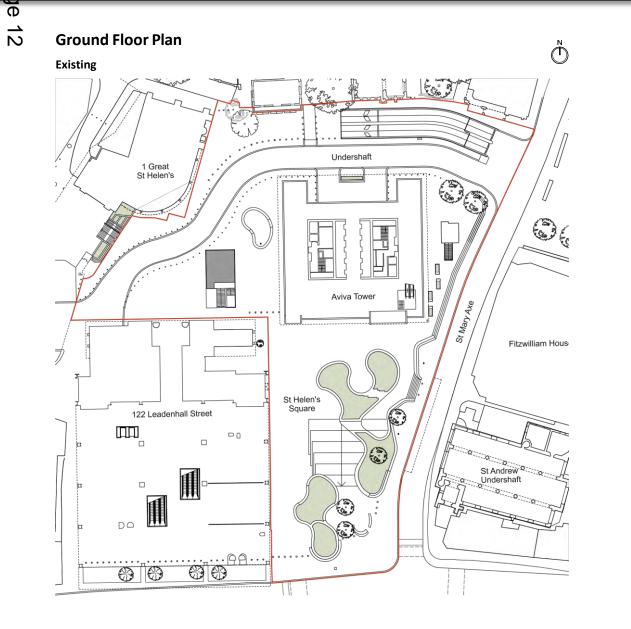
le 10



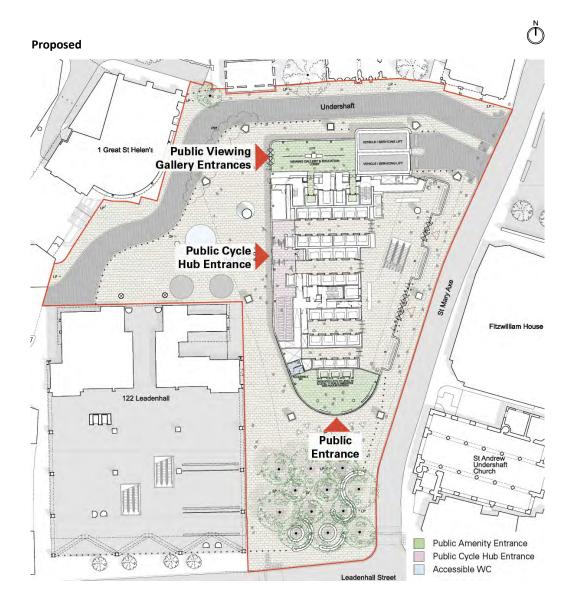
View of the entrance to the existing ramp from St Mary Axe

le 11





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Ground Floor Plan

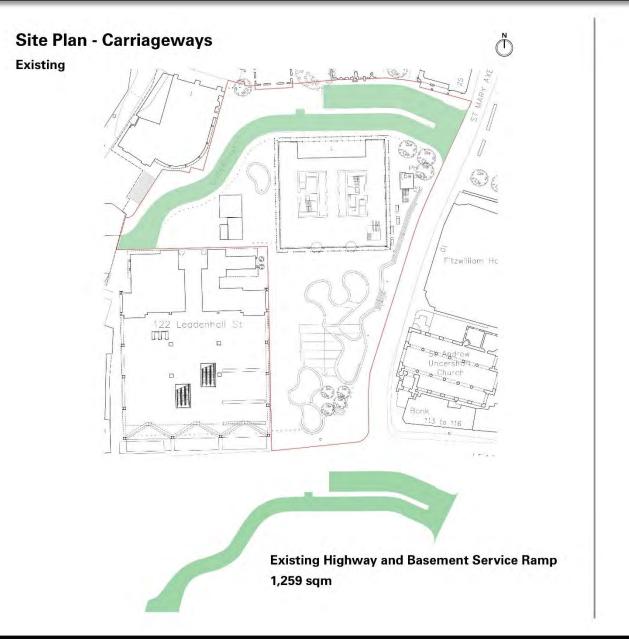


Proposed Aerial View of Site

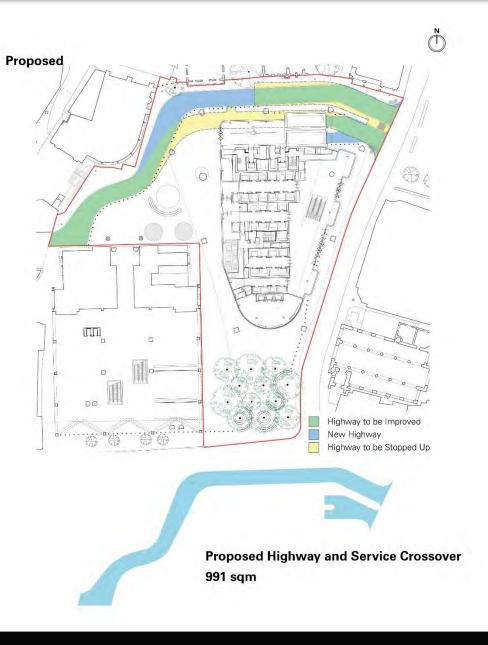


View from Lime Street





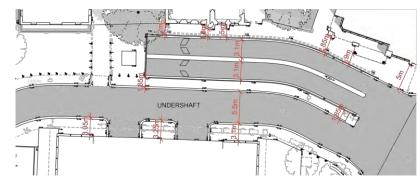
e 16



Stopping Up

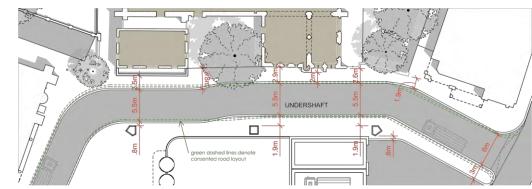
Undershaft - Pavement Widths

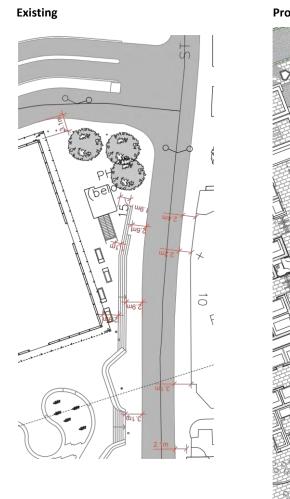




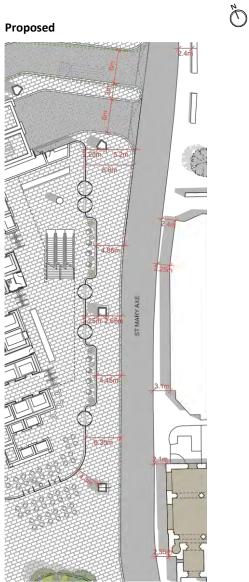
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Proposed





