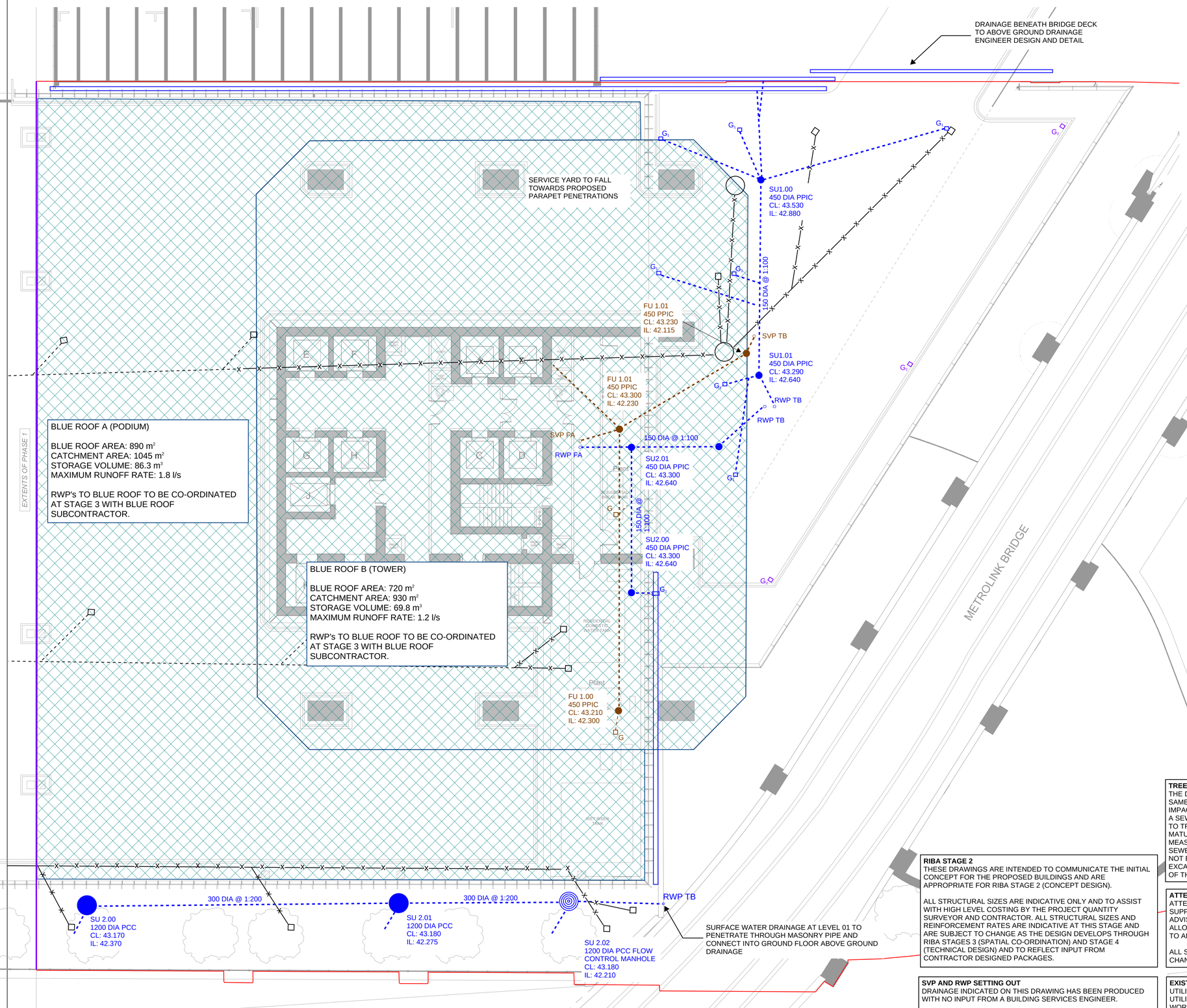


DRAWING LEGEND

- INDICATIVE PRIVATELY DRAINED AREA
- INTERFACE BOUNDARY BETWEEN PHASE 1 AND 2 AT GROUND FLOOR LEVEL
- PROPOSED SURFACE WATER DRAINAGE NETWORK
- PROPOSED FOUL WATER DRAINAGE NETWORK
- PROPOSED COMBINED WATER DRAINAGE NETWORK
- EXISTING UNITED UTILITIES WATER COMBINED SEWER
- APPROXIMATE EXTENT OF BLUE ROOF ABOVE
- G_1 SURFACE WATER GULLY (CONNECTION INTO BELOW GROUND DRAINAGE NETWORK)
- G_2 INDICATIVE ABOVE GROUND SURFACE WATER GULLY - REQUIREMENTS AND LOCATION TO BE CONFIRMED BY BUILDING SERVICES ENGINEER
- EXISTING SERVICE YARD DRAINAGE TO BE GRUBBED UP
- EXISTING SERVICE YARD DRAINAGE TO BE RETAINED

