Manchester Museum Courtyard

PROPOSED SCHEDULE OF SITE INVESTIGATIONS (Combined list by consultants) - to be read in conjunction with Survey Locations

Revision: D T3/T3b amended. SE drawings added.
Date: 25-Sep-18
By: BH/MF/Purcell

Ref	Type of investigation	Location	Reason for investigation	Approx. dimensions	Reinstatement*	Listed Building Consent	Report	Status	Notes
Investigation									
T1	Opening up work	Refer to sketch; at base of column	> To confirm load capacity and detailed location of column connection > To design identify strengthening works that might be required	500mm x 500mm	Reinstate removed floor boards and refix	To be submitted as part of discharge of conditions			
T1a	Investigation of supporting structure	Adjacent to column bearing	> To confirm bearing Area and Type > Confirm strength of bearing material - allow for schmidt hammer tests	n/a	n/a				
T2	Opening up work	High level wall	> To expose masonry wall behind stud partition for visibility of bearing detail > Identify bearing for incoming beam > Confirm bearing material and strength > Remove brick for compressive strength test	1000mm x 500mm	Reinstate stud partition and touch up with paint.				False ceiling may need to be removed and associated wiring temporarily disconnected.
T3	Opening up work	>High level wall >Possible low level if column present > Low level floor	> To confirm bearing of incoming beam > Confirm bearing dimensions > To confirm bearing of floor plate on gallery side > Confirm floor span of kitchen ceiling > Confirm type of masonry used in wall constructions > Remove raised floor and identify supporting structure for floor below on both sides of wall > Record and document bearing details, size and type	approx. 500mm x 500mm. Perpendicular wall in kitchen will need to be cut back at high level for access. Refer to SE drawings	Reinstate stud partition and touch up with paint.				False ceiling may need to be removed and associated wiring temporarily disconnected. Note proximity of works to food stores.
T3b	Opening up work	High level wall	> To confirm extents of previously blocked up opening > To confirm condition, bearing detail, type and levels of existing lintels	approx. 1000mmx500mm Refer to SE drawings	Re-plaster and paint				False ceiling may need to be removed and associated wiring temporarily disconnected.
T4	Opening up work	Strip adjacent to both sides to door frame on gallery side	>To identify level of existing lintels >Identify extents of infill blockwork and implications on construction sequencing for adjustment to existing pier >Confirm fixing of floor plate to existing masonry wall	approx. 4no 500x500 openings.	Reinstate stud partition and touch up with paint.				False ceiling may need to be removed and associated wiring temporarily disconnected.
T4b	Opening up work	Open up reverse side of door	> Identify location of steel column shown on record drawings > Identify connection detail for 100SHS 6.3 framing out riser cupboard to confirm implications of removal	Access through riser cupboard required,	n/a				specialist access / cameras may be required to ensure sufficient access
T5	Opening up work	High level - see sketch for location	> Expose steel beam to column connection to confirm level of fixity >Confirm connection detail for floor joists to steel beam to inform remedial design and temporary works impact	approx. 750mm x 750mm	Reinstate as existing				Store false ceiling to be removed to enable safe access, Further work to confirm steel grade may be required at a later date.

T6	Opening up and Trial Pit	High level wall and low level floor	> Confirm build up of wall behind plasterboard finishes >Identify location of possible existing column in wall > Confirm connection of floor plate above >Trial pit to identify, size, and type of existing foundation >Assess capacity for additional load	Opening up in wall - 500x500mm, Masonry pilot hole through wall to confirm thickness Trial pit to be c. 1200mm x 1200mm - depth to underside of existing foundation	Reinstate as existing			locations to be coordinated with existing foundations
T7	Trial Pitt	Floor level	> To identify suitability for ground to take proposed new column >Samples collect for laboratory testing	assume 500mmx500mm	Reinstate as existing			
T8	Opening up work	High level wall investigation	> Locate lintel above door opening > Identify lintel details	assume 500mmx500mm	Reinstate as existing			
T9	Opening up work	Floor level	>Identify condition of structural floor at threshold location by removal of floor finishes	approx. 500x500	Reinstate as existing			
T10	Opening up work	Floor level	Remove floor finishes and identify condition of structural floor and build ups in proposed toilet location	approx. 500x500	Reinstate as existing			
T11	Trial pit	Light well	> Confirm build retaining wall base details >Confirm thickness of assumed capping slab and connection to retaining wall > expose corner details	2000x500	Make area safe			Remove masonry wall down to ground level and break back approximately 500mm
T12	Trial pit	Courtyard	>Confirm construction of retaining wall >Identify possible obstructions at toe of wall for piling rig Confirm thickness of retaining wall (10mm pilot hole) > Undertake brick compression tests to confirm brick strength >Identify retaining wall foundation level Identify retaining wall heel detail	approx. 5m deep	Back fill, finish TBA			>Deep excavation will require trench propping and temporary works design. >Access to museum through this entrance should be closed during these works
T13	Trial pit			approx. 5m deep	Back fill, finish TBA			
T14	Trial pit			approx. 5m deep	Back fill, finish TBA			
T15	Trial pit			approx. 3m deep	Back fill, finish TBA			
T16	Opening up work	Kitchen wall	>Identify presence of further columns/windposts shown on record drawings >Confirm base detail	approx. 500x500	Reinstate as existing			
T17	Core hole	Retaining wall	To confirm thickness and material makeup of wall	100diameter core hole. To full depth of wall	Repair with concrete/cement/brick			Where possible undertkae ferrous scan to avoid drilling through reinforccement
T18	Core hole	Retaining wall	To confirm thickness and material makeup of wall	100diameter core hole	Repair with concrete/cement/brick			Where possible undertkae ferrous scan to avoid drilling through reinforccement
T19	Core hole	Retaining wall	To confirm thickness and material makeup of wall	100diameter core hole	Repair with concrete/cement/brick			Where possible undertkae ferrous scan to avoid drilling through reinforccement

