

600x200mm HIGH OPENING

SLIT TRAP NET

CONCRETE SLAB FALLING TOWARDS THE INLET CHAMBER OPENING

220mm THICK MASONRY WALL

200mm THICK 25MPa CONCRETE SLAB REINFORCED WITH 2 LAYERS OF MESH REF. 395

100

1000

200

150 220 1060 220 150

1800

SECTION A-A

SCALE 1:20

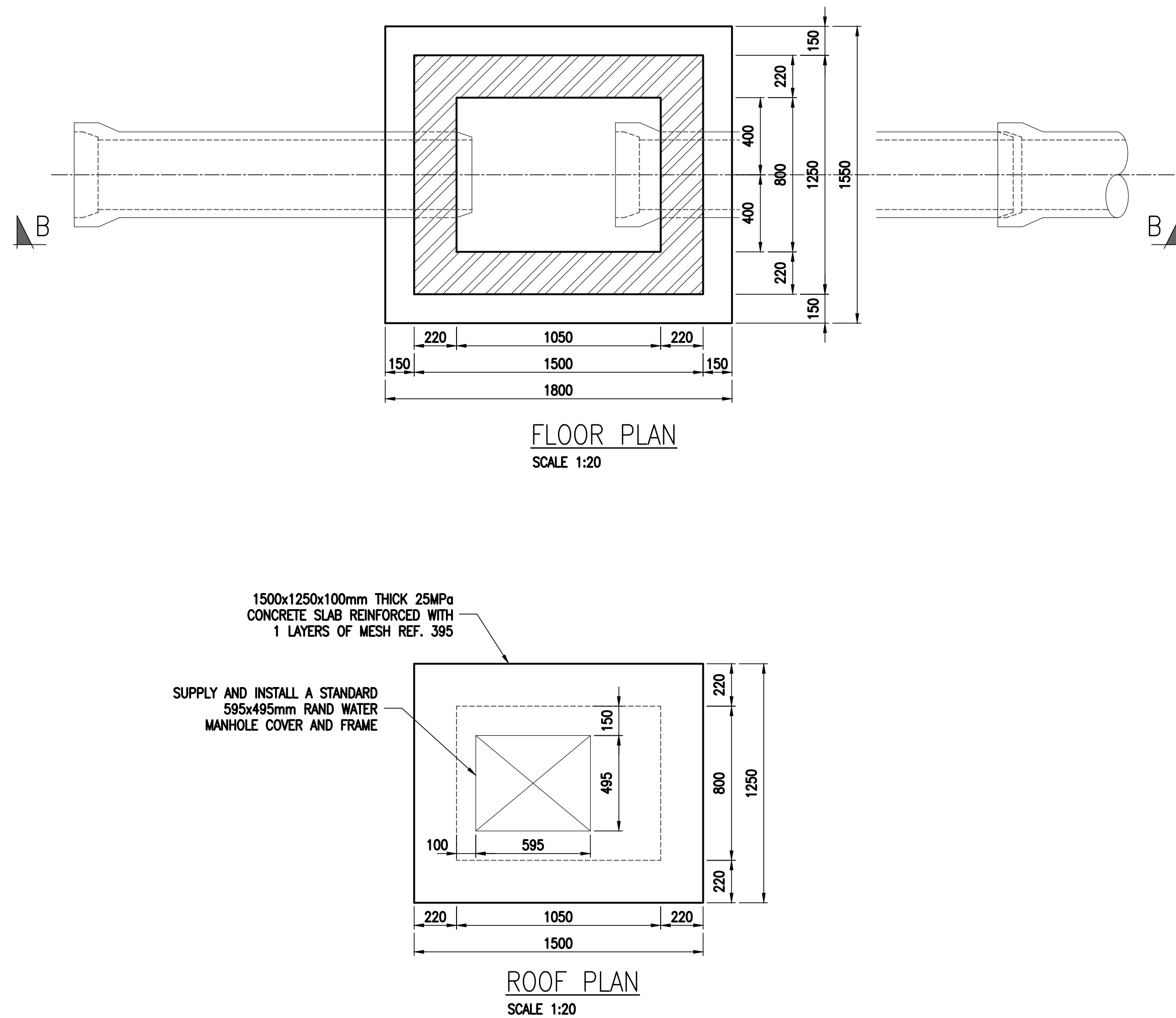
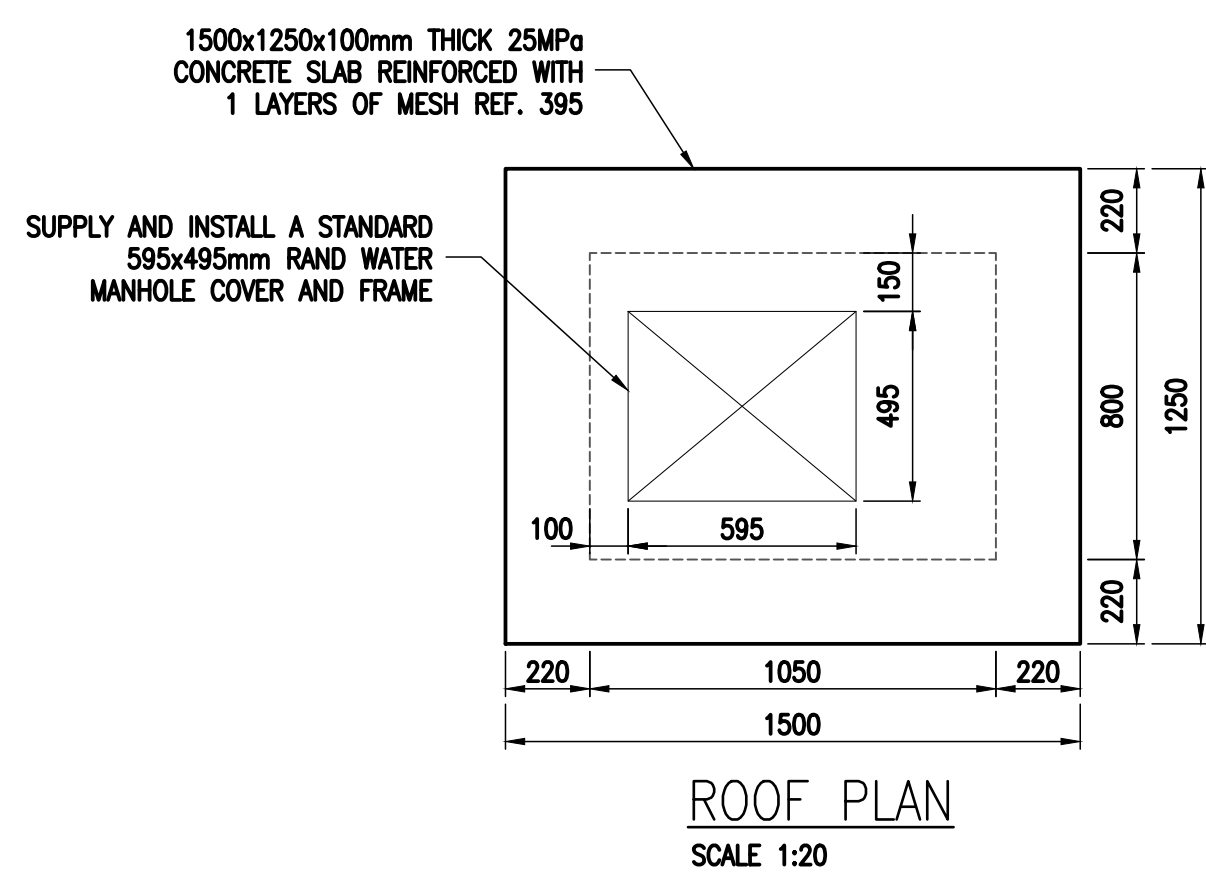
**SECTION B-B**