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RENAISSANCE, ARCHITECTS, LANDSCAPE ARCHITECTS AND BUILDING SERVICES ENGINEERS DRAWINGS.
2. THE FINAL CONNECTION TO THE PUBLIC SEWER IS SUBJECT TO UNITED UTILITIES APPROVAL AND IS TO BE IN ACCORDANCE WITH THEIR AGREED DETAILS.
3. FOR ALL ABOVE GROUND DRAINAGE AND ASSOCIATED PUMPS REFER TO BUILDING SERVICES AND ARCHITECT'S DRAWINGS
4. ALL BELOW GROUND DRAINAGE WORKS TO BE IN ACCORDANCE WITH RELEVANT BUILDING REGULATIONS AND SEWER SECTOR GUIDANCE APPENDIX C- DESIGN AND CONSTRUCTION GUIDANCE. IF DISCREPANCIES ARE NOTED BETWEEN SSG AND DRAWINGS THESE SHOULD BE BROUGHT TO THE ATTENTION OF RENAISSANCE FOR REVIEW.
5. RWPs, SVPs, SSs AND FLOOR GULLEYS ARE TO HAVE RODDABLE ACCESS POINTS ABOVE GROUND FLOOR TO BUILDING SERVICES DETAILS. ALL FLOOR GULLEYS AND RWP'S ARE TO BE TRAPPED.
6. ALL GULLY AND CHANNEL DRAIN LOCATIONS INDICATIVE.REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR SETTING OUT AND SPECIFICATION.
7. THE ATTENUATION TANK AND FLOW CONTROL ARE TO BE TO SUPPLIERS DESIGN AND DETAILS. INSTALLATION IS TO BE IN ACCORDANCE WITH THE SUPPLIERS REQUIREMENTS.
8. SEWERS TO BE LAID IN CLASS S BEDDING (150mm GRANULAR BED AND SURROUND). WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN; 1.2m IN HIGHWAYS OR VERGES, OR LESS THAN 0.9m IN PEDESTRIAN AREAS, THEN A 150mm CONCRETE SLAB SHOULD BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND. REFER TO DETAILS SHEETS.
9. THE CONTRACTOR IS TO UNDERTAKE A FULL CCTV SURVEY AT COMPLETION OF THE PROJECT TO DEMONSTRATE THAT THE DRAINAGE IS CLEAN. ANY DEFECTS ARE TO BE CORRECTED BY THE CONTRACTOR PRIOR TO HANDOVER OF THE SYSTEM TO THE CLIENT.
10. THE CONTRACTOR IS TO KEEP A RECORD SET OF THE AS INSTALLED DRAINAGE ON SITE AND PROVIDE THIS TO RENAISSANCE UPON COMPLETION OF THE WORKS TO ALLOW FOR PRODUCTION OF A 'FINAL CONSTRUCTION' ISSUE DRAWING.
11. DURING THE WORKS ALTERATIONS TO THE DRAINAGE LAYOUT ARE TO BE MARKED UP BY THE CONTRACTOR AND AGREED WITH RENAISSANCE IN WRITING.
12. THE CHAMBER SIZE OF PCC MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
13. MANHOLE COVERS ARE TO BE ACCORDANCE WITH BS EN 124 FOR THE RATING INDICATED IN THE MANHOLE SCHEDULE. THE CONTRACTOR IS TO SUBMIT DETAILS FOR THE PROPOSED MANHOLE COVERS TO THE ENGINEER AND LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
14. COVER SLABS MUST CARRY THE BSI KITEMARK. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING REDUCING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO REQUIRED SIZE.
15. ALL SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01)
16. ALL CONCRETE PIPES TO BE TO ES EN 1916 CLASS 120 (54kN/m).
17. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2).
18. IF PLASTIC PIPES ARE TO BE USED THEN THE FOLLOWING MUST APPLY:
    A. BSI KITEMARK (CERTIFIED TO BS EN 13476-1 AND WIS 4-35-01)
    B. PIPES LESS THAN OR EQUAL TO 500mm DIA
    C. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE
    D. REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2)
19. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m.
20. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE -(CLASS 120 TO EN 1916/BS5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
21. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVIDING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
    20.SEWER PIPES TO BE LAID IN MAXIMUM 3 METER LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER PIPES, AND THIS IS AGREED BY THE CONTRACTOR WITH THE PIPE MANUFACTURER.
20. ALLOW FOR ALL EXISTING DRAINAGE ON SITE TO BE GRUBBED UP AND BACKFILLED. ANY CONNECTIONS FROM THE SITE TO THE PUBLIC SEWER TO THE SITE ARE TO BE CAPPED AND GROUTED.