T20	Spare							
T21	Opening up work	Ceiling	> to identify and track ventilation system > to take full photographic record >To identify locations of ductwork, grilles, fans and outlets/inlets. > to identify sizes of ductwork	Lift up ceiling tiles in the hatches area on drawing				Max Fordham to review on site
T22	Opening up work	Ceiling	> to identify existing ventilation system					Max Fordham to review on site
T23	Measuing Levels	Substation	> to accurately take datum levels of substation and staff entrance					
T24	Opening up work	Ceiling	>To identify accurate positions and dimensions of high level services and structure > to take full photographic record > to prevent potential clash between structure and services	See hatched area on drawing				Max Fordham and BuroHappold to review on site
T25	Opening up work	Ceiling	>To identify accurate positions and dimensions of high level services and structure > to take full photographic record > to prevent potential clash between structure and services	See hatched area on drawing				Max Fordham and BuroHappold to review on site
T27	as above	Drain	> To itendify the depth of dainage channel to avoid clash when moving services		Reinstate as existing			All to review on site
T28	Opening up work	Window	> To identify the extent and condition of the existing windows		Make good surroundings and paint as necessary			
T29	Opening up work	Wall	> To identify build-up of existing wall	approx. 600x300	Reinstate as existing			
T30	Opening up work	Wall	> To identify build-up of existing wall	approx. 600x300	Reinstate as existing			
T31	Opening up work	Wall	> To confirm this is a masonry wall	approx. 600x300	Reinstate as existing			
T32	Opening up work	Ceiling	> To identify build-up of existing floor build up	approx. 500x500	Reinstate as existing			
T33	Opening up work	Floor	> To identify build up of existing floors - and junction detail of terrazzo floor and granite floor		Reinstate as existing			
T34	Opening up work	Floor	> To identify build up of existing terrazzo floor		Reinstate as existing			
T35	Investigation of existing services	Riser	> to identify existing ventilation system		Reinstate as existing			Max Fordham to confirm any opening up works required
T36	Strucutral Roof investigation to roof in proposed plant area	Roof levels details TBC	Investigation pending confirmation of new and old roof plant loads	TBC	TBC			Max Fordham to confirm additional plant loading on the existing roof

T39	Investigation of existing services	Room	> To enable MEP to finalise details of services alterations to facilitate structural interventions.		Reinstate as existing				Max Fordham and BuroHappold to review on site
T40	Investigation of existing services	Room	> To enable MEP to finalise services alterations to facilitate new layouts.		Reinstate as existing				Max Fordham to review mezzanine GM.07 as well as the shop store GM.08
T41	Investigation of existing services	Room	> To identify existing environmental control systems						
T42	Investigation of existing services	Room	> To identify existing security arrangements						
T43	Investigation of existing services	Room	> To identify existing security arrangements						
T44	Investigation of existing ceiling and services	Ceiling	> To identify any redundant grilles which can be removed and take datum levels of existing ceilings		Reinstate as existing				Max Fordham and Purcell to review on site
T45	Measuing Levels	External	> to accurately take datum levels of existing retaining walls at Coupland Street level						
T46	Investigation of existing drainage and measuring levels	External	> to accurately take datum levels of drainage and paving levels						
T47	Measuring the depth of existing services	External	>to accurately identify the depth of existing services		Reinstate as existing				All to review on site
T48	Survey of the existing RWPs and stone collar locatios & sizes	External	>to accurately identify potential clash with the new building						Safe access requried in the moat
CCTV									
C1	CCTV of drainage	Existing drainage	> Confirm condition, route and diameter of existing drainage	n/a	n/a				
C2	CCTV of drainage	Existing drainage	> to identify live and redundant services	See hatched area on drawing					

Notes

General:

a. Due to the historically sensitive nature of the building, listed building consents will be required prior to carrying out the investigations.

b. Final location to be determined on site and agreed with Engineer. Locations to be fully coordinated with GI

c. Sizes given are indicative only

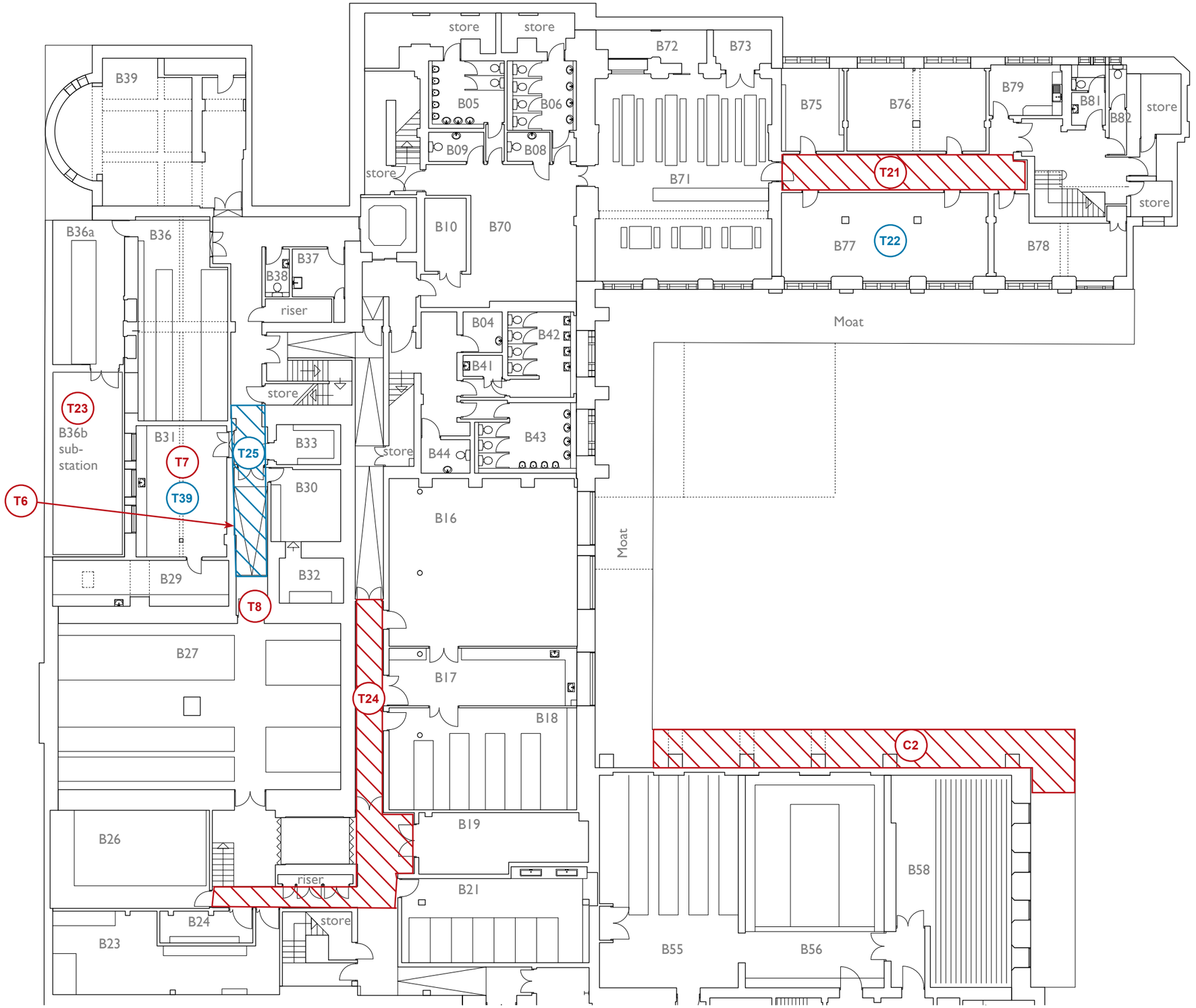
d. Brick samples collected are to be of sufficient size to establish representative characteristic compressive strength