SCALE 1:20

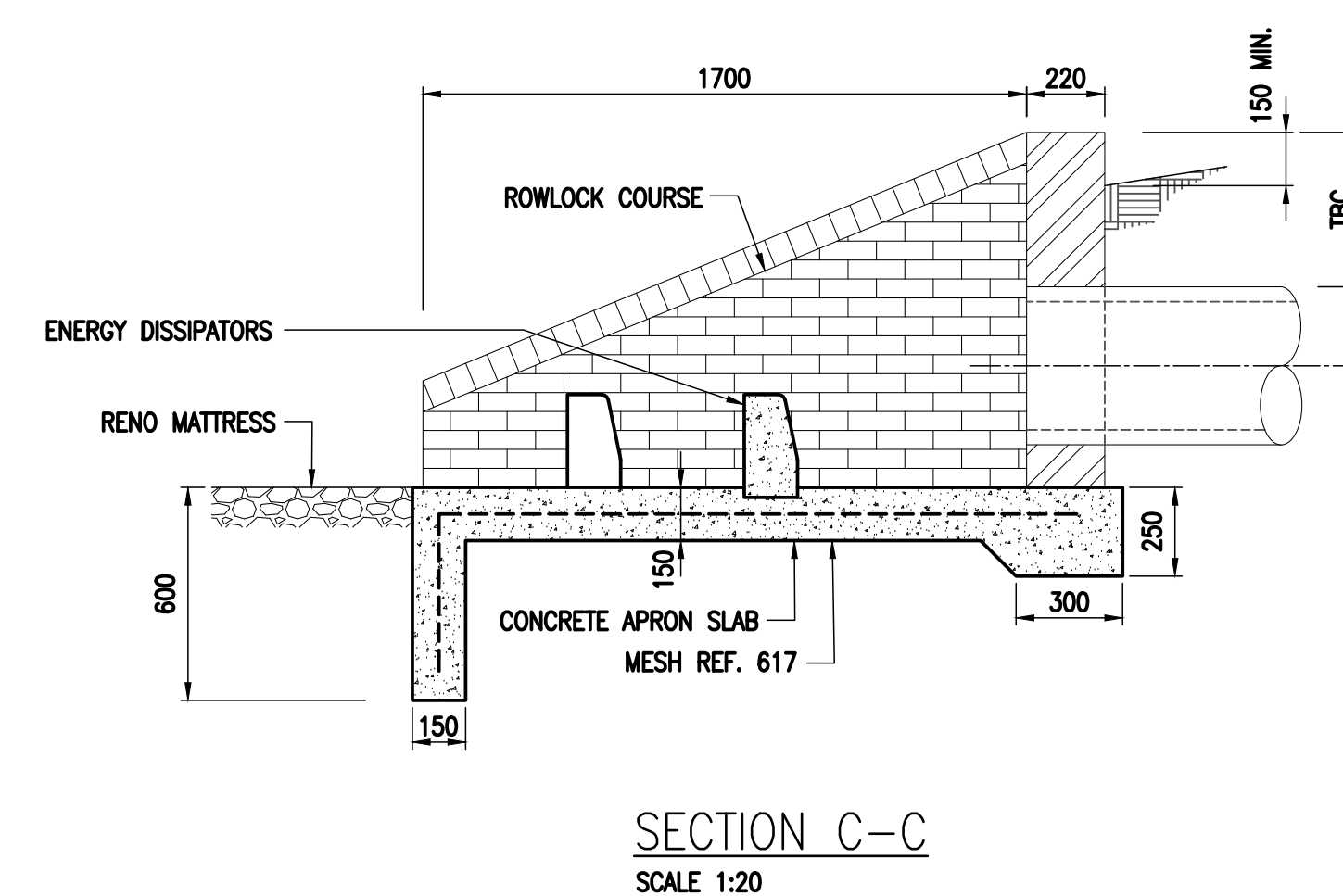
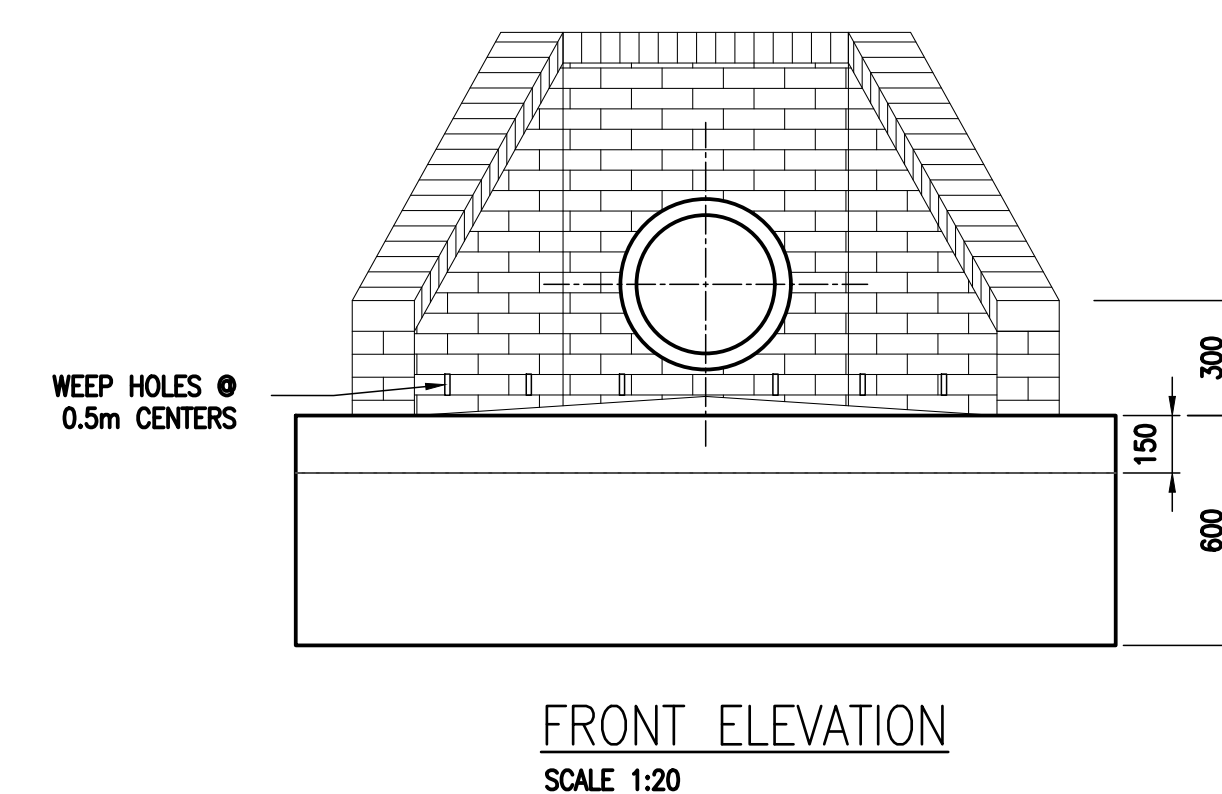
