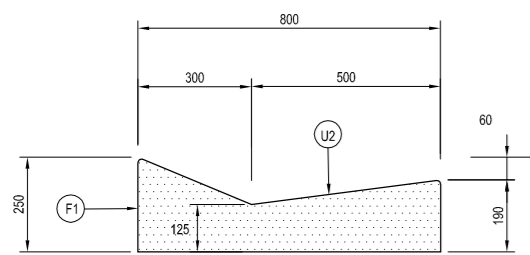
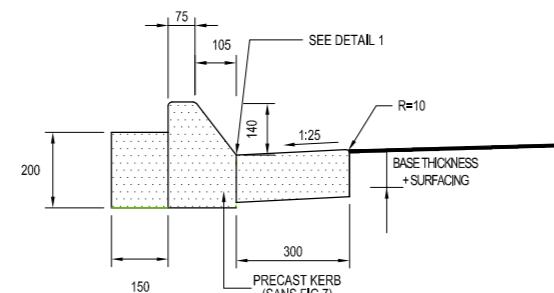


DRAIN TYPE DETAILS



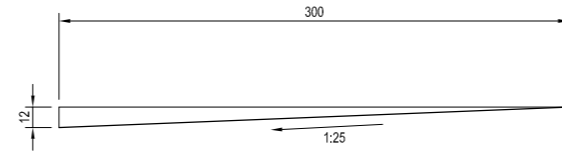
CROSS SECTION OF TYPE 'A' CONCRETE SIDE DRAIN

SCALE 1:10

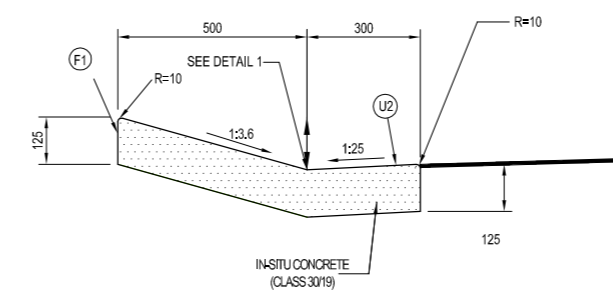


CROSS SECTION OF TYPE 'B' SEMI MOUNTABLE KERB (FIG. 7)

SCALE 1:10

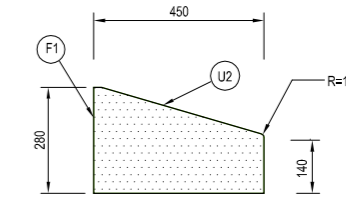


DETAIL 1 N.T.S.



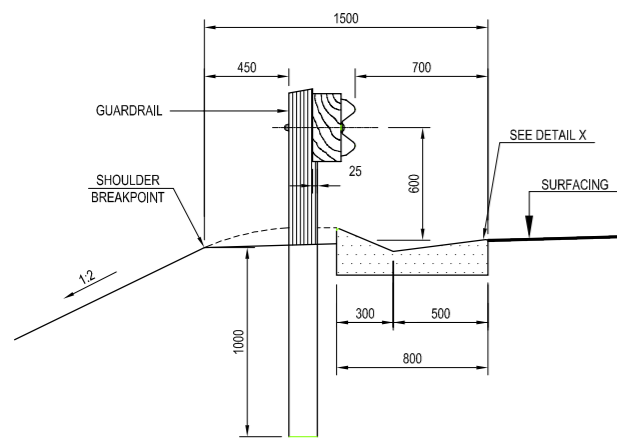
CROSS SECTION OF TYPE 'C' MOUNTABLE KERB (RURAL INTERSECTIONS)

