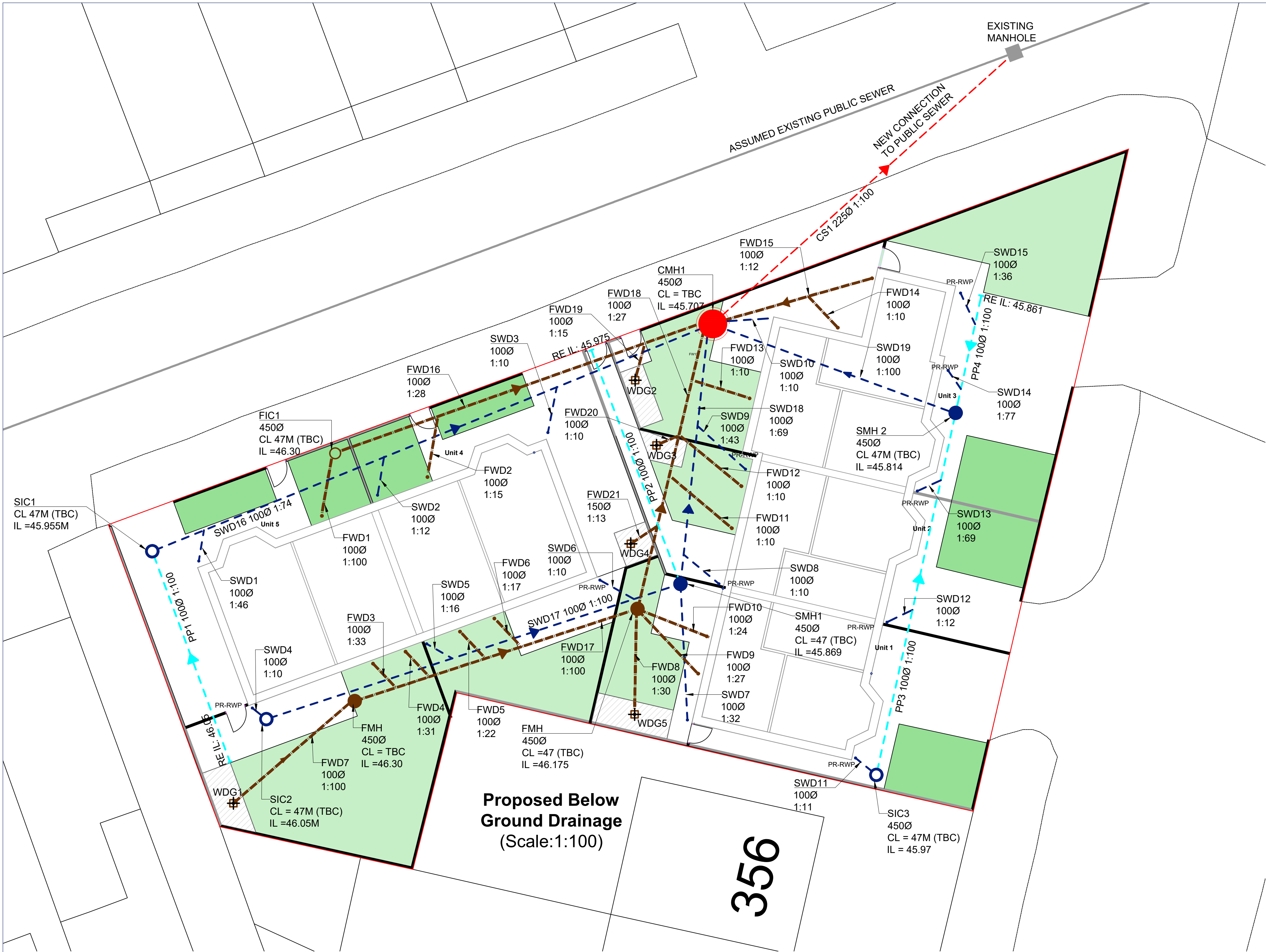




17. ALL SEWERS, UNLESS AGREED OTHERWISE STATED, SHALL BE:
 - 100mm to 300mm DIA TO BE VITRIFIED CLAY.

18. AS AN ALTERNATIVE THE CONTRACTOR MAY USE AN APPROVED UNPLASTICISED POLYVINYL CHLORIDE (PVCU) WITH APPROVAL FROM THE ENGINEER.

19. SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.

20. 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.

21. ALL NEW CONNECTIONS INTO EXISTING MANHOLES (OR INTO EXISTING SEWERS) TO BE 'SOFFITS LEVEL' UNLESS OTHERWISE NOTED.

22. 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 Z). COMPRESSIBLE MATERIAL SHALL B 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.

23. WHERE DRAINAGE PIPES ARE LESS THAN 300mm BELOW THE UNDERSIDE OF THE GROUND FLOOR SLAB, CONCRETE ENCASEMENT IS REQUIRED (CLASS Z). COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE.
24. WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS S BEDDING IS ACCEPTABLE.

25. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED TO PROVE THAT SUCH PRECAUTIONS ARE NOT REQUIRED.

26. WHERE PEAT IS ENCOUNTERED DURING THE SITE INVESTIGATION, ADDITIONAL NOTES WILL BE REQUIRED AND DESIGN ADJUSTED TO SUIT.

27. WHERE FOUL SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSOVERS TO PREVENT ANY POTENTIAL CONTAMINATION.ALL CONNECTIONS PASSING THROUGH BASES OR EDGE BEAMS TO BE IN SEALED SLEEVES. 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 CAR PARK
 - D400 ACCESS ROAD

33. ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, INSTRUCTIONS AND RECOMMENDATIONS.
- REQUIRE INFORMATION:
 - OWNERSHIP BOUNDARY
 - CONTAMINATION RESULTS
 - FLOW RATES TBC BY UUL/FA, DESIGN SUBJECT TO CHANGE
 - UU RECORDS
 - TOPOGRAPHICAL SURVEY
 - SITE INVESTIGATION REPORT

- DRAWING BASED ON THE FOLLOWING ASSUMPTIONS
 - SITE LEVEL = 47M
 - SITE BOUNDARY BASED ON ARCHITECT DRAWING
 - NO EXISTING CONTAMINATION
 - GROUND MADE BELOW THE PERMEABLE PAVEMENT IS SAND SOIL
 - INVERT LEVEL OF EXISTING PUBLIC MANHOLE NOT LESS THAN 2.5M BELOW SITE LEVEL
 - IT HAS BEEN ASSUMED THAT PROPOSED SERVICES WILL BE LOCATED WITHIN IMPERMEABLE FOOTWAY AND IMPERMEABLE DRIVEWAY, IF SERVICES ARE PROPOSED BELOW PERMEABLE ASPHALT SHOULD BE LOCATED BELOW SUBBASE EITHER IMPERMEABLE TRENCH SHOULD BE PROVIDED