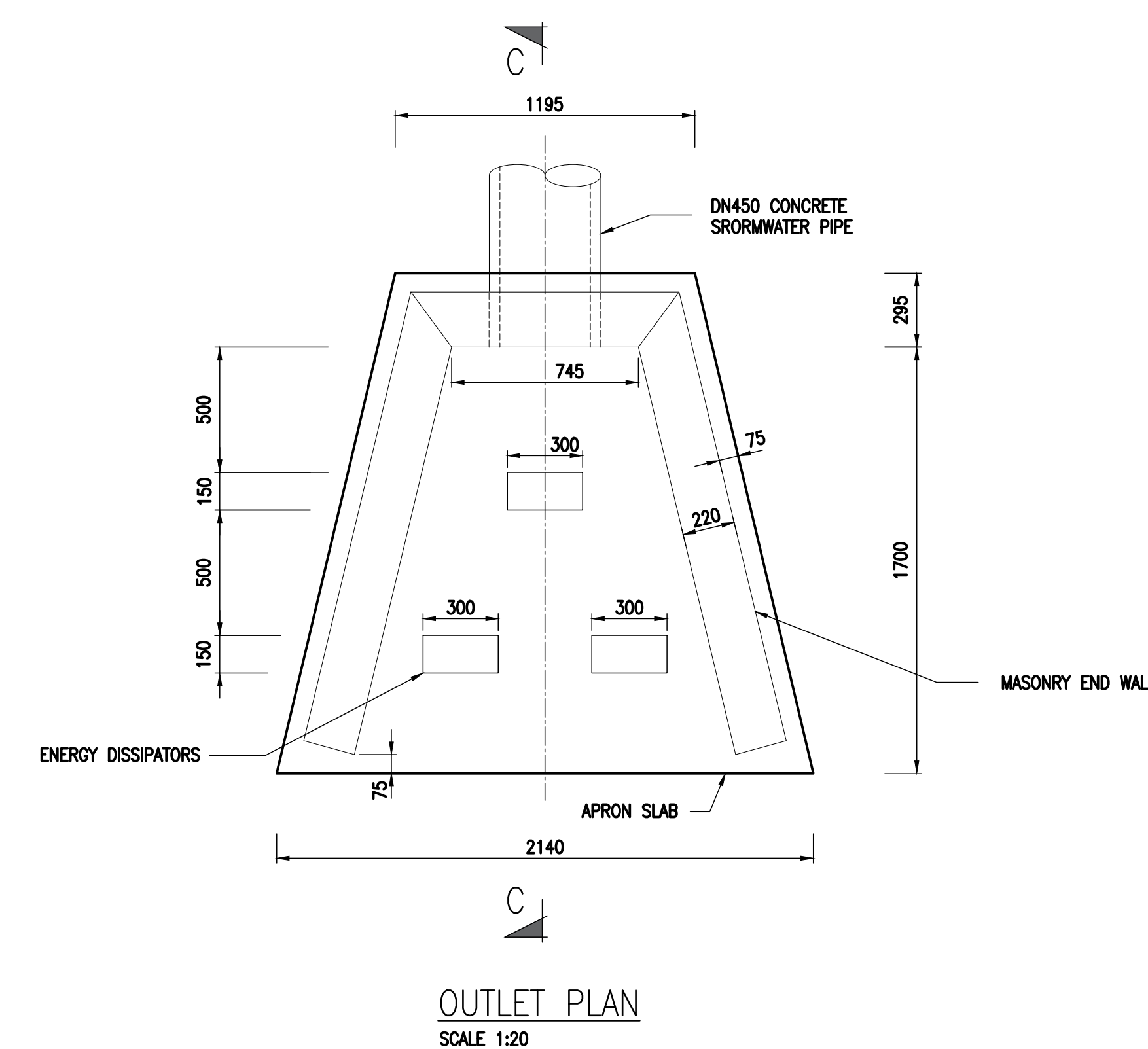
The diagram shows a cross-section of a square column with a width of 1800 mm. The column is composed of three main layers from top to bottom:

