Project:	Plot C, Sister	Project Ref.:	51019/02
Subject:	Demolition and Remediation Phasing	Date:	15/07/2025
Document Ref.:	51019-CE-02-XX-R-G-1007	Revision:	P01

Background

The Environment Agency (EA) has requested confirmation on the phasing of the demolition and remediation works proposed at the Plot C, Sister site as part of the on-going regulatory consultation with the EA in relation to Planning Application 143024/FO/2025. In addition, the EA have requested further detail and assurances that 'good practice' measures will be implemented during the works to mitigate potential impacts to controlled waters during the demolition and remediation works.

It is understood that the EA will seek to recommend pre-commencement conditions with respect to contaminated land/controlled waters in their response to the planning application for 143024/FO/2025, and that they are satisfied that demolition can be undertaken down to slab level prior to these planning conditions being satisfied, including exception to be given to any intrusive works deemed to be required to further characterise site conditions / information the remediation strategy for the site.

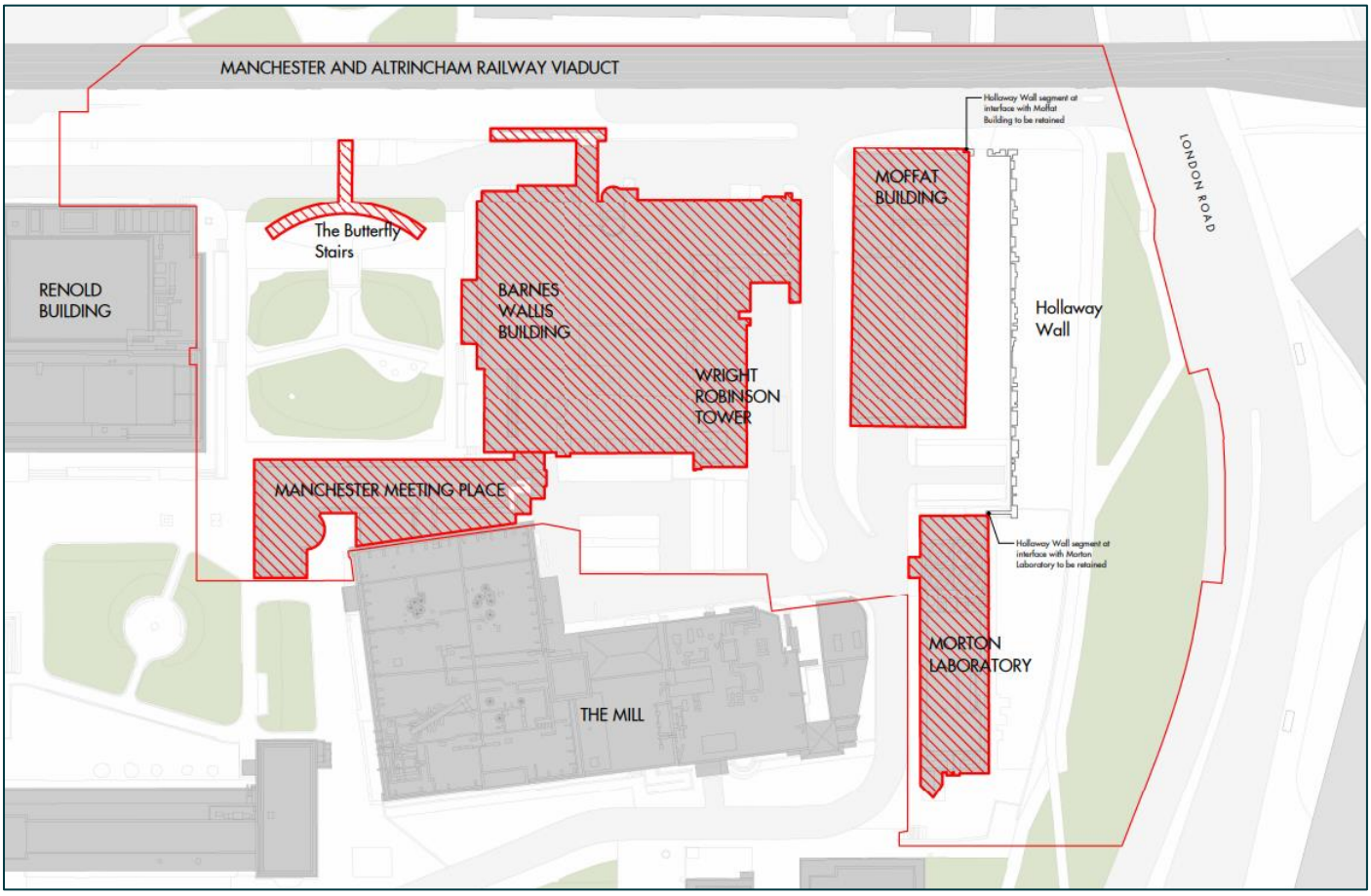
Scope of Demolition and Earthworks and Remedial Works

The proposed redevelopment of the site will be undertaken in three phases; demolition, earthworks and remedial works, and construction works. The demolition works across the site will be undertaken in a single tranche. Similarly, the earthworks and remediation works will be undertaken in a single tranche. Construction works will be undertaken in phases as outlined in the Environmental Statement submitted as part of the Planning Application.

Demolition

The demolition works will include the demolition of Barnes Wallis, Wright Robinson, Morton Laboratory, Manchester Meeting Place and Moffat buildings to slab level (ground floor level or, where a basement is present, basement level). The final (i.e. lowest) slab level will remain in-situ and removal of the slab will not form part of the demolition scope of works. Existing hardstanding outside of the building footprints will remain in-situ. The extent of the demolition works is outlined in the Allies and Morrison LLP Demolition Plan included in Appendix A; an extract is provided in Plate 1.

Plate 1. Extract of Demolition Site Plan (SISC0-AAM-ZZ-ZZ-DR-AR-07001 Revision P01)



As part of the demolition works, removal of residual asbestos containing materials (ACM) will be undertaken in accordance with the ACM re-inspection surveys for each building and removed from site in accordance with current waste legislation protocols. Crushing and grading of the demolition arisings to 6F2 will be undertaken and material removed from site, unless designated for re-use at site under appropriate waste management protocols.