e. Reinstatement required will depend on when and how the investigation is carried out

f. Samples from each material that make up the foundation to be collected and tested

g. Works shaded in blue have been requested to UoM PSU separately by Max Fordham.

* Reinstatement may not be required in the areas where further works will take place however LBC and H&S requirements will take precedent over this.



1/109 Basement Plan Intrusive Survey
NTS

Notes:

Drawings are based on survey data and may not accurately represent what is physically present.

Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.

All dimensions are in millimeters unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

Key Plan
not to scale

Room Key

B04	Baby change
B05	Boys WC
B06	Girls WC
B08	Girls Acc. WC
B09	Boys Acc. WC
B10	Lift Machinery
B16	Mineral store
B17	Store
B18	Rock store
B19	Store
B21	Store
B23	Plant room
B24	Elec. Cupd.
B26	Store
B27	Fossil store
B29	House service store
B30	Store
B31	Store
B32	Store
B33	Weapon store
B36	Vertebrate store
B36a	Switch room
B36b	Substation
B37	Cleaner Store
B38	WC
B39	Store
B41	Cleaner
B42	Female WC
B43	Male WC
B44	Acc. WC
B55	Store
B56	Store
B58	Weapon store
B70	Cloakroom
B71	Picnic area
B72	Switch room
B73	Server room
B75	Store
B76	Classroom
B77	The LAB
B78	Store
B79	Kitchen
B81	Female WC
B82	Male WC
B94	Male WC
B95	Female WC
B96	Acc. WC