- A top layer of 220mm thick masonry wall.
- A middle layer of 200mm thick concrete slab reinforced with two layers of mesh reinforcement.
- A bottom layer of 200mm thick concrete slab reinforced with two layers of mesh reinforcement.

The column is supported by a foundation. The total height of the column above the foundation is 1000 mm. The foundation has a width of 1800 mm and a depth of 200 mm. The column is shown with reinforcement bars and stirrups. The section is labeled "SECTION B-B" and "SCALE 1:20".



LAYER WORKS		THICKNESS
No.	LAYER DESCRIPTION	
①	GS MATERIAL COMPACTED IN LAYERS NOT EXCEEDING 150mm to 95% MOD. ASHTO DENSITY AT -1% to +2% OMC	300mm
②	50mm BLINDING	50mm
③	IN-SITU BACKFILL OF SELECTED SUITABLE G7 MATERIAL FROM EXCAVATION, COMPACTED IN LAYERS NOT EXCEEDING 150mm to 93% MOD. ASHTO DENSITY AT -1% to +2% OMC	150mm
④	150mm THICK TOP SOIL TO BE REINSTATED	150mm



1. ALL BRICKS TO BE OF QUALITY FBSE30 TO SANS 227-2007 WITH WATER ABSORPTION < 14% AND EFFLORESCENCE < 10.
2. ALL BRICKWORK TO BE IN ENGLISH BOND.
3. NO PLASTERING OF BRICKWORK WILL BE ALLOWED.
4. BRICK SAMPLES SHALL BE SUBMITTED FOR TESTING.
5. ALL BRICKWORK TO BE OF HIGH STRENGTH WITH NOMINAL COMPRESSIVE STRENGTH OF 14MPa

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL CONTRACT DRAWINGS.
2. STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH SANS SPECIFICATIONS AND RAND WATER SPECIFICATIONS.
3. ALL CONCRETE MIXES AND METHOD STATEMENTS TO BE APPROVED BY THE CIVIL DESIGN ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE CIVIL DESIGN ENGINEER PRIOR TO CASTING OF THE BLINDING LAYER.
5. ALL LEVELS AND DIMENSIONS WILL BE CHECKED ON SITE PRIOR TO CONSTRUCTION.

1. CONCRETE STRENGTH REQUIRE AT 28 DAYS:
  - a) STRUCTURAL CONCRETE – 25MPa
  - b) FINISHING – CLASS 15/19
2. MAXIMUM SIZE OF COARSE AGGREGATE TO BE 26.5mm.
3. CURING METHOD STATEMENT OF CONCRETE SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SANS 2001-CC1.
4. ONLY CONCRETE COVER BLOCKS TO BE USED ON SITE AND THE CONCRETE COVER BLOCKS TO HAVE THE SAME STRENGTH AS THE CONCRETE BEING CAST.
5. STRIPPING TIMES OF SHUTTERING AND PROPPING SHALL BE IN ACCORDANCE WITH SANS 2001-CC1.

1. CONCRETE COVER:
  - a. FLOOR SLAB: 50mm
  - b. FOOTING AND COLUMN STUB: 45mm
2. MINIMUM LAP LENGTH TO BE 50 x DIAMETER OF THE SMALLER BAR.
3. ALL REINFORCEMENT TO BE CHECKED AND APPROVED BY THE CIVIL DESIGN ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
4. REINFORCEMENT ABBREVIATIONS:  
B1 = FIRST LAYER FROM BOTTOM  
B2 = SECOND LAYER FROM BOTTOM
5. BEARING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH SANS 282.
6. REINFORCEMENT DETAILING TO COMPLY WITH SANS 10144.
7. REINFORCEMENT SHALL BE FIXED TO COMPLY WITH TOLERANCES AS SPECIFIED IN SANS 2001 CC1.

1. THE CIVIL ENGINEER SHALL INSPECT AND APPROVE ALL EXCAVATIONS AND BACK-FILLING PRIOR TO CASTING OF THE CONCRETE BUILDING LAYER
2. THE CONTRACTOR IS REFERRED TO THE TECHNICAL SPECIFICATION WITH REGARDS TO DEALING WITH SERVICES
3. TOP SOIL TO BE GRADED TO ENSURE THAT THE GROUND FOLLOWS THE ORIGINAL N.G.L..
4. MAINTAINING THE SIDES OF THE EXCAVATIONS IN A SAFE CONDITION SHALL AT ALL TIMES BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NO UNDER CUTTING OF THE SIDES WILL BE ALLOWED.

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SAP No.	P.01605	CHECKED BY	
CONTRACT No.	RW	D.O.M. c. TUMBARE	
DESIGNED BY	MAMABOLO JM	APPROVED	Pr En
DRAWN BY	MAMABOLO JM	REG. No.	20150256
DATE	MAY 2020	DATE	04/03/2021

**ZUIKERBOSCH PUMPING STATION**  
**WORKS AREA 2 (SYSTEM 4)**  
**FILTER SAND STORAGE FACILITY**  
**STORMWATER MANHOLES AND**  
**OUTLET STRUCTURES**

STATION			WKS								DOC. TYPE			S		
Z	B		2	4	U	G	X						D	C	G	A
SCALE AS SHOWN																

DRG No. R028432/005