BELOW GROUND DRAINAGE NOTES

1. Existing drainage layout based on Archive drawings dated April 1939 and CCTV survey undertaken by GoDrainage Ltd ref CV.02173.

Gully drains ground floor external parking / delivery area.

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G

G

G

100Ø

Gully network backdrops down light-well wall and connects into basement /lower ground level network.

MH2

MH1

UP

UP

150Ø

MH1A

100Ø

MH3

100Ø

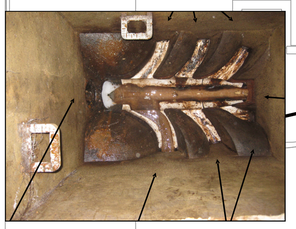
100Ø

MH4

150Ø

100Ø

100Ø



225Ø

Existing 225mm outfall pipe connects to Thames Water Combined Water Sewer.

A B C D E F G H

1 2 3 4 5

625Ø

TAVISTOCK PLACE

TAVISTOCK SQAURE

1245x813 Thames Water Combined Water sewer beneath Tavistock Square.

NOTE: ALL BELOW GROUND DRAINAGE WAS FOUND TO BE IN RELATIVELTY POOR CONDITION WITH LARGE SCALE DEBRIS AND SCALING WITHIN THE PIPEWORK.

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

LEGEND

- COMBINED WATER MANHOLE
- EXISTING COMBINED WATER
- EXISTING SURFACE WATER
- G GULLY
- EXISTING BUILDING

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P1	S2	23.11.21	HHu	HHu	Issued for information

Drawing title
Existing Below Ground Drainage

scale (s): 1:100@ A1; 1:200@A3
date: November 2021
drawn: HHu

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Project
Tavis House,
Tavistock Square,
London

Drawing status: Preliminary
Status: S2
Revision: P1

Project no. | Originator | Zone | Level | Type | Role | drg no.
2200531-EWP-ZZ-B1-DR-C-0090

Note: All new drainage at basement level is to be formed using Cast Iron Ensign drainage. All new drainage at ground floor level is to be formed using UPVC drainage and pre cast concrete manholes.

Note: New drainage shown indicatively only. Proposals to be reviewed on receipt of the M&E engineers public health strategy and Architects rainwater strategy. Pipe sizes TBC.

Note: Cavity drainage proposals not shown. To be confirmed and detailed by the Architect / Waterproofing Specialist.

Note: Refer to separate EWP drawing for blue roof proposals.

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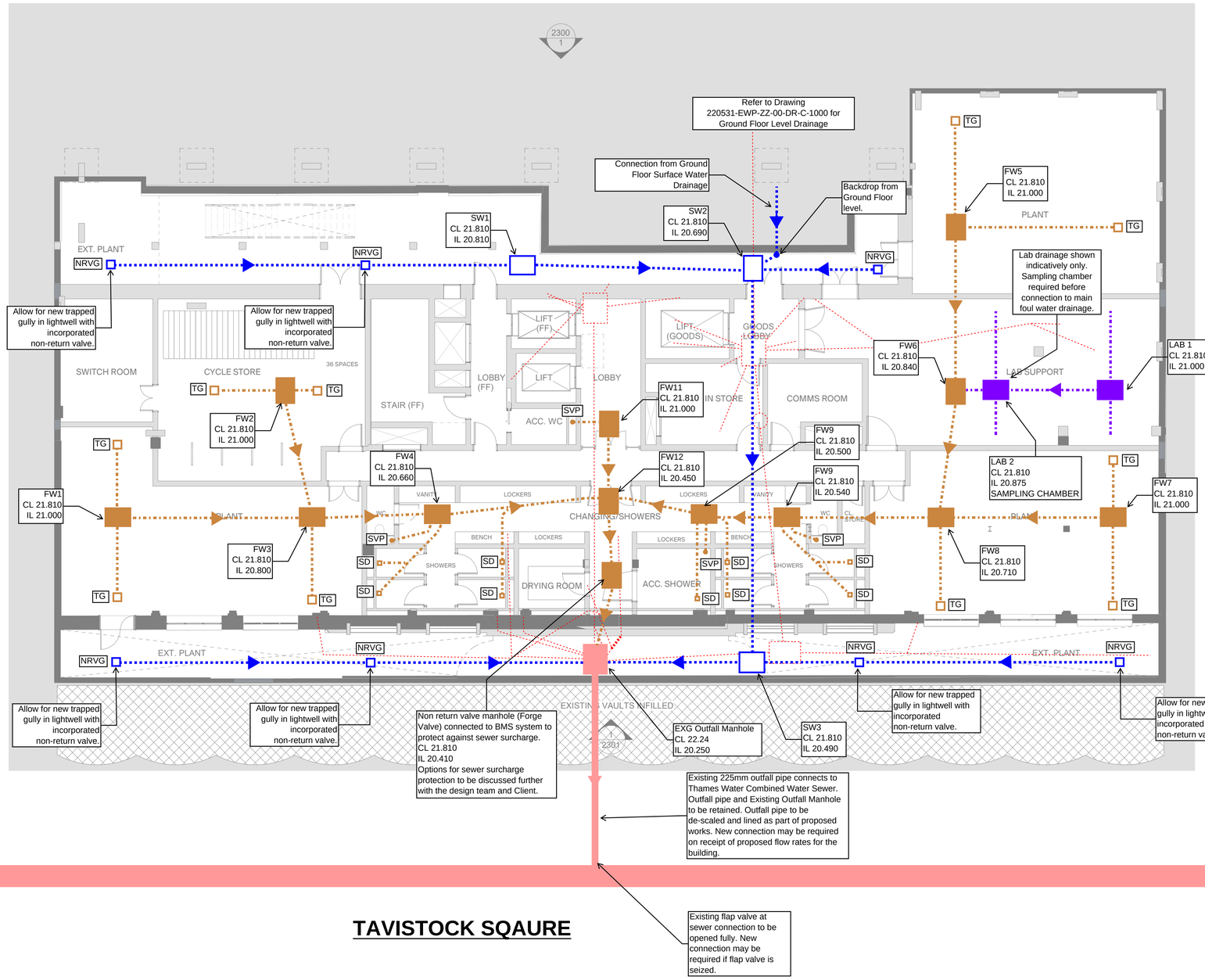
Note: All lift pits should incorporate blind sumps and avoid positive drainage. Lift entrance thresholds need to be ramped at each level.