St Mary Axe - Pavement Widths



Changes in Pavement Width

e 17

Servicing Lift Enclosure



View of Undershaft and vehicle lifts



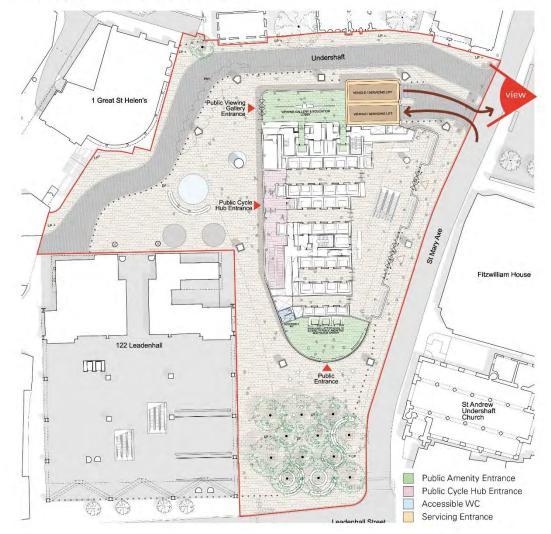
North Elevation Vehicle Lift



Plan Vehicle Lift



Proposed Ground Floor Plan



Servicing Arrangements

St Mary Axe - Looking South



Proposed



St Mary Axe

e 19

Public Cycle Entrance



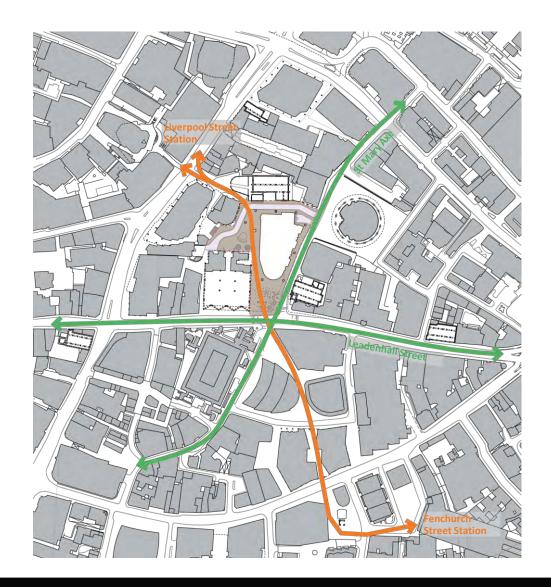
Proposed Ground Floor Plan

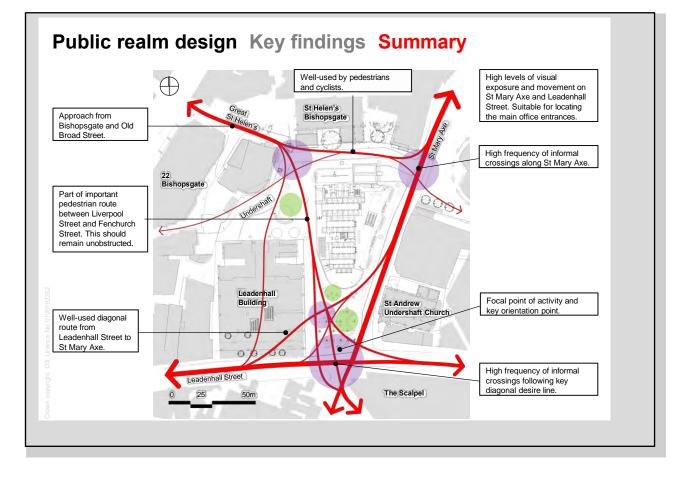


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Cycle Access

e 21





Key focal point with multidirectional movement lines

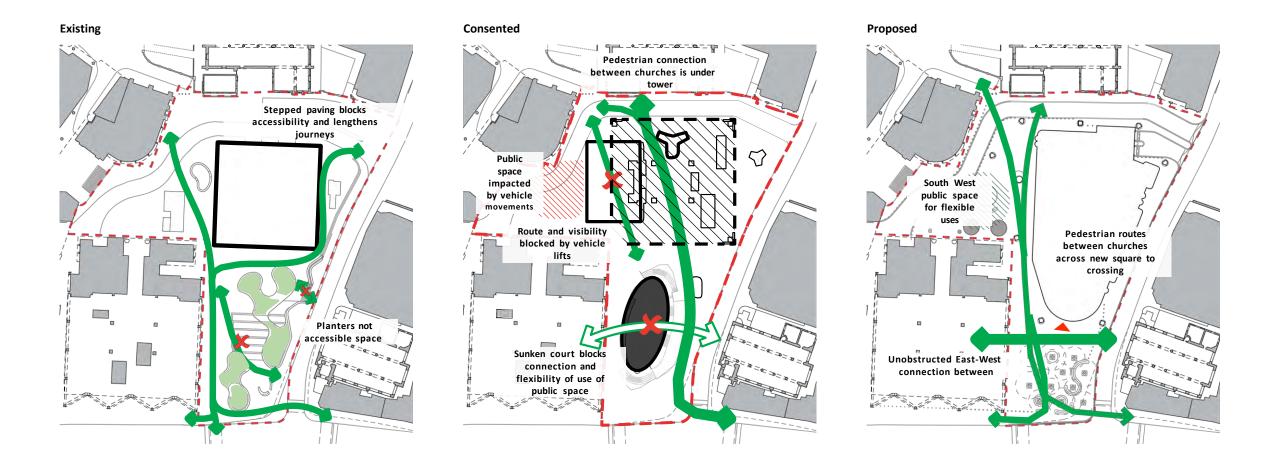
Opportunity for stationary activity/ landscape features

Key desire lines

Pedestrian Connections

Connecting Historic Assets

le 22



Site Permeability

Looking from Great St Helen's

Consented



Looking Along Undershaft

Consented



Consented

Looking from Great St Helen's

Existing

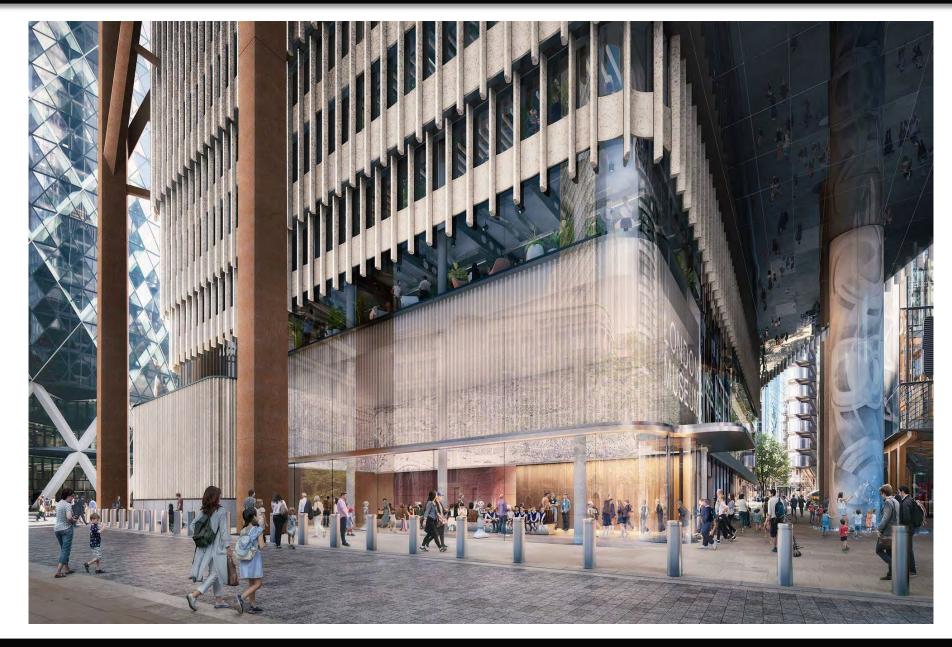
je 24



Proposed



Existing and Proposed



As Addendum

View of Viewing Gallery Entrance

Looking to St Andrew Undershaft

Existing

le 26



Proposed



Existing and Proposed

Looking from St Andrew Undershaft

Existing

le 27



Proposed



Existing and Proposed

St Mary Axe - Section 278

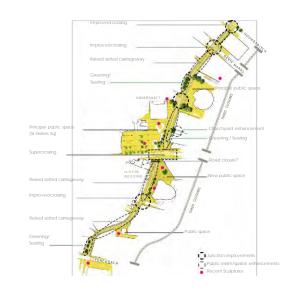
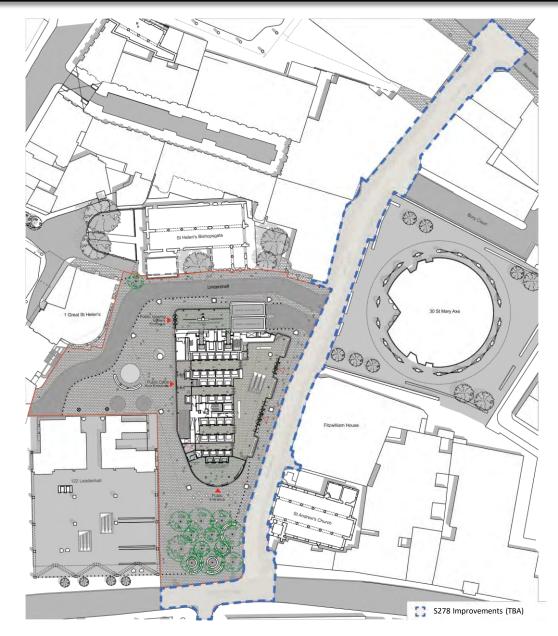




Image taken from the CoL City Cluster Vision



Section 278

le 28



New Vision Image



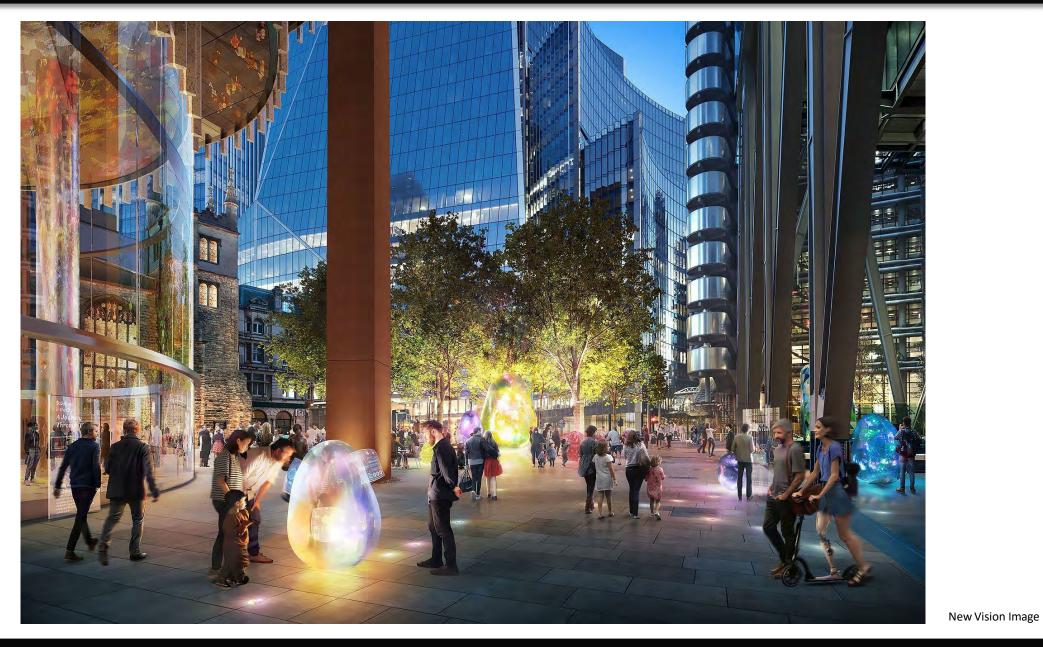
New Vision Image



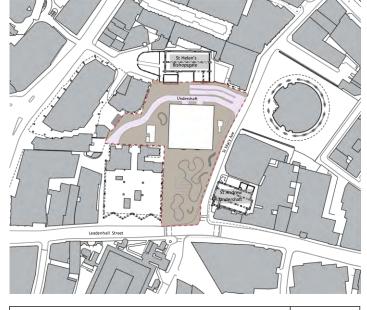
New Vision Image

le 32

1 Undershaft

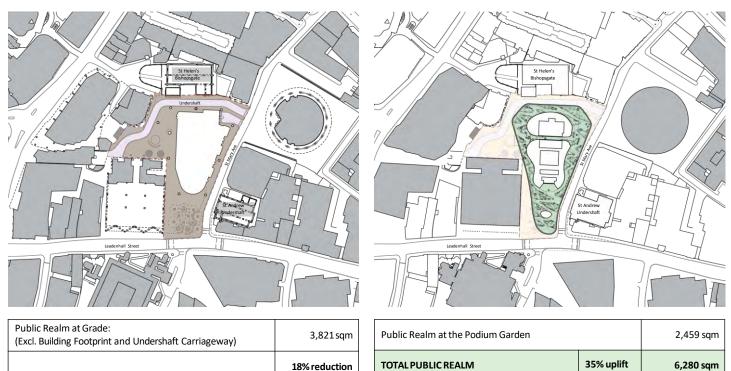


Existing



TOTAL PUBLIC REALM	4,669 sqm
Public Realm at Grade: (Excl. Building Footprint and Undershaft Carriageway)	4,669 sqm