For Plot C specific information, reference should be made to the relevant structural design reports. Further details will follow as the proposals are developed, specialist concrete contractors are engaged with, and a full survey has been undertaken.

The following Civic Drawings & Documents outline the proposed demolition works:

Description	Drawing/Document Number	Revision
Site Constraints	SISC0-CIV-XX-ZZ-DR-CV-10001	P02
Existing Site Cross Sections Key Plan	SISC0-CIV-EX-ZZ-DR-ST-10001	P01
Wright Robinson Demolition Details	SISC0-CIV-EX-ZZ-DR-ST-10101	P01
Existing Site Cross Sections Sheet 1	SISC0-CIV-EX-ZZ-DR-ST-12001	P01
Existing Site Cross Sections Sheet 2	SISC0-CIV-EX-ZZ-DR-ST-12002	P01
Existing Site Cross Sections Sheet 3	SISC0-CIV-EX-ZZ-DR-ST-12003	P01
Existing Site Cross Sections Sheet 4	SISC0-CIV-EX-ZZ-DR-ST-12004	P01
Morton Laboratory Deconstruction Report	2750-01-CIV-XX-XX-R-S-1001	P01
Barnes Wallis Deconstruction Report	2750-01-CIV-XX-XX-R-S-1002	P02
Wright Robinson Deconstruction Report	2750-01-CIV-XX-XX-R-S-1005	P01
Moffat Building Deconstruction Report	2750-01-CIV-XX-XX-R-S-1006	P01
Manchester Meeting Place Deconstruction Report	2750-01-CIV-XX-XX-R-S-1007	P01

Earthworks and Remedial Works

The proposed earthworks at the site will include 3 phases to achieve the final formation levels:

- **Phase 1** – a site strip across external areas of the site to 350mm below existing ground levels, an approximate cut volume of 5,480m^3.
- **Phase 2** – a cut exercise of approximately 0.5m to 1.0m across the current external areas of the site, increasing to between approximately 3.0m and 7.5m in the north, northeast and east of the site where the new service tunnel is proposed. An approximate cut volume of 35,290m^3. The ground / basement slabs left in-situ following the demolition works will be removed during this phase of work. Additional break out and turning over of Made Ground to 2.50m below slab level will be undertaken within the footprints of the Wright Robinson, Manchester Meeting Place and Morton Laboratory to remove potential buried obstructions.
- **Phase 3**: backfilling of the existing basement / part basement levels of Morton Laboratory, Moffat Building and MMP Building, and the creation of a raised platform area will be created within Sister Square. The fill exercise will typically include approximately between 1.0m and 3.5m of fill, an estimated volume of 9,315m^3.

The Civic Engineers Cut and Fill Earthworks Drawing are included in Appendix C; extracts of Phase 1, Phase 2 and Phase 3 are illustrated in Plate 2, Plate 3 and Plate 4, respectively.

The enabling works and associated remedial works will be undertaken in accordance with the site's regulatory approved Remediation Strategy in one tranche across the site i.e. independent to the wider construction works phasing.

Plate 2. Extract of Enabling Works Earthworks Phase 3 Drawing (SISC0-CIV-XX-XX-DR-CV-2002 Revision P01)

