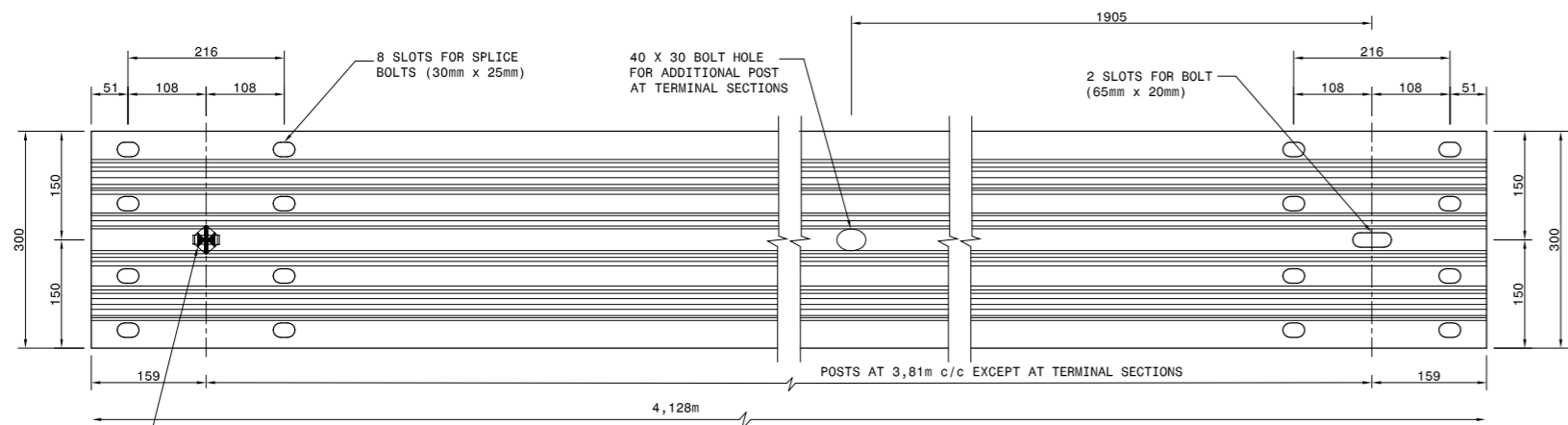
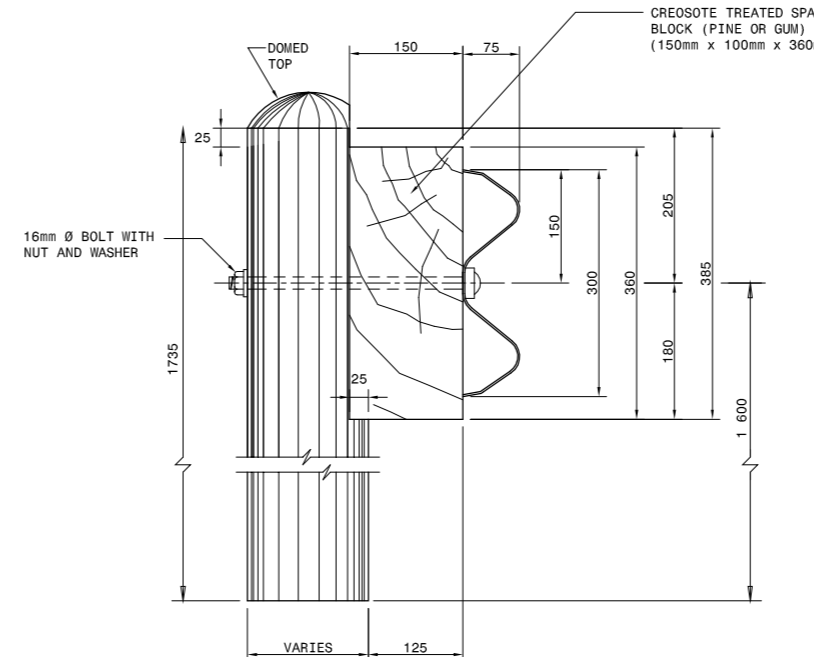


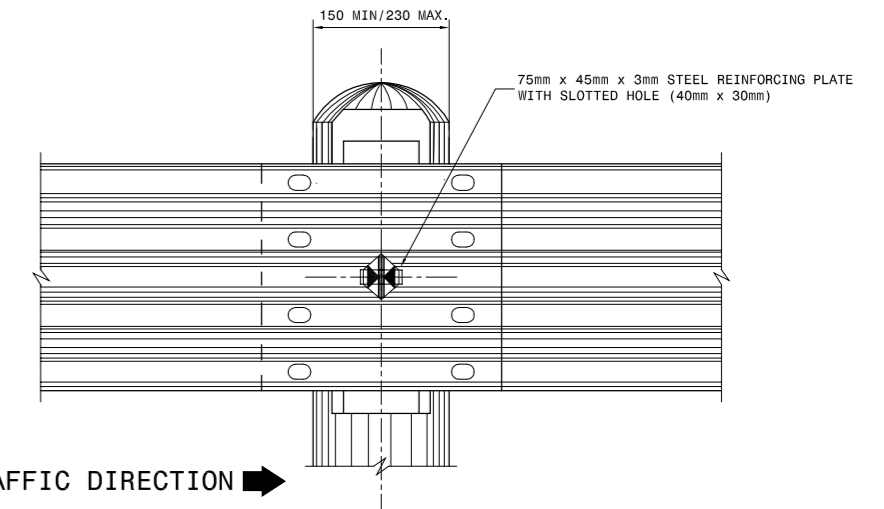
GUARDRAIL ELEMENT AND MOUNTING DETAILS



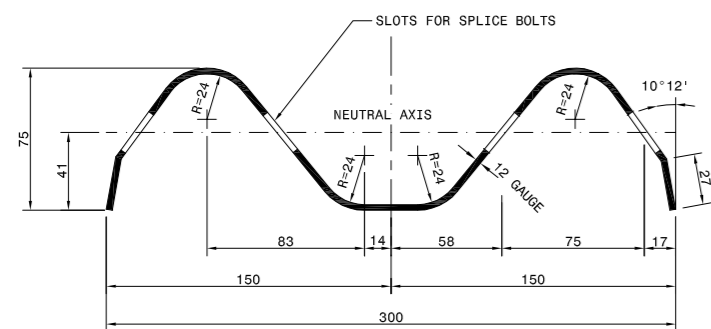
ELEVATION OF TYPICAL GUARDRAIL UNIT



SIDE ELEVATION ON GUARDRAIL POST



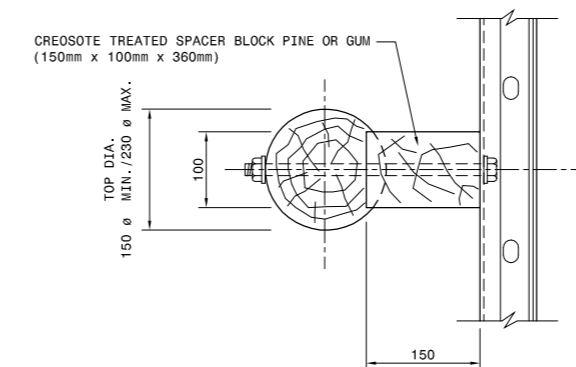
DETAIL A: FRONT ELEVATION: NORMAL SPACING OF POSTS



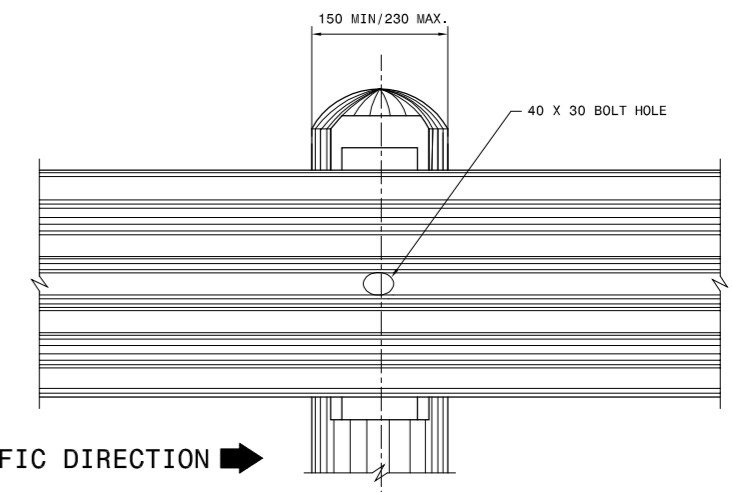
SECTION THROUGH GUARDRAIL UNIT

NOTE:
1. GUARDRAILS SHALL ONLY BE PLACED WHERE REQUIRED BY THE ENGINEER.
2. ALL GUARDRAILS MUST BE GALVANIZED AS SPECIFIED (NOT PAINTED).

NOTE:
V-SHAPED REFLECTIVE PLATES ATTACHED TO ALTERNATE POSTS AT 7,62m c/c.



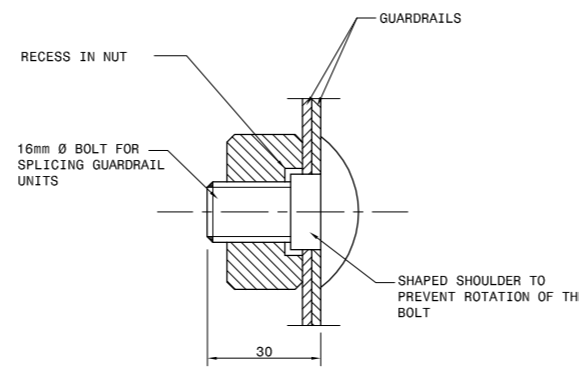
PLAN ON GUARDRAIL POST