Submitted Ground Floor



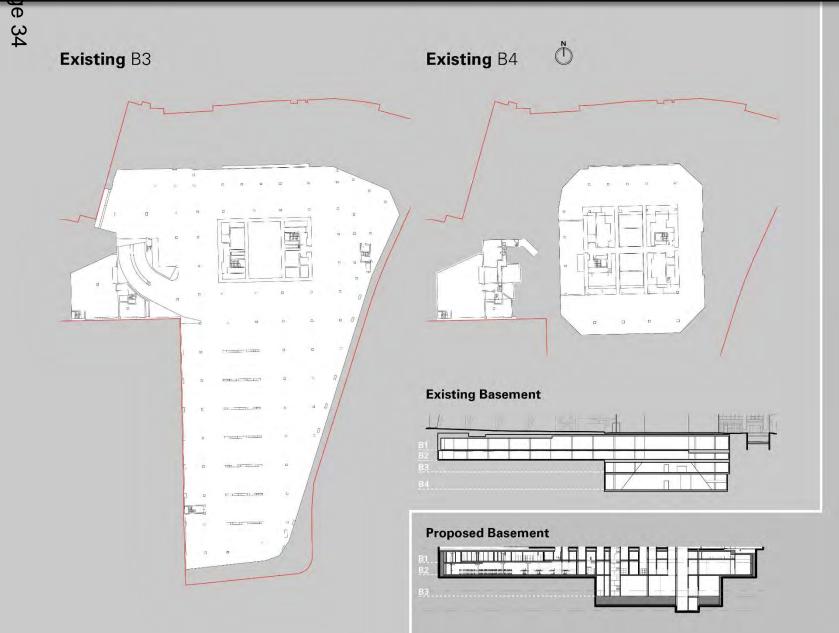
Submitted Podium Garden

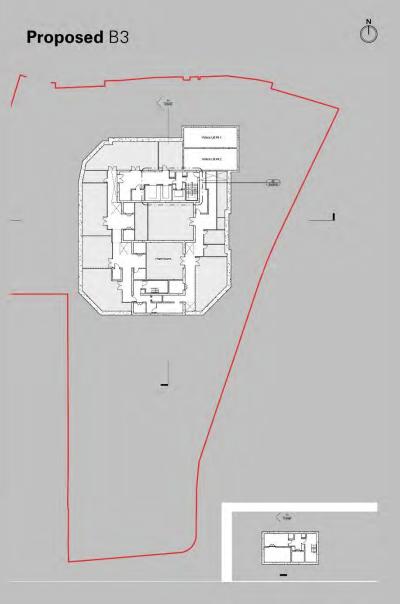
Between the improved public realm at ground and the additional public garden at Level 11, we are increasing the public realm area by 35%

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Ground Floor Public Realm Podium Garden Undershaft Carriageway

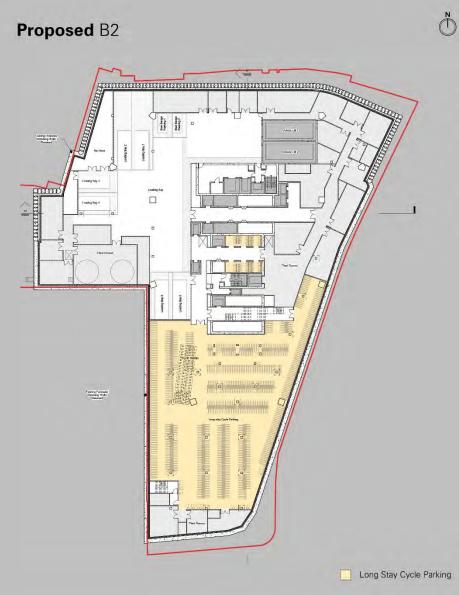
Public Realm Areas



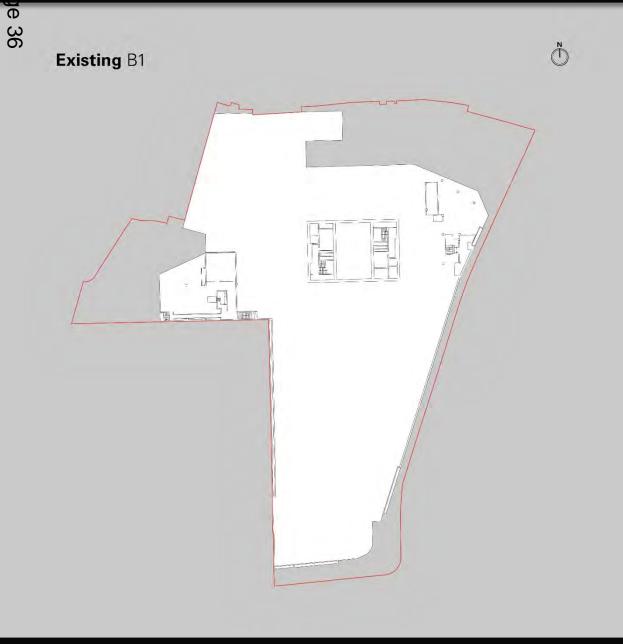


Basement 3





Basement 2



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Basement 1

1 Undershaft



Upper Storey Plans



Upper Storey Plans

BUDELS O BUELOG

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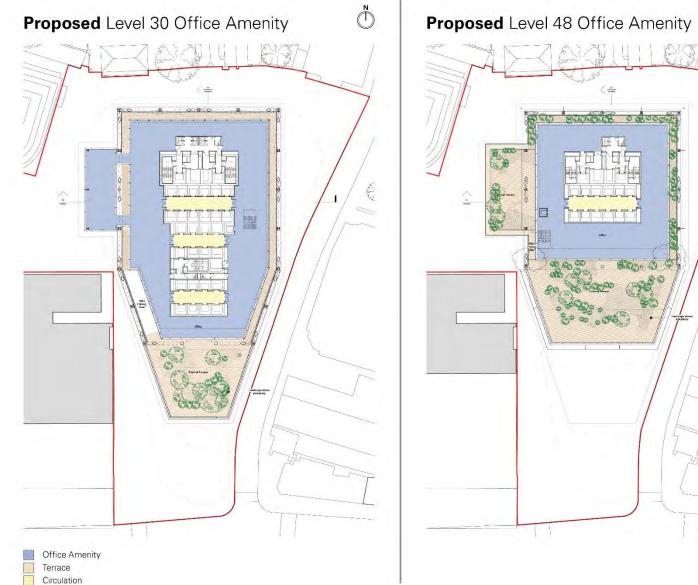
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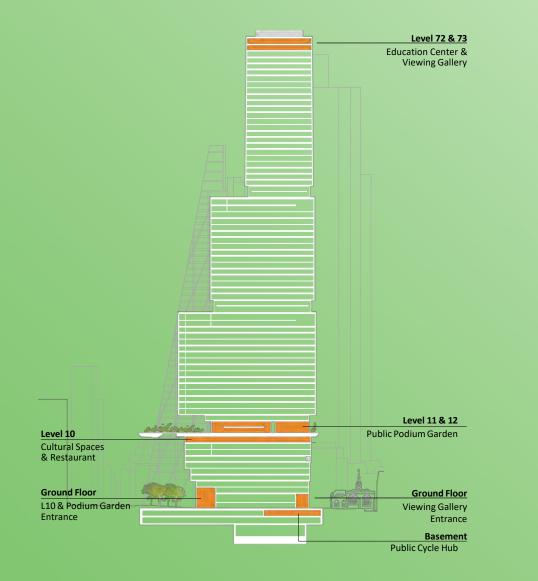


Office Amenity Plans



Proposed

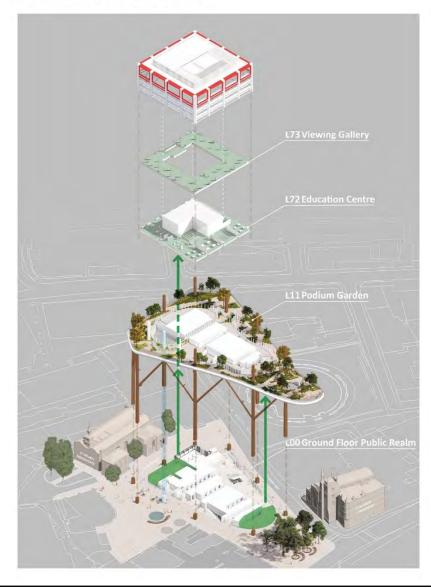
je 41



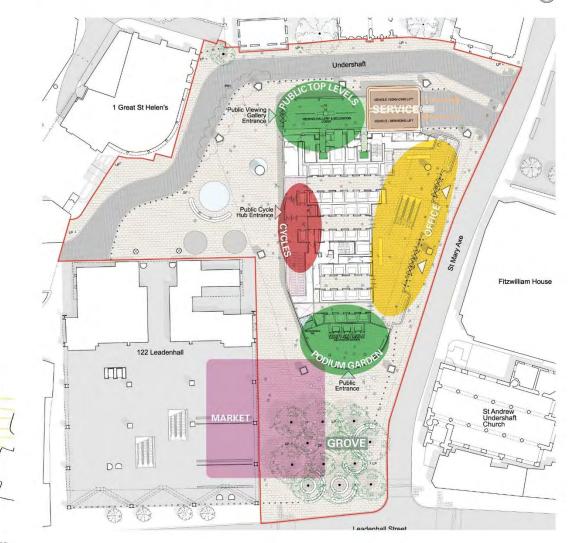


Public Spaces

Public Amenity Floors



Proposed Ground Floor



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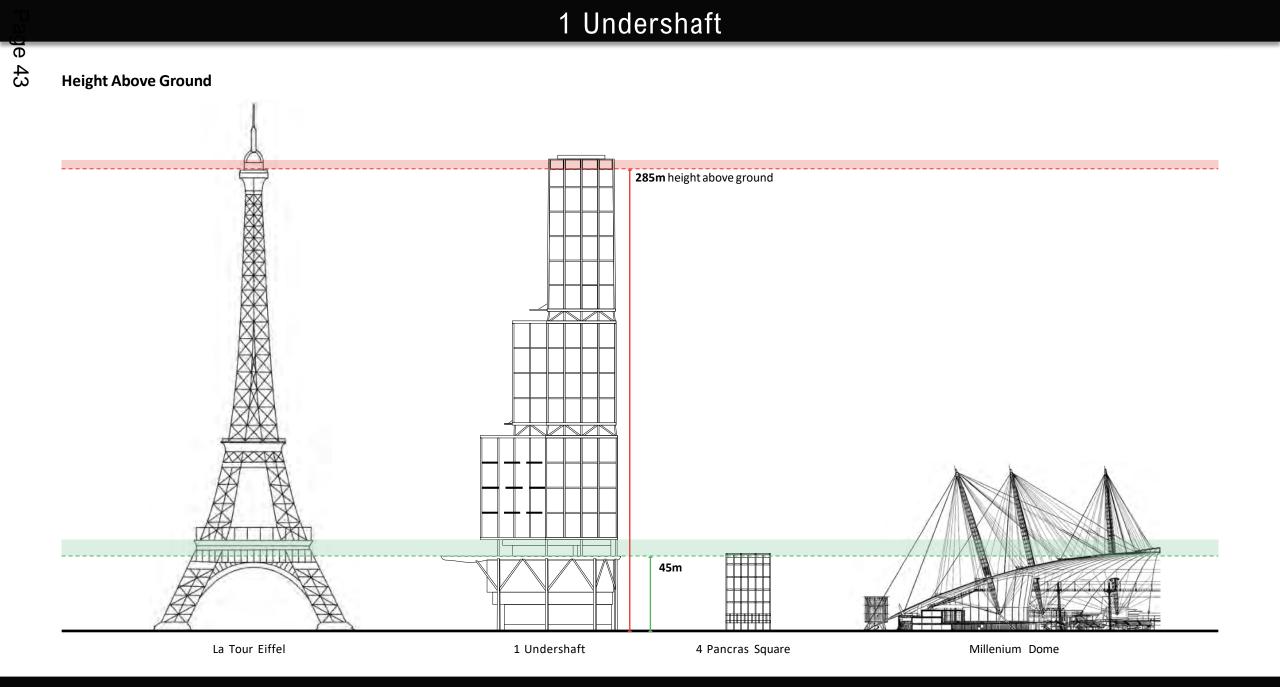
RSHP Architects concept for Leadenhall Building (Source RSHP website)