- GENERAL NOTES:
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- ALL ADOPTABLE DRAINAGE WORKS INCLUDING WORKS TO EXISTING PUBLIC SEWERS TO BE UNDERTAKEN IN ACCORDANCE WITH "SEWERS FOR ADOPTION 7th EDITION" AND "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION" AND CONSTRUCTED TO THE RELEVANT STATUTORY UNDERTAKERS DETAILS.
 - ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH ZAR DRAINAGE SPECIFICATION, "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION", BS EN 752 2017 'DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS' AND THE BUILDING REGULATIONS APPROVED 'DOCUMENT H'.
 - DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES,OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
 - DESIGN BASED ON TOPOGRAPHICAL SURVEY INFORMATION AVAILABLE AT THE TIME OF THE DESIGN.
 - OUTFALL CONNECTION(S) SUBJECT TO AGREEMENT WITH THE APPROVING AUTHORITY.
 - ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
 - COVER LEVELS, GULLY POSITIONS, AND BUILDINGS LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT/ LANDSCAPE ARCHITECT. CONTRACTOR TO ALLOW FOR ADJUSTMENT TO SUIT AGREED POSITIONS AND FINISHED LEVELS, AND CONFIRM ALL COVER LEVELS ON SITE.
 - ALL INTERNAL DRAINAGE CONNECTIONS ARE PROVIDED TO THE PENETRATION POSITIONS SHOWN ON ARCHITECT AND M&E DRAWINGS. REFER TO DIMENSIONED LOCATIONS AND DIAMETERS ON ARCHITECT'S GROUND FLOOR SETTING-OUT PLANS.
 - ALL UNDERGROUND FOUL DRAINAGE SHOULD BE SUITABLY VENTED AT OR NEAR TO THE HEAD OF RUNS.
 - ALL ACCESS FITTINGS, STACKS, RWP'S AND GULLIES TO BE RODDABLE. ALL TO HAVE LOW LEVEL RODDING ACCESS PLATES UNLESS AN ALTERNATIVE MEANS OF ACCESS IS ACCESS POINT TO BE ABOVE ANY GROUND FLOOR CONNECTED APPLIANCE SPILL LEVEL.
 - LARGE ACCESS FITTING REQUIRED ABOVE GROUND WHERE GREATER THAN 12M UP TO 22M TO A JUNCTION. SMALL ACCESS FITTING REQUIRED UP TO 12M TO A JUNCTION.
 - ALL GULLY AND CHANNEL DRAIN OUTLETS AND TERMINATION POINTS TO BE TRAPPED AND RODDABLE. INTERNAL GULLIES AND CHANNEL DRAINS TO BE SPECIFIED BY OTHERS.
 - WHERE NO WC'S ARE CONNECTED UPSTREAM, UNDERSLAB FW DRAINAGE TO BE LAID AT 1:40 MIN. AFTER THE CONNECTION OF AT LEAST 1NO WC, A MIN. FALL OF 1:80 APPLIES.
 - ALL CONNECTIONS FROM POP-UPS TO BE LAID AT A CONSTANT GRADIENT TO JUNCTION/ INSPECTION CHAMBER/ MANHOLE UNLESS NOTED OTHERWISE. ANY ISSUES RELATING TO CLASHES WITH FOUNDATIONS ARE TO BE FORWARDED TO THE ENGINEER, ALLOWING SUFFICIENT TIME FOR AN ALTERNATIVE SOLUTION TO BE PROPOSED.
 - INVERT LEVELS AT MANHOLES/ INSPECTION CHAMBERS TO BE USED TO SET OUT PIPEWORK. PIPE GRADIENTS ARE SHOWN INDICATIVELY ONLY.
 - ALL PIPE DIAMETERS GIVEN ARE NOMINAL INTERNAL PIPE DIAMETERS.

LEGEND	
	PLANNING BOUNDARY
	ASSUMED EXISTING FOUL WATER
	PROPOSED FOUL WATER DRAIN - FWD
	PROPOSED SURFACE WATER DRAIN - SWD
	PROPOSED PERFORATED PIPE - PP
	NEW COMBINED DRAINAGE SYSTEM
	NEW PRIVATE COMBINE DRAINAGE MANHOLE - CMH
	NEW PRIVATE FOUL WATER MANHOLE - FMH
	NEW PRIVATE SURFACE WATER MANHOLE - SMH
	SURFACE WATER INSPECTION CHAMBER - SIC
	BIN STORE WASH-DOWN GULLY - WDG
	PERMEABLE ASPHALT WITH IMPERMEABLE MEMBRANE

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				MY
C1	26.08.24	Construction Issue		MY
Rev	Date	Description		By

MAY
Structural Engineers

Universal Square Business Centre,
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Email: contact@maystructuralengineers.co.uk

PROJECT:

342 SLADE LANE,
MANCHESTER, M19 2BX

TITLE:

Proposed Below Ground
Drainage

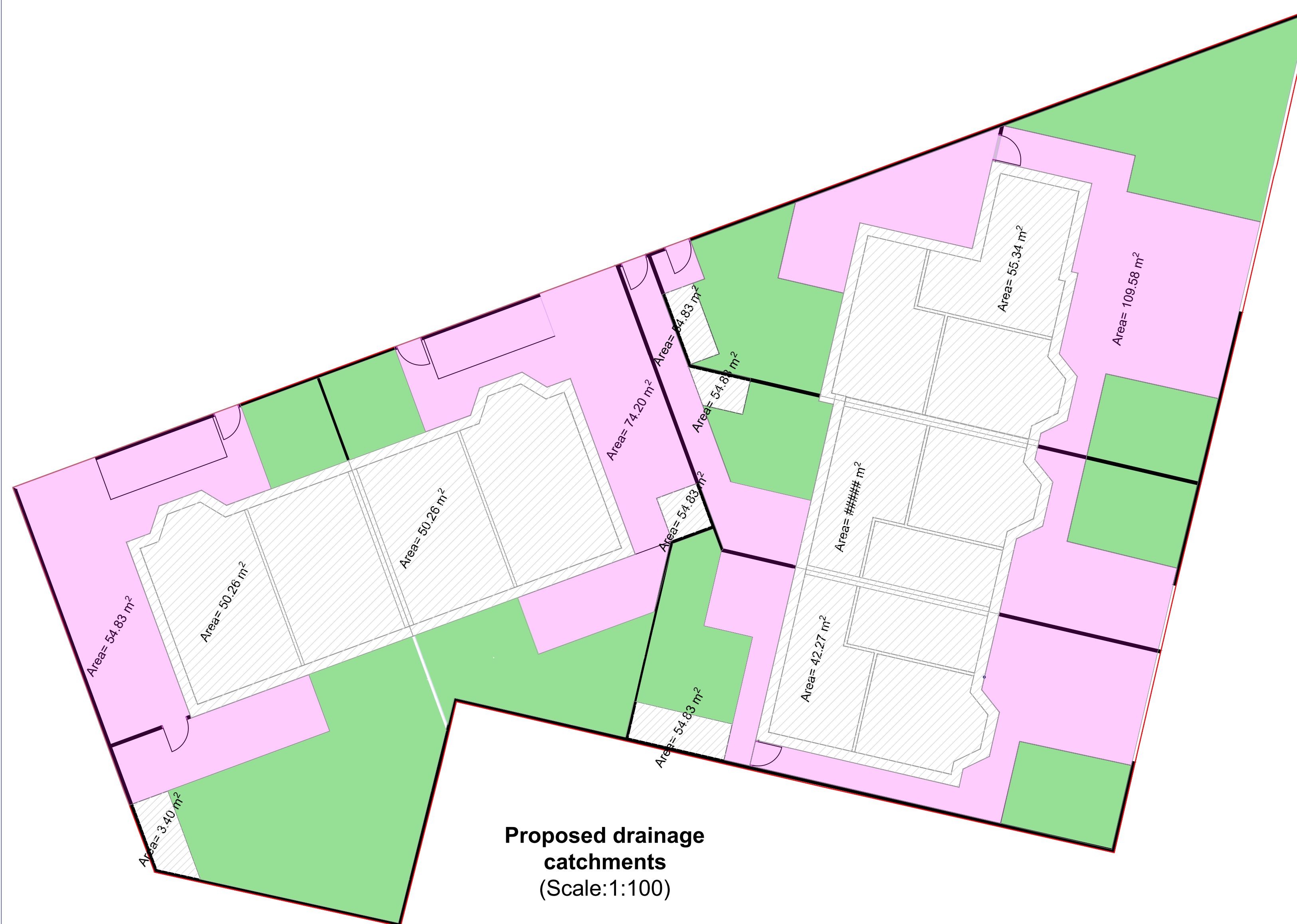
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As shown	MY	02.07.24