PROTECTIVE COVER SLAB
ALLOW FOR PROTECTIVE CONCRETE COVER SLAB OVER ANY DRAINAGE BENEATH TRAFFICKED AREAS WITH LESS THAN 1200mm COVER.

RIBA STAGE 2
THESE DRAWINGS ARE INTENDED TO COMMUNICATE THE INITIAL CONCEPT FOR THE PROPOSED BUILDINGS AND ARE APPROPRIATE FOR RIBA STAGE 2 (CONCEPT DESIGN).

ALL STRUCTURAL SIZES ARE INDICATIVE ONLY AND TO ASSIST WITH HIGH LEVEL COSTING BY THE PROJECT QUANTITY SURVEYOR AND CONTRACTOR. ALL STRUCTURAL SIZES AND REINFORCEMENT RATES ARE INDICATIVE AT THIS STAGE AND ARE SUBJECT TO CHANGE AS THE DESIGN DEVELOPS THROUGH RIBA STAGES 3 (SPATIAL CO-ORDINATION) AND STAGE 4 (TECHNICAL DESIGN) AND TO REFLECT INPUT FROM CONTRACTOR DESIGNED PACKAGES.

SVP AND RWP SETTING OUT
DRAINAGE INDICATED ON THIS DRAWING HAS BEEN PRODUCED WITH NO INPUT FROM A BUILDING SERVICES ENGINEER.

SVP AND RWP LOCATIONS ARE TO BE SET OUT AT STAGE 3

ALL CONNECTIONS BETWEEN ABOVE GROUND AND BELOW GROUND DRAINAGE TO BE SIZED TO SUIT ABOVE GROUND DRAINAGE

TREES
THE DESIGN OF LANDSCAPING SHOULD BE UNDERTAKEN AT THE SAME TIME AS THE DESIGN OF THE DRAINAGE SO THAT THE IMPACT OF TREE ROOTS ON THE DRAINAGE CAN BE CONSIDERED. A SEWER OR LATERAL DRAIN SHOULD NOT BE LOCATED CLOSER TO TREES/BUSHES/SHRUBS THAN THE CANOPY WIDTH AT MATURE HEIGHT, EXCEPT WHERE SPECIAL PROTECTION MEASURES PROVIDED, IN ACCORDANCE WITH B7.6 OF THE SEWERAGE SECTOR GUIDANCE APPENDIX C. A TREE SHOULD NOT BE PLANTED DIRECTLY OVER A SEWER OR WHERE THE EXCAVATION ONTO THE SEWER WOULD REQUIRE THE REMOVAL OF THE TREE.

ATTENUATION TANK
ATTENUATION TANK TO BE DESIGNED FOR SUITABLE LOADING. SUPPLIERS TO UNDERTAKE DETAILED BUOYANCY CHECK AND ADVISE ON ANY TIE DOWN DETAILS.
ALLOW FOR VENT PIPE AND INSPECTION CHAMBERS. SUPPLIER TO ADVISE PRIOR TO STAGE 4

ALL STORAGE VOLUMES ARE INDICATVIE ONLY AND SUBJECT TO CHANGE AS THE DESIGN PROGRESSES.

EXISTING SERVICES
UTILITY SCAN INDICATES BURIED SERVICES BENEATH THE SITE. UTILITY SCAN TO BE REVIEWED PRIOR TO ANY EXCAVATION WORKS.

COVER LEVELS
LANDSCAPE ARCHITECT TO VALIDATE COVER LEVELS IN ALL EXTERNAL AREAS. ARCHITECT TO VALIDATE COVER LEVELS IN ALL INTERNAL AREAS.

Rev:	Description:	Date:	By:	Chkd:
P01	ISSUED FOR PLANNING	08.11.24	HW	KG

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Project:
VIADUX PHASE 2, MANCHESTER

Drawing Title:
BLOCK C, D & E - LEVEL 01 BELOW GROUND DRAINAGE PLAN

Status:
RIBA STAGE 2

Size:	Date:	Drawn by:	Designed by:	Checked by:
A1	NOV 24	HW	--	KG

Scale: 1:125 | Project No: 2209-01

Project: Originator: Volume: Level: Type: Role: Category/Number: Rev:

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