do es you like

Public Amenity Floors

0 0

le 42



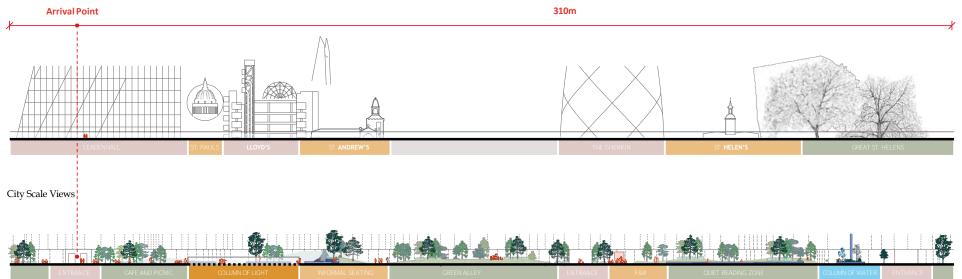
Public Amenity Levels



Public Amenity Floors

Journey Around the Garden





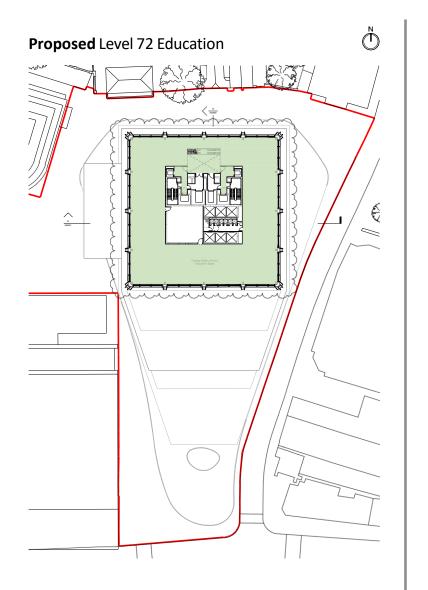
Public Podium Garden

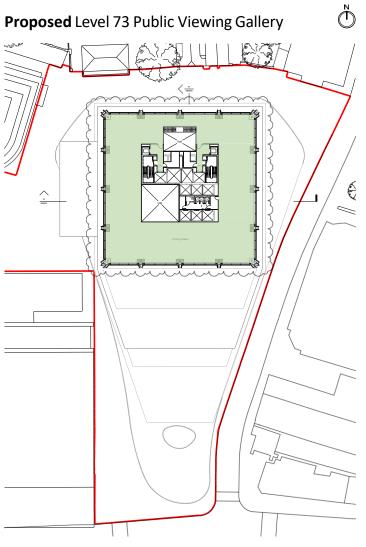
je 45



New Vision Image

Public Podium Garden





Classroom in the Sky



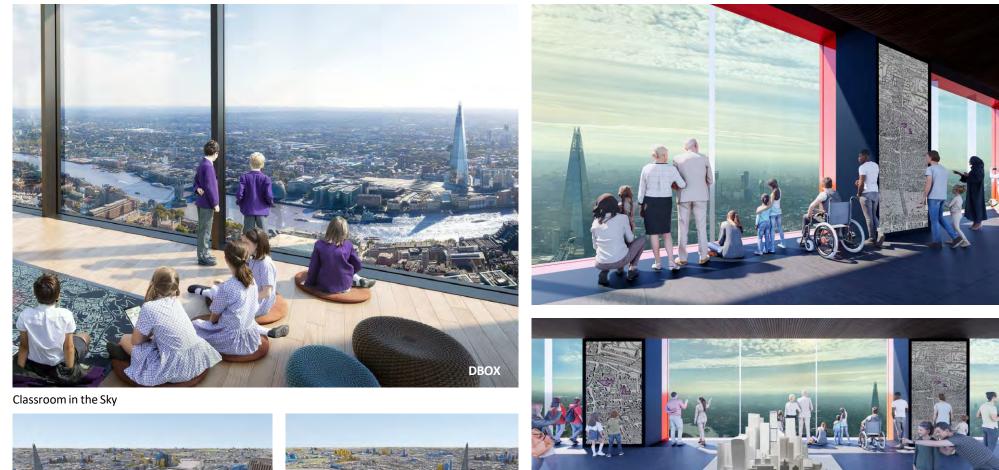
Indicative cross-section

"1 Undershaft will be a truly inspiring learning destination – an unforgettable classroom in the sky"

