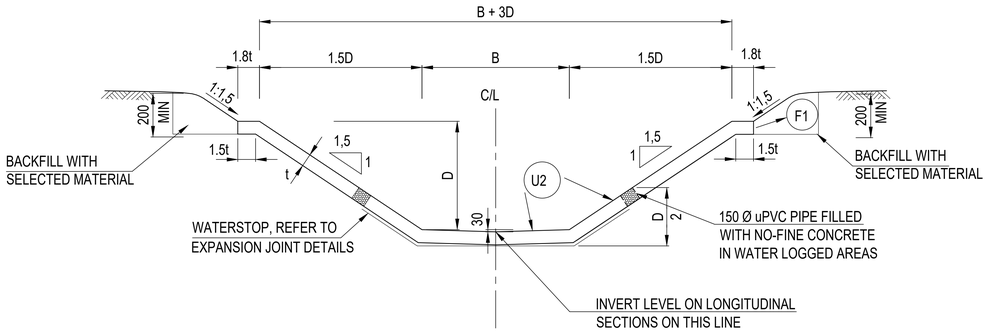
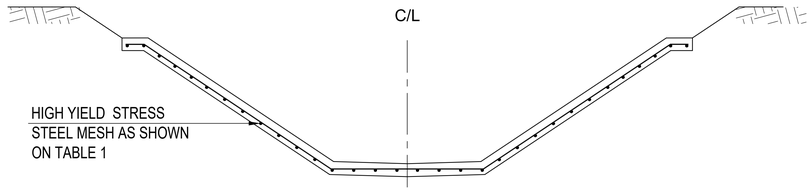


TYPICAL SECTION THROUGH CONCRETE CANAL

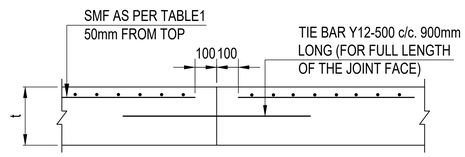
(4500mm UNIT LENGTHS)

SCALE: 1 : 10



CONCRETE CANAL (REINFORCEMENT)

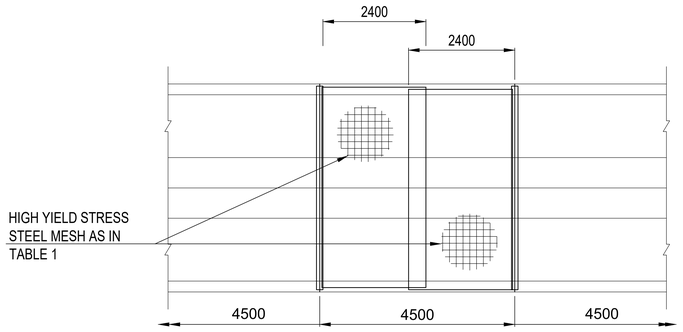
N.T.S.



CONSTRUCTION JOINT IN CANAL

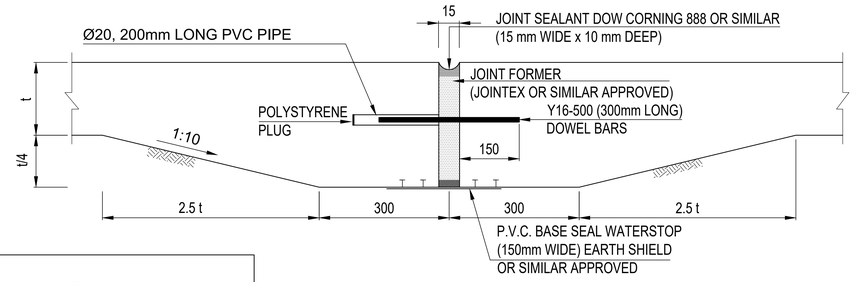
(BETWEEN PANELS)

N.T.S.



TYPICAL PLACING OF STEEL MESH

SCALE 1:50



NOTE:
SLABS WHERE T = 150mm OR THICKER
NO THICKENING IS REQUIRED

EXPANSION JOINT IN CANALS (DETAIL 1)

(EVERY 5TH PANEL)

SCALE: 1 : 5

TABLE 1

TABLE OF CANAL / CULVERT COMBINATION FOR 1:1,5 SIDE SLOPES (SEE NOTE 7)

CULVERT	ADJOINING CANAL								CANAL AND IN - AND OUTLETS
N/SPAN x HEIGHT	BASE(B)	DEPTH(D)	L	t	B+3D	1,5D	1,5t	1,8t	k	HIGH TENSILE STEEL MESH
2/900 x 600	900	600	3000	100	2700	900	150	180	200	SMF \ 193 5,6 mm 200 x 200 mm
2/1200 x 900	1100	800	3600	100	3500	1200	150	180	200	SMF \ 193 5,6 mm 200 x 200 mm
2/1500 x 1200	1350	1000	4200	125	4350	1500	190	225	250	SMF \ 245 6,3 mm 200 x 200 mm
2/1800 x 1200	1700	1200	4800	150	5300	1800	225	270	300	SMF \ 311 7,1 mm 200 x 200 mm
3/1500 x 1500	2000	1400	5400	150	6200	2100	225	270	350	SMF \ 311 7,1 mm 200 x 200 mm
3/1800 x 1800	2300	1600	6000	150	7100	2400	225	270	400	SMF \ 311 7,1 mm 200 x 200 mm

NOTES :

1. ALL CANALS, TRANSITIONS AND JUNCTIONS AS SHOWN ON THIS PLAN TO BE CAST USING CLASS 30/19 CONCRETE.
2. CANALS ARE CAST IN ALTERNATE SECTIONS OF 4500 mm, WITH AN EXPANSION JOINT AT EVERY FIFTH JOINT (22.5M).
3. THE TYPE OF SURFACE FINISH ARE SHOWN AS FOLLOWS: F1,U2.
   F - FORMED SURFACES
   U - UNFORMED SURFACES
4. INVERT LEVELS AND HYDRAULIC INFORMATION TO BE PROVIDED ON THE LONGITUDINAL SECTION OF THE CANAL.
5. CONCRETE TO BE CAST AGAINST TRIMMED EXCAVATIONS. ONLY THE VERTICAL SECTION ON THE OUTSIDE TOP EDGE OF THE CANALS MUST BE FORMED.
6. THE LAYOUT OF STEEL MESH REINFORCEMENT IN IN- AND OUTLETS IS SHOWN ON 8.7.3 SHEET 3 OF 3.
7. ANY OTHER CANAL / CULVERT COMBINATIONS COULD BE EMPLOYED BY THE DESIGN ENGINEER
8. IF SPACE IS LIMITED, CANAL SIDE SLOPES MAY BE STEEPENED TO 1:1.
9. THE NECESSARY SAFETY PRECAUTIONS NEED TO BE IMPLEMENTED IN URBAN CONTEXTS WHERE PEDESTRIANS ARE EXPOSED.

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

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SANRAL
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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)

TRAPEZOIDAL CONCRETE CANALS DETAILS 1 SHEET 1 OF 3

SCALE @ A0: AS SHOWN | SHEET 1 OF 3

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 - TRAPEZOIDAL CANALS	
BRIDGE/STRUCTURE No.	N/A	
CONSULTANT DRAWING No.	312-00827-01-TD71	VER
SANRAL DOCUMENT #	XXXXXX	V1

312-00827-01-TD71