Note: Sewer surcharge protection measures to be discussed and agreed with design team and Client. Non-return valve currently shown.



TAVISTOCK PLACE

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5. PRIVATE FOUL AND SURFACE WATER DRAINAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS PART H, BS EN752 AND BS EN12056.
6. DRAINS AT BASEMENT LEVEL ARE TO BE CONSTRUCTED USING CAST IRON (ENSIGN OR EQUIVALENT) AND FLEXIBLY JOINTED TO BS 437.
7. ALL SOIL CONNECTIONS UNDER BUILDINGS TO BE 100mm DIA LAID AT A MINIMUM GRADIENT OF 1/40 UNLESS NOTED OTHERWISE.
8. ALL SURFACE WATER CONNECTIONS TO BE 150mm DIAMETER AND TO BE LAID AT A MINIMUM GRADIENT OF 1/80 UNLESS NOTED OTHERWISE .
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19. A ROOT PROTECTION BARRIER TO DRAINAGE IS REQUIRED WHERE DRAINS ARE WITHIN 5m OF A EXISTING / PROPOSED TREE.
20. THE CONTRACTOR SHOULD ALLOW FOR THE ABANDONMENT AND REMOVAL OFF ALL EXISTING DRAINAGE ON SITE, INCLUDING DRAINAGE SHOWN ON THE THAMES WATER SEWER RECORDS THAT IS TO BE DIVESTED (SUBJECT TO THAMES WATER APPROVAL).

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LEGEND

- Existing combined water drain
- Existing combined water manhole
- Existing below ground drainage to be removed from ground
- Proposed surface water drain
- Proposed foul water drain
- Proposed surface water manhole (RC box with Ensign Inspection Point)
- Proposed foul water manhole (RC box with Ensign Inspection Point)
- NRVG Surface water gully with non return valve built-in
- TG Trapped floor gully (foul)
- SD Shower drain
- Proposed lab waste manhole
- Proposed lab waste
- Proposed surface water manhole (precast)
- Proposed linear drainage channel

rev	date	by	chk	description
P1	16/04/24	KTr	MTr	Preliminary

Drawing title
Proposed Below Ground Drainage Ground Floor

scale (s) 1:100@ A1; date January 2024; drawn KT

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Project
Tavis House
1-6 Tavistock Square