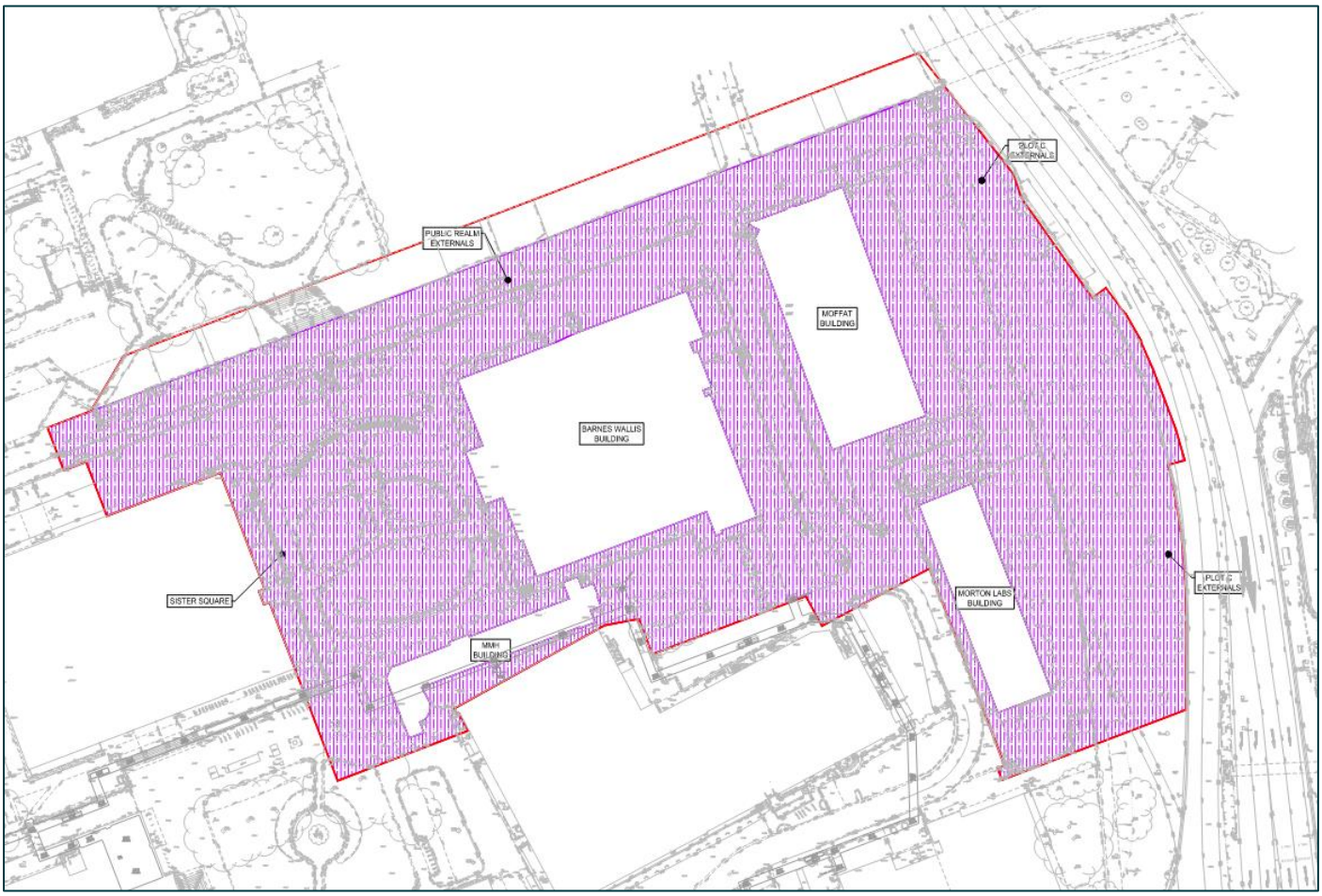


Plate 3. Extract of Enabling Works Earthworks Phase 2 Drawing (SISC0-CIV-XX-XX-DR-CV-2003 Revision P01)

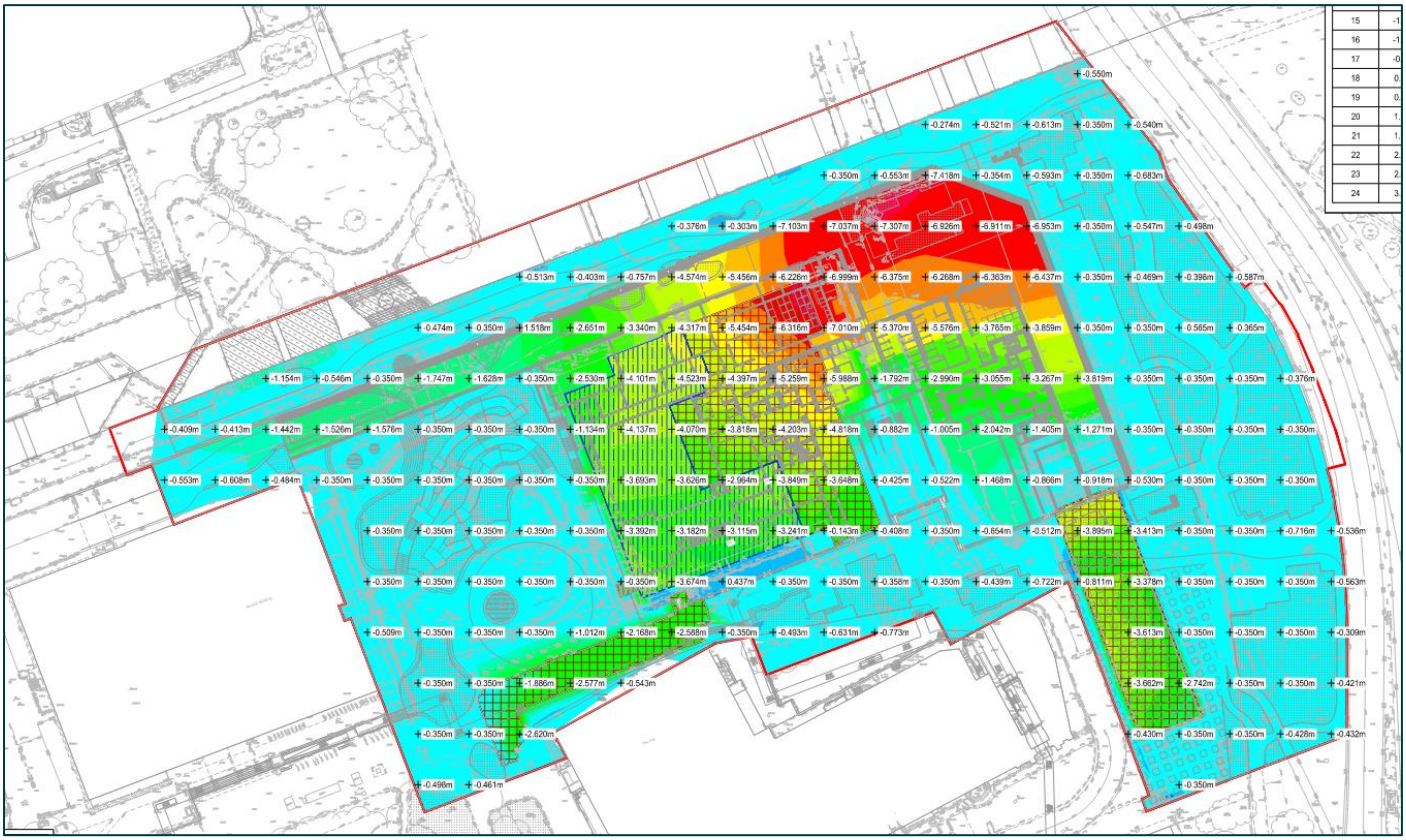
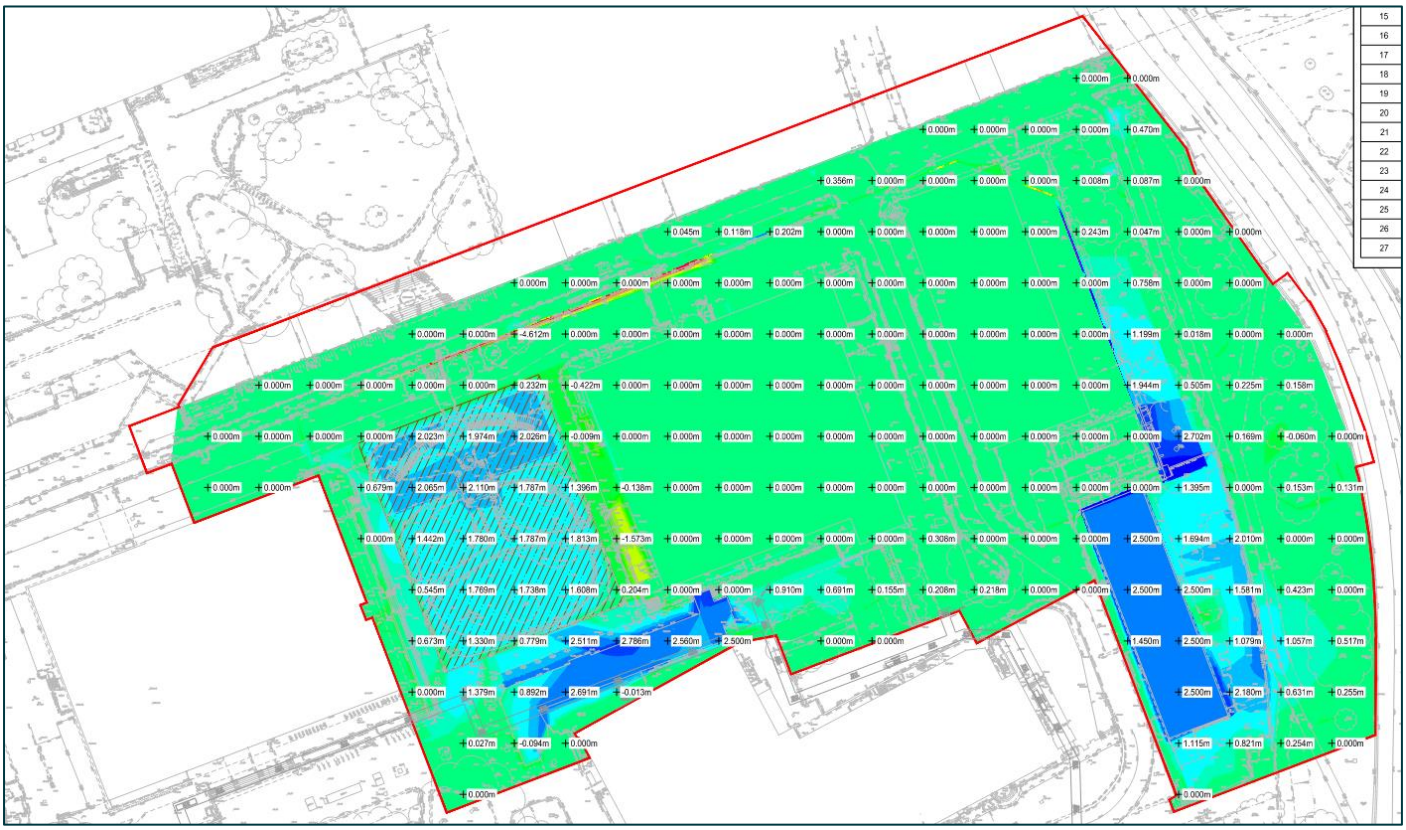