JOB No:	DRAWING No:	REVISION:
10199	MAY 100	C1

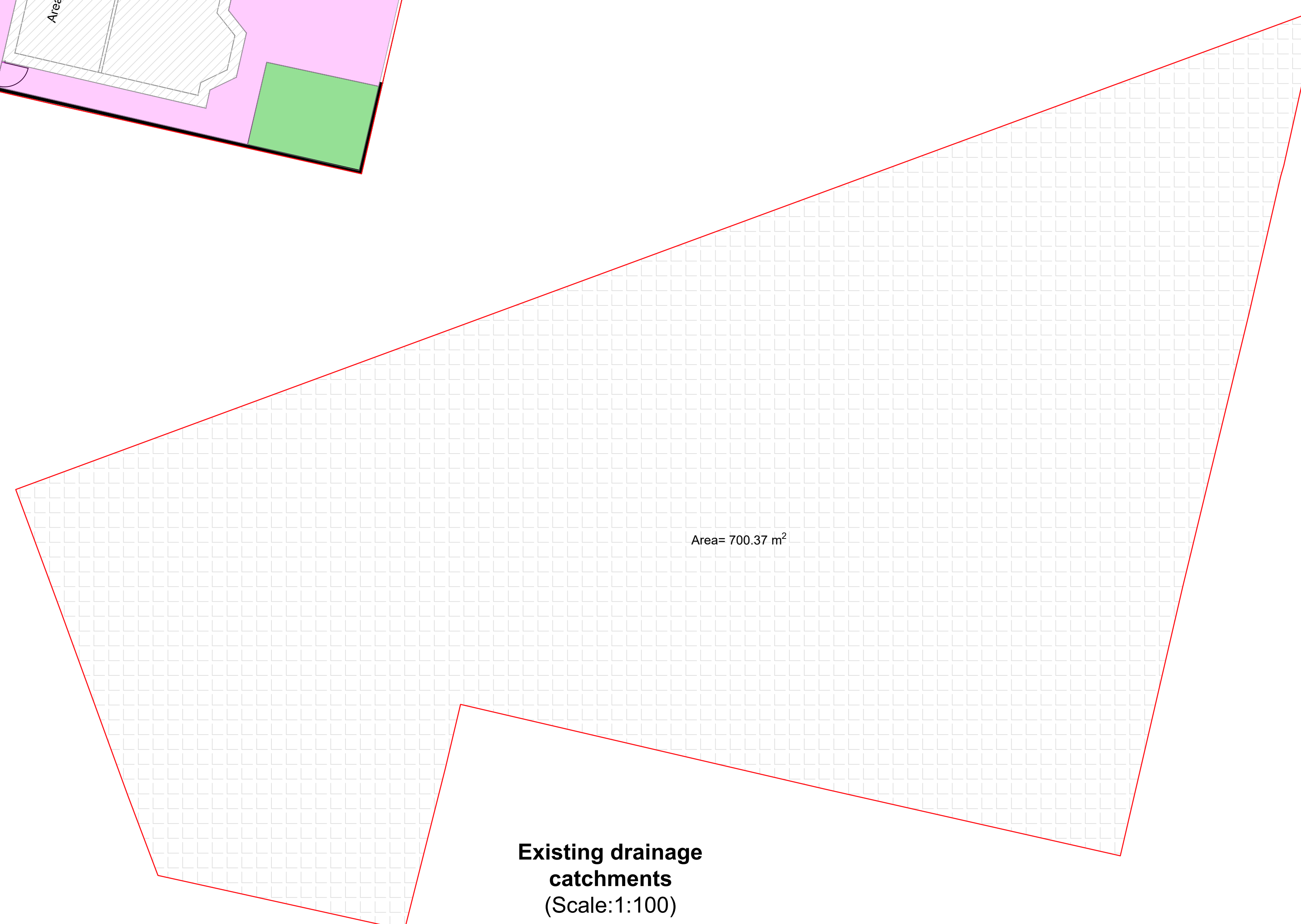
Construction

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Proposed drainage catchments
(Scale:1:100)



Existing drainage catchments
(Scale:1:100)

Area= 700.37 m ²		EXISTING IMPERMEABLE AREA DISCHARGE TO EXISTING DRAINAGE
Area= 238.61 m ²		PROPOSED PERMEABLE ASPHALT WITH IMPERMEABLE MEMBRANE
Area= 197.4 m ²		PROPOSED PERMEABLE VEGETATION
Area= 264.4 m ²		PROPOSED IMPERMEABLE AREA (ROOFS AND BIN STORE)

C1	26.08.24	Construction Issue	M
Rev	Date	Description	B



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PROJECT:

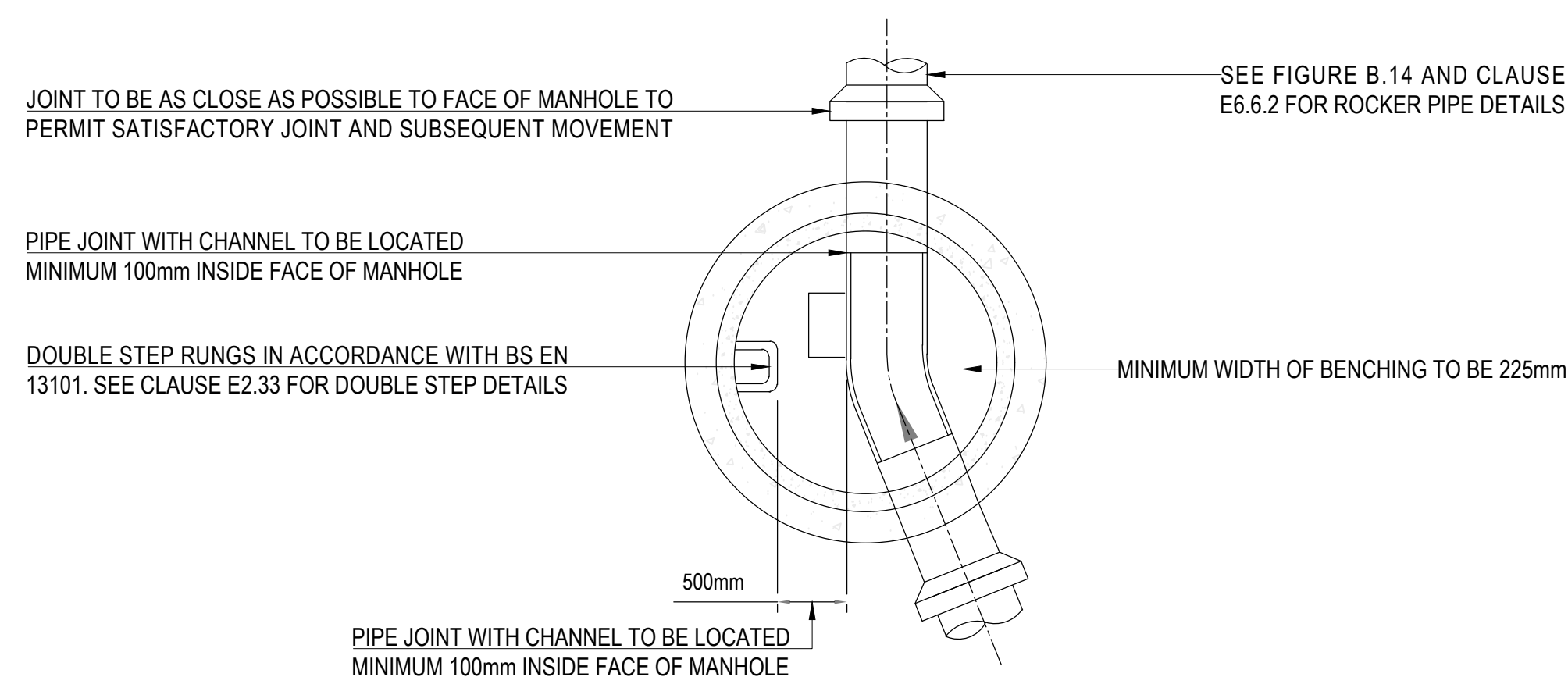
**342 SLADE LANE,
MANCHESTER, M19 2BX**

Introduction

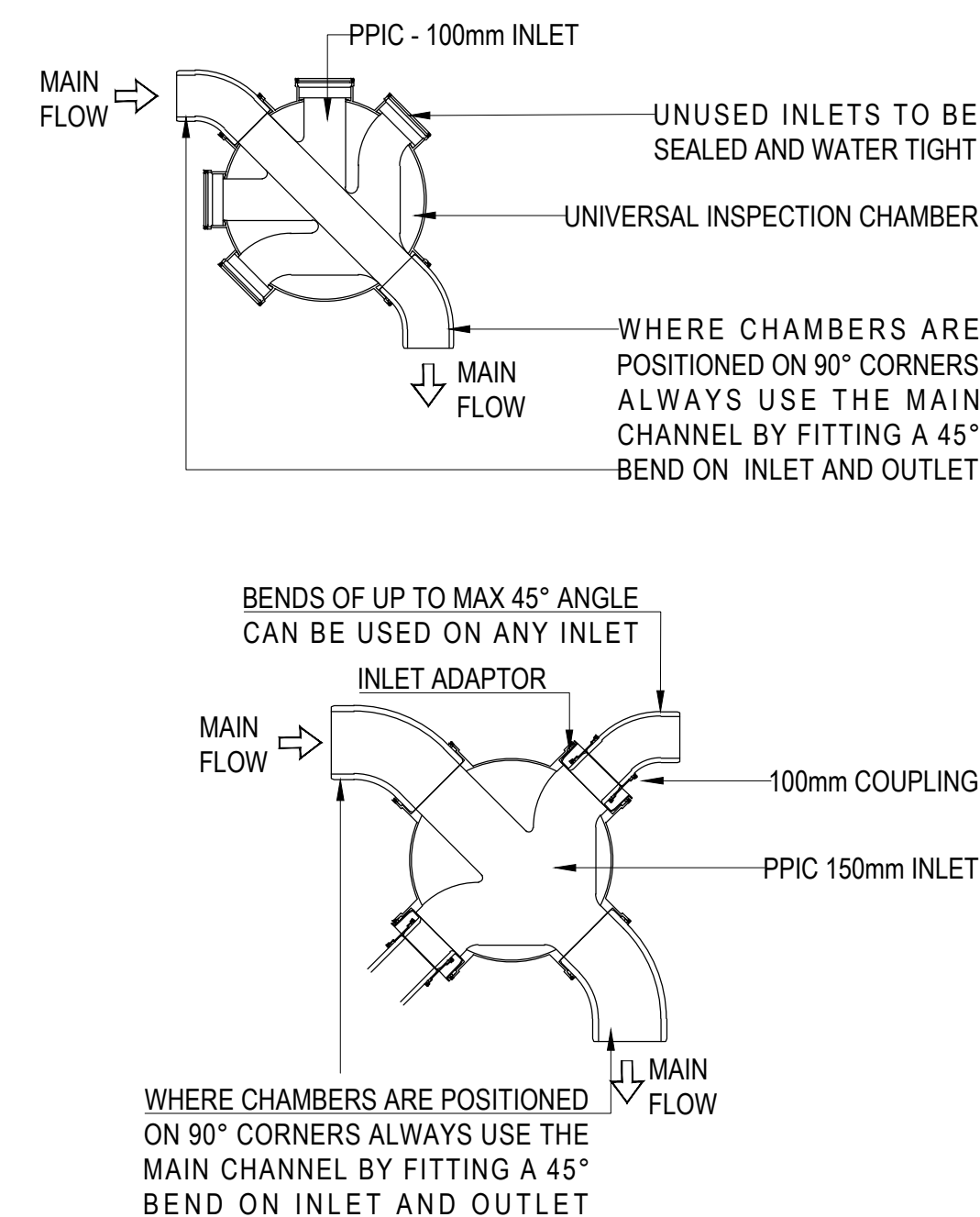
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**Proposed and Existing
Drainage Catchments**