SCALE 1:10



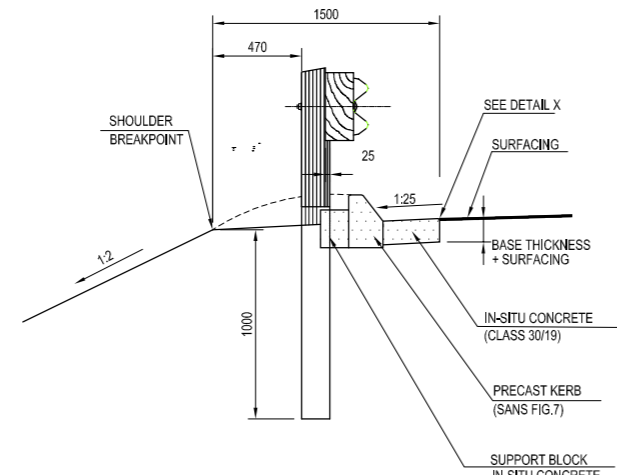
CROSS SECTION OF TYPE 'D' MOUNTABLE KERB

SCALE 1:10



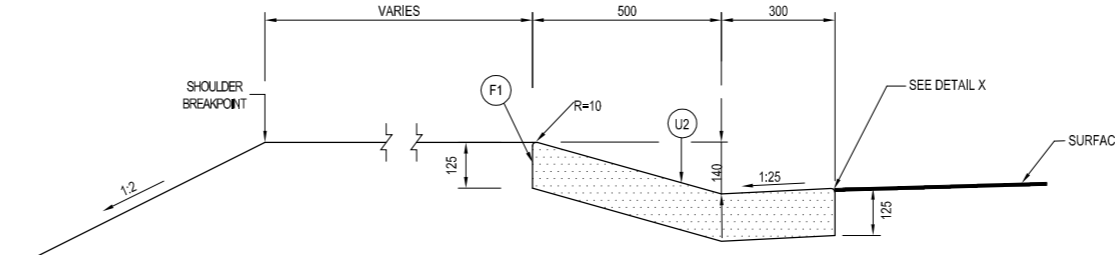
POSITION OF TYPE 'A' CONCRETE SIDE DRAIN

SCALE 1:20



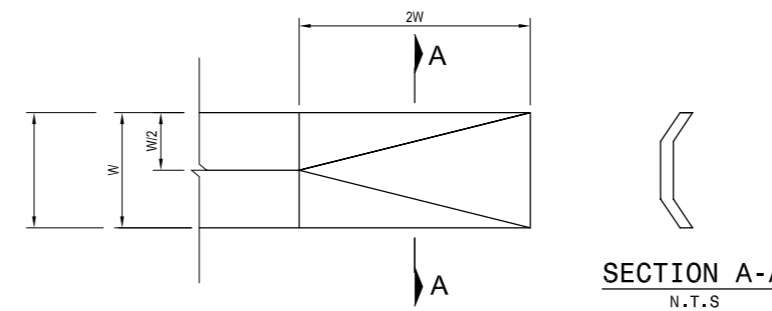
POSITION OF TYPE 'B' SEMI MOUNTABLE KERB (FIG. 7)

SCALE 1:20



POSITION OF TYPE 'C' MOUNTABLE KERB

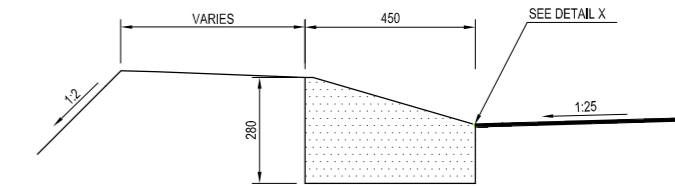
SCALE 1:10



SECTION A-A N.T.S.

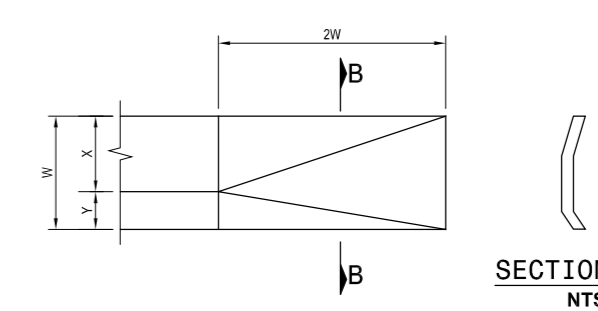
START OF TYPE E CONCRETE DRAIN

N.T.S.



POSITION OF TYPE 'D' MOUNTABLE KERB (STREET SECTIONS)

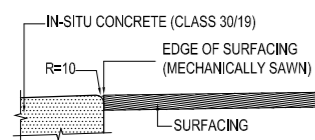
SCALE 1:10



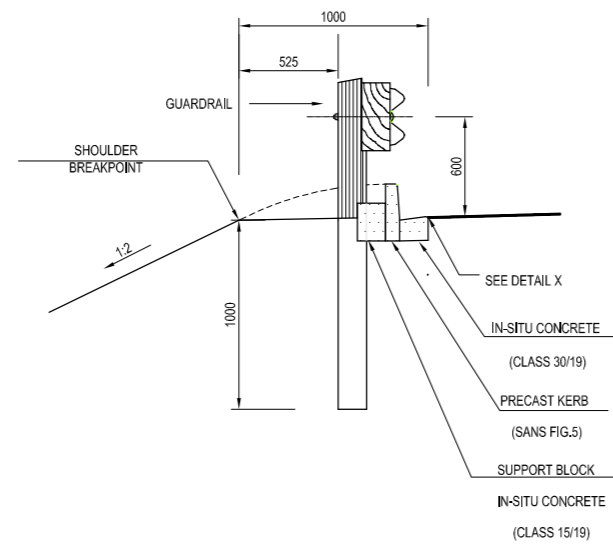
SECTION B-B N.T.S.