– London Museum

e 47

Je 48





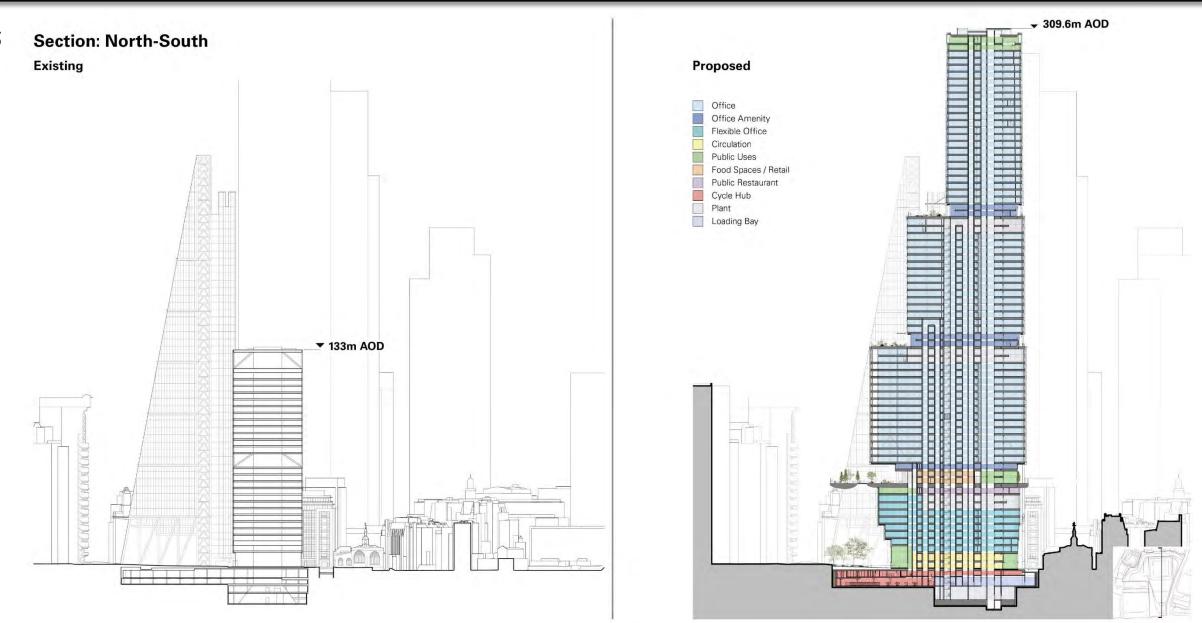
View Looking South-West from Level 73



View Looking South from Level 73

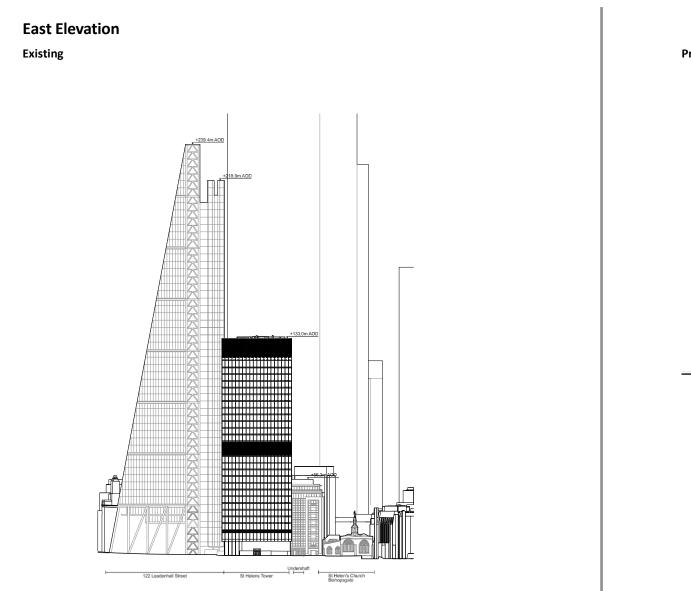


Upper Public Amenity Floors



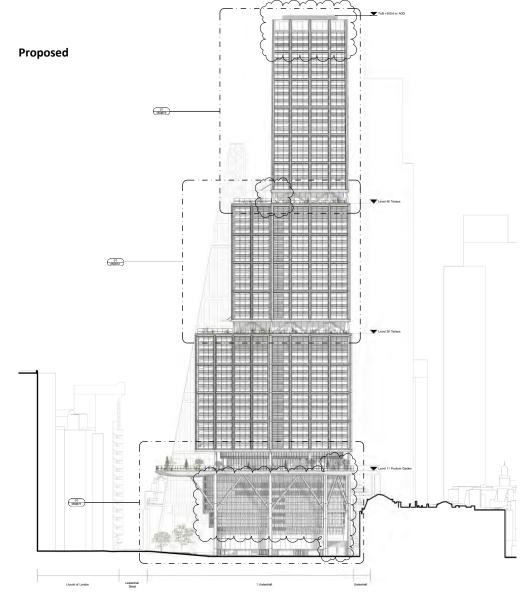
Typical Cross Section

le 49

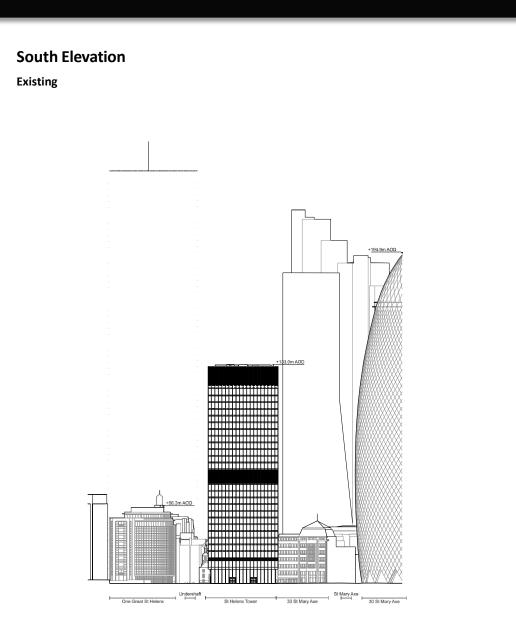


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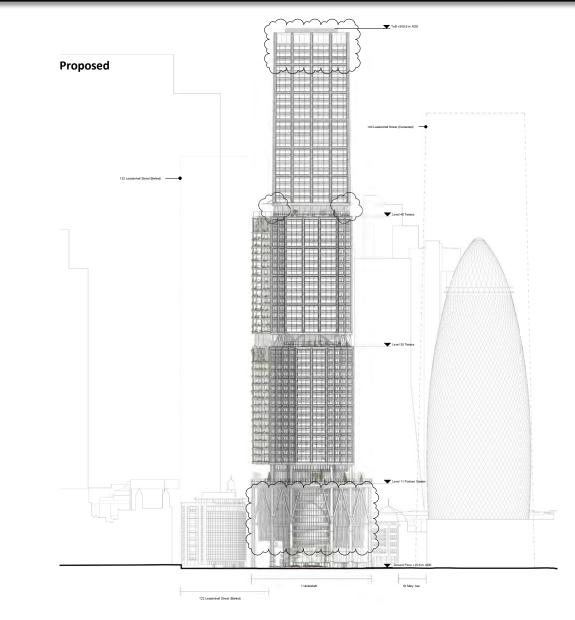
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East Elevation



le 51

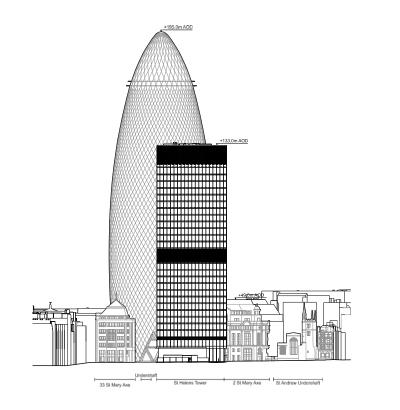


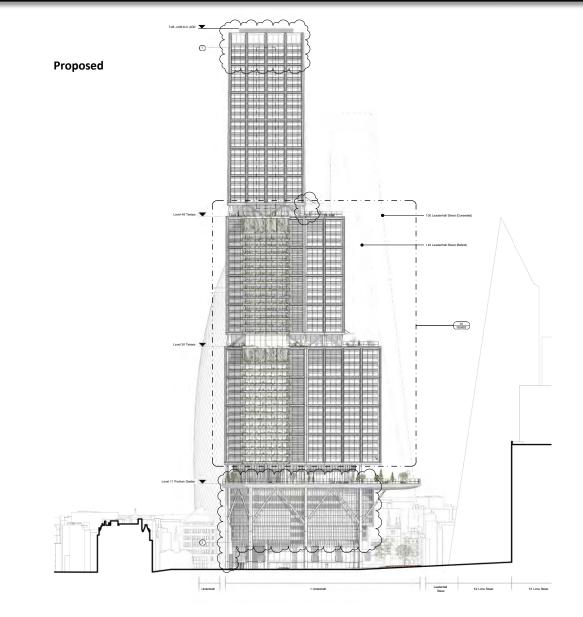
South Elevation



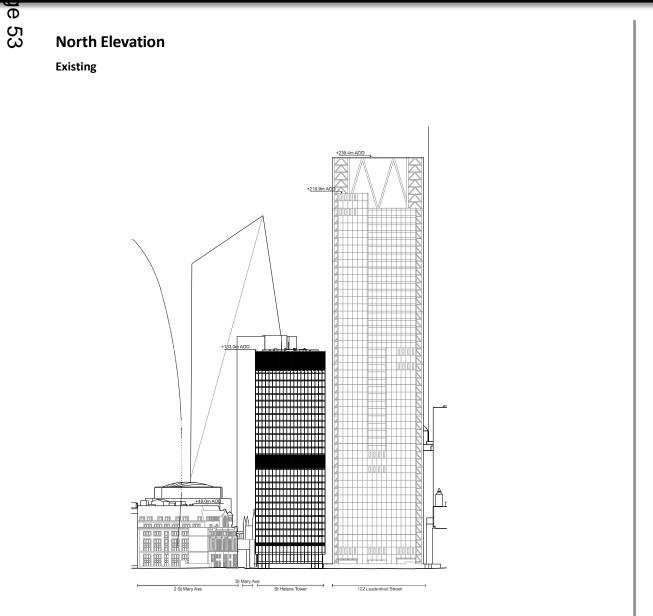
Existing

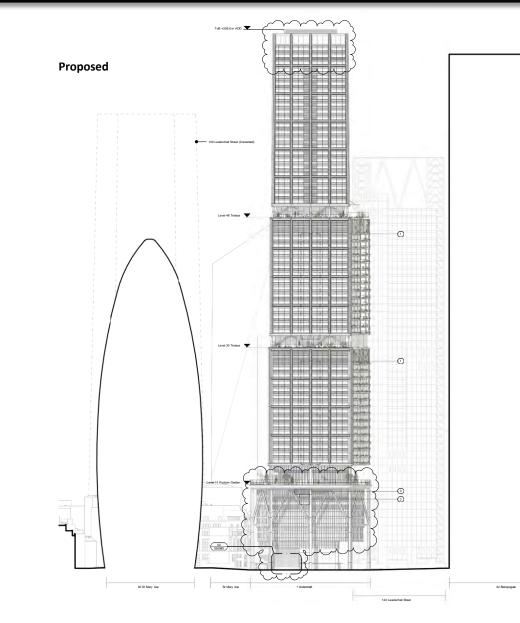
e 52





West Elevation





North Elevation

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Extract from THVIA Verified Views Addendum May 2024

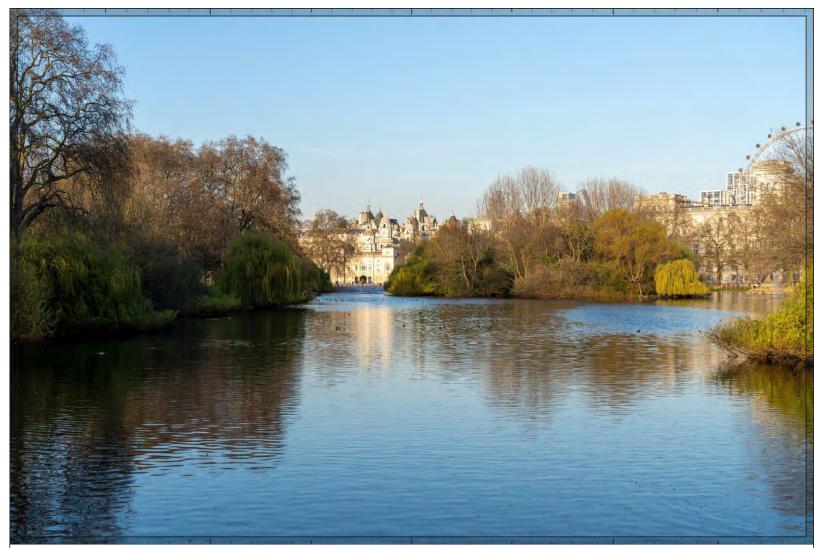
View 7

LVMF 26A.1: St James's Park Footbridge

Existing



View location



50mm - 19.8°

Image scalling factor = 77% at A3, 109% at A2

50mm - 19.8°

D27668Mx50 / 50mm / 04/04/23 / 18:26

View 7

LVMF 26A.1: St James's Park Footbridge

Proposed



D27668Mx50 / 50mm / 04/04/23 / 18:26

View 7 LVMF 26A.1: St James's Park Footbridge

Cumulative



D27668Mx50 / 50mm / 04/04/23 / 18:26

View 11

Ð 58

> LVMF 15B.2: Waterloo Bridge: downstream – at the centre of the bridge

Existing







50mm - 19.8°

D27581Mx50 / 50mm / 15/03/23 / 11:48

50mm - 19.8°

View II

Ð 59

> LVMF 15B.2: Waterloo Bridge: downstream – at the centre of the bridge

Proposed



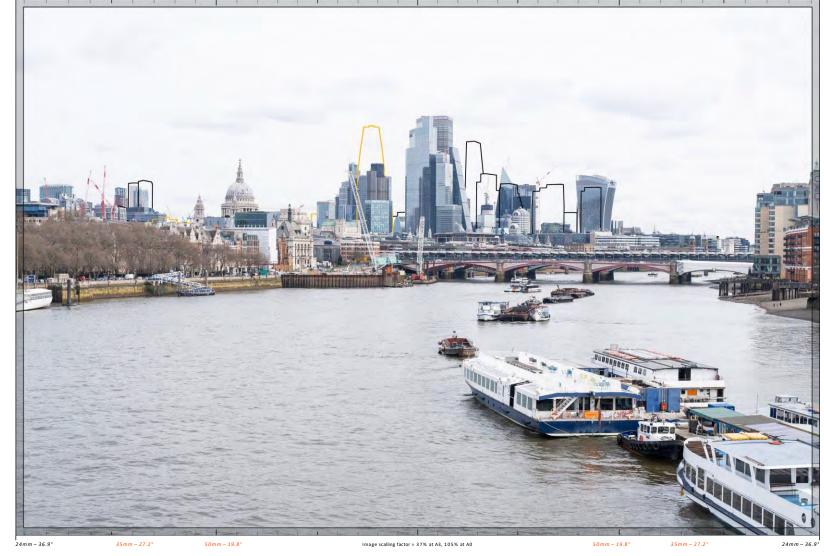
D27581Mx50 / 50mm / 15/03/23 / 11:48

View 11

je 60

LVMF 15B.2: Waterloo Bridge: downstream – at the centre of the bridge

Cumulative



D27581Mx50 / 50mm / 15/03/23 / 11:48

View 17.1

LVMF 25A.1: The Queen's Walk at City Hall: foot of pathway from Potter's Fields

Existing







View 17.1

Ð 62

> LVMF 25A.1: The Queen's Walk at City Hall: foot of pathway from Potter's Fields