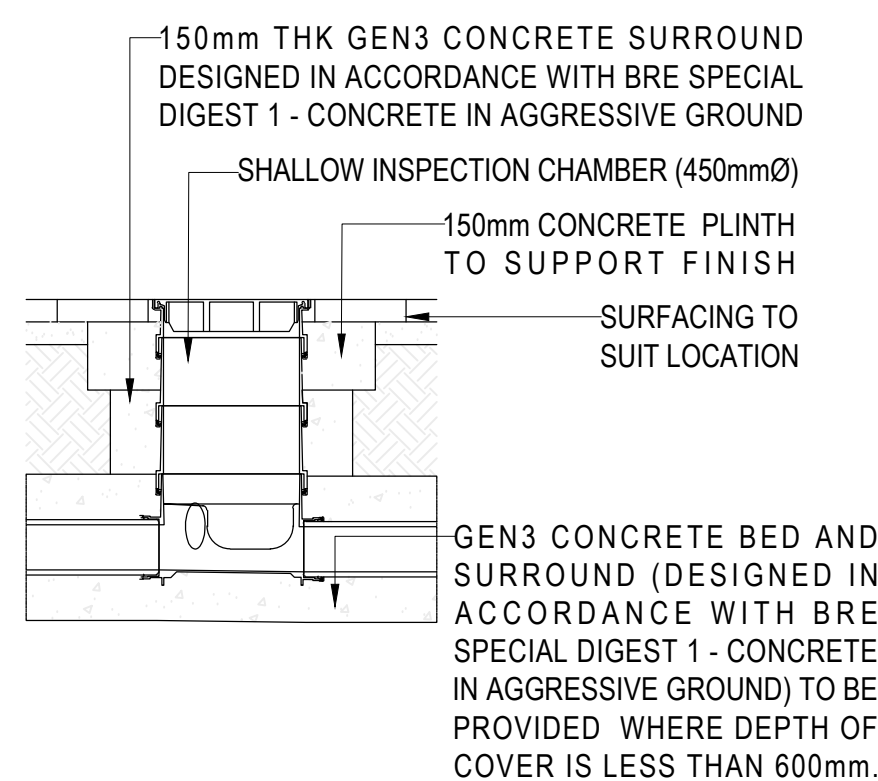
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JOB No: 10199	DRAWING No: MAY 101	REVISION: C1



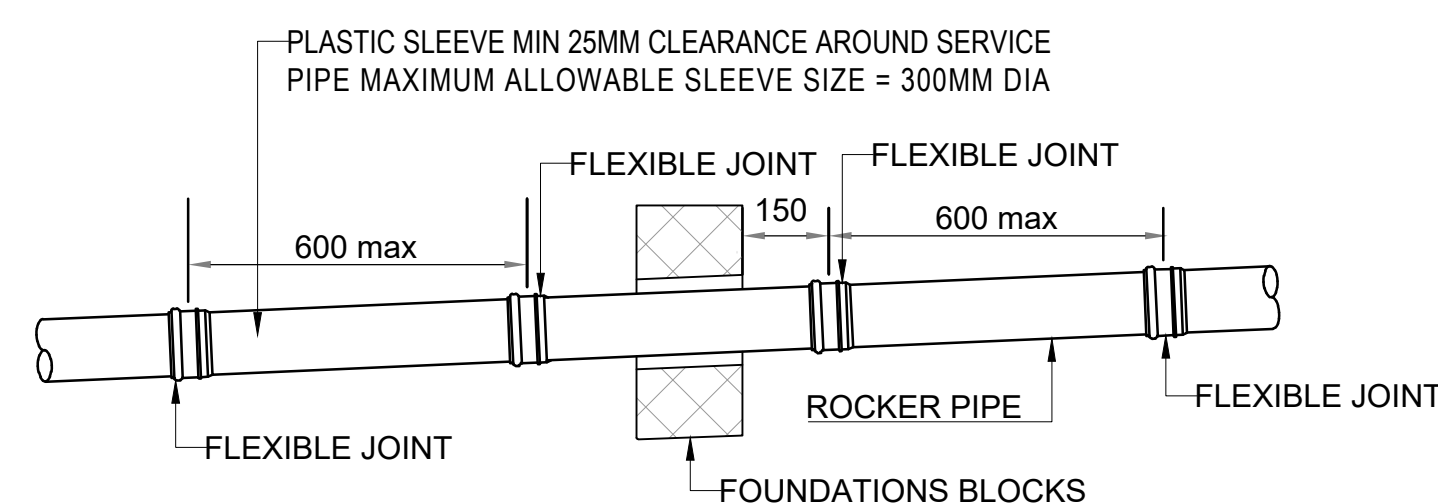
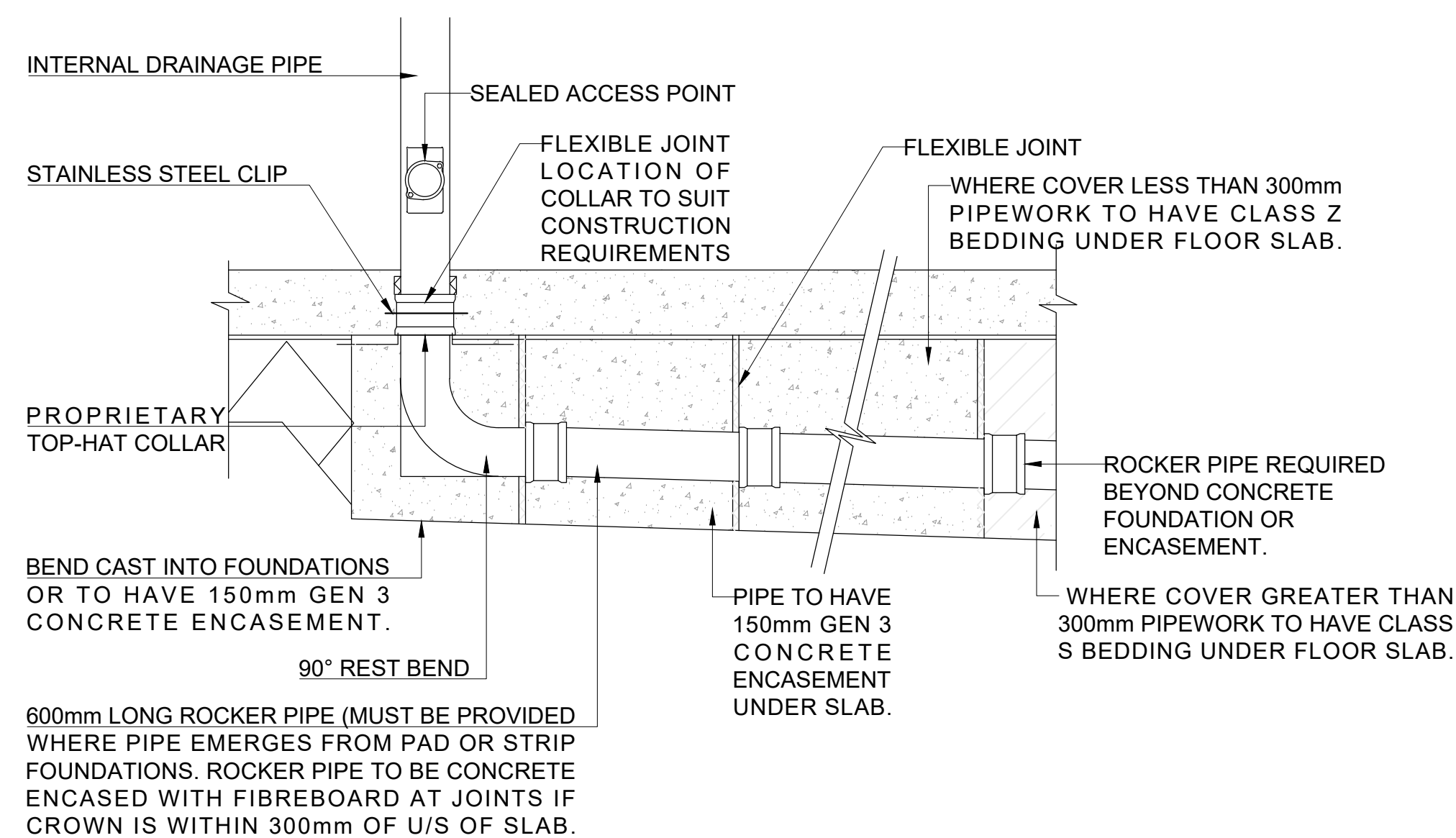
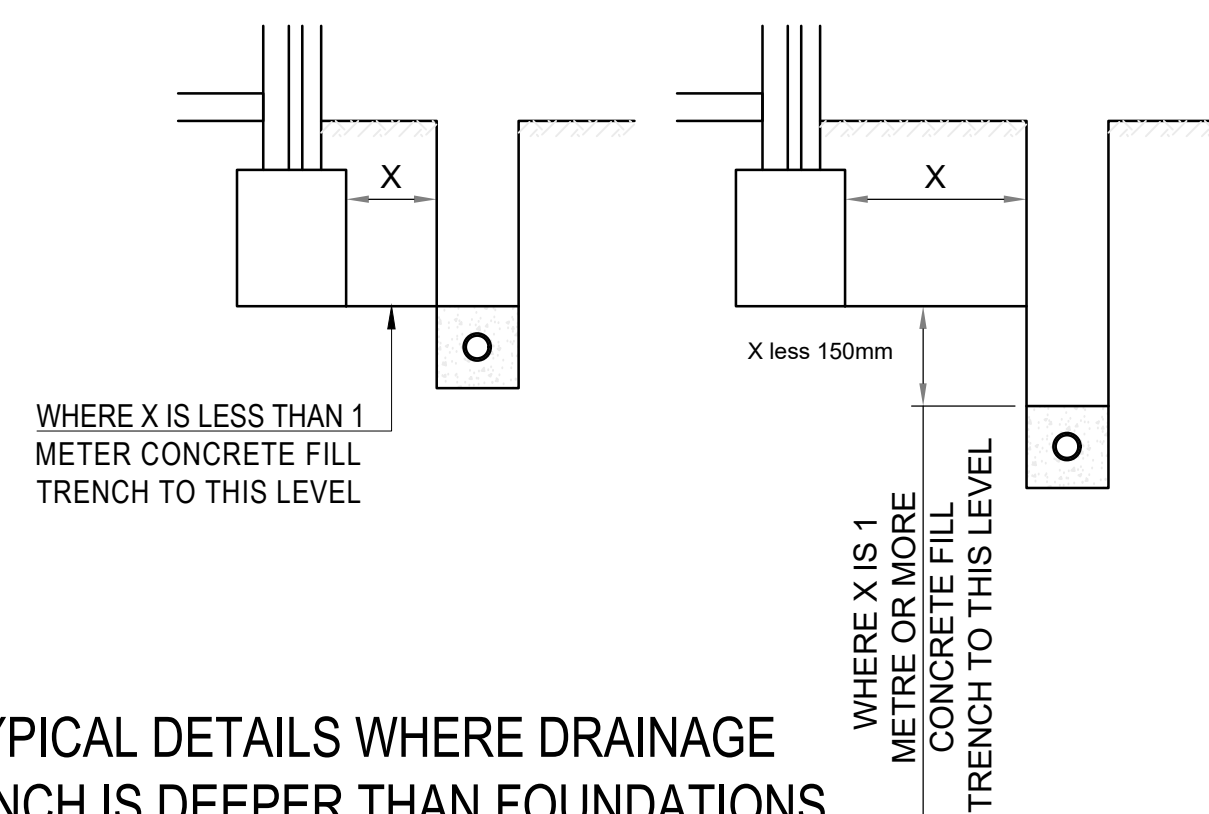
SHALLOW INSPECTION CHAMBER MAX DEPTH 0.6m



