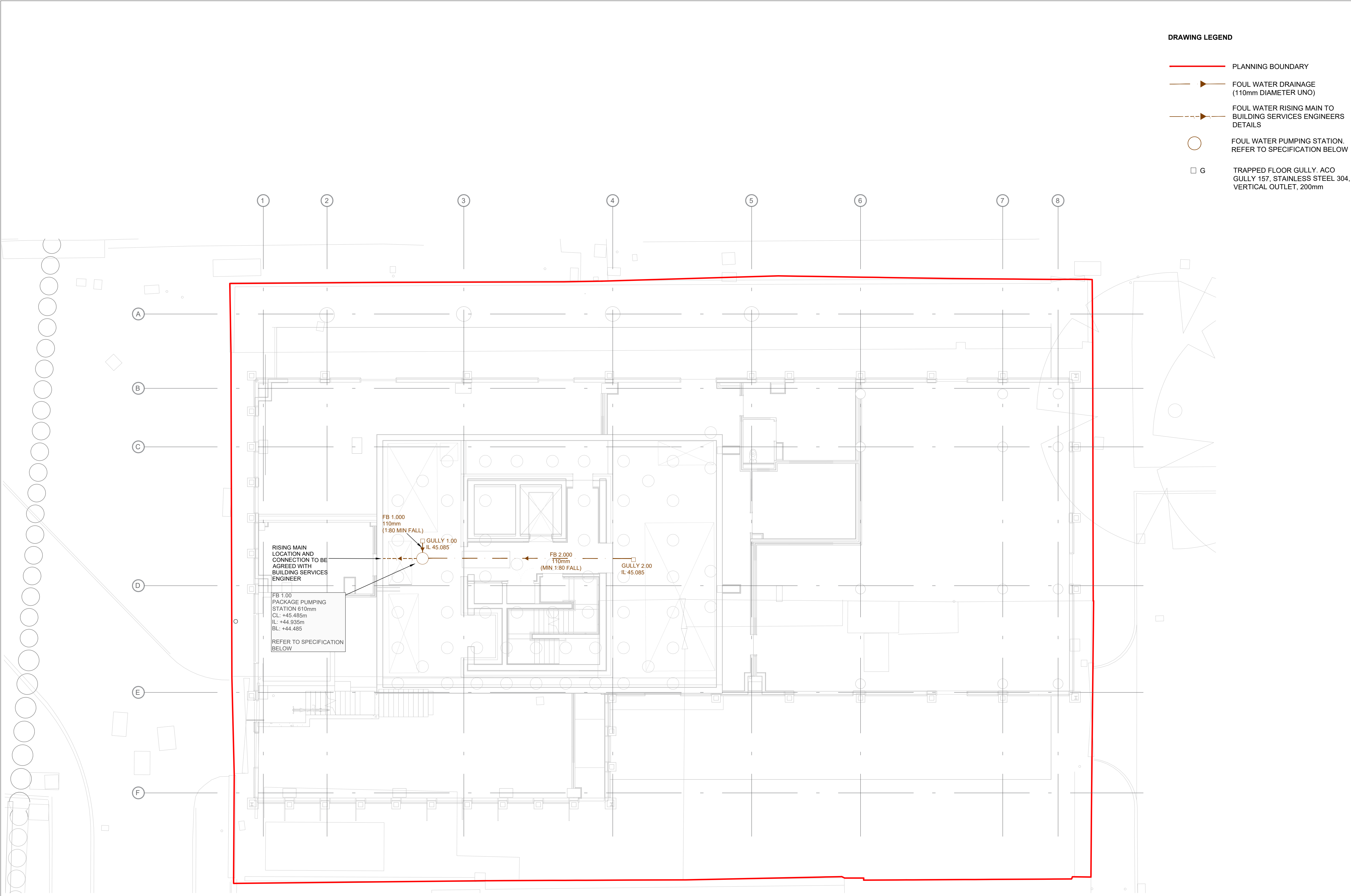




- DRAWING LEGEND**
- PLANNING BOUNDARY
 - FOUL WATER DRAINAGE (110mm DIAMETER UNO)
 - FOUL WATER RISING MAIN TO BUILDING SERVICES ENGINEERS DETAILS
 - FOUL WATER PUMPING STATION. REFER TO SPECIFICATION BELOW
 - G TRAPPED FLOOR GULLY. ACO GULLY 157, STAINLESS STEEL 304, VERTICAL OUTLET, 200mm

