



**GENERAL PROJECT NOTES**

- ANY DISCREPANCIES IN DIMENSIONS OR DETAILS ON OR BETWEEN DRAWINGS SHOULD BE DRAWN TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- THIS DRAWING HAS BEEN DEVELOPED USING INFORMATION PROVIDED TO RAMBOLL BY A NUMBER OF THIRD PARTIES. RAMBOLL CAN ACCEPT NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN OR THIRD-PARTY INFORMATION.
- AN ADDITIONAL ALLOWANCE SHOULD BE MADE AT THIS STAGE FOR 2 NO MANHOLES AND 20m CONNECTION PIPEWORK.
- PHASING INFORMATION FOR CONSTRUCTION WORKS IS UNKNOWN AT THIS STAGE AND THE BELOW GROUND DRAINAGE DESIGN IS SUBJECT TO CHANGE SUBJECT TO RECEIPT OF THIS INFORMATION.

**PROPOSED DRAINAGE DESIGN NOTES**

- GENERAL:**
- ALL DRAINAGE WORKS CARRIED OUT IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE APPENDIX C: DESIGN AND CONSTRUCTION GUIDANCE, BS EN 752: 2017, BUILDING REGULATIONS PART H, RELEVANT WATER AUTHORITY STANDARDS, LOCAL COUNCIL STANDARDS AND HEALTH AND SAFETY POLICIES.
  - CONCRETE FOR GENERAL DRAINAGE WORKS DESIGNATED MIX GEN 3 TO BS 8500 - 1:2006, BS EN 206 - 1:2013 AND ENGINEERS' SPECIFICATION.
  - WHERE BELOW GROUND PIPE JUNCTIONS CONNECT AT AN OBLIQUE ANGLE CONNECTIONS ARE TO BE INSTALLED AS PER THE OBLIQUE JUNCTION ARRANGEMENT DETAIL TO PREVENT FUTURE BLOCKAGES.
  - ANY GREASE PROVISION WHICH MAY BE REQUIRED IS ASSUMED TO BE PROVIDED ABOVE GROUND.
  - PIPES ARE NOT DESIGNED FOR CONSTRUCTION TRAFFIC; CONTRACTOR WILL TAKE NECESSARY PRECAUTIONS TO PROTECT PIPES DURING CONSTRUCTION. EXISTING DRAINAGE WHICH IS TO REMAIN IN THE PROPOSED WORKS TO BE PROTECTED AT ALL TIMES.
  - IT IS ASSUMED THAT ALL ABOVE GROUND DRAINAGE CONNECTIONS ARE RODDABLE AND VENTED FROM ABOVE GROUND. PUBLIC HEALTH ENGINEER TO CONFIRM ABOVE GROUND VENTING.
  - IT IS CURRENTLY ASSUMED THAT THERE WILL BE NO POSITIVE CONNECTIONS FOR FIREFIGHTING WATER INTO ON SITE PRIVATE DRAINAGE NETWORK OR INTO THE PUBLIC SEWER.

**MANHOLES & INSPECTION CHAMBERS:**

- PRECAST CONCRETE MANHOLES TO BE IN ACCORDANCE WITH BS 5911 - 3:2002, BS EN 1917:2002 AND TO BE KITEMARKED OR CE MARKED.
- POLYPROPYLENE INSPECTION CHAMBERS TO BE IN ACCORDANCE WITH BS7158 OR BS EN 13598-1 OR AGREEMENT CERTIFIED MINIMUM INTERNAL DIAMETER 450MM UNO.
- ALL INTERNAL MANHOLES TO BE CONSTRUCTED USING CLASS II ENGINEERING BRICK.
- ALL MANHOLE COVERS TO BE RECESSED TO SUIT ARCHITECTS FINISHES.

**PIPE BEDDING:**

- FOR PIPES WITH MORE THAN 1200mm COVER BELOW EXTERNAL GROUND LEVEL OR GREATER THAN 300mm BELOW BUILDING SLAB TO HAVE CLASS S SURROUND U.N.O IN ACCORDANCE WITH BUILDING REGULATIONS DOCUMENT H.
- FOR PIPES WITH LESS THAN 1200mm COVER TO CROWN PIPE BEDDING TO BE CLASS 2 SURROUND OR PROTECTIVE COVER SLAB U.N.O IN ACCORDANCE WITH BUILDING REGULATIONS DOCUMENT H.
- ALL DRAINAGE WITH LESS THAN 300mm COVER BELOW BUILDING TO BE REINSTATED WITHIN EXISTING SLAB.

**PIPEWORK:**

- ALL FOUL AND COMBINED WATER PIPES TO BE VITRIFIED CLAY TO BS EN 295-1:1991/BS 65 AS APPROPRIATE, KITEMARKED, AGREEMENT CERTIFIED OR CE MARKED U.N.O.
- ALL FOUL BRANCH CONNECTIONS TO BE DN100 AT 1:40 MINIMUM GRADIENT U.N.O.