TYPICAL INSPECTION CHAMBER DETAILS



TYPICAL DETAILS WHERE DRAINAGE TRENCH IS DEEPER THAN FOUNDATIONS



PIPES PASSING THROUGH FOUNDATIONS BLOCKS

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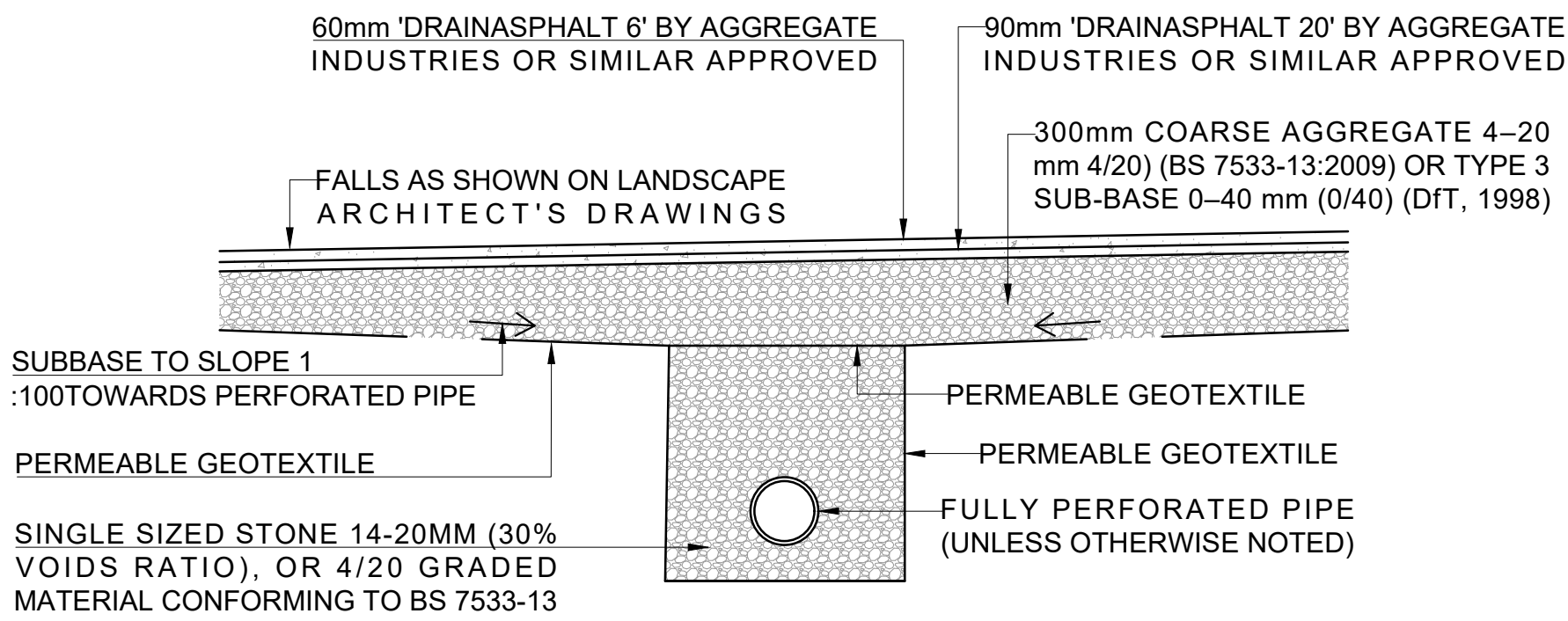
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MANCHESTER, M19 2BX**