Proposed



D27160x35 / 35mm / 18/10/22 / 10:42

View 17.1

Je 63

LVMF 25A.1: The Queen's Walk at City Hall: foot of pathway from Potter's Fields

Cumulative



D27160x35 / 35mm / 18/10/22 / 10:42

View 19 LVMF 10A.1: Tower Bridge: upstream

Existing



D28507x35 / 35mm / 05/02/23 / 09:20





View 19 LVMF 10A.1: Tower Bridge: upstream

Proposed



D28507x35 / 35mm / 05/02/23 / 09:20

View 19 LVMF 10A.1: Tower Bridge: upstream

Cumulative



D28507x35 / 35mm / 05/02/23 / 09:20

View 21

Tower of London, the Inner Ward

Existing







View 21 Tower of London, the Inner Ward

Proposed



D28135 / 24mm / 03/04/23 / 14:00

View 21 Tower of London, the Inner Ward

Cumulative



D28135 / 24mm / 03/04/23 / 14:00

je 70

Leadenhall Street, junction with Fenchurch Street

Existing





D27999 / 24mm / 03/04/23 / 12:08

View 49

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Leadenhall Street, junction with Fenchurch Street

Proposed



D27999 / 24mm / 03/04/23 / 12:08

View 49

le 72

Leadenhall Street, junction with Fenchurch Street

Cumulative

(Consented development at 100 Leadenhall indicated in the foreground)



D27999 / 24mm / 03/04/23 / 12:08

View 52

Lime Street, outside the Willis Building

Existing





 $24mm - 26.6^{\circ}$

D28007 / 24mm / 03/04/23 / 12:49

View 52

Lime Street, outside the Willis Building

Proposed



24mm - 26.6°

24mm - 26.6°

D28007 / 24mm / 03/04/23 / 12:49

View 52

Lime Street, outside the Willis Building

Cumulative



24mm - 26.6*

24mm - 26.6°

D28007 / 24mm / 03/04/23 / 12:49

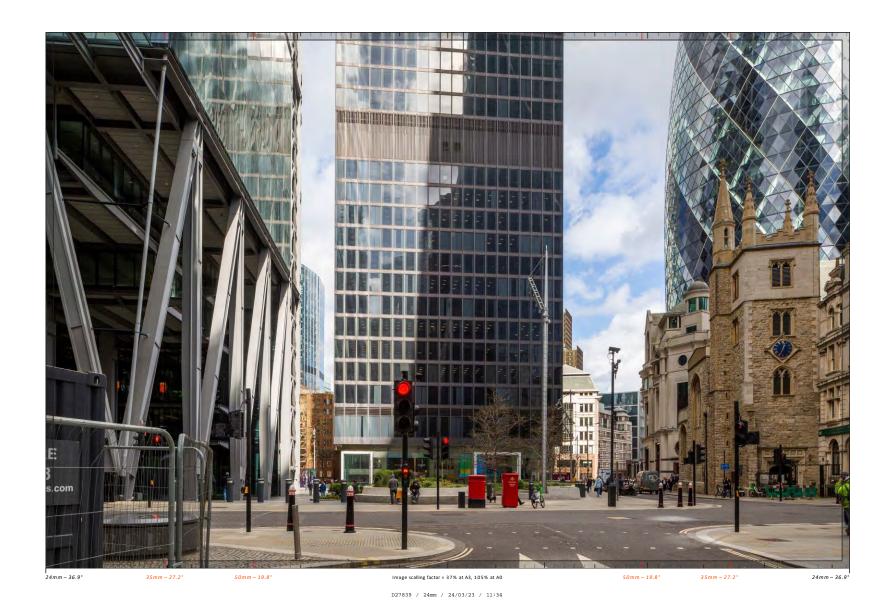
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View 53

Outside Lloyds entrance on Lime Street looking north

Existing





View 53

Ð 77

> Outside Lloyds entrance on Lime Street looking north

Proposed



D27839 / 24mm / 24/03/23 / 11:34

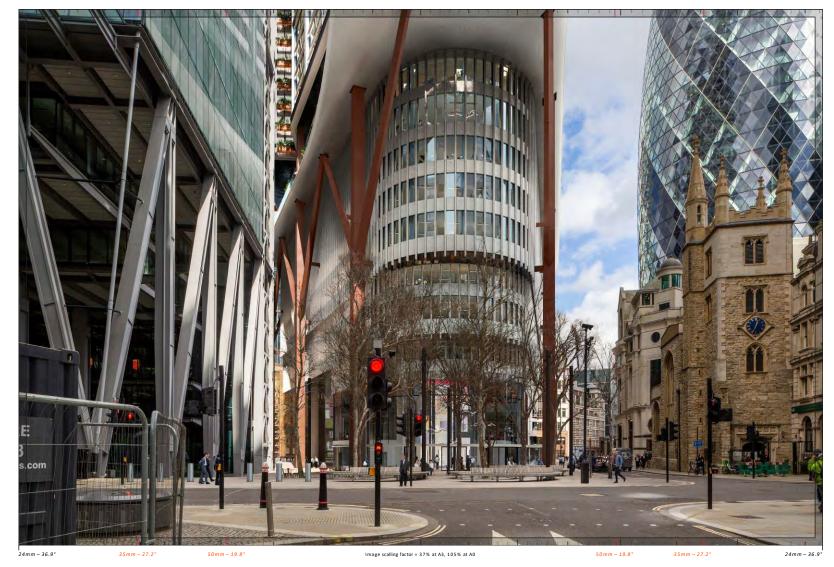
Verified Views

35mm - 27.2°

View 53

Outside Lloyds entrance on Lime Street looking north

Cumulative



D27839 / 24mm / 24/03/23 / 11:34

Ð 79

> Undershaft, north of the Leadenhall Building

Existing







D28646 / 24mm / 04/06/23 / 14:18

View 57

Undershaft, north of the Leadenhall Building

Proposed

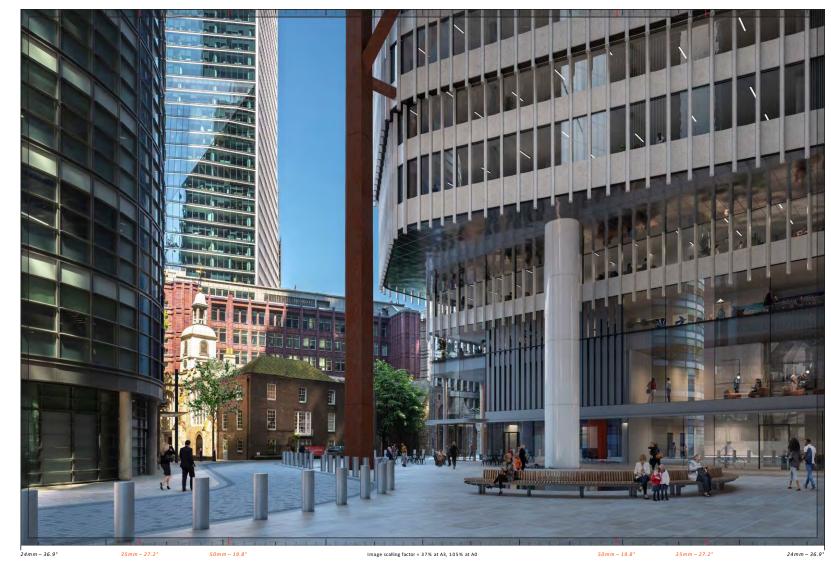


D28646 / 24mm / 04/06/23 / 14:18

View 57

Undershaft, north of the Leadenhall Building

Cumulative



D28646 / 24mm / 04/06/23 / 14:18

View 59 St Helen's Church, western entrance

Existing





Proposed

je 83



D28003 / 24mm / 03/04/23 / 14:18

View 59 St Helen's Church, western entrance

Cumulative



D28003 / 24mm / 03/04/23 / 14:18

View 62

St Mary Axe, looking east along Undershaft

Existing





View 62

St Mary Axe, looking east along Undershaft

Proposed



D28828 / 24mm / 15/08/23 / 10:05

View 62

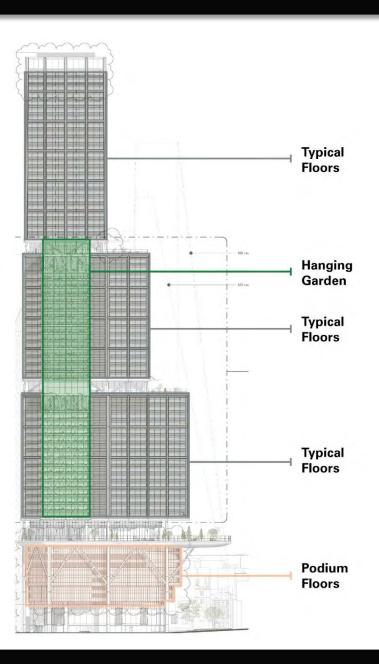
St Mary Axe, looking east along Undershaft