**CONSULTATIONS / APPROVALS**

- CONSULTATIONS REGARDING THE CHANGE IN FOUL FLOWS TO THE PUBLIC SEWER HAS NOT BEEN UNDERTAKEN TO DATE.
- ADDITIONAL FOUL FLOWS ARE EXPECTED IN THE REFURBISHMENT. IT IS CURRENTLY ASSUMED FOUL DISCHARGE WILL BE APPROVED AS UNRESTRICTED INTO THE PUBLIC SEWER.

**REFERENCE DRAWINGS AND DOCUMENTS**

- THE INFORMATION USED TO PRODUCE THIS DRAWING IS AS FOLLOWS. IF ANY INFORMATION WITHIN THESE DRAWINGS CHANGES THE BELOW GROUND DRAINAGE IS ALSO SUBJECT TO CHANGE:
- PROPOSED GROUND FLOOR PLAN BY HLM (BC-HLM-01-00-DR-A-00141)
- ABOVE GROUND DRAINAGE BY RAMBOLL (RAM-XX-00-DR-P-53400 AND RAM-XX-00-DR-P-53401)
- EXISTING DRAINAGE PLAN BY ALLEN TOD ARCHITECTURE (200546-1-218D AND 200546-2-3050-001)

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Notes

- DO NOT SCALE FROM THIS DRAWING.
- ALL DIMENSIONS ARE MILLIMETRES U.N.O.
- ALL LEVELS ARE IN METRES ABOVE ORDINANCE DATUM U.N.O.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES IN DIMENSIONS OR DETAILS ON OR BETWEEN DRAWINGS SHOULD BE DRAWN TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION
- FOR GENERAL DRAINAGE NOTES AND INFORMATION USED TO PRODUCE DRAWINGS REFER TO DRAWING RAM-XX-XX-DR-D-00001
- FOR EXISTING BELOW GROUND DRAINAGE REFER TO DRAWING SERIES RAM-XX-XX-DR-D-00010
- FOR TYPICAL DRAINAGE DETAILS REFER TO DRAWING SERIES RAM-XX-XX-DR-D-00400

**PLEASE NOTE: DRAWINGS ARE BASED ON PRE-FINAL STAGE THREE INFORMATION AND THEREFORE IS SUBJECT TO CHANGE PENDING RECEIPT OF THIS INFORMATION. CHANGES TO BE INCORPORATED AT STAGE 4.**

**KEY:**

	PROPOSED FOUL WATER DRAINAGE AND MANHOLE
	PROPOSED SHOWER GULLY
	PROPOSED SUB STACK
	PROPOSED SOIL VENT PIPE
	PROPOSED NON-RETURN VALVE
	EXISTING SURFACE WATER PIPE
	EXISTING FOUL WATER PIPE
	EXISTING COMBINED PIPE
	EXISTING COMBINED PUBLIC SEWER
	EXISTING GULLY
	EXISTING INSPECTION CHAMBER
	EXISTING RAIN WATER PIPE
	EXISTING SOIL WATER PIPE
	EXISTING MANHOLE
	EXISTING DRAINAGE CHANNEL
	END OF TRACE

FOUL WATER MANHOLE SCHEDULE											
Manhole No.	Cover Level (m)	Invert Level (m)	Depth to Invert (m)	Main Channel (mm)	Branches	Manhole Type	Chamber Size (mm)	Cover Size (mm)	Cover Loading	Comment	Co-ordinates (mm) Easting/Northing
FW01	98.600	97.450	1.150	R.M.	1500 @ IL 97.850 In R.M. @ IL 97.850 Out	PCC	12000	750x675	AAA	Recessed, Double Sealed and Lockable	2024,20693
FW02	98.600	97.500	1.100	1500	1500 @ IL 97.575 In 1500 @ IL 97.575 In 1500 @ IL 97.575 In R.M. @ IL 97.900 In 1500 @ IL 97.500 Out	Brick	750x1200	600x600	AAA	Recessed, Double Sealed and Lockable	12761,1756
FW03	98.600	97.665	0.935	1500	1500 @ IL 97.665 In 1500 @ IL 97.665 In 1500 @ IL 97.665 In 1500 @ IL 97.665 In 1500 @ IL 97.665 Out	Brick	750x1200	600x600	AAA	Recessed, Double Sealed and Lockable	26465,8286
FW04	98.600	T.B.C.	T.B.C.	T.B.C.	T.B.C. @ IL T.B.C. In 1500 @ IL 97.735 In 1500 @ IL 97.735 In T.B.C. @ IL T.B.C. Out	Brick	750x1200	600x600	AAA	Recessed, Double Sealed and Lockable	43187,20194

R.M. - RISING MAIN PCC - PRECAST CONCRETE

P01	STAGE 3 ISSUE	16/03/2020	CO	LS
Rev	Description	Date	By	App

**PRELIMINARY**

**BARNESLEY CIVIC**



**PROPOSED BELOW GROUND DRAINAGE GROUND FLOOR LEVEL**

Project No:	Scale (A1):	Drawn:	Date:
1620010680	1:150	CO	MAR 21
Drawing No:	Rev:		
RAM-XX-XX-DR-D-00101	P01		