Drainage Detail 1

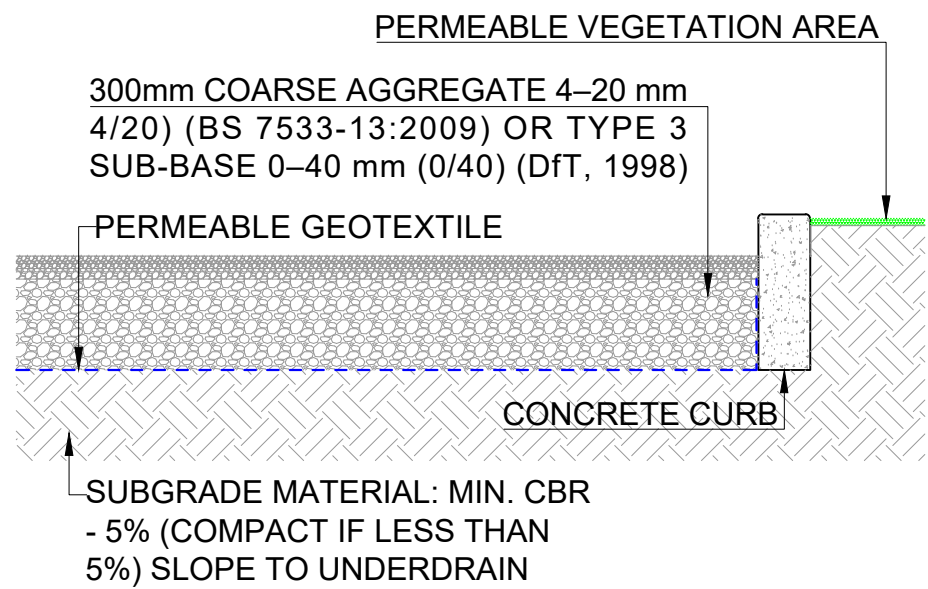
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JOB No: 10199	DRAWING No: MAY 102	REVISION: C1

Construction

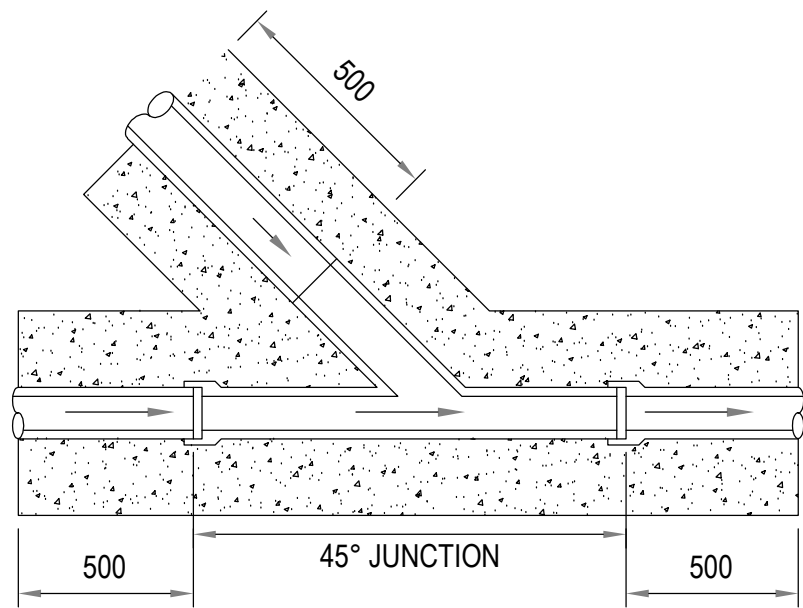


NOTE:
DESIGNED IN ACCORDANCE WITH CIRIA C753 BASED ON CATEGORY 4
LOADING & 5% CBR. DRAINASPALT SPEC TBC BY AGGREGATE INDUSTRIES.