- NOTES:**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RENAISSANCE, ARCHITECTS, LANDSCAPE ARCHITECTS AND BUILDING SERVICES ENGINEERS DRAWINGS.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE BELOW GROUND DRAINAGE SPECIFICATION SP-C-00050 AND DETAILS SHOWN ON DRAWING SERIES C-03100.
 - FOR ALL ABOVE GROUND DRAINAGE AND ASSOCIATED PUMPS REFER TO BUILDING SERVICES AND ARCHITECT'S DRAWINGS.
 - 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.
 - RWPs, SVPs, SSs, FLOOR GULLEYS & CHANNEL DRAINS ARE TO HAVE RODDABLE ACCESS POINTS ABOVE GROUND FLOOR TO BUILDING SERVICES DETAILS.
 - 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.
 - 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.
 - DURING THE WORKS, ALTERATIONS TO THE DRAINAGE LAYOUT ARE TO BE MARKED UP BY THE CONTRACTOR AND AGREED WITH RENAISSANCE IN WRITING.
 - MANHOLE COVERS ARE TO BE IN 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.
 - ALL INTERNAL COVERS TO BE RECESSED AND TRIPLE SEALED
 - 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.
 - ALL SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01)
 - ALL CONCRETE PIPES TO BE TO ES EN 1916 CLASS 120 (54kN/m).
 - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2).
 - 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 REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2)
 - 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.
 - 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.
 - SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVIDING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 - 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.
 - RAINWATER PIPE LOCATIONS ARE INDICATIVE AND SUBJECT TO CONFIRMATION FROM ARCHITECT/ BUILDING SERVICES ENGINEER. THIS MAY IMPACT PIPE SIZES SUBJECT TO LOCATIONS.
 - ALL CHANNEL LOCATIONS, MANHOLE AND DRAINAGE LOCATIONS SUBJECT TO RECEIPT OF CONFIRMATION OF FLOW RATE / DISCHARGE UNITS BY BUILDING SERVICES ENGINEER.
 - ALL BELOW GROUND SYTEMS ARE TO BE VENTED WITHIN THE ABOVE GROUND DRAINAGE TO THE BUILDING SERVICES ENGINEERS DETAILS.

SVP & RWP SETTING OUT
SVP, RWP AND GULLY LOCATIONS ARE INDICATIVE FOR DETAILED SETTING OUT REFER TO ARCHITECT'S BUILDING SERVICES ENGINEERS DRAWINGS. ALL CAPILLARY DRAINAGE IS IN ABEYANCE UNTIL SETTING OUT OF ALL SVPs. STACKS AND RWPs IS CONFIRMED BY THE ARCHITECT AND BUILDING SERVICES ENGINEER
ALL CONNECTIONS BETWEEN ABOVE GROUND DRAINAGE AND BELOW GROUND DRAINAGE TO BE SIZED TO SUIT ABOVE GROUND DRAINAGE.

FOUL WATER PUMPING STATION SPECIFICATION
292 LITRE SINGLE SEWAGE PUMPING STATION
CHAMBER SIZE: 610mm x 1000mm HDPE
COVER: ECOGRID ALUMINIUM TRIPLE-SEAL RECESS MANHOLE COVER - 600 x 600 x 41mm
RISING MAIN: 63mm MDPE CONNECTOR TO CONNECT TO DISCHARGE PIPEWORK. CONNECTION TO DISCHARGE PIPE TO BE TRAPPED TO ABOVE GROUND DRAINAGE DESIGNERS DETAILS
INLET: 2 NUMBER 110mm INLET SEAL
PUMP: DAB FEKA V5750 AUTO FOUL PUMP WITH ON PUMP OR SIMILAR APPROVED WITH INTEGRAL FLOAT
INTERNAL: 2" PIPEWORK AND FITTINGS INCLUDING BACKWATER VALVE
ALARM: TO BE INCLUDED

NOTE:
1. THERE MUST BE A MINIMUM OF 450MM BELOW THE BOTTOM OF THE INLET PIPE TO THE BASE OF THE CHAMBER TO ALLOW FOR THE PUMP TO OPERATE.
2. INLETS TO BE CUT ON SITE AND SEALED
3. ALLOW FOR MAINTENANCE ACCESS OF PUMP STATION. REFER TO PUMP STATION MAINTENANCE REQUIREMENTS.