Cumulative



D28828 / 24mm / 15/08/23 / 10:05

Elevations and Materials

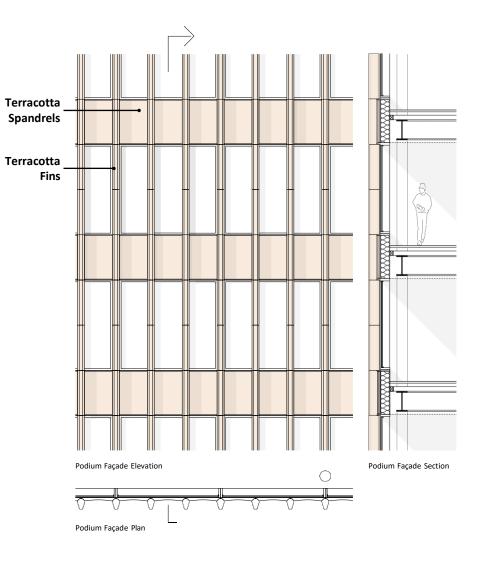




Façade Materials

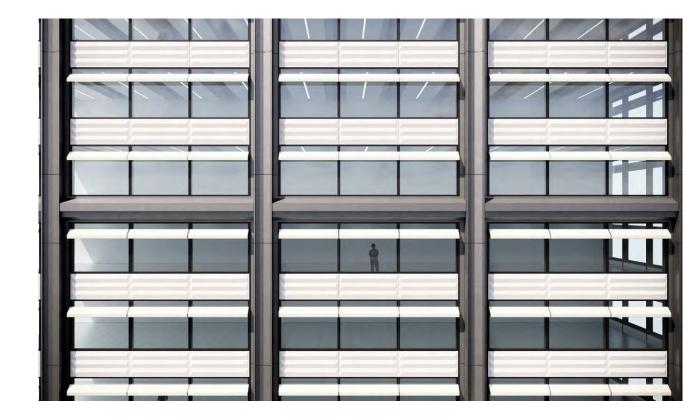
je 90

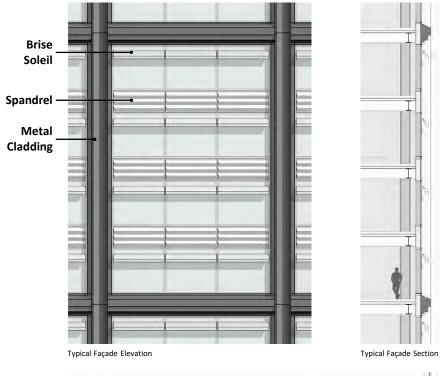


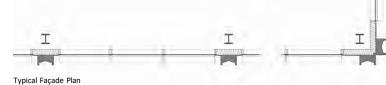


Typical Podium Bay Detail

Typical Office Façade







Typical Office Bay Detail

je 91

Hanging Garden Façade

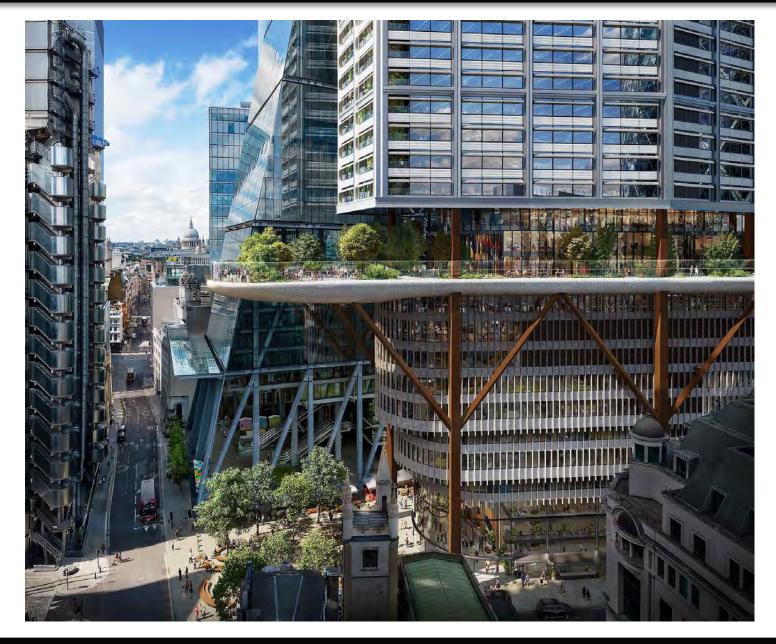


Hanging Garden Planter Zone 3 Hanging Garden Façade Elevation Zone 3 Hanging Garden Façade Section I I T I

Zone 3 Hanging Garden Façade Plan

Typical Hanging Garden Bay Detail

le 92



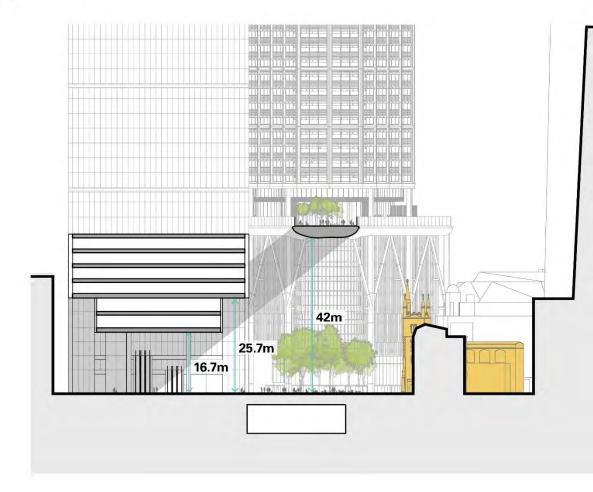
As Addendum

View Showing Typical Façade Types

Extract from Daylight/Sunlight/Overshadowing

le 95

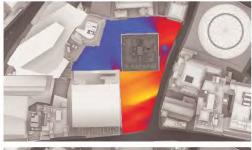
GIA have assessed the daylight/sunlight within the public spaces:







Sun Exposure on ground - 21st June





Sun Exposure on ground - 21st June

Podium – Proposed

CITAL SUNLIGHT HOUR

0.0 0.5 1.0 15 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0

Podium – Cumulative

Public Realm – Existing

Public Realm – Proposed

Baseline Existing Condition

BASELINE SCENARIO



21st March (SPRING EQUINOX)

IOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

total available Sunlight: 12hrs 12mins



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PROPOSED SCENARIO Sun hOuRS On gROunD - BRE tESt

<2 2+

21st March (SPRING EQUINOX)

lOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

total available Sunlight: 12hrs 12mins



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CUMULATIVE SCENARIO Sun hOuRS On gROunD - BRE tESt



21st March (SPRING EQUINOX)

IOnDON Latitude: 51.4 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

total available Sunlight: 12hrs 12mins



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GIA Sun Hours on Ground Summary Table

AREA	% Area seeing 2+ hrs of sunlight on 21st March					
	Name	Existing Baseline (EB)	Pro p osed (PROP)	EB v PROP % LOSS	Cumul a tive (CUM)	EB v CUM % LOSS
1	99 Bishop Gate	15	2	87%	0	100%
2	St. Bolough Gardens	0	0	0%	0	0%
3	Jubilee Gardens	0	0	0%	0	0%
4	Devonshire Square 1	67	65	3%	43	36%
5	Devonshire Square 2	56	56	0%	0	100%
6	Cutler's Gardens Estates	100	100	0%	0	100%
7	Royal Fusiliers 1	32	32	0%	12	63%
8	Royal Fusiliers 2	55	55	0%	52	5%
9	Devonshire Square 3	2	2	0%	2	0%
10	Royal Exchange 1	94	94	0%	94	0%
11	Royal Exchange 2	39	39	0%	39	0%
12	Royal Exchange 3	6	6	0%	6	0%
13	City of London Club	11	11	0%	11	0%
14	St. Helen Churchyard 1	0	0	0%	0	0%
15	St. Helen Churchyard 2	0	0	0%	0	0%
16	St. Andrews Church	0	0	0%	0	0%
17	30 St. Mary Axe	4	4	0%	3	25%
18	11-12 Bury Street	75	75	0%	67	11%
19	Bevis Marks Synagogue	0	0	0%	0	0%
20	19 Bevis Marks	99	99	0%	92	7%
21	Creechurch Courtyard	0	0	0%	0	0%
22	1 Creechurch	88	88	0%	88	0%
23	Mitre Sq. Gardens	78	78	0%	78	0%
24	Aldgate School 1	35	35	0%	35	0%
25	Aldgate School 2	95	95	0%	95	0%
26	Aldgate Memorial	57	57	0%	57	0%
27	Aldgate Square	94	94	0%	94	0%

1 Undershaft



Daylight – Sunlight Summary

BASELINE SCENARIO Sun EXPOSuRE - 21st MaRCh TOTAL HOURS

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5 5.5 6.0+

21st March (SPRING EQUINOX)

IOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

total available Sunlight: 12hrs 12mins





Sun Exposure Assessment

21st March (SPRING EQUINOX)

lOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

total available Sunlight: 12hrs 12mins



gia

Sun Exposure Assessment

PROPOSED SCENARIO

TOTAL HOURS

Sun EXPOSuRE - 21st MaRCh

je 102

CUMULATIVE SCENARIO

TOTAL HOURS

Sun EXPOSuRE - 21st MaRCh

1 Undershaft

21st March (SPRING EQUINOX)

lOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

total available Sunlight: 12hrs 12mins



gia

Sun Exposure Assessment

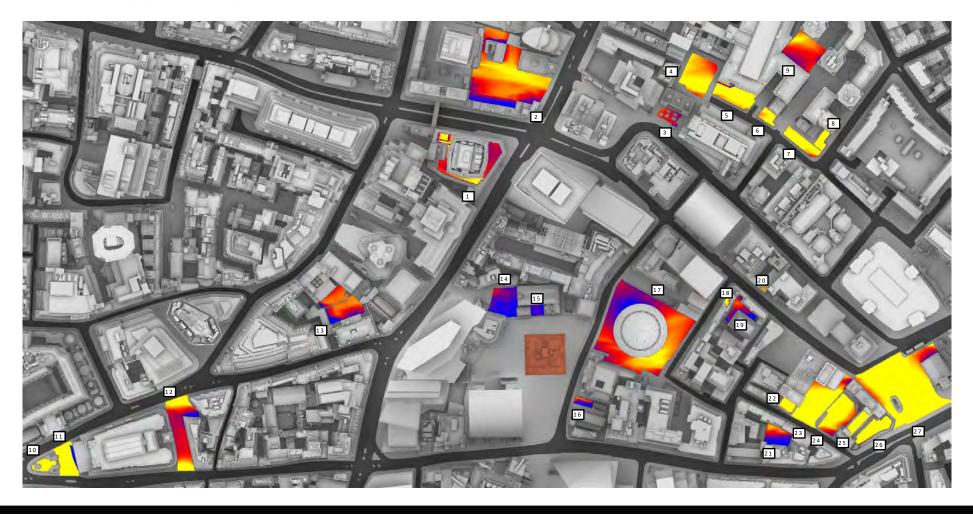
BASELINE SCENARIO Sun EXPOSuRE - 21st JunE TOTAL HOURS

