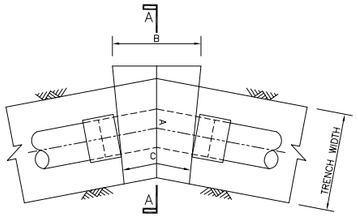
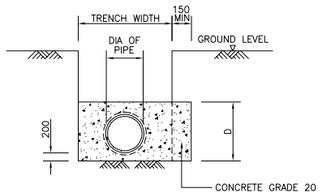
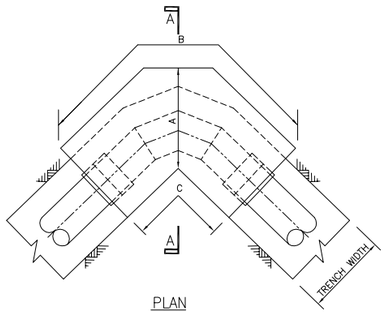


PLAN

LESS THAN 30° BEND

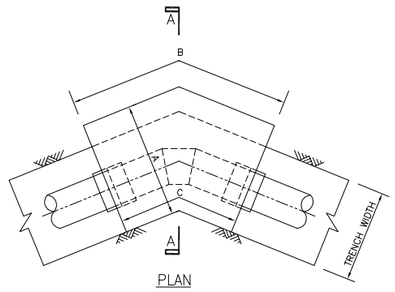


SECTION A–A



PLAN

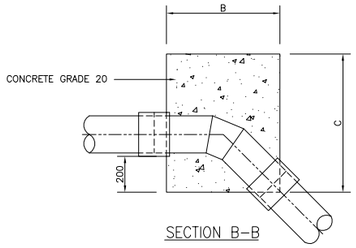
61° TO 90° BEND



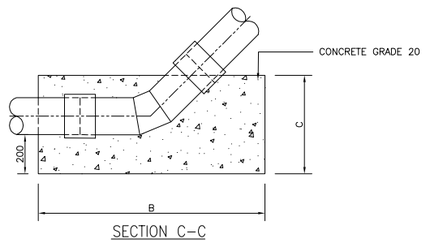
PLAN

31° TO 60° BEND

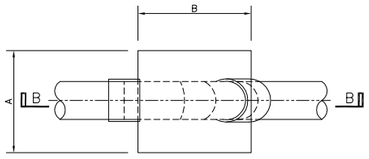
TYPICAL CONCRETE THRUST BLOCK FOR HORIZONTAL BEND



SECTION B–B

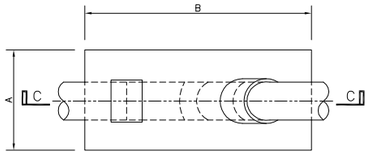


SECTION C–C



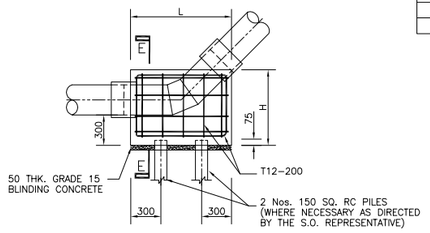
PLAN

THRUST BLOCK FOR VERTICAL BEND
(ACTING UPWARD)

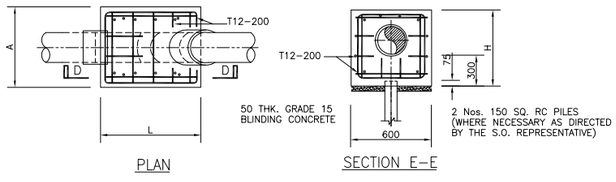


PLAN

THRUST BLOCK FOR VERTICAL BEND
(ACTING DOWNWARD)