Drawing status: Preliminary
Status S2 Revision P1

Project no.	Originator	Zone	Level	Type	Role	drg no.
2200531	EWP	ZZ	B1	SK	C	0900

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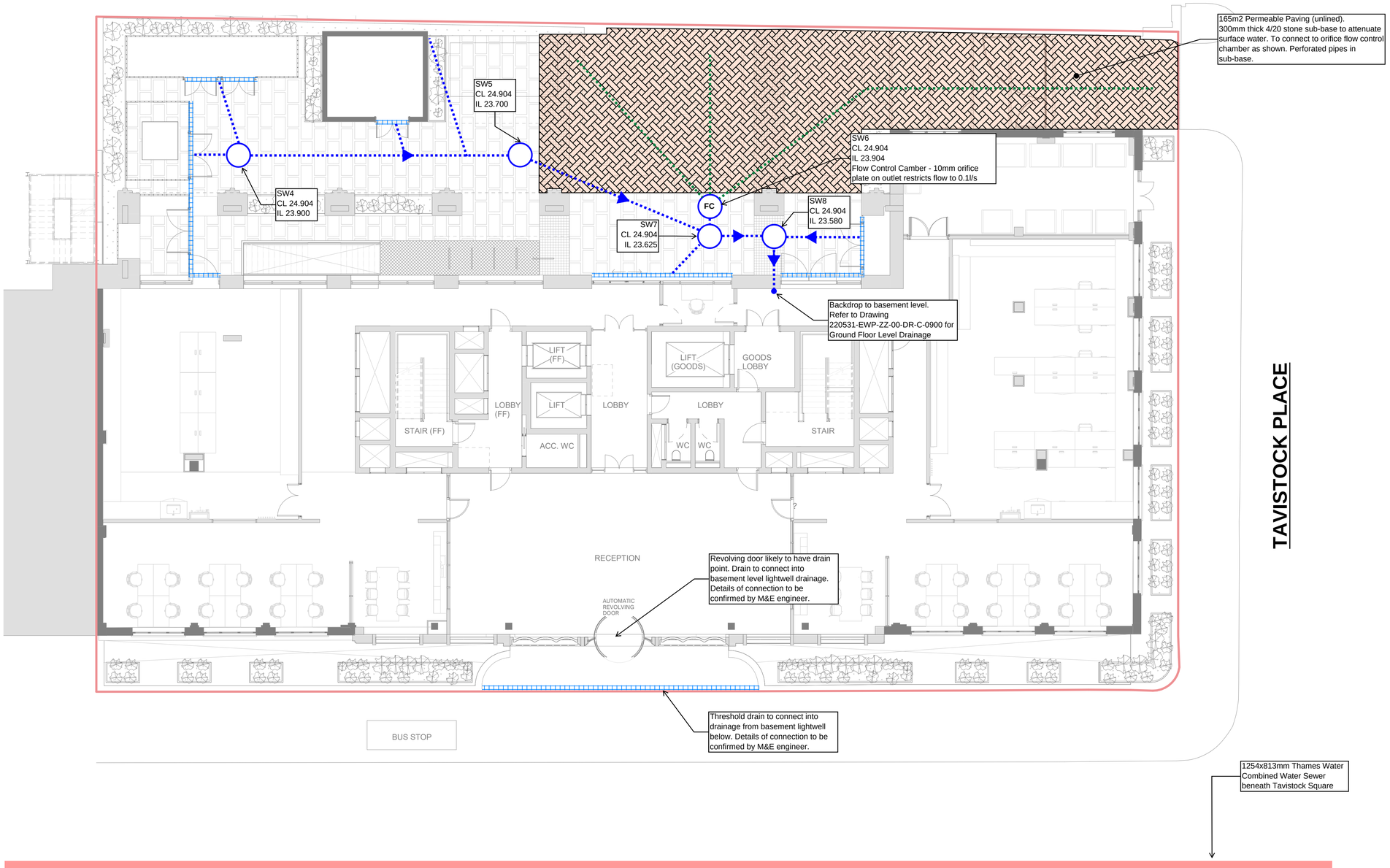