START OF TYPE F SIDE DRAIN

N.T.S.

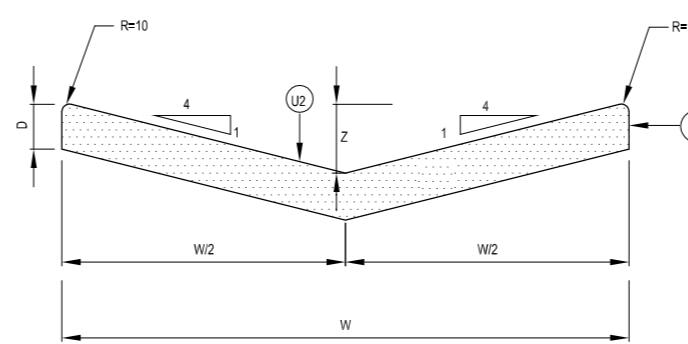


DETAIL X SCALE 1:5



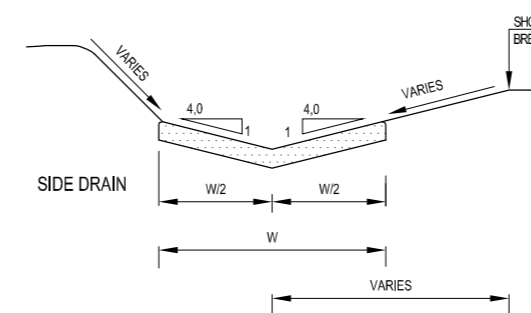
POSITION OF ALTERNATIVE TYPE 'B' NON MOUNTABLE KERB (FIG. 5)

SCALE 1:20

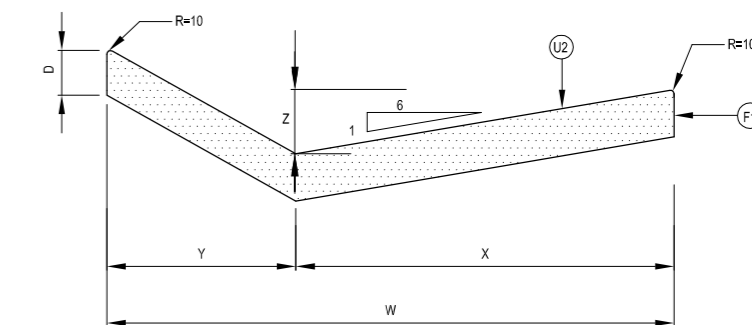


CROSS SECTION OF TYPE 'E' CONCRETE CHANNEL

N.T.S.

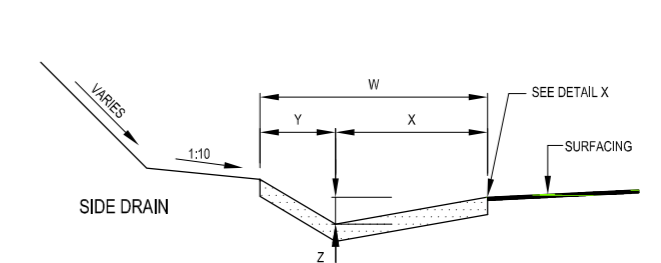


POSITION OF TYPE 'E' CONCRETE CHANNEL



CROSS SECTION OF TYPE 'F' CONCRETE SIDE CHANNEL

N.T.S.