FOUL WATER PUMPING STATION
FOUL WATER PUMPING STATION TO SPECIALIST SUPPLIERS DESIGN AND DETAIL. ALARM TO BE PROVIDED. CONTRACTOR TO AGREE MAINTENANCE REQUIREMENTS WITH PUMPING STATION SUPPLIER.
RISING MAIN LENGTH TO BE CONFIRMED ON SITE. CONNECTION OF RISING MAIN INTO ABOVE GROUND DRAINAGE TO BUILDING SERVICES ENGINEERS DETAILS
POWER SUPPLY TO BUILDING SERVICES DETAILS. VENT PIPE AND ALARM LOCATION TO BE SPECIFIED BY ARCHITECT.
ELECTRICAL FEED TO ALARM TO BUILDING SERVICES DETAILS.

PRINCIPLES OF BASEMENT DRAINAGE DESIGN AND OPERATION
THE BELOW GROUND DRAINAGE INDICATED IS BASED UPON NORMAL OPERATION i.e. GENERAL CLEANING, WASHDOWN AND SPILLAGES ON THE BASEMENT FLOOR. HIGH CAPACITY FLOWS ARE NOT PERMITTED AS THESE WILL EXCEED THE PUMP CAPACITY AND RESULT IN FLOODING OF THE BASEMENT.
THE BUILDING MANAGERS ARE TO MANAGE AND OPERATE THE SPACES TO ENSURE THAT THE BASEMENT PUMP IS NOT OVERLOADED.

SPRINKLER TANK OPERATION AND DRAIN-DOWN
NO ALLOWANCE HAS BEEN MADE WITHIN THE DESIGN FOR THE BASEMENT FLOODING OR DRAIN-DOWN OF THE SPRINKLER TANK. WATER ASSOCIATED WITH EMPTYING OR TESTING OF THE SPRINKLER TANK IS TO BE MANAGED SEPARATELY AND IS NOT TO DISCHARGE INTO THE BASEMENT DRAINAGE. MANAGEMENT STRATEGY IS TO BE CONFIRMED BY
IF BUNDING IS REQUIRED AROUND THE SPRINKLER TANKS THE LOCATION AND EXTENT SHOULD BE ADVISED BY THE ARCHITECT AND BUILDING SERVICES ENGINEER AND ALLOWANCES MADE FOR A REINFORCED MASONRY BUND WALL.

BASEMENT DRAINAGE CONCRETE ENCASEMENT
ALLOW FOR ALL DRAINAGE, INCLUDING INSPECTION CHAMBERS, GULLIES AND PIPES TO BE CONCRETE ENCASED AND CAST INTO BASEMENT SLAB.

FOUL WATER MAHOLE SCHEDULE										
MH REF	CO-ORDINATES	COVER LEVEL (m AOD)	INVERT LEVEL (m AOD)	DEPTH (m)	PIPES IN	PIPES OUT	INTERNAL SIZE (mm)	MANHOLE TYPE	COVER	
									SIZE	RATING
F1.00	E: 385304.685 N: 398083.705	+45.485	+44.935	0.550	110 Ø 110 Ø	TO PUMP MANUFACTURERS DETAILS	610mm	PACKAGE PUMPING STATION	TO PUMP MANUFACTURERS DETAILS	TO PUMP MANUFACTURERS DETAILS

C02	MANHOLE SCHEDULE ADDED	07.06.22	HW	KG
C01	CONSTRUCTION ISSUE	03.05.22	HW	KG
Rev:	Description:	Date:	By:	Chkd:



Renaissance Associates Ltd
Carvers Warehouse
77 Dale Street
Manchester
M1 2HG

Project:

**VICTORIA HOUSE,
MANCHESTER**

Drawing Title:

**BASEMENT BELOW
GROUND DRAINAGE PLAN**

Status:

STAGE 5

Size:	Date:	Drawn by:	Designed by:	Checked by:
A1	JUN'22	HW	HW	KG

Scale:	1:100 @ A1	Project No:	2007-04				
Project:	Originator:	Volume:	Level:	Type:	Role:	Category/Number:	Rev:

VHM-REN-00-FN-DR-C-01090-C02