0 2 m 4 m 6 m 8 m 10 m 20 m

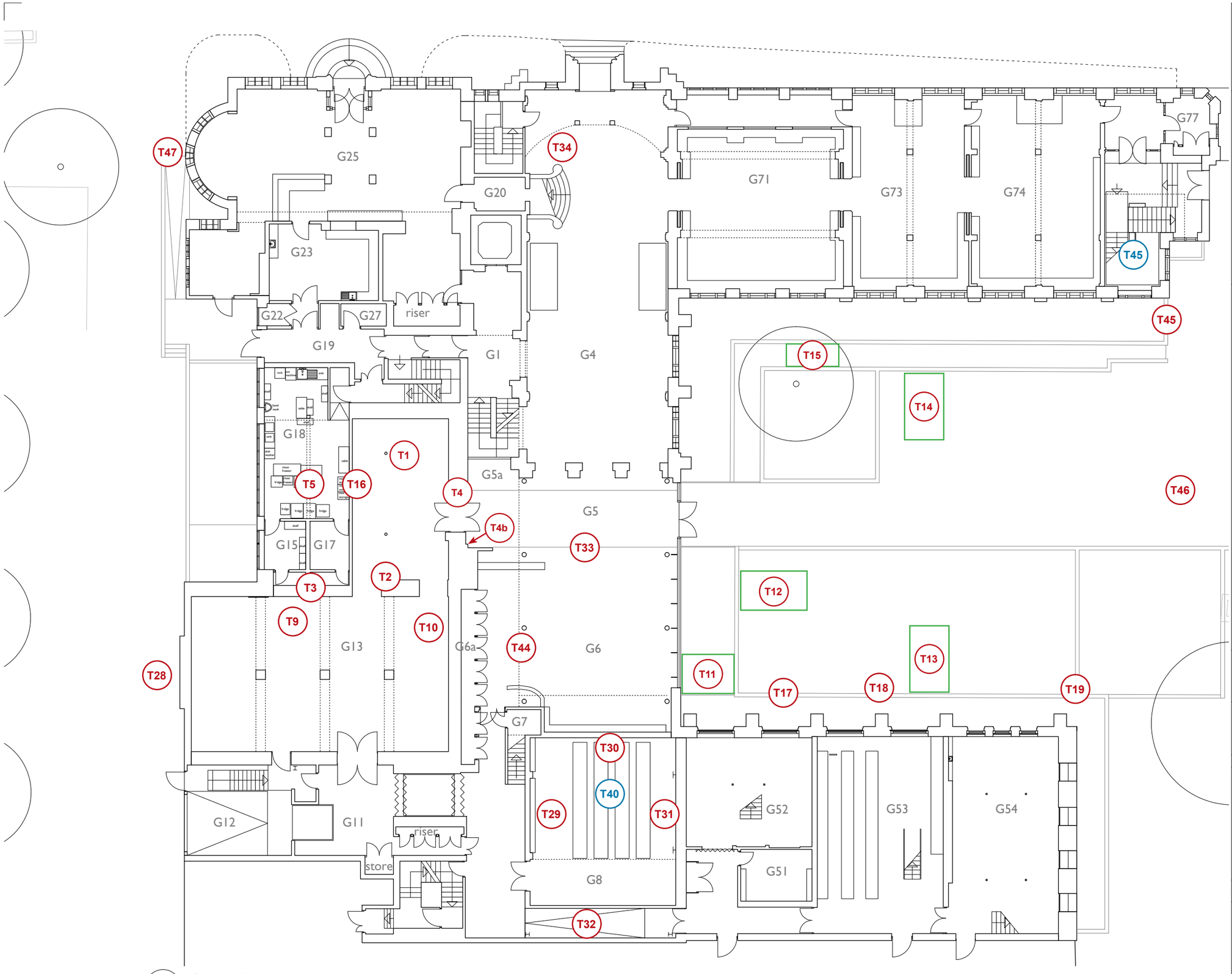
First Issue

ISSUE	DATE	DRAWN	CHECKED	DESCRIPTION

CLIENT	University of Manchester
PROJECT	Manchester Museum Courtyard
DRAWING TITLE	6137-PUR-MMC-B-DR-A-0109a Basement Plan Intrusive Survey
SIZE & SCALE	A1L NTS
DRAWING STATUS	WORK IN PROGRESS
JOB NUMBER	237010
DRAWING NO.	109a
REVISION	-

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1/110 Ground Floor Intrusive Investigation
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Key Plan
not to scale

Room Key

G1 Lift Lobby
G4 Museum
G5 Entrance
G5a Pram Store
G6 Shop
G6a Riser
G7 Store
G8 Store
G11 Loading Area
G12 Loading Area
G13 Temporary Exhibition Gallery
G15 Dry Store
G17 Staff changing room
G18 Kitchen prep.
G19 Staff Corridor
G20 Store
G22 Fridge
G23 Kitchen
G25 Cafe
G27 Services
G51 Store
G52 Egyptology Store
G53 Egyptology Stone Store
G54 Egyptian Store
G71 Museum
G73 Museum
G74 Museum
G77 First Aid room
G92 Gallery
G93 Cleaners Store
G95 Gallery

GM03 Mezzanine
GM07 Shop store
GM08 Store
GM08a Store

0 2 m 4 m 6 m 8 m 10 m 20 m

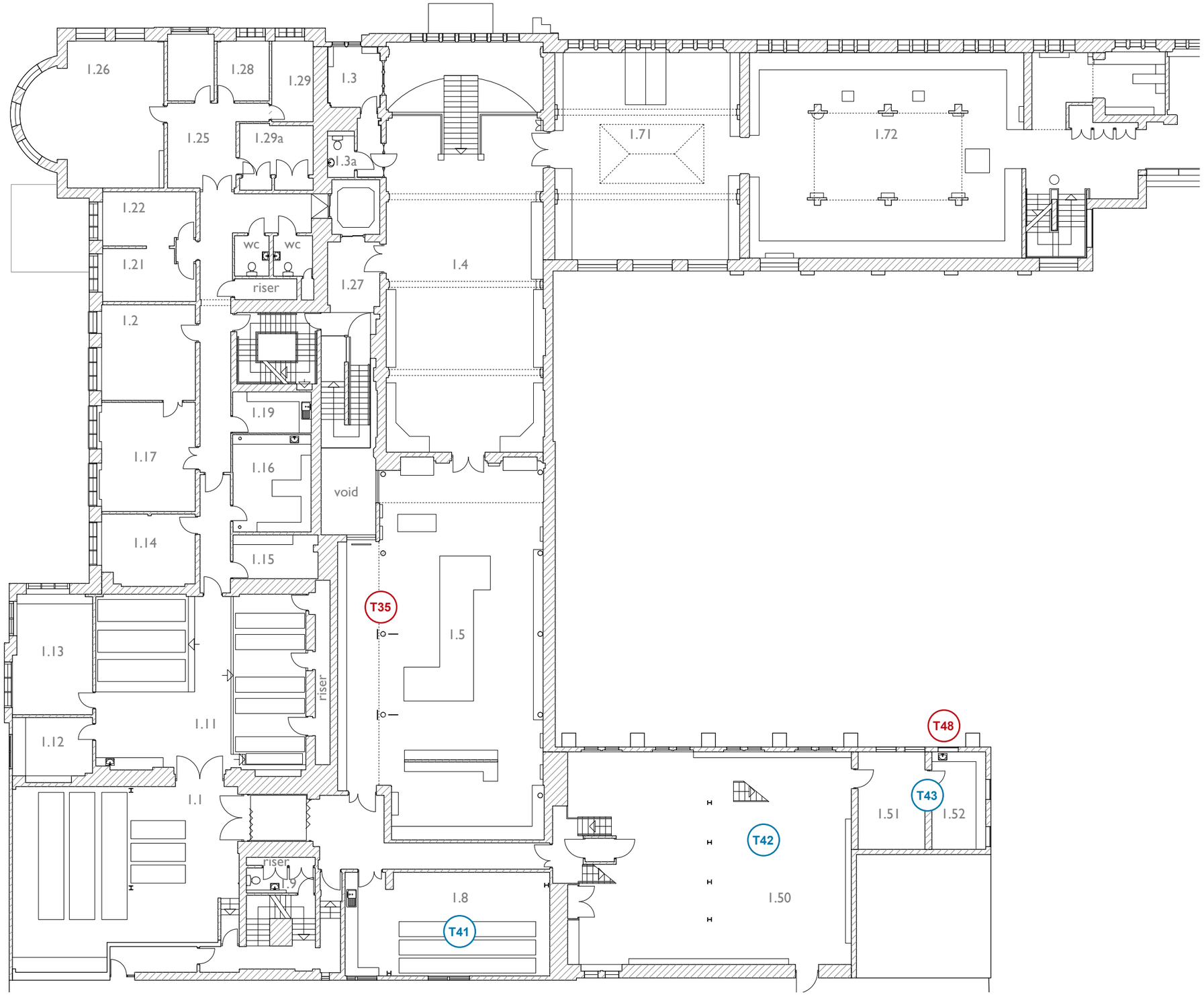
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SIZE & SCALE	A1L NTS
DRAWING STATUS	WORK IN PROGRESS
JOB NUMBER	237010
DRAWING NO.	110
REVISION	-