POSITION OF TYPE 'F' CONCRETE CHANNEL

- NOTES :
1. ALL CONCRETE CHANNELS AND OTHER DRAINAGE STRUCTURES ON THIS PLAN TO BE CAST USING CLASS 30/19 CONCRETE.
 2. TYPES 'E' AND 'F' CONCRETE MUST BE CAST IN ALTERNATIVE LENGTHS OF 2.0m MAXIMUM WITH EXPANSION JOINTS EVERY 5th PANEL (10 m)
 3. ALL EXPOSED CORNERS MUST BE ROUNDED OFF TO A MINIMUM RADIUS OF 10mm.
 4. THE TYPE OF SURFACE FINISH IS INDICATED AS F1 & U2.
F - FORMED SURFACES
U - UNIFORM SURFACES
 5. PRECAST KERBING FIG. 5 & FIG. 7 REFER SANS. 927

TYPE	W	W/2	Z	D UNREINFORCED	D REINFORCED
E1	1000	500	125	125	100
E2	1500	750	188	125	100
E3	2000	1000	250	150	100
E4	2500	1250	313	150	100

DIMENSIONS OF TYPE 'E' CONCRETE CHANNELS

TYPE	W	X	Y	Z	D UNREINFORCED	D REINFORCED
F1	1000	670	330	110	125	100
F2	1500	1000	500	170	125	100
F3	2000	1330	670	220	150	100
F4	2500	1670	830	280	150	100
F5	1500	1080	420	135	125	100
F6	2000	1500	500	190	150	100

DIMENSIONS OF TYPE 'F' CONCRETE CHANNELS

<p>CONSTRUCTION RECORD (AS-BUILT) WORKS CONTRACT ENGINEER</p> <p>Name: _____ Prof. Reg. No.: _____ Date: _____</p> <p>SANRAL PROJECT MANAGER</p> <p>Name: _____ Date: _____</p>		<p>SNA CIVIL AND STRUCTURAL ENGINEERS (Pty) LTD</p> <p>SINAVIA BUILDING 285 ALBERTUS STREET LA MONTAGNE 0184</p> <p>Tel: 012-842 0000 Fax: 012-803 4429 e-mail: sta@sna.co.za web: www.sna.co.za</p>	<p>TRANS AFRICAN CONCESSIONS (PTY) LTD</p> <p>BLOCK 8 THORNHILL OFFICE PARK 94 BEKKER ROAD MIDRAND</p> <p>PO Box 10817 VORNA VALLEY 1996</p> <p>Tel: 011-805 8788 Fax: 011-805 8789 gottel@tacon.co.za www.tacon.co.za</p>	<p>DESIGNED BY</p> <p>NAME: G. LOUBSER Prof. Reg. No.: 890359 CHECKED BY</p> <p>NAME: J.B.W. STOLTZ Prof. Reg. No.: 980512 DRAWN BY</p> <p>NAME: L.V.D. MERWE</p>	<p>CONSULTANT APPROVAL</p> <p>Name: J.W.B. STOLTZ Prof. Reg. No.: 880512 Date: APRIL 2016</p>	<p>HEAD OFFICE</p> <p>48 Tambotie Avenue Val de Grace Pretoria 0184</p> <p>PO Box 415 Pretoria 0001 South Africa</p> <p>Tel: (012) 844 8000</p>	<p>SANRAL</p> <p>SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD</p> <p>BUILDING SOUTH AFRICA THROUGH BETTER ROADS</p>	<p>NORTHERN REGION</p> <p>38 Ida Street Menlo Park Pretoria 0081</p> <p>Private Bag X17 Lynnwood Ridge 0040</p> <p>Tel: (012) 426 6200</p>	<p>ACCEPTANCE</p> <p>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 HOWSOEVER ARISING</p> <p>for the SA NATIONAL ROADS AGENCY SOC LTD. Date: _____</p>	<p>PROJECT DESCRIPTION</p> <p>MAPUTO DEVELOPMENT CORRIDOR (MDC) PRETORIA TO LEBOMBO BORDER POST ROUTINE ROAD MAINTENANCE</p> <p>DRAWING DESCRIPTION</p> <p>DRAIN TYPE DETAILS</p>	<p>PROJECT NUMBER</p> <p>DRAWING LOCATION DATA</p> <p>ROUTE</p> <p>SECTION</p> <p>DRAWING km DISTANCE</p> <p>DRAWING TYPE</p> <p>BRIDGE/STRUCTURE No.</p> <p>CONSULTANT DRAWING No.</p> <p>SANRAL DOCUMENT #</p>	<p>TRAC/MAINT-2019-01</p> <p>START</p> <p>END</p> <p>PRETORIA</p> <p>LEBOMBO BORDER</p> <p>ROADS - TYPICAL DETAILS</p> <p>SNA-TP1915-D2</p> <p>VER V1</p>	
<p>V1 07-2019 ORIGINAL VERSION G. LOUBSER CONSULT. ENG.</p>													
No.	DATE	REVISION											
SCALE : AS SHOWN (A0)												SHEET 1 OF 1	