SECTION D–D



PLAN

SECTION E–E

THRUST BLOCK WITH RC PILE
FOR OVER–CROSSING

TABLE FOR CONCRETE THRUST BLOCK FOR HORIZONTAL BENDS												
NOMINAL DIA. OF MS PIPE (mm)	BEND											
	UP TO 30°				OVER 30° TO 60°				OVER 60° TO 90°			
	A	B	C	D	A	B	C	D	A	B	C	D
400	1050	1550	800	800	1050	2700	1050	1000	1050	3800	1050	1000
350	1000	1300	600	750	1000	2350	750	850	1000	3200	800	950
300	950	1050	350	700	950	2050	600	700	950	2800	600	700
250	900	800	300	650	900	1500	350	650	900	2250	350	650
200	850	600	300	600	850	1150	300	600	850	1600	300	600
150	800	400	200	550	800	800	200	550	800	1200	200	550
100	750	300	200	500	750	700	200	500	750	1100	200	500

TABLE FOR CONCRETE THRUST BLOCK FOR VERTICAL BENDS (ACTING DOWNWARD)									
NOMINAL DIA. OF MS PIPE (mm)	BEND								
	UP TO 15°			OVER 15° TO 30°			OVER 305° TO 45°		
	A	B	C	A	B	C	A	B	C
400	900	950	800	1100	1500	800	1200	2000	1000
350	850	750	750	1000	1200	750	1100	1500	1000
300	800	600	700	800	1100	700	900	1400	900
250	750	400	650	750	800	650	750	1100	650
200	700	300	600	700	550	600	700	750	600
150	650	300	550	650	350	550	650	450	550
100	600	300	500	600	300	500	600	300	500

TABLE FOR CONCRETE THRUST BLOCK FOR VERTICAL BENDS (ACTING UPWARD)									
NOMINAL DIA. OF MS PIPE (mm)	BEND								
	UP TO 15°			OVER 15° TO 30°			OVER 305° TO 45°		
	A	B	C	A	B	C	A	B	C
400	900	950	800	1100	1500	800	1200	2000	1000
350	850	750	750	1000	1200	750	1100	1500	1000
300	800	600	700	800	1100	700	900	1400	900
250	750	400	650	750	800	650	750	1100	650
200	700	300	600	700	550	600	700	750	600
150	650	300	550	650	350	550	650	450	550
100	600	300	500	600	300	500	600	300	500

TABLE FOR CONCRETE THRUST BLOCK WITH RC PILE FOR OVERCROSSING				
No. OF PILE	MS PIPE ND (mm)	H	L	A
2 Nos.	400	850	1200	900
	350	800	1200	850
	300	750	1000	800
	250	700	1000	750
	200	650	1000	700
	150	600	1000	600

NOTE :

1. ALL DIMNESIONS ARE MILIMETRE AND LEVELS ARE IN METRE UNLESS OTHERWISE STATED.
2. MASS CONCRETE GRADE 20.
3. ALLOWABLE BEARING PRESSURE = 75 kN/m2.
4. TEST PRESSURE FOR THRUST BLOCKS IS BASED ON 100m HEAD OF WATER.
5. DIMENSIONS OF THRUST BLOCKS TO BE INCREASED IF ACTUAL BEARING PRESSURE IS FOUND TO BE LESS THAN 75 kN/m2.
6. DIMENSION 'A' OF THRUST BLOCK TO BE ADJUSTED BY THE SO IF NECESSARY TO SUIT TRENCH WIDTH.
7. REINFORCED CONCRETE GRADE 25.
8. BLINDING CONCRETE GRADE 15.

REV.	REVISED BY	DESCRIPTION	DATE
01	NORAZLIN	CHANGE LOGO	JAN 2018

Ranhill SAJ

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PROJECT :

DRAWING TITLE :

DETAILS OF THRUST BLOCK

DRAWN BY : MAZZ	DESIGNED : W.C
CHECKED : MFB	APPROVED : T.C
SCALE : NOT TO SCALE	DATE : JAN 2018

DRAWING NO :

SAJ/STD/TB/01(01)