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1/111 First Floor Intrusive Investigation
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Key Plan
not to scale

Room Key

1.1 Zoology collections store
1.2 Office
1.27 Lift Lobby
1.3 Office
1.3a WC
1.4 Living World Gallery
1.5 Living Cultures Gallery
1.8 Archery store
1.9 Female WC
1.11 Natural sciences store
1.12 Office
1.13 Office
1.14 Office
1.15 Store
1.16 Store
1.17 Office
1.19 Kitchen
1.21 Office
1.22 Office
1.25 Office ancillary
1.26 Office
1.27 Office
1.28 Office
1.29 Cafe dry store
1.29a Events AV store
1.50 Entomology store
1.51 Office
1.52 Office
1.71 Ancient Egypt public gallery
1.72 Ancient Egypt public gallery
1.74 Bridge
1.75 Gallery
1.92 The Cell
1.93 Mammal gallery
1.94 Acc. WC

1M.1 Archive store
1M.5 Entomology store
1M.51 Office
1M.52 Office

0 2 m 4 m 6 m 8 m 10 m 20 m

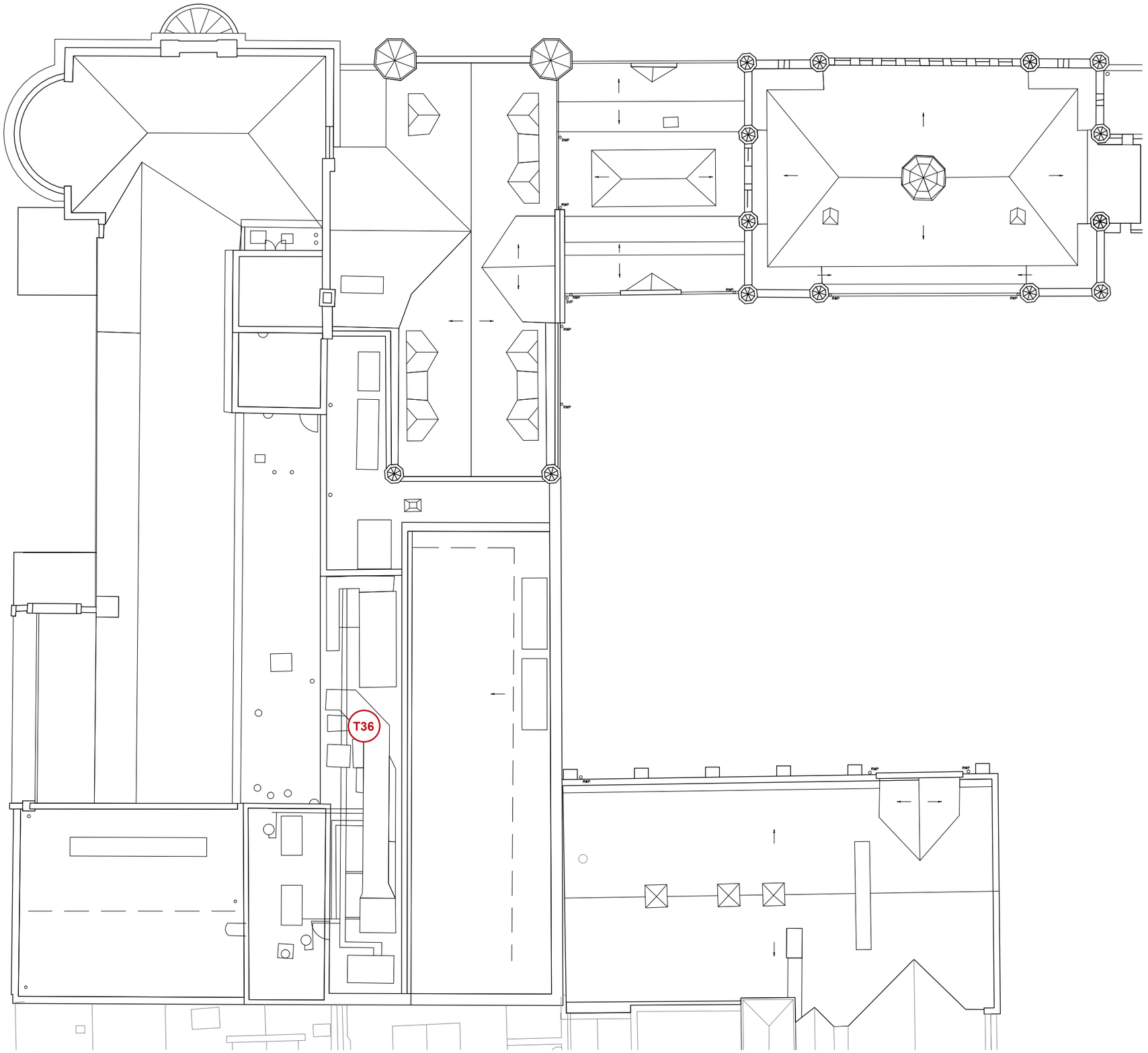
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SIZE & SCALE	A1L NTS
DRAWING STATUS	WORK IN PROGRESS
JOB NUMBER	237010
DRAWING NO.	111a
REVISION	-

