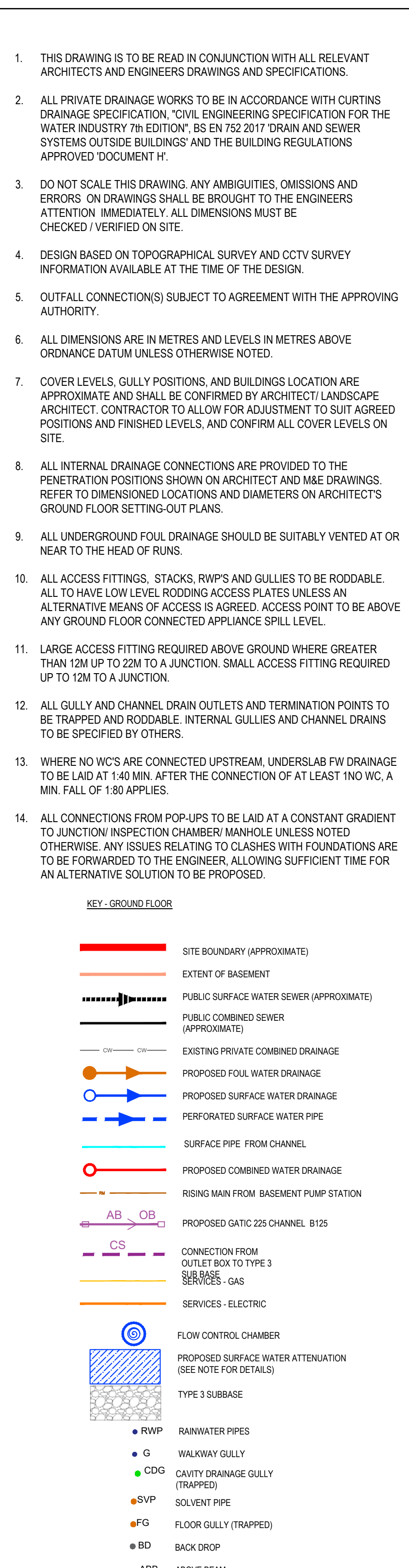
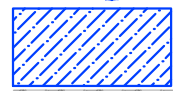
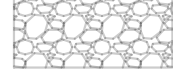
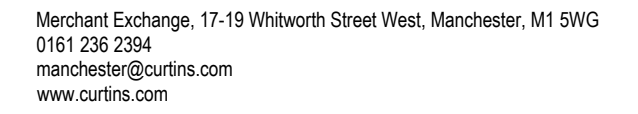




- ### KEY - GROUND FLOOR
- | | |
|---|---|
|  | SITE BOUNDARY (APPROXIMATE) |
|  | EXTENT OF BASEMENT |
|  | PUBLIC SURFACE WATER SEWER (APPROXIMATE) |
|  | PUBLIC COMBINED SEWER (APPROXIMATE) |
|  | EXISTING PRIVATE COMBINED DRAINAGE |
|  | PROPOSED FOUL WATER DRAINAGE |
|  | PROPOSED SURFACE WATER DRAINAGE |
|  | PERFORATED SURFACE WATER PIPE |
|  | SURFACE PIPE FROM CHANDEL |
|  | PROPOSED COMBINED WATER DRAINAGE |
|  | RIISING MAIN FROM BASEMENT PUMP STATION |
|  | PROPOSED GATIC 225 CHANDEL B125 |
|  | CONNECTION FROM OUTLET BOX TO TYPE 3 |
|  | SUB BASE SERVICES - GAS |
|  | SERVICES - ELECTRIC |
|  | FLOW CONTROL CHAMBER |
|  | PROPOSED SURFACE WATER ATTENUATION (SEE NOTE FOR DETAILS) |
|  | TYPE 3 SUBBASE |
|  | RAINWATER PIPES |
|  | WALKWAY GULLY |
|  | CAVITY DRAINAGE GULLY (TRAPPED) |
|  | SOLVENT PIPE |
|  | FLOOR GULLY (TRAPPED) |
|  | BACK DROP |
|  | ABOVE BEAM |
|  | BELOW BEAM |
|  | PROPOSED FOUNDATION |