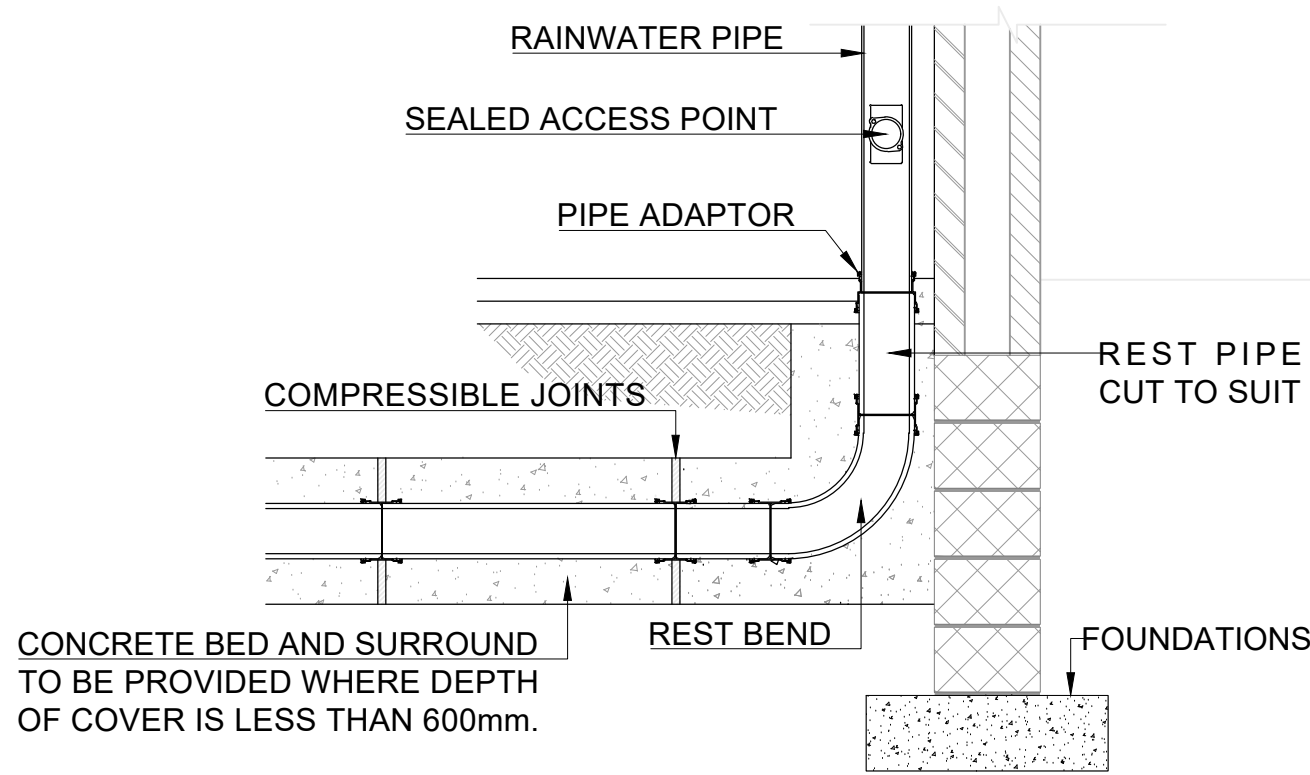
PERFORATED PIPE UNDER PERMEABLE ASPHALT DETAILS



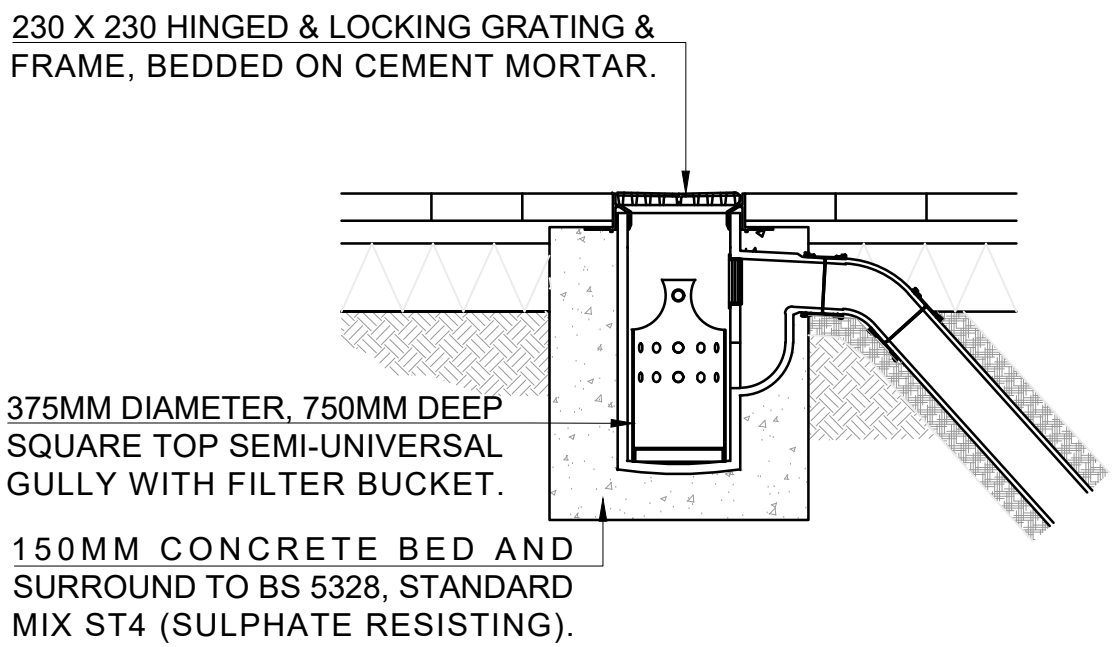
PERMEABLE ASPHALT PAVEMENT DETAILS



TYPICAL SADDLE CONNECTION

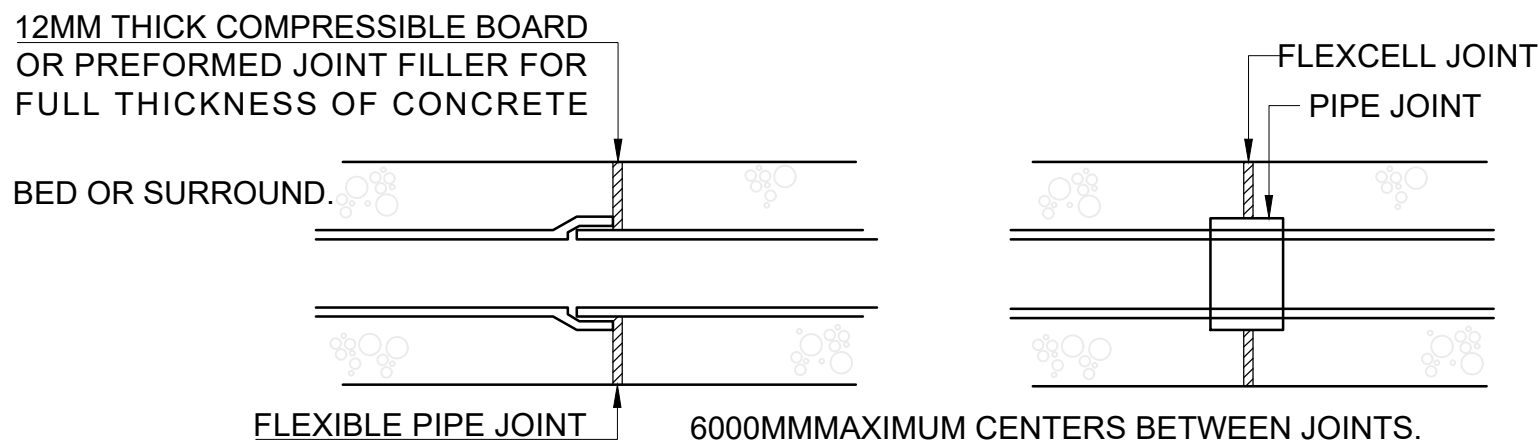


RWP CONNECTION DETAIL



NOTE:
THE DEPTH OF THE GULLY CAN BE INCREASED BY UP TO 300MM BY FITTING A 225MM COUPLING AND A 300 MM HIGH RAISING PIECE BETWEEN THE FRAME AND THE GULLY BODY.

TYPICAL TRAPPED AND BIN STORE WASH-DOWN GULLY



EXPANSION JOINT FOR CONCRETE
BED AND SURROUND

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PROJECT:

**342 SLADE LANE,
MANCHESTER, M19 2BX**

TITLE:
Drainage Detail 2

SCALE @ A1: As shown	DRAWN: MY	DATE: 02.07.24
JOB No: 10199	DRAWING No: MAY 103	REVISION: C1

Construction