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5 5.5 6.0+

21st June (SUMMER SOLSTICE)

lOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 04:43 GMT Sunset: 21:21 GMT

total available Sunlight: 16hrs 38mins



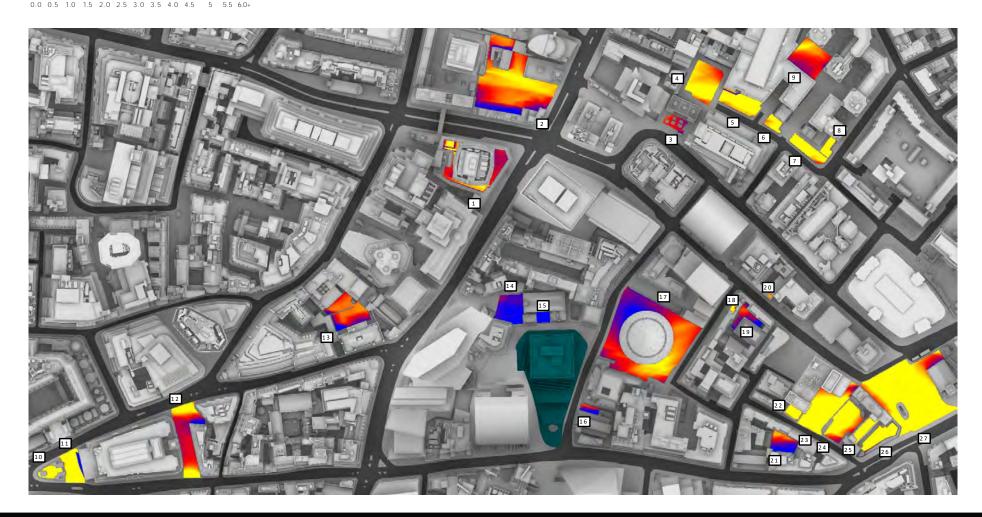
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Sun Exposure Assessment

21st June (SUMMER SOLSTICE)

IOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 04:43 GMT Sunset: 21:21 GMT

total available Sunlight: 16hrs 38mins





Sun Exposure Assessment

PROPOSED SCENARIO

TOTAL HOURS

Sun EXPOSuRE - 21st JunE

je 105

PROPOSED SCENARIO

TOTAL HOURS

Sun EXPOSuRE - 21st JunE

1 Undershaft

21st June (SUMMER SOLSTICE)

IOnDOn Latitude: 51.4 Longitude: 0.0 Sunrise: 04:43 GMT Sunset: 21:21 GMT

total available Sunlight: 16hrs 38mins



gia

Sun Exposure Assessment

Energy and Sustainability

Sustainability

Sustainable Design

Sustainability sits at the core of our design and we are committed to maximising the quality and sustainability credentials of the building. Our proposals will exceed industry standards for sustainability and quality, targeting high ratings in internationally recognised certifications such as BREEAM, NABERS* and WELL ratings to create a building that is fit for the future.

We will deliver an all-electric building with high energy efficiency to minimise operational carbon, while considering embodied and whole life carbon as metrics to inform decision making, in line with City of London and Greater London Authority guidance.

Targeting



REEAM Outstanding



Prioritising Decarbonisation

We are focused on reducing embodied and whole life carbon throughout design, including an innovative and efficient structural design, an energy-efficient façade that has an extended life span, combined with an all electric and highly efficient heating, cooling and lighting technologies that minimise the operational carbon of the overall development.

Resource Use and Natural Capital

Our design principles prioritise responsible resource management and the preservation of natural capital. We strive to minimise waste, use sustainable materials, and integrate nature-based solutions to enhance biodiversity and the surrounding ecosystems.

Circular Economy

The development will divert a minimum of 95% construction waste away from landfill.

Maximising Reuse of Existing Foundations and Basement

The proposed design incorporates the partial reuse of the existing ground floor, basement, and foundation structures to reduce material demand, waste, and excavation required for the substructure elements.

Sustainability

Sustainable Design

long life, low maintenance components and passive shading ratios ensure improved thermal, solar and daylight performance, resulting in reduced operational energy demands.



All Electric Building



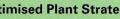


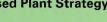








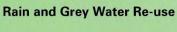






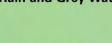
 $\left(\bigcirc \right)$ **Optimised Facade Design**







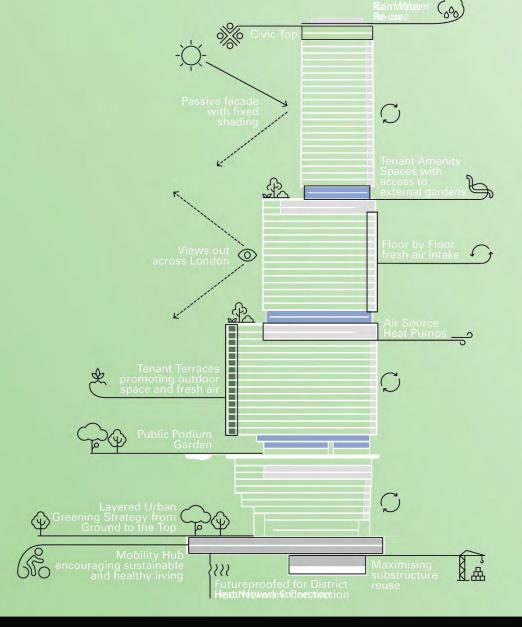




Optimised Natural Light

Increased Urban Greening





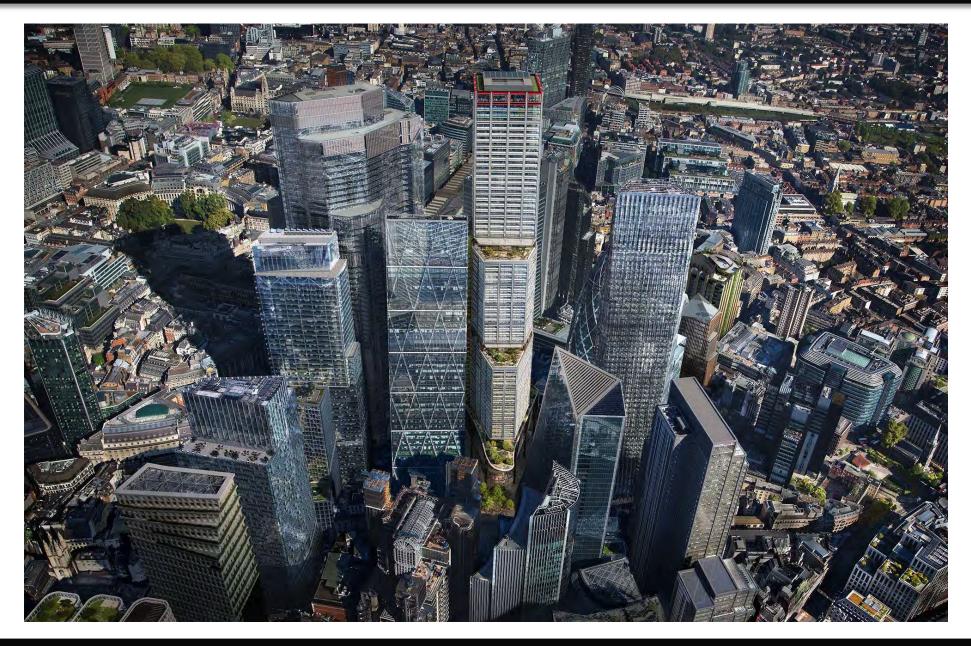
Sustainability

CGIs (DBOX)





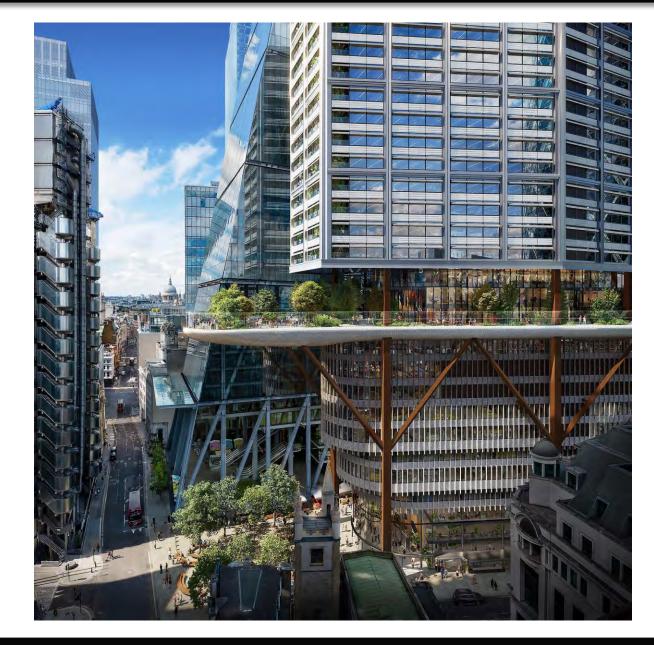
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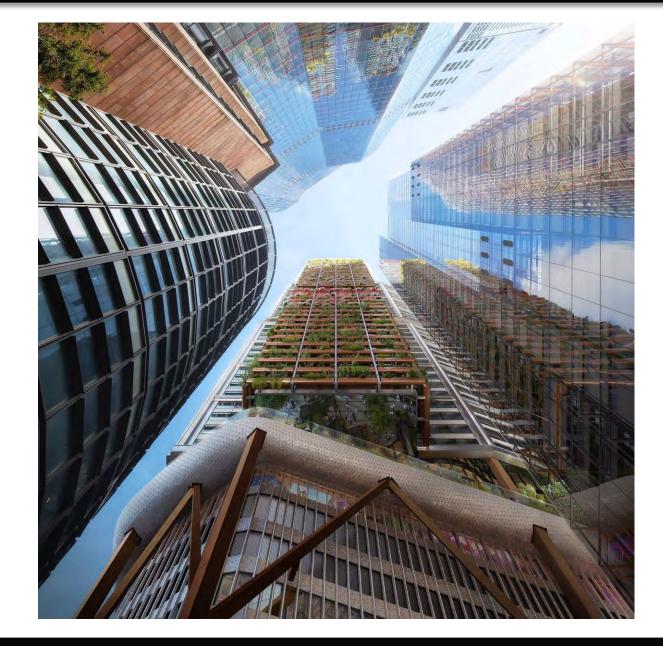






CGI











Next Planning & Transportation Committee Insert committee date

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