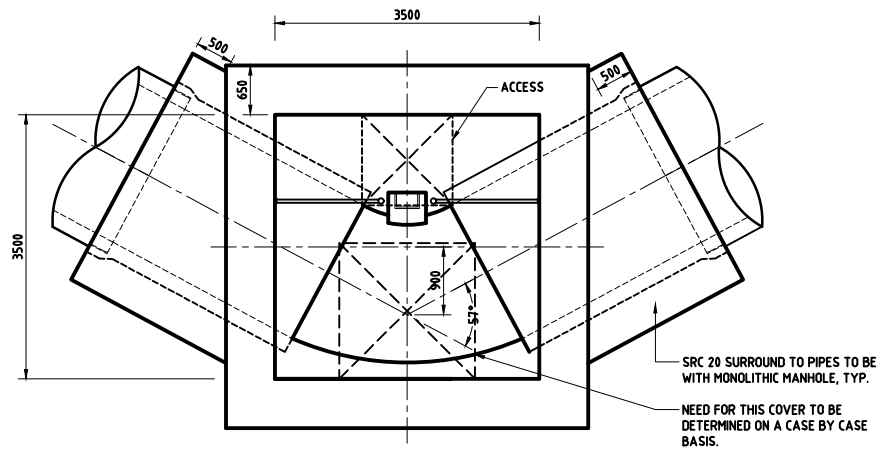
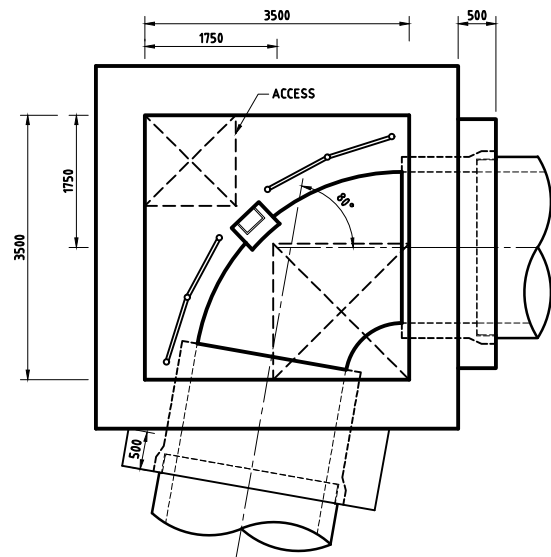


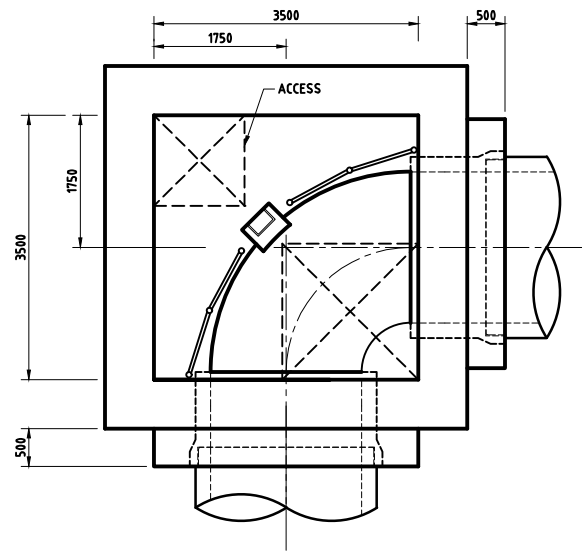
PIPE DEVIATION 30°-45 °



PIPE DEVIATION 45°-60°



PIPE DEVIATION 60°-80°



PIPE DEVIATION 90°

TABLE 1

INTERNAL LININGS	
CONCRETE MANHOLES	GRP LINER TO WALLS AND BENCHING TO 300mm ABOVE INLET PIPE CROWN LEVEL THEN 2 COATS OF SOLVENT FREE EPOXY PAINT TO ALL REMAINING INTERNAL SURFACES
POLYMER RESIN CONCRETE (PRC) MANHOLES. PRECAST MANHOLES ONLY	NO LINING TO WALLS AND COVER SLAB REQUIRED. IF PRC NOT USED FOR BENCHING, GRP LINING TO BENCHING TO BE USED AS PER QCS.