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1 / 118 **Roof Intrusive Investigation**
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Key Plan
not to scale



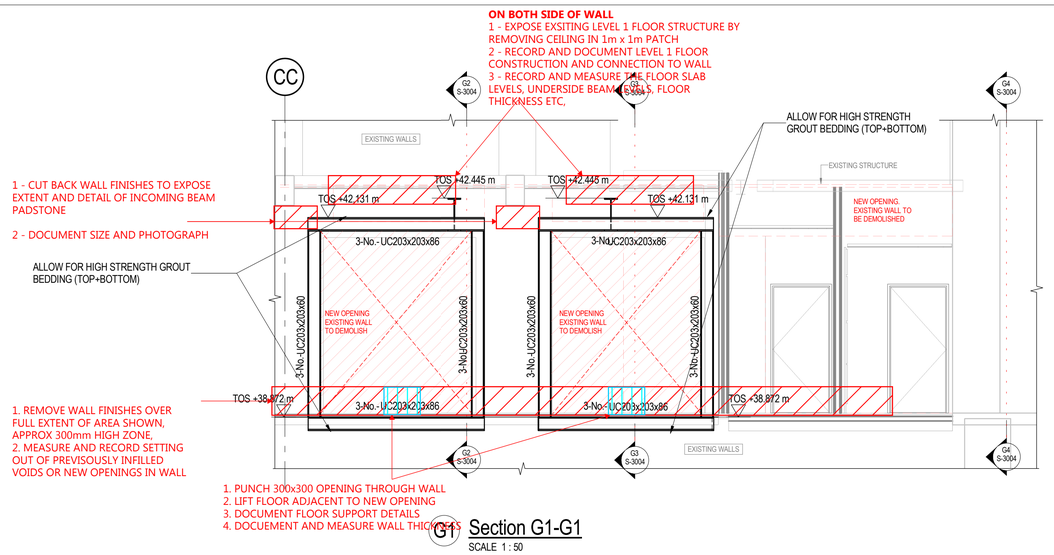
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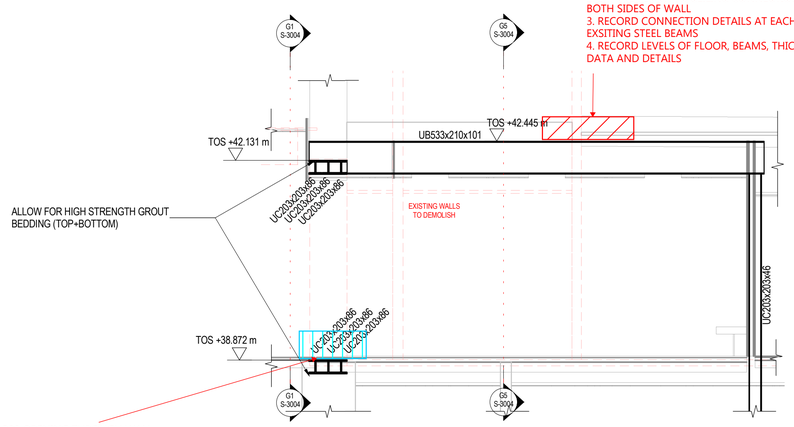
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PROJECT	Manchester Museum Courtyard
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DRAWING NO.	118a
REVISION	-