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- Proposed lab waste
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- Proposed linear drainage channel
- Permeable paving perforated drain
- Permeable paving

rev	date	by	chk	description
P1	11/04/24	KTr	MTr	Preliminary

Drawing title
Proposed Below Ground Drainage Ground Floor

scale (s)	date	drawn
1:100@ A1;	January 2024	KT

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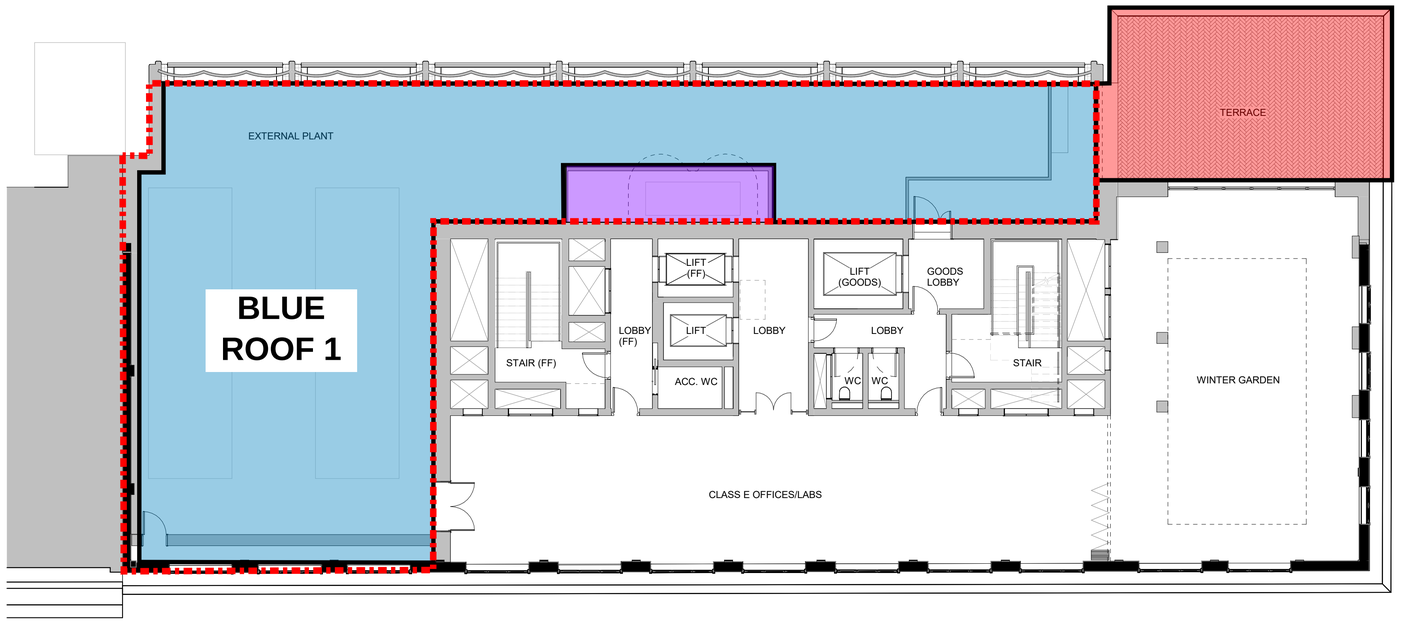
Project
Tavis House
1-6 Tavistock Square

Drawing status: Preliminary
Status S2 Revision P1

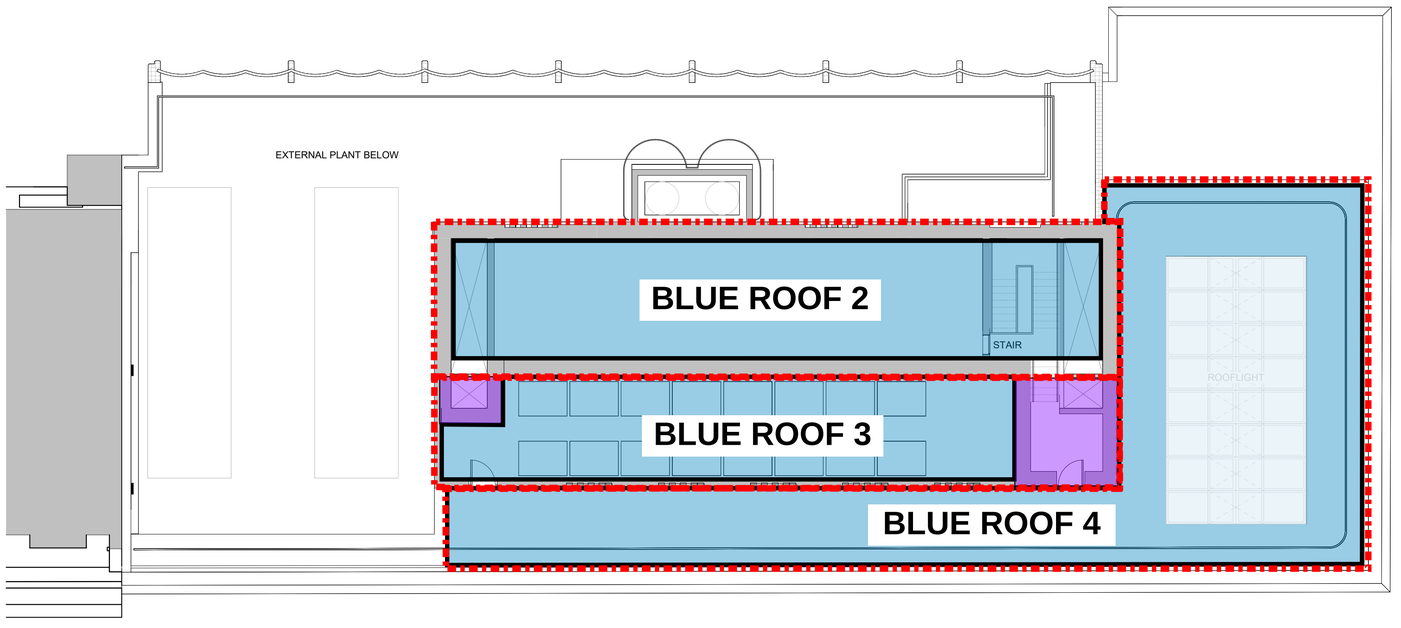
Project no.	Originator	Zone	Level	Type	Role	drg no.
2200531	EWP	ZZ	GF	SK	C	1000