Plate 4. Extract of Enabling Works Earthworks Phase 3 Drawing (SISC0-CIV-XX-XX-DR-CV-2004 Revision P01)



Piling and Construction Works

As outlined in Section 5 of the Environmental Statement, following completion of enabling works and earthworks/remediation works, piling works will commence to create the foundations for the proposed new structures.

It is anticipated that piling works will be undertaken in phases linked to the proposed construction works phases. A risk assessment has been undertaken for the proposed piling works to demonstate that the proposed piling technique (Continuous Flight Auger (CFA) piling) has a low risk of creating preferential pathways for contamination into the underlying aquifer[1]. CFA piling is a well documented and widely accepted piling technique for use on contaminated land by the regulators.

Mitigation of Risk to Controlled Waters during Demolition / Enabling Works

The appointed Demolition Contractor and Enabling/Remediation Works Contractor will develop a site specific Construction Phase Plan for their works in accordance with the Construction (Design and Management) Regulations 2015 and other relevant legislation and guidance. This document will form the basis of the procedure for managing health and safety during the construction phase and will be periodically reviewed as the work progresses. This will address, amongst other things, flood risk, control of pollution, any required oversailing licences and relevant permits / consents required to complete the works.

In addition, a Construction Environment and Management Plan (CEMP) will also be produced; it is anticpated that the latter will be conditioned as part of the Planning Application decision.

Procedures will be established to ensure the prevention of water and ground pollution relating to de-watering of the site (if required), soil contamination remediation, earthworks (including piling, spoil movement and removal, and movement of contaminated soils), concrete works (including washing out of concrete delivery vehicles and pumps), storage and movement of fuels, oils, chemicals and other such fluids and cleaning (including plant, machinery and wheel washing). Such mitigation measures will include, but not be limited to:

- Appropriate management of stockpiles including stockpiling in designated areas away from drainage channels, segregation of different types of material (e.g. Made Ground and natural soils), and controlling surface water run-off with bunds, liners and coverings. Excavated soils will also be appropriately stored with preventative measures against dust and nuisance odours to protect human health during temporary storage on site. The Contractor will document handling and storage protocols for potentially contaminated soils.

[1] Civic Earth (2025) Sister – Plot C. Piling Works Risk Assessment and Groundwater Reassurance Monitoring Plan. April 2025. Reference 51019-CE-02-XX-R-G-1006. Revision P01.

- Appropriate management and discharge/disposal of perched water and groundwater encountered in excavations and water used during enabling works (e.g. for dust suppression and wheel washing). Temporary drainage systems to be designed and implemented so that they capture waterborne pollution prior to entering any existing drainage systems.
- Appropriate storage of all hazardous liquids, chemicals and materials where materials are to be stored in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations.

Enclosed

Appendix A *Scope of Demolition Works*
Appendix B *Civic Engineers Demolition Works Drawings & Documents*
Appendix C *Civic Engineers Enabling Works Drawings*

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Prepared By	Kirsty Poore MSc, MSci (Hons), CGeol, FGS, ARSM, ROGEP Specialist
Report Reference	51019-CE-02-XX-R-G-1007
Issued	15/07/2025
Status	P01 – First Issue

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Appendix A

Scope of Demolition Works

SACKVILLE STREET BUILDING

GRANBY ROW

MANCHESTER AND ALTRINCHAM RAILWAY VIADUCT

THE GATEHOUSE

PAPER SCIENCE BUILDING

RENOLD BUILDING

The Butterfly Stairs

BARNES WALLIS BUILDING

WRIGHT ROBINSON TOWER

MOFFAT BUILDING

Hollaway Wall segment at interface with Moffat Building to be retained

Hollaway Wall

LONDON ROAD

SACKVILLE STREET

MANCHESTER MEETING PLACE

Hollaway Wall segment at interface with Morton Laboratory to be retained

MORTON LABORATORY

THE PARISIER BUILDING

THE MILL

THE MSS BUILDING

FOR PLANNING

Figured dimensions are in millimetres unless noted otherwise. All dimensions and levels shall be verified on site before proceeding with works. Detailed site survey to be carried out to verify positions and level relationships with site features and ordnance survey. The Architect must be notified of any discrepancy. Boundaries are indicative only and are to be verified by others.

Allies & Morrison LLP is not responsible for any errors caused by the transmission, translation, software or computer systems. Allies & Morrison LLP is not responsible for nor shall be liable for the consequences of any use made of the drawings or models other than that for which they were produced by Allies & Morrison LLP for the Client.

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REV	DATE	DESCRIPTION	CKD/APR
P01	25/04/25	Planning Submission	JS

0 25.0 m 50.0 m

1:500

Demolished

Allies and Morrison LLP

85 Southwark Street
London SE1 0HX
telephone 020 7921 0100
facsimile 020 7921 0101
email studio@alliesandmorrison.com

A&M JOB No: 19171_02

Sister Manchester : Plot C

Site Location Plan - Existing / Demolition

SITE PLAN

SISC0-AAM-ZZ-ZZ-DR-AR-07001

SCALE 1 : 500 @A1 1 : 1000 @A3

S2 Status

P01 Revision

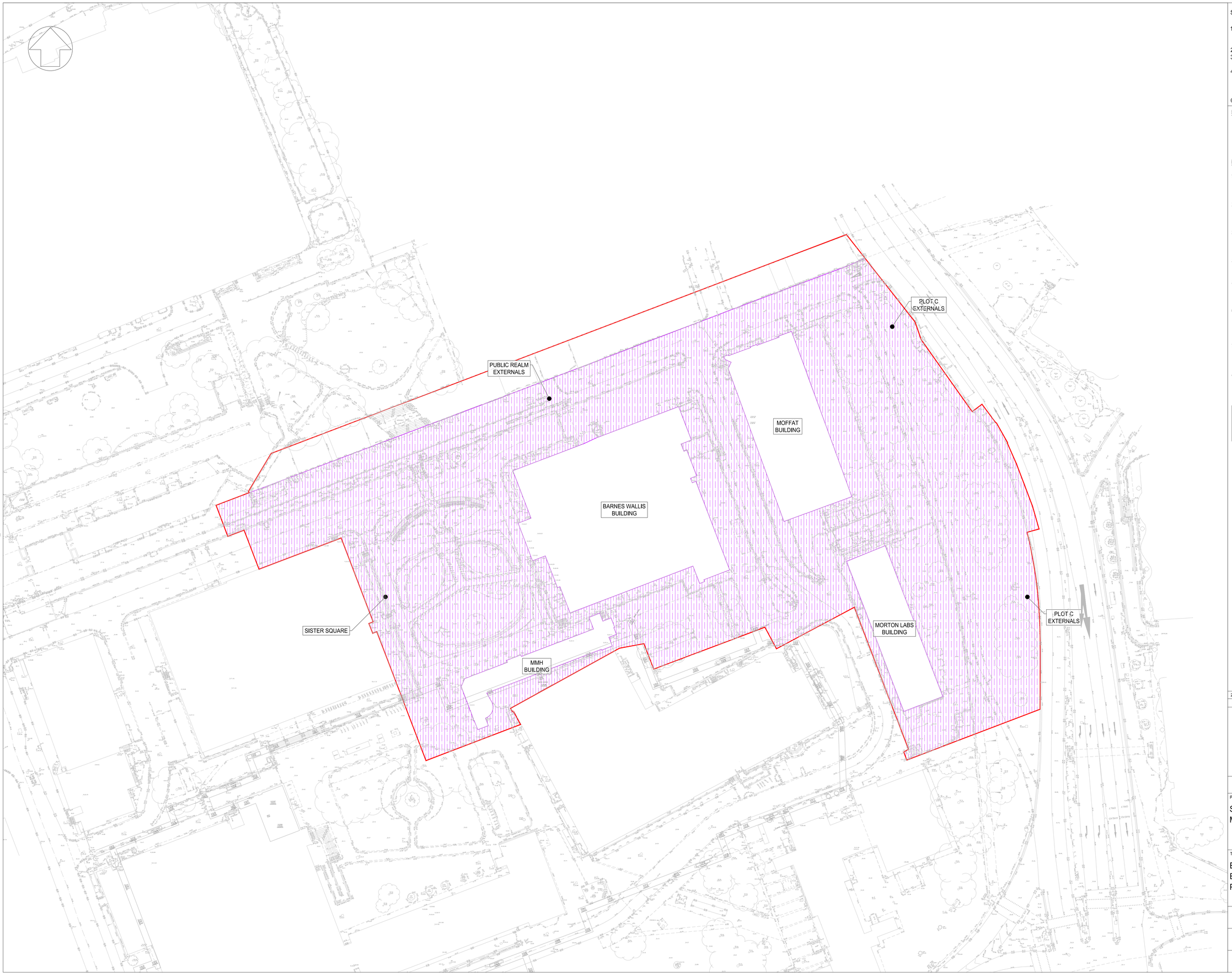
SISC0-AAM-ZZ-ZZ-ME-AR-00002

Appendix B

Civic Engineers Demolition Works Drawings & Documents

Appendix C

Civic Engineers Enabling Works Drawings



STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
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KEY:

SITE BOUNDARY

SITE STRIP (350mm BELOW EXISTING GROUND LEVELS)

NOTES:

1. TOPOGRAPHICAL SURVEY CARRIED OUT BY SURVEY AND ENGINEERING PROJECTS DATED: APRIL 2022. DRAWING NUMBER: S23741-T
2. THE CUT & FILL VOLUME EXERCISE IS BASED ON COMPARISON BETWEEN EXISTING SITE LEVELS SURFACE AND PROPOSED FINISHED LEVELS
3. PROPOSED FINISHED LEVEL SURFACE IS BASED ON THE LEVELS PROVIDED BY SLA LANDSCAPE ARCHITECTS DATED: FEBRUARY 2025
4. 350mm SITE STRIP ACCOUNTED FOR IN VOLUME CALCULATIONS
5. THE VOLUMES ARE INDICATIVE ONLY AND DO NOT TAKE ANY BULKING OR COMPACTION FACTORS INTO ACCOUNT
6. EARTHWORKS ANALYSIS EXCLUDES EXCAVATION FOR BUILDING FOUNDATIONS, DRAINAGE PIPES, STORAGE TANKS, MANHOLES AND RETAINING WALLS
7. AS DUG MATERIAL WILL NEED TO BE SCREENED PRIOR TO USING AS POTENTIAL BACKFILL MATERIAL FOR THE DEVELOPMENT
8. ALL EARTH IS ASSUMED TO BE OF REUSABLE QUALITY

SITE STRIP	AREA (m^2)	CUT VOLUME (m^3)
	15669.03	5484.16

DATE	REV	DESCRIPTION	DRAWN	CHKD
21.03.25	P01	INTERIM STAGE 2 RE-DESIGN	DA	JF

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PROJECT

SISTER - PLOT C
MANCHESTER

TITLE

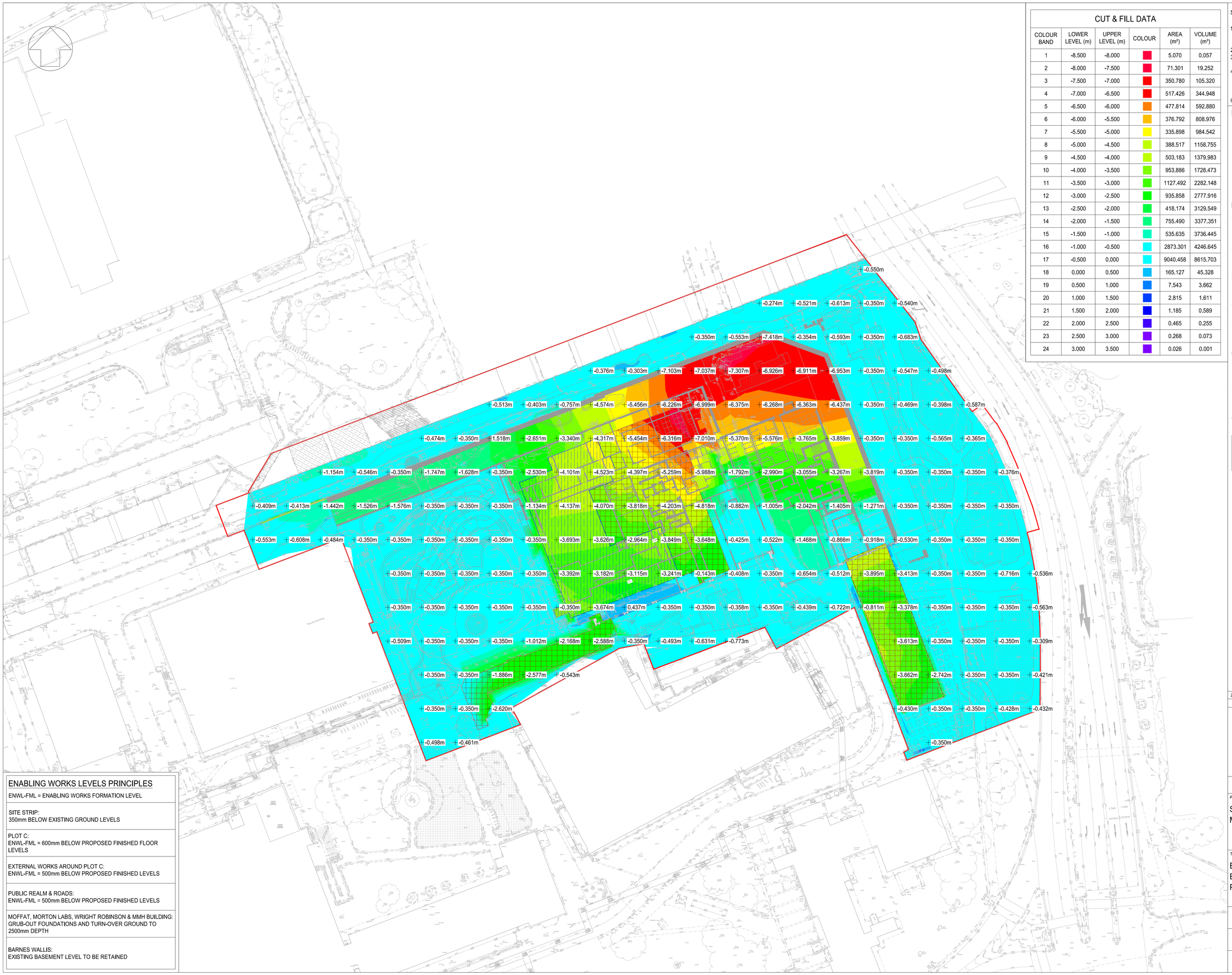
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EARTHWORKS
PHASE 1

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SISC0-CIV-XX-XX-DR-CV-20002	P01

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CUT & FILL DATA

COLOUR BAND	LOWER LEVEL (m)	UPPER LEVEL (m)	COLOUR	AREA (m^2)	VOLUME (m^3)
1	-8.500	-8.000		5.070	0.057
2	-8.000	-7.500		71.301	19.252
3	-7.500	-7.000		350.780	105.320
4	-7.000	-6.500		517.426	344.948
5	-6.500	-6.000		477.814	592.880
6	-6.000	-5.500		376.792	808.976
7	-5.500	-5.000		335.898	984.542
8	-5.000	-4.500		388.517	1158.755
9	-4.500	-4.000		503.183	1379.983
10	-4.000	-3.500		953.886	1728.473
11	-3.500	-3.000		1127.492	2282.148
12	-3.000	-2.500		935.858	2777.916
13	-2.500	-2.000		418.174	3129.549
14	-2.000	-1.500		755.490	3377.351
15	-1.500	-1.000		535.635	3736.445
16	-1.000	-0.500		2873.301	4246.645
17	-0.500	0.000		9040.458	8615.703
18	0.000	0.500		165.127	45.328
19	0.500	1.000		7.543	3.662
20	1.000	1.500		2.815	1.611
21	1.500	2.000		1.185	0.589
22	2.000	2.500		0.465	0.255
23	2.500	3.000		0.268	0.073
24	3.000	3.500		0.026	0.001

ENABLING WORKS LEVELS PRINCIPLES

ENWL-FML = ENABLING WORKS FORMATION LEVEL

SITE STRIP:
350mm BELOW EXISTING GROUND LEVELS

PLOT C:
ENWL-FML = 600mm BELOW PROPOSED FINISHED FLOOR LEVELS

EXTERNAL WORKS AROUND PLOT C:
ENWL-FML = 500mm BELOW PROPOSED FINISHED LEVELS

PUBLIC REALM & ROADS:
ENWL-FML = 500mm BELOW PROPOSED FINISHED LEVELS

MOFFAT, MORTON LABS, WRIGHT ROBINSON & MMH BUILDING:
GRUB-OUT FOUNDATIONS AND TURN-OVER GROUND TO 2500mm DEPTH

BARNES WALLIS:
EXISTING BASEMENT LEVEL TO BE RETAINED

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
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KEY:

SITE BOUNDARY

BARNES WALLIS
RETAINED BASEMENT LEVELS

AREAS OF EXISTING BUILDINGS.
SLAB SUBJECT TO ADDITIONAL EXCAVATION TO BREAK OUT OBSTRUCTIONS (2.50m BELOW EXISTING SLAB LEVEL)

NOTES:

1. TOPOGRAPHICAL SURVEY CARRIED OUT BY SURVEY AND ENGINEERING PROJECTS DATED: APRIL 2022. DRAWING NUMBER: S23741-T
2. THE CUT & FILL VOLUME EXERCISE IS BASED ON COMPARISON BETWEEN EXISTING SITE LEVELS SURFACE AND PROPOSED FINISHED LEVELS
3. PROPOSED FINISHED LEVEL SURFACE IS BASED ON THE LEVELS PROVIDED BY SLA LANDSCAPE ARCHITECTS DATED: FEBRUARY 2025
4. 350mm SITE STRIP ACCOUNTED FOR IN VOLUME CALCULATIONS
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7. AS DUG MATERIAL WILL NEED TO BE SCREENED PRIOR TO USING AS POTENTIAL BACKFILL MATERIAL FOR THE DEVELOPMENT
8. ALL EARTH IS ASSUMED TO BE OF REUSABLE QUALITY

	AREA (m^2)	CUT VOLUME (m^3)
PHASE 2	19844.50	35288.94

DATE	REV	DESCRIPTION	DRAWN	CHKD
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PROJECT
SISTER - PLOT C
MANCHESTER

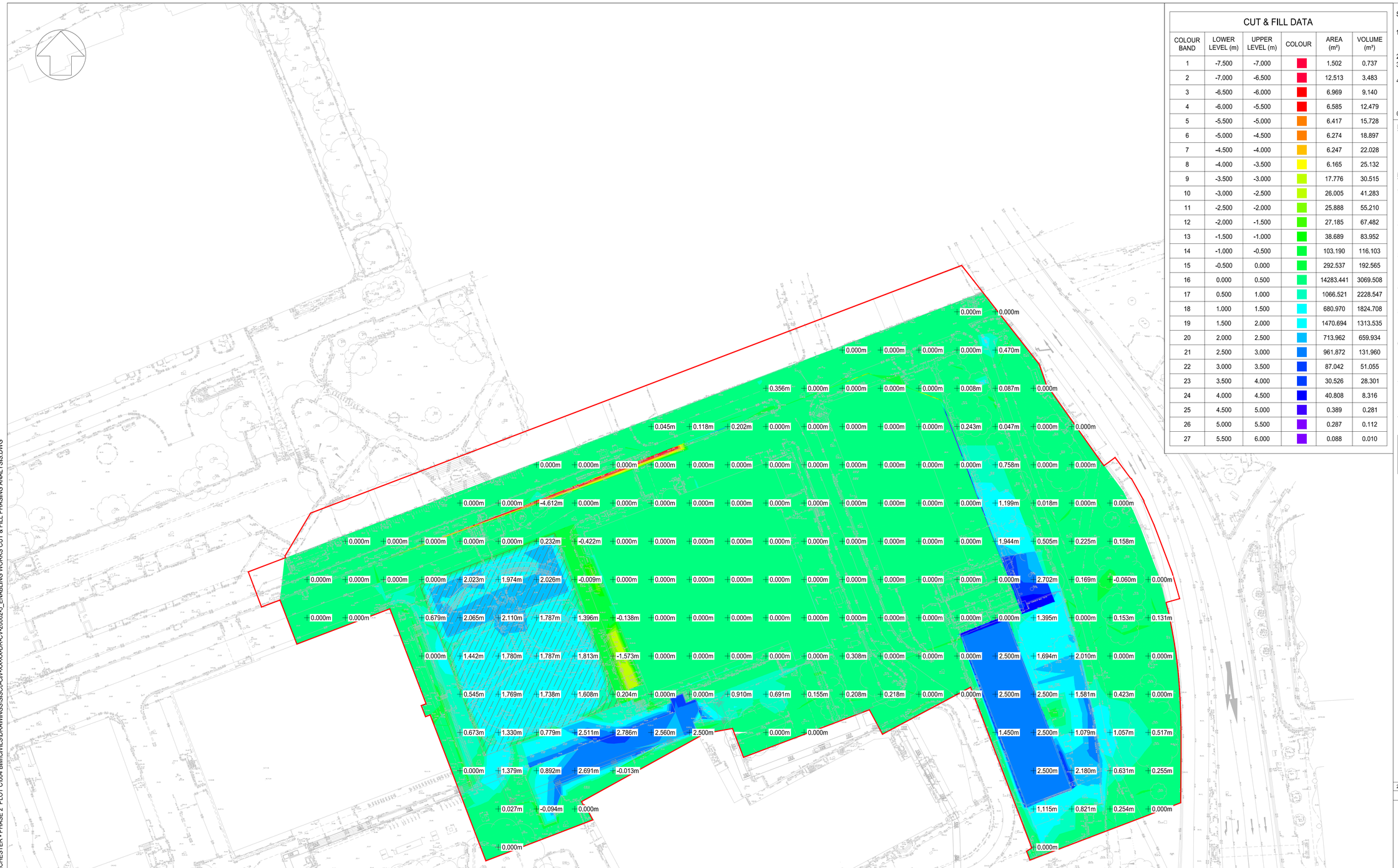
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EARTHWORKS
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CUT & FILL DATA

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2	-7.000	-6.500		12.513	3.483
3	-6.500	-6.000		6.969	9.140
4	-6.000	-5.500		6.585	12.479
5	-5.500	-5.000		6.417	15.728
6	-5.000	-4.500		6.274	18.897
7	-4.500	-4.000		6.247	22.028
8	-4.000	-3.500		6.165	25.132
9	-3.500	-3.000		17.776	30.515
10	-3.000	-2.500		26.005	41.283
11	-2.500	-2.000		25.888	55.210
12	-2.000	-1.500		27.185	67.482
13	-1.500	-1.000		38.689	83.952
14	-1.000	-0.500		103.190	116.103
15	-0.500	0.000		292.537	192.565
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18	1.000	1.500		680.970	1824.708
19	1.500	2.000		1470.694	1313.535
20	2.000	2.500		713.962	659.934
21	2.500	3.000		961.872	131.960
22	3.000	3.500		87.042	51.055
23	3.500	4.000		30.526	28.301
24	4.000	4.500		40.808	8.316
25	4.500	5.000		0.389	0.281
26	5.000	5.500		0.287	0.112
27	5.500	6.000		0.088	0.010

ENABLING WORKS LEVELS PRINCIPLES

ENWL-FML = ENABLING WORKS FORMATION LEVEL

PLOT C:
ENWL-FML = 600mm BELOW PROPOSED FINISHED FLOOR LEVELS

EXTERNAL WORKS AROUND PLOT C:
ENWL-FML = 500mm BELOW PROPOSED FINISHED LEVELS

PUBLIC REALM & ROADS:
ENWL-FML = 500mm BELOW PROPOSED FINISHED LEVELS

MORTON LABS & MMH BUILDING:
ENWL-FML = 500mm BELOW PROPOSED SURROUNDING FINISHED LEVELS

BARNES WALLIS:
EXISTING BASEMENT LEVEL TO BE RETAINED

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KEY:

SITE BOUNDARY

SISTER SQUARE PLATFORM AREA

NOTES:

1. TOPOGRAPHICAL SURVEY CARRIED OUT BY SURVEY AND ENGINEERING PROJECTS DATED: APRIL 2022. DRAWING NUMBER: S23741-T
2. THE CUT & FILL VOLUME EXERCISE IS BASED ON COMPARISON BETWEEN EXISTING SITE LEVELS SURFACE AND PROPOSED FINISHED LEVELS
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7. AS DUG MATERIAL WILL NEED TO BE SCREENED PRIOR TO USING AS POTENTIAL BACKFILL MATERIAL FOR THE DEVELOPMENT
8. ALL EARTH IS ASSUMED TO BE OF REUSABLE QUALITY

	AREA (m^2)	VOLUME (m^3) FILL
PHASE 3	19921.21	9316.27

DATE	REV	DESCRIPTION	DRAWN	CHKD
21.03.25	P01	INTERIM STAGE 2 RE-DESIGN	DA	JF

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PROJECT

SISTER - PLOT C
MANCHESTER

TITLE

ENABLING WORKS
EARTHWORKS
PHASE 3

DRAWING STATUS	STATUS CODE
STAGE 2	S5

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
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SISC0-CIV-XX-XX-DR-CV-20004	P01

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CUT & FILL DATA

COLOUR BAND	LOWER LEVEL (m)	UPPER LEVEL (m)	COLOUR	AREA (m^2)	VOLUME (m^3)
1	1.000	1.500		0.000	159.271
2	1.500	2.000		174.633	157.481
3	2.000	2.500		143.909	0.928

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

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KEY:

SITE BOUNDARY

NOTES:

1. TOPOGRAPHICAL SURVEY CARRIED OUT BY SURVEY AND ENGINEERING PROJECTS DATED: APRIL 2022. DRAWING NUMBER: S23741-T
2. TOPOGRAPHICAL SURVEY FOR SERVICE DISTRIBUTION TUNNEL CARRIED OUT BY SURVEY AND ENGINEERING PROJECTS DATED: MARCH 2025. DRAWING NUMBER S25962-GA
3. THE CUT & FILL VOLUME EXERCISE IS BASED ON COMPARISON BETWEEN EXISTING TUNNEL FLOOR LEVELS SURFACE AND EXISTING TUNNEL CEILING LEVELS
4. THE VOLUMES ARE INDICATIVE ONLY AND DO NOT TAKE ANY BULKING OR COMPACTION FACTORS INTO ACCOUNT

ENABLING WORKS LEVELS PRINCIPLES

SERVICES DISTRIBUTION TUNNEL:
FILL VOLUME (WITHIN PLOT C SITE BOUNDARY): 636.22m^3

DATE	REV	DESCRIPTION	DRAWN	CHKD
21.03.25	P01	INTERIM STAGE 2 RE-DESIGN	DA	JF

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PROJECT

SISTER - PLOT C
MANCHESTER

TITLE

ENABLING WORKS
EARTHWORKS
BELOW GROUND SERVICES
DISTRIBUTION TUNNEL

DRAWING STATUS	STATUS CODE
STAGE 2	S5

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750	1:500	MAR 25	DA	JF

DRAWING No.	REV
SISC0-CIV-XX-XX-DR-CV-20005	P01

FILE LOCATION PATH: \\FS01\PROJECTS DRIVE\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\CIVILS\DRAWINGS\SISC0-CIV-XX-XX-DR-CV-20002-5_ENABLING WORKS CUT & FILL PHASING ANALYSIS.DWG