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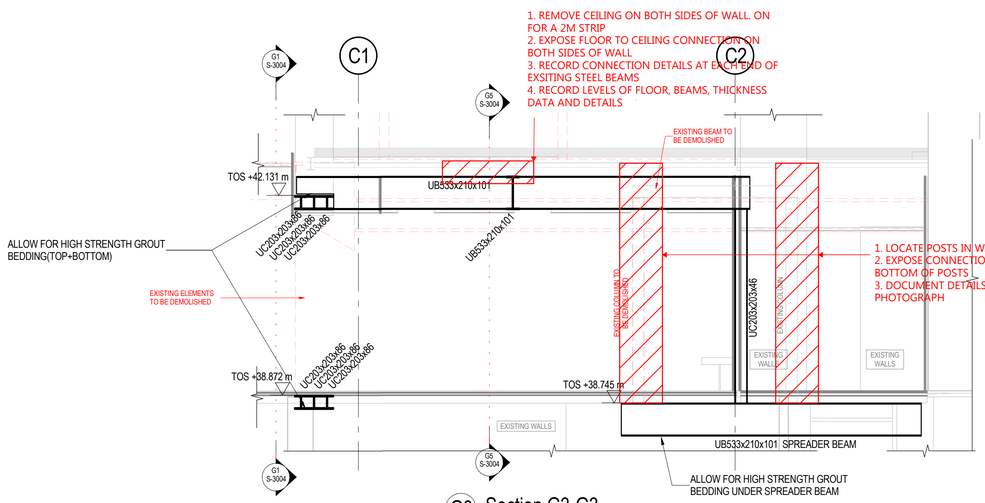
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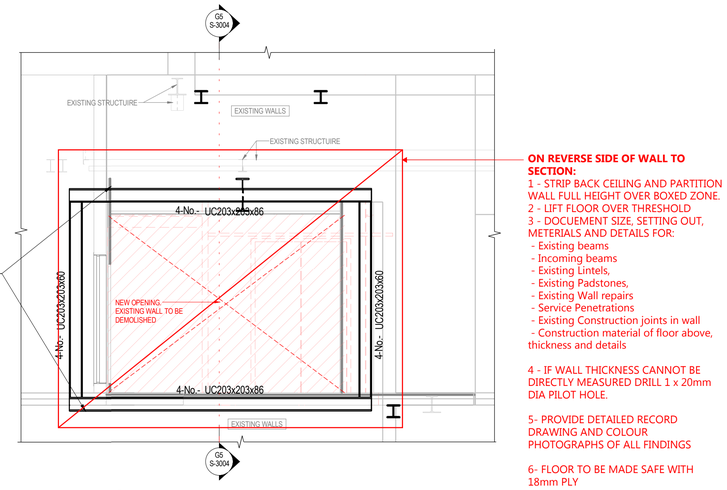
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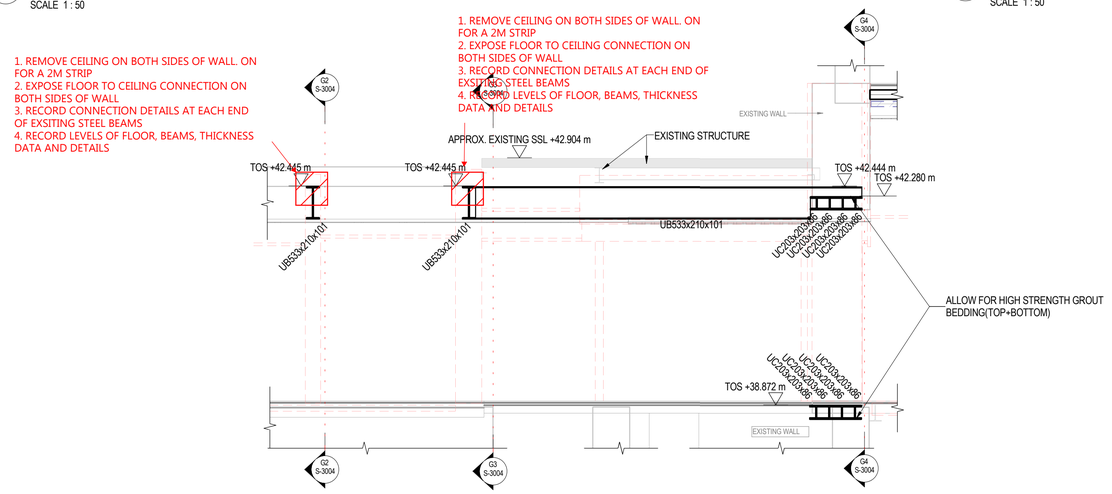
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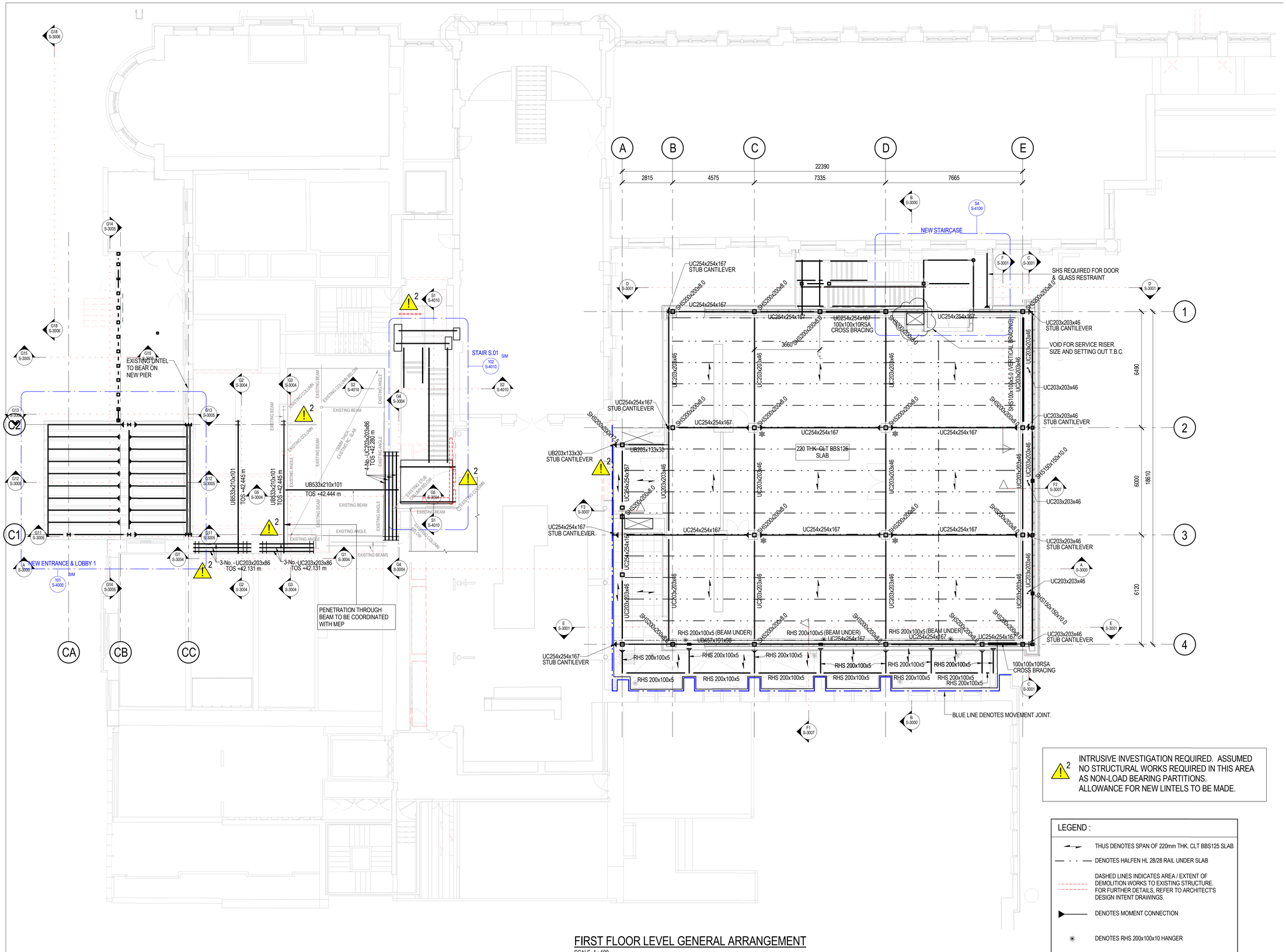
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SCALE 1 : 50