15. INVERT LEVELS AT MANHOLES/ INSPECTION CHAMBERS TO BE USED TO SET OUT PIPEWORK. PIPE GRADIENTS ARE SHOWN INDICATIVELY ONLY.
16. ALL PIPE DIAMETERS GIVEN ARE NOMINAL. INTERNAL PIPE DIAMETERS.
17. ALL SEWERS, UNLESS AGREED OTHERWISE STALL, SHALL BE:
 - 100mm to 300mm DIA TO BE VITRIFIED CLAY.
 - 375mm DIA AND GREATER TO BE CLASS 120 CONCRETE PIPES.
19. AS AN ALTERNATIVE THE CONTRACTOR MAY USE AN APPROVED UNPLASTICISED POLYVINYL CHLORIDE (PVCU) WITH APPROVAL FROM THE ENGINEER.
20. SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.
21. THE FIRST PIPE OUT OF MANHOLES TO BE AS SHORT AS PRACTICABLE SO AS TO PROVIDE A FLEXIBLE JOINT AS CLOSE AS POSSIBLE TO THE OUTSIDE FACE OF THE CONCRETE SURROUND AND CONNECTED TO A LENGTH OF ROCKER PIPE.
22. ALL NEW CONNECTIONS INTO EXISTING MANHOLES (OR INTO EXISTING SEWERS) TO BE 'SOFFITS LEVEL' UNLESS OTHERWISE NOTED.
23. ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 600mm IN NON-TRAFFICKED AREAS AND LESS THAN 1200mm IN TRAFFICKED AREAS TO BE BEDDED AND SURROUNDED IN CONCRETE (CLASS 2). COMPRESSIBLE MATERIAL SHALL BE PROVIDED AT EVERY PIPE JOINT. WHERE COVER EXCEEDS THIS DEPTH, PIPES ARE TYPICALLY BEDDED AND SURROUNDED IN CLASS S. REFER TO PIPE EMBEDMENT DETAILS DRAWING FOR SPECIFIC TYPES.
24. WHERE DRAINAGE PIPES ARE LESS THAN 300mm BELOW THE UNDERSIDE OF THE GROUND FLOOR SLAB, CONCRETE ENCASEMENT IS REQUIRED (CLASS 2). COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE.
25. WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS S BEDDING IS ACCEPTABLE.
26. WHERE FOUL SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSEOVERS TO PREVENT ANY POTENTIAL CONTAMINATION.
27. ALL CONNECTIONS PASSING THROUGH BASES OR EDGE BEAMS TO BE IN SEALED JOINTS. ALTERNATIVELY CONNECTIONS MAY BE CAST-IN WITH FLEXIBLE JOINTS NOT GREATER THAN 150MM FROM FACE OF CONCRETE.
28. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED TO ACCOMMODATE THE CONNECTIONS AND BENDS.
29. ALL MANHOLE COVERS IN BLOCK/SLAB AND EXTERNAL PAVING AREAS TO HAVE RECESSED COVERS OF THE APPROPRIATE GRADE TO ACCEPT ARCHITECT'S PAVING PROPOSAL.
30. ALL INTERNAL COVERS TO HAVE MECHANICALLY JOINTED CORNERS AND DOUBLE SEALED WITH RECESSED TRAY TO ALLOW FOR FINISHES.
31. UNLESS NOTED OTHERWISE IN THE MANHOLE SCHEDULE, ALL MANHOLE, GULLY AND CHANNEL COVERS (IRONWORK) SHOULD BE THE FOLLOWING SPECIFICATION:
 - B125 LOAD CLASS IN PEDESTRIAN AREAS
 - D400 LOAD CLASS IN VEHICULAR AREAS.
35. ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, INSTRUCTIONS AND RECOMMENDATIONS.
36. GREASE TRAPS SHOULD BE PROVIDED ABOVE GROUND WITHIN AN ENZYME TREATMENT SYSTEM, BY APPROPRIATE SPECIALIST DESIGNER.
37. THE DESIGN IS BASED ON A GRAVITY RAINWATER SYSTEM.

