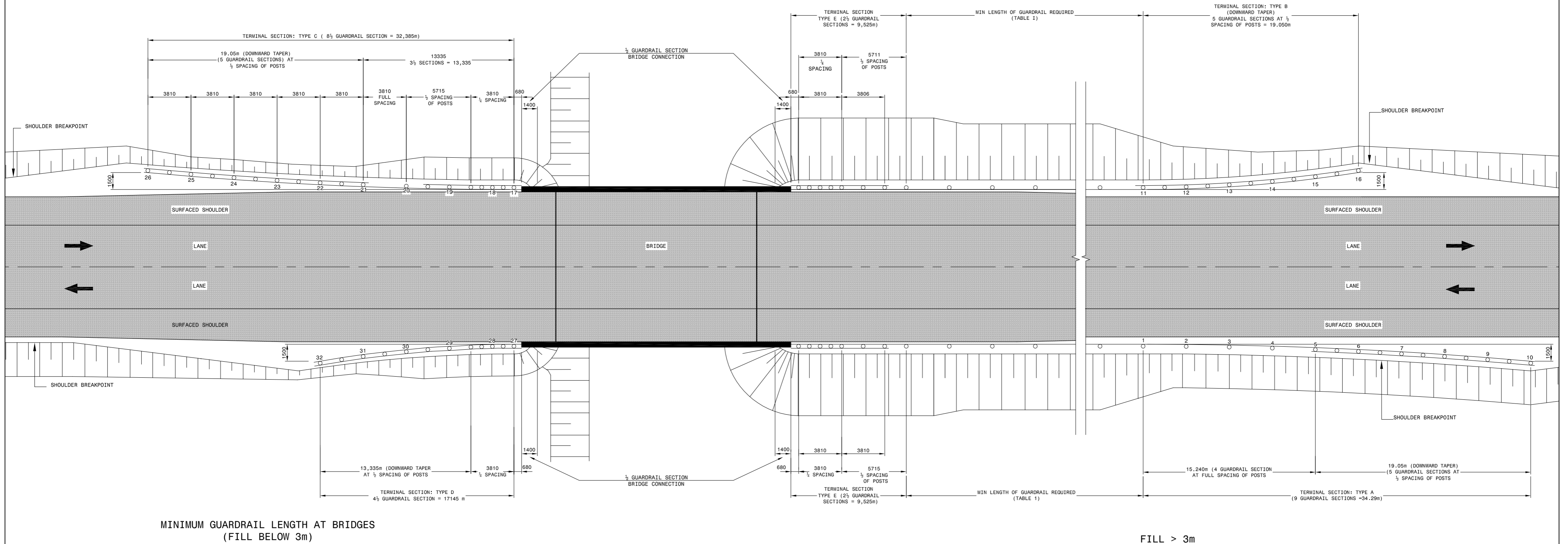


GUARDRAIL PLACING DETAILS AT BRIDGE APPROACHES AND HIGH FILL (SINGLE CARRIAGEWAY)



MINIMUM GUARDRAIL LENGTH AT BRIDGES
(FILL BELOW 3m)

BRIDGE APPROACH

SCALE 1 : 125

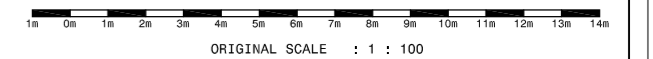
FILL > 3m

SETTING OUT POSITIONS OF GUARDRAIL POSTS

TERMINAL SECTION TYPE A			TERMINAL SECTION TYPE B			TERMINAL SECTION TYPE C			TERMINAL SECTION TYPE D		
POST No.	HORIZONTAL OFF-SET X - (mm)	VERTICAL OFF-SET Y - (mm)	POST No.	HORIZONTAL OFF-SET X - (mm)	VERTICAL OFF-SET Y - (mm)	POST No.	HORIZONTAL OFF-SET X - (mm)	VERTICAL OFF-SET Y - (mm)	POST No.	HORIZONTAL OFF-SET X - (mm)	VERTICAL OFF-SET Y - (mm)
1	0	0	11	0	0	17	0	0	27	0	0
2	19	0	12	60	33	18	0	0	28	0	0
3	74	0	13	240	133	19	23	0	29	94	52
4	164	0	14	540	299	20	94	0	30	375	208
5	296	0	15	960	531	21	211	0	31	844	467
6	463	33	16	1500	830	22	375	33	32	1500	830
7	667	133				23	586	133			
8	907	299				24	844	299			
9	1185	531				25	1148	531			
10	1500	830				26	1500	830			

TABLE I

MIN. LENGTH OF GUARDRAIL REQUIRED (EXCLUDING TERMINAL SECTIONS)	
DESIGN SPEED km/h	MIN. LENGTH (m)
60	12 LENGTHS (45,72)
70	14 LENGTHS (53,34)
80	16 LENGTHS (60,36)
90	20 LENGTHS (76,20)
100	23 LENGTHS (87,63)
110	27 LENGTHS (102,87)
120	29 LENGTHS (110,49)
130	32 LENGTHS (121,92)
140	35 LENGTHS (133,35)



<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>SNAVIA BUILDING 285 ALBERTUS STREET LA MONTAGNE 0184</p> <p>Tel: 012-842 0000 Fax: 012-803 4429 e-mail: pta@sna.co.za web: www.sna.co.za</p>	<p>TRANS AFRICAN CONCESSIONS (PTY) LTD</p> <p>BLOCK 6 THORNTON HILL OFFICE PARK 94 BEKKER ROAD MIDRAND</p> <p>Tel.: 011-805 8788 Fax.: 011-805 8789 gesterhuyse@trac4.co.za www.trac4.co.za</p>	<p>DESIGNED BY</p> <p>NAME: G LOUBSER Prof. Reg. No.: 88039 CHECKED BY: _____</p> <p>CONSULTANT APPROVAL</p> <p>Name: J.W.B. STOLTZ Prof. Reg. No.: 90012 Date: APRIL 2016</p>	<p>HEAD OFFICE 48 Tambotie Avenue Val de Grace Pretoria 0184</p> <p>SANRAL BUILDING SOUTH AFRICA THROUGH BETTER ROADS</p>	<p>NORTHERN REGION 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 HOWEVER ARISING</p> <p>for the SA NATIONAL ROADS AGENCY SOC. LTD.</p> <p>Date: _____</p>	<p>PROJECT DESCRIPTION MAPUTO DEVELOPMENT CORRIDOR (MDC) PRETORIA TO LEBOMBO BORDER POST ROUTINE ROAD MAINTENANCE</p> <p>PROJECT NUMBER DRAWING LOCATION DATA ROUTE SECTION DRAWING TYPE BRIDGE/STRUCTURE No. CONSULTANT DRAWING No.</p>	<p>TRAC/MAINT-2019-01</p> <p>START PRETORIA</p> <p>END LEBOMBO BORDER</p> <p>ROADS - TYPICAL DETAILS</p> <p>SNA-TP1915-C4</p>		
<p>GUARDRAIL PLACING DETAILS AT BRIDGE APPROACHES AND HIGH FILL (SINGLE CARRIAGEWAY)</p>							<p>SCALE : AS SHOWN (A0)</p>	<p>SHEET 1 OF 1</p>	<p>SANRAL DOCUMENT #</p>	<p>VER V1</p>