G4 Section G4-G4
SCALE 1 : 50



G5 Section G5-G5
SCALE 1 : 50



FIRST FLOOR LEVEL GENERAL ARRANGEMENT

SCALE 1 : 100

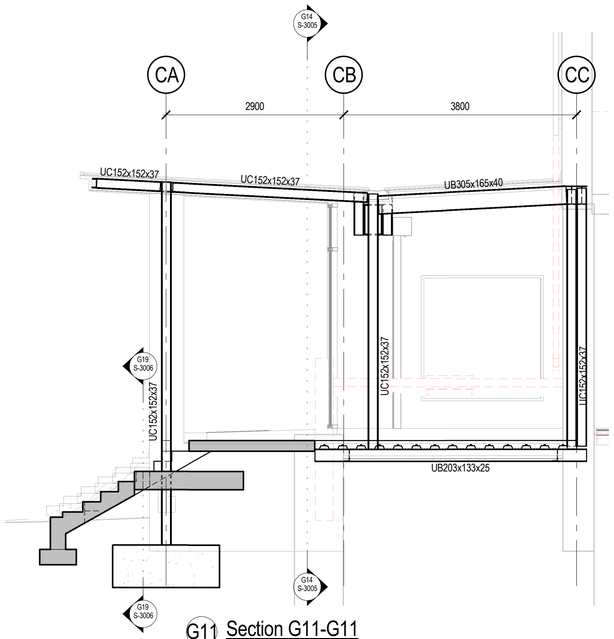
2 INTRUSIVE INVESTIGATION REQUIRED. ASSUMED NO STRUCTURAL WORKS REQUIRED IN THIS AREA AS NON-LOAD BEARING PARTITIONS. ALLOWANCE FOR NEW LINTELS TO BE MADE.

LEGEND :

- THUS DENOTES SPAN OF 220mm THK. CLT BBS125 SLAB
- DENOTES HALFEN HL 28/28 RAIL UNDER SLAB
- DASHED LINES INDICATES AREA / EXTENT OF DEMOLITION WORKS TO EXISTING STRUCTURE. FOR FURTHER DETAILS, REFER TO ARCHITECT'S DESIGN INTENT DRAWINGS.
- DENOTES MOMENT CONNECTION
- DENOTES RHS 200x100x10 HANGER
- ALLOW FOR CLEAT TO COLUMN

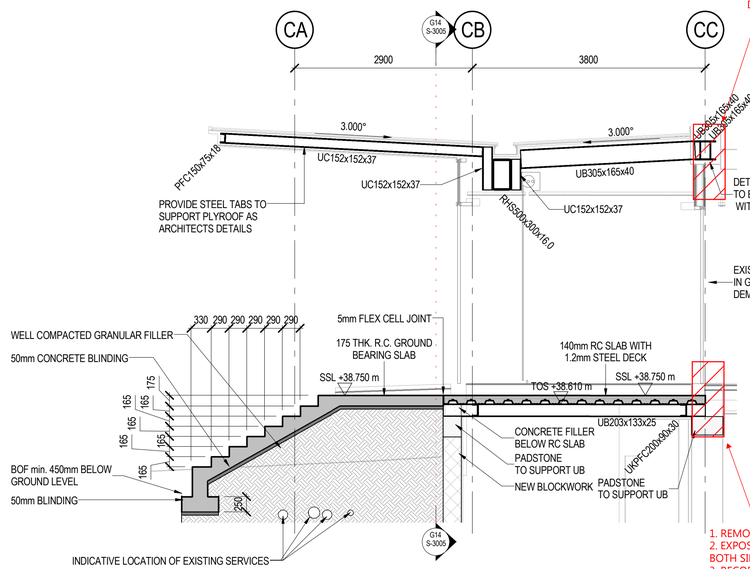
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SCALE 1:100



G11 Section G11-G11

SCALE 1 : 50

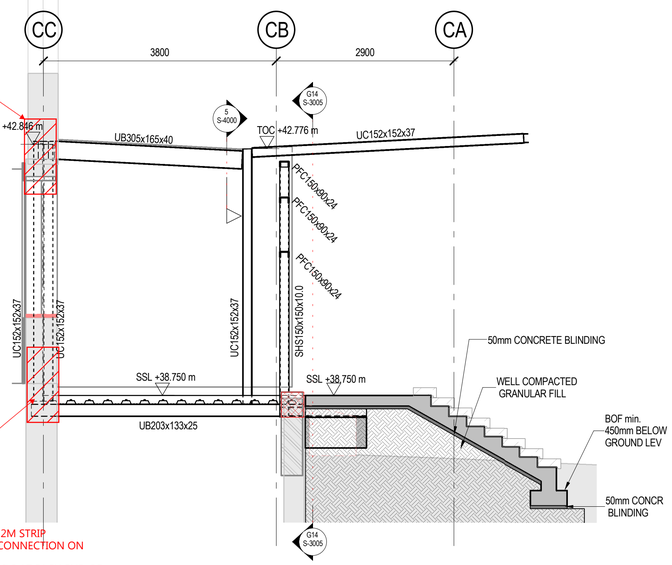


Section G12-G12

SCALE 1 : 50

1. REMOVE CEILING ON FOR A 2M STRIP
2. EXPOSE FLOOR TO CEILING CONNECTION ON BOTH SIDES OF WALL
3. RECORD CONNECTION DETAILS AT EACH END OF EXSITING STEEL BEAMS
4. RECORD LEVELS OF FLOOR, BEAMS, THICKNESS DATA AND DETAILS

1. REMOVE CEILING ON FOR A 2M STRIP
2. EXPOSE FLOOR TO CEILING CONNECTION ON BOTH SIDES OF WALL
3. RECORD CONNECTION DETAILS AT EACH END OF EXSITING STEEL BEAMS
4. RECORD LEVELS OF FLOOR, BEAMS, THICKNESS DATA AND DETAILS



Section G13-G13

SCALE 1 : 50