C04	UPDATED POPUPS LOCATION FOR BAR	01.11.22	TH	MW
C03	UPDATES FOLLOWING MEETING	19.08.22	MW	MW
C02	UPDATES TO TQ'S	16.08.22	LK	MW
C01	CONSTRUCTION ISSUE	24.06.22	LK	MW
P08	UPDATED TO COMMENTS	19.01.22	LK	MW
P07	RWP AND GULLY LOCATIONS UPDATED	16.11.21	MW	MW
P06	WWG CONNECTIONS ADDED	15.09.21	ATL	MW
P05	UPDATES TO STAGE 4	19.08.21	MW	MW
P04	S106 APPROVAL, TEAMS COMMENTS	13.10.20	MW	MW



DRAINAGE STRATEGY
GROUND FLOOR

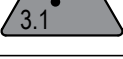
Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	22/11/19	TM	CG	CG
Scale: 1:200				

060270	CUR	00	XX	DR	C	92501	C04
--------	-----	----	----	----	---	-------	-----

ATTENUATION	
ATTENUATION TANK	63.84 m³
SUBBASE TYPE 3	400m² x 0.15m x 0.30 = 18m³
TOTAL	75 m³

TABLE 1					
SITE	IMPERMEABLE AREA (HA)	FLOW RATE 1:1 YEAR (L/S)	FLOW RATES 1:2 YEAR L/S	FLOW RATE 1:30 YEAR (L/S)	FLOW RATE 1:100 YEAR (L/S)
EXISTING SITE	0.33	43.5	56.2	122.3	151
INCLUDING A 50% REDUCTION, IN ACCORDANCE WITH MCC					
PROPOSED SITE	0.33	22	28	61	76
UNITED UTILITIES REQUESTED MAX 1 IN 2 YEAR STORM EVENT					
FLOW LIMITED TO 22 L/S FOR EACH STORM EVENT UP TO 1 IN 100-40 CC TO MEET MCC AND U REQUIREMENTS					

HYDROBRAKE TYPE MD-SHE-01492-2200-2000-2200

RESIDUAL HAZARD REGISTER		
HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS.		
HAZARD REF No.	ITEM (FEATURE, ELEMENT OR ACTIVITY)	RESIDUAL HAZARD
	EXISTING FOUNDATION	EXCAVATION NEAR OR THROUGH EXISTING FOUNDATION TO INSTALL PROPOSED DRAINAGE
	SERVICES	EXCAVATION NEAR EXISTING SERVICES AND EXISTING DRAINAGE
	DEEP EXCAVATION	DEEP EXCAVATION ABOVE >3M REFER TO MH SCHEDULE FOR MORE DETAILS

DRAWING BASED ON:

GPR SURVEY: LOCATE SURVEYS LTD. LSL:17499:200:1:1#
CCTV SURVEY LAYER SURVEY 01.06.20
ARCHITECT LAYOUT: LRFS-PUR-01-00-DR-A 2003 REV 11
LRFS-PUR-01-02Z-DR-A-4120 - Proposed Courtyard Rev 20
FOUNDATION RECEIVED 03.09.21
POPUP LOCATION 647-M-(52)-00-01 T5
DISCHARGE UNITS CONSOLUX 26.05.22

EXTERNAL SERVICES 119.07.21
647-M-(54)-00-01 - Gas Services Layout T2

FOR PIPES WHICH SHOULD BE ABANDONED REFER TO
060270-CUR-00-XX-DR-C-92502 EXISTING DRAINAGE

POPUP LOCATIONS BASED ON M&E DRAWINGS,
CONSTRUCTION SETTING OUT HAS NOT BEEN PROVIDED