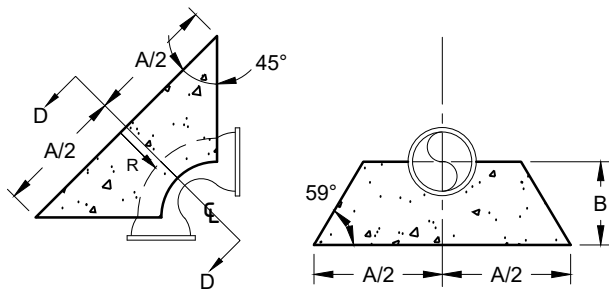
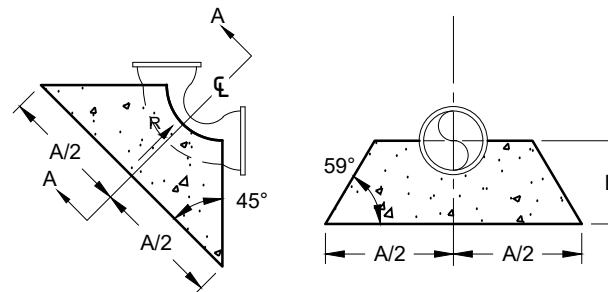


NOMINAL DIAMETER (mm)	EFFECTIVE AREA (m <sup>2</sup> )	BENDS --- HORIZONTAL & VERTICAL --- UP																				TEE & DEAD END				
		90°					45°					22 1/2°					11 1/4°									
		R	b AREA	A	B	CONC	R	b AREA	A	B	CONC	R	b AREA	A	B	CONC	R	b AREA	A	B	CONC	R	b AREA	A	B	CONC
100	0.012	1.74	0.14	375	300	0.04	0.94	0.08	300	300	0.04	0.37	0.03	300	300	0.04	0.24	0.02	300	300	0.04	1.23	0.10	375	450	0.04
150	0.024	3.61	0.30	525	300	0.04	1.95	0.16	450	300	0.04	1.00	0.08	300	300	0.04	0.50	0.04	300	300	0.04	2.55	0.21	450	450	0.04
200	0.042	6.21	0.51	750	450	0.19	3.36	0.27	525	450	0.04	1.71	0.14	375	450	0.04	0.86	0.07	300	450	0.04	4.39	0.36	600	450	0.08
250	0.063	9.21	0.75	900	450	0.19	5.03	0.41	675	450	0.08	2.61	0.21	450	450	0.04	1.29	0.11	375	450	0.04	6.58	0.54	750	450	0.19
300	0.088	13.24	1.09	1100	450	0.38	7.12	0.58	750	450	0.19	3.65	0.30	525	450	0.04	1.84	0.15	375	450	0.04	9.34	0.76	900	525	0.19



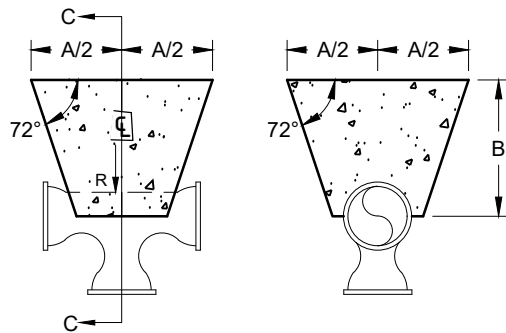
**PLAN**  
**SECTION D-D**  
**HORIZONTAL BEND**



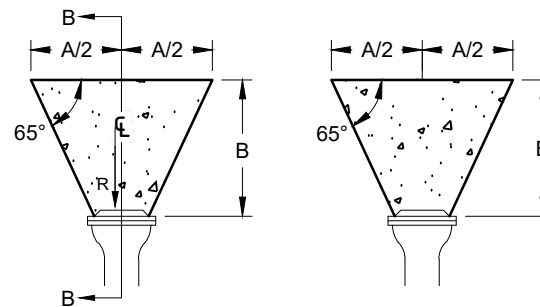
**PROFILE**  
**SECTION A-A**  
**VERTICAL BEND UPWARD**

**ABBREVIATIONS:**

- R - REACTION IN 1000kg
- b - MINIMUM BEARING AREA AT SOIL TO CONCRETE FACE IN m<sup>3</sup>
- CONC - VOLUME OF CONCRETE IN m<sup>3</sup>
- A & B - DIMENSION OF CONCRETE IN mm UNLESS OTHERWISE SHOWN



**PLAN**  
**SECTION C-C**  
**TEE**



**PLAN**  
**SECTION D-D**  
**DEAD END**

**NOTES:**

1. CONCRETE SHALL BE 25MPa 28 DAY STRENGTH.
2. BLOCKS SHALL BE POURED DIRECTLY AGAINST UNDISTURBED SOIL AS INDICATED. (NO UNDISTURBED SOIL SHOWN)
3. DESIGN DATA - STATIC PRESSURE OF 1000KPa.  
- MINIMUM SOIL BEARING CAPACITY 120 KPa.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

**MUNICIPAL MASTER SPECIFICATIONS**

**WATER MAIN THRUST BLOCKS TYPE 'A'**

DRAWING NUMBER 04590

DATE: APRIL 2023

SCALE: N.T.S.