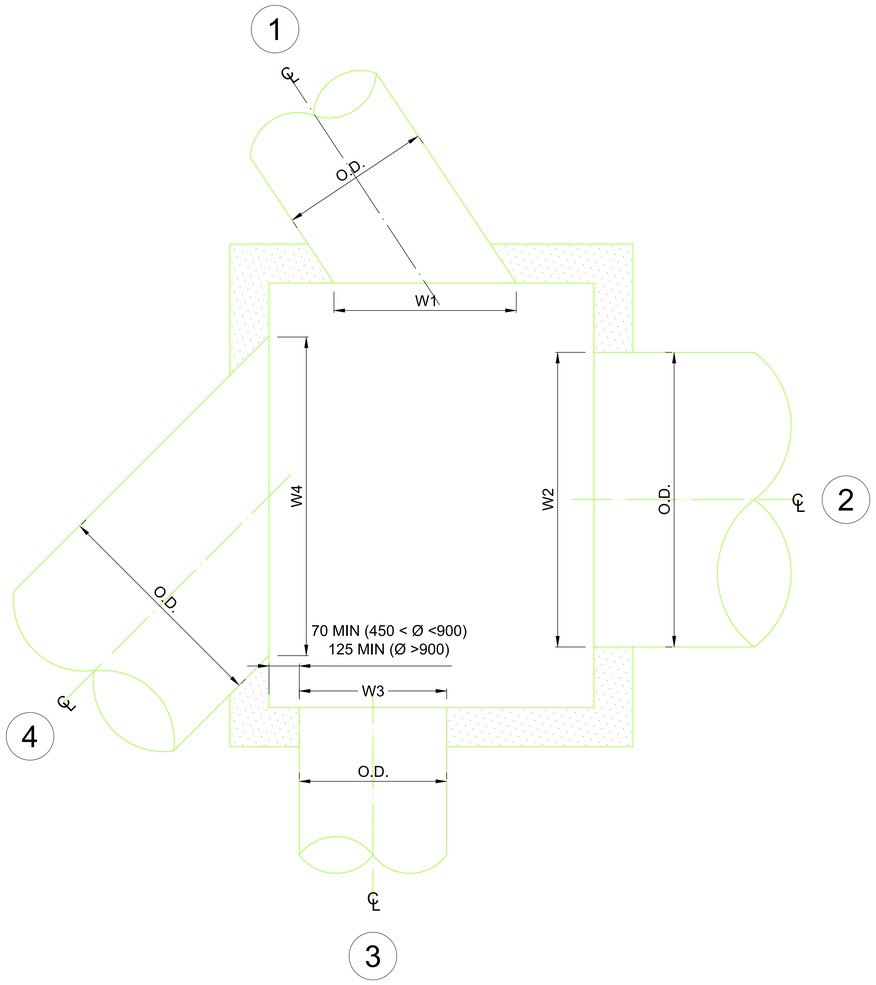


LAYOUT OF CHAMBER

TABLE 2

SELECT PIPE DIAM. WITH LARGEST VALUE OF W_1 OR W_3

SELECT PIPE DIAM. WITH LARGEST VALUE OF W_2 OR W_4

Ø	Θ°	450				600				750				900				1050				1200				1350			
		0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45
450	0	A	A	A	A	A	A	B	B	B	B	B	D	B	B	D	F	D	D	F	F	F	F	F	H	F	F	F	H
	15	A	A	A	A	A	A	B	B	B	B	B	D	B	B	D	F	D	D	F	F	F	F	F	H	F	F	F	H
	30	A	A	A	A	A	A	B	B	B	B	B	D	B	B	D	F	D	D	F	F	F	F	F	H	F	F	F	H
	45	A	A	A	A	A	A	B	B	B	B	B	D	B	B	D	F	D	D	F	F	F	F	F	H	F	F	F	H
600	0	A	A	A	A	A	A	B	B	B	B	B	D	B	B	D	F	D	D	F	F	F	F	F	H	F	F	F	H
	15	A	A	A	A	A	A	B	B	B	B	B	D	B	B	D	F	D	D	F	F	F	F	F	H	F	F	F	H
	30	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	D	D	F	F	F	F	F	H	F	F	F	H
	45	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	D	D	F	F	F	F	F	H	F	F	F	H
750	0	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	D	E	F	F	F	F	F	H	F	F	F	H
	15	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	D	E	F	F	F	F	F	H	F	F	F	H
	30	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	E	E	F	F	F	F	F	H	F	F	F	H
	45	D	D	D	D	D	D	D	D	D	D	D	E	D	D	E	F	E	E	F	F	F	F	F	H	F	F	F	H
900	0	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	E	E	F	F	F	F	F	H	F	F	F	H
	15	B	B	B	B	B	B	C	C	C	C	C	D	C	C	D	F	E	E	F	F	F	F	F	H	F	F	F	H
	30	D	D	D	D	D	D	D	D	D	D	D	E	D	D	E	F	E	E	F	F	F	F	F	H	F	F	F	H
	45	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
1050	0	D	D	D	D	D	D	D	D	D	D	E	E	D	D	E	F	E	E	F	F	F	F	F	H	F	F	F	H
	15	D	D	D	D	D	D	D	D	E	E	E	E	D	D	E	F	E	E	F	F	F	F	F	H	F	F	F	H
	30	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	45	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
1200	0	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	15	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	30	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	45	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	I	H	H	H	I
1350	0	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	15	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	30	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	G	G	G	G	G	H	G	G	G	H
	45	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	I	H	H	H	I