0 2 4 8m

8th Floor



9th Floor & Above



8th Floor Calculations

Blue Roof 1

Blue Roof coverage = 280m2
Blue Roof catchment = 310m2

In the existing scenario 310m2 would have generated the following surface water run-off rates:

- 1 in 1 year storm = 2.7 l/s
- 1 in 30 year storm = 6.7 l/s
- 1 in 100 year storm = 8.6 l/s
- 1 in 100 year+40% cc = 12.0 l/s

In the proposed scenario 310m2 can be attenuated with a blue roof and run-off from this area discharged to:

- 1 in 100 year+40% cc = 0.84 l/s

Via 2 number flow restricted outlets 97mm deep system

9th Floor & Above Calculations

Blue Roof 2

Blue Roof coverage = 100m2
Blue Roof catchment = 137m2

In the existing scenario 137m2 would have generated the following surface water run-off rates:

- 1 in 1 year storm = 1.2 l/s
- 1 in 30 year storm = 3.0 l/s
- 1 in 100 year storm = 3.8 l/s
- 1 in 100 year+40% cc = 5.3 l/s

In the proposed scenario 137m2 can be attenuated with a blue roof and run-off from this area discharged to:

- 1 in 100 year+40% cc = 0.37 l/s

Via 2 number flow restricted outlets 97mm deep system

Blue Roof 3

Blue Roof coverage = 72m2
Blue Roof catchment = 98m2

In the existing scenario 98m2 would have generated the following surface water run-off rates:

- 1 in 1 year storm = 0.8 l/s
- 1 in 30 year storm = 2.1 l/s
- 1 in 100 year storm = 2.7 l/s
- 1 in 100 year+40% cc = 3.8 l/s

In the proposed scenario 98m2 can be attenuated with a blue roof and run-off from this area discharged to:

- 1 in 100 year+40% cc = 0.26 l/s

Via 2 number flow restricted outlets 97mm deep system

Blue Roof 4

Blue Roof coverage = 136m2
Blue Roof catchment = 195m2

In the existing scenario 136m2 would have generated the following surface water run-off rates:

- 1 in 1 year storm = 1.7 l/s
- 1 in 30 year storm = 4.2 l/s
- 1 in 100 year storm = 5.4 l/s
- 1 in 100 year+40% cc = 7.5 l/s

In the proposed scenario136m2 can be attenuated with a blue roof and run-off from this area discharged to:

- 1 in 100 year+40% cc = 0.53 l/s

Via 2 number flow restricted outlets 97mm deep system

Total Blue Roof Coverage = 588m2

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Do not scale from this drawing.

Legend

- Extent of Blue Roof System
- Higher Roof to Cascade Down Into Blue Roof Below
- Blue Roof Catchments
- Blue Roof Not Proposed

rev	date	by	chk	description
P1	15/03/24	KTr	PDa	Preliminary

Drawing title
Proposed Blue Roof Extent

scale (s)	date	drawn
1:50@ A1; 1:100@A3	March 2024	KTr

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