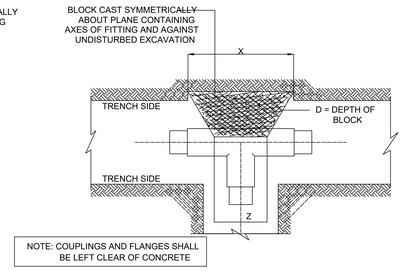


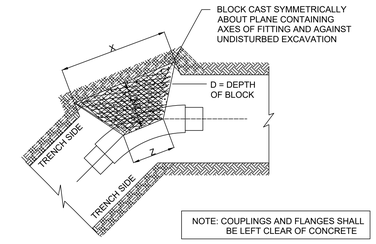
PIPE DIAMETER	X	D	Z
200	800	500	250
160	700	450	175
110	500	300	100
90	300	225	75

THRUST BLOCK IN PRESSURE PIPELINE FOR 90 DEG. BEND
TYPE (1)
N.T.S.



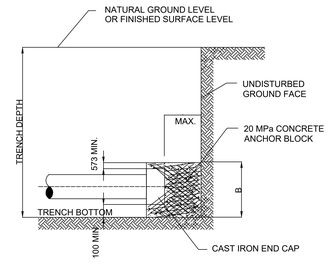
PIPE DIAMETER	X	D	Z
200	900	400	250
160	800	350	200
110	750	300	100
90	700	275	75

THRUST BLOCK IN PRESSURE PIPELINE FOR TEES
TYPE (2)
N.T.S.

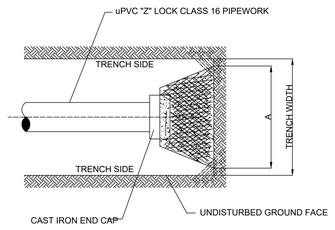


PIPE DIAMETER	X	D	Z
200	900	400	200
160	800	350	200
110	750	300	100
90	700	275	75

THRUST BLOCK IN PRESSURE PIPELINES FOR 45, 22.5 AND 11.5 DEG. BEND
TYPE (3)
N.T.S.



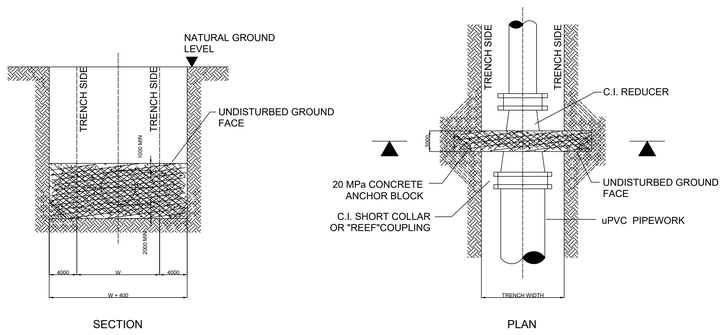
SECTION OF END CAP



PLAN OF END CAP

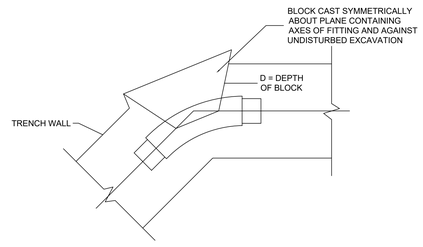
PIPE DIAMETER	A	B	C
200	800	500	400
160	600	400	300
110 OR LESS	400	250	200

DETAIL OF END CAP
TYPE (4)
N.T.S.



SECTION PLAN

DETAIL OF REDUCER ANCHOR BLOCK
SCALE N.T.S



PIPE DIAMETER	X	D	Z
300	1000	500	300
250	950	450	250
200	900	400	200
150	800	350	150
100	750	300	100
75	700	275	75
50	700	275	75

THRUST BLOCK IN PRESSURE PIPELINE FOR 45, 22 1/2 AND 11 1/2 DEG. BENDS
SCALE N.T.S.

CALCULATION OF THRUST BLOCK DIMENSIONS FOR END CAPS, TEES AND BENDS

$A = \frac{0.785\ Fpd\ C^2}{b}$ WHERE A = AREA OF THRUST (m^2)

p = RATED WORKING PRESSURE (kPa)
F = FACTOR OF SAFETY
d = INTERNAL DRAIN (METRES)
b = SOIL BEARING CAPACITY (kPa)
C = FACTOR
11 1/4 DEG. BEND = 0.20
22 1/2 DEG. BEND = 0.39
45 DEG. BEND = 0.77
90 DEG. BEND = 1.42
END CAP/TEES = 1.00

FOR REDUCERS

$A = 0.785\ Fp\ (d1^2 - d_2^2)$ WHERE A AND p ABOVE. F AS
d AND d ARE THE LARGER AND SMALLER
INTERNAL DIAMETRES OF THE REDUCER (METRES)

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DRAWING No.	REFERENCE DRAWINGS :

NO.	DATE	REVISION	DRAWN
A	MAY 2026	ISSUED FOR INFORMATION	G.S

ISSUED FOR TENDER

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PROJECT

COMPLETION OF NONDABUYA WSS

DRAWING TITLE

TYPICAL DETAILS FOR THRUST BLOCKS

	SIGNATURE	DATE	PR.No.	SHEET SIZE
DESIGNED	M.T	MAY 2026		A0
DRAWN	G.S	MAY 2026		SCALE
CHECKED	N.N	MAY 2026		AS SHOWN
APPROVED				DWG STATUS: P
CO-ORDINATOR				P = PRELIMINARY, C = CONSTRUCTION

DRAWING NUMBER

REVISION No: A

UKDM-0057-01

SDM-DRAWING No.

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