INTERNAL CHAMBER SIZES

CHAMBER TYPE	INTERNAL CHAMBER SIZE
A	900 x 900
B	1200 x 900
C	1200 x 1200
D	1500 x 1200
E	1500 x 1500
F	2000 x 1500
G	2000 x 2000
H	2500 x 2000
I	2500 x 2500
J*	2000 x 1000

TABLE 1

NOMINAL DIAMETER	ANGLE OF SKEW Θ			
	0°	15°	30°	45°
450 Ø	533	552	615	754
600 Ø	699	724	807	989
750 Ø	870	901	1005	1230
900 Ø	1029	1065	1188	1455
1050 Ø	1194	1236	1379	1689
1200 Ø	1359	1407	1569	1922
1350 Ø	1524	1578	1760	2155

VALUES OF EXTERNAL PIPE ENTRY / EXIT WIDTHS (Wx) FOR DIFFERENT PIPE DIAMETERS (Ø)

PROCEDURE:

1. CONSIDER PIPES 1 AND / OR 3 FROM TABLE 1, DETERMINE WHICH PIPE HAS THE LARGEST EXTERNAL PIPE ENTRY / EXIT WIDTH (Wx).
2. REPEAT THE PROCEDURE FOR 2 AND / OR 4.
3. USING THE TWO PIPES WITH THE LARGEST EXTERNAL PIPE ENTRY / EXIT WIDTH, READ FROM TABLE 2 THE SIZE OF THE CHAMBER REQUIRED.
4. IN CASE EITHER PIPES 1 AND 2 OR 2 AND 4 DO NOT EXIST, SELECT THE CHAMBER TYPE FROM THE COLUMN OR ROW FOR A 450 Ø PIPE AT 0° SKEW FROM TABLE 2.
5. REFER TO DRAWING NO: TD-D-MC-1002 FOR CHAMBER DIMENSIONS.
6. SMALLER CHAMBERS THAN TYPE 'A' FOR USE AT MISCELLANEOUS INLET STRUCTURES MAY BE CONSIDERED.

LEGEND:

Ø = NOMINAL DIAMETER OF PIPE
Θ = SKEW ANGLE
Wx = PIPE ENTRY / EXIT WIDTH
O.D. = OUTSIDE DIAMETER

NOTES:

1. TABLE 1 IS CALCULATED USING CLASS 100 "D" PIPES.
2. TYPE J* CHAMBERS FOR USE AT MEDIAN CATCHPITS (INLET TYPE 3)

No.	DATE	REVISION
V1	08/03/2024	ORIGINAL VERSION

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BUILDING SOUTH AFRICA THROUGH BETTER ROADS

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ACCEPTANCE

THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING

for the SA NATIONAL ROADS AGENCY SOC LTD.
Date:

PROJECT DESCRIPTION
THE CAPACITY IMPROVEMENT OF NATIONAL ROUTE 1 SECTION 1 FROM OLD OAK INTERCHANGE (KM 18.90) TO KOELENHOF INTERCHANGE (KM 33.00)

MANHOLES AND GRID INLET CHAMBERS
DETERMINATION OF CHAMBER SIZES
SHEET 1 OF 4

SCALE @ A0: AS SHOWN | SHEET 1 OF 4

PROJECT NUMBER	N001-010-2021/1	
DRAWING LOCATION DATA	START	END
ROUTE	N01	N01
SECTION	01	01
DRAWING km DISTANCE	18.900	33.000
DRAWING TYPE	DRAINAGE - MH'S & GI CHAMBERS	
BRIDGE/STRUCTURE No.	N/A	
CONSULTANT DRAWING No.	312-00827-01-TD56	VER
SANRAL DOCUMENT #	XXXXXX	V1

312-00827-01-TD56