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 - ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT Q.C.S. UNLESS OTHERWISE AGREED WITH THE ENGINEER.
 - WHERE THERE IS A DISCREPANCY BETWEEN THE REQUIREMENTS IN THE SPECIFICATION AND THOSE SHOWN ON THIS DRAWING THE SPECIFICATION TAKE PRECEDENCE.
 - VARIATION TO STANDARD DETAILS ARE PERMISSIBLE TO MEET SITE SPECIFIC REQUIREMENTS SUBJECT TO ENGINEER'S APPROVAL.
 - SEE DRAWING No. SD 8-4-106 FOR STRUCTURAL DETAILS AND NOTES.
 - ALL JOINTS BETWEEN SECTIONS OF GRP LINERS SHALL BE LAMINATED OVER WITH 200mm WIDE RESIN RICH GLASS.
 - ALL JOINTS BETWEEN PIPES, FIXTURES AND GRP LINERS ARE SEALED.
 - ALL JOINTS BETWEEN CONCRETE SECTIONS ARE WATERTIGHT.
 - UNLESS DETAILED OTHERWISE, ALL INSITU CONCRETE SHALL BE GRADE SRC 40 AND ALL PRECAST CONCRETE SHALL BE GRADE SRC 50.
 - ALL INCOMING PIPES ARE LAID SOFFIT TO SOFFIT WITH THE OUTGOING PIPE UNLESS A RAMP/BACKDROP IS CONSTRUCTED OR AS SHOWN ON THE PLAN.
 - ROCKER PIPE IS 600mm IN LENGTH OR 1.5xD WHICH EVER IS GREATER.
 - GRP PIPES AND FABRICATIONS CAST INTO CONCRETE SHALL BE GRIT COATED.
 - DI MANHOLE COVERS SHALL BE BADGED 'SURFACE WATER' IN ENGLISH AND ARABIC.
 - MANHOLES IN THE CARRIAGEWAY AND PAVED AREAS TO BE BACKFILLED FULL HEIGHT TO THE UNDERSIDE OF THE SUB BASE FROM THE EXCAVATED SURFACE TO THE MANHOLE WITH 4N/mm² FOAMED CONCRETE, MAXIMUM AGGREGATE SIZE 5mm. AT TRENCH OPENINGS ROUGH SHUTTERING SHALL BE PROVIDED TO GIVE A MINIMUM THICKNESS OF 300mm OF FOAMED CONCRETE AROUND THE MANHOLE. WHERE FOAMED CONCRETE USED FOR BACKFILL, TANKING MEMBRANE TO WALLS NOT REQUIRED.
 - STAINLESS STEEL SAFETY CHAINS AND TOE HOLDS OR STEP IRONS SHALL BE CONSIDERED FOR ALL PIPES GREATER THAN 600 DIA.
 - DOUBLE STEP IRON TYPE C PLASTIC ENCAPSULATED, ANY SHAPE TREAD WITH PATTERNED SURFACE AND WITHOUT UPSTAND TO BS EN 13101:2002.
 - SEE DRAWING No.SD 8-4-103 FOR TANKING DETAILS.
 - WHERE MANHOLES ARE LOCATED IN A CARRIAGEWAY WITH A POSTED SPEED LIMIT OF 100KM/HR. OR GREATER, CLASS E600 COVERS ARE TO BE USED.

5	OCT 19	ISSUED FOR USE	
4	APR 19	ISSUED FOR USE	
3	01 MAR 19	UPDATED ISSUE	
2	04 APR 16	ISSUED FOR USE	
1	01 DE C15	ISSUED FOR USE	
0	15 SEP 13	ISSUED FOR USE	

Rev.	Date	Revision Details	Appd.
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QCS Section:
Section 8 - Drainage Works
Part 4 - Pipe Installation

Drawing Title:
**TYPICAL CHAMBER LAYOUT
2000mm PIPE DIA**

Approved:	Sheet No: 1 OF 1
Date: OCT 2019	Scale: 1:50 on A1
Drawing Number: SD 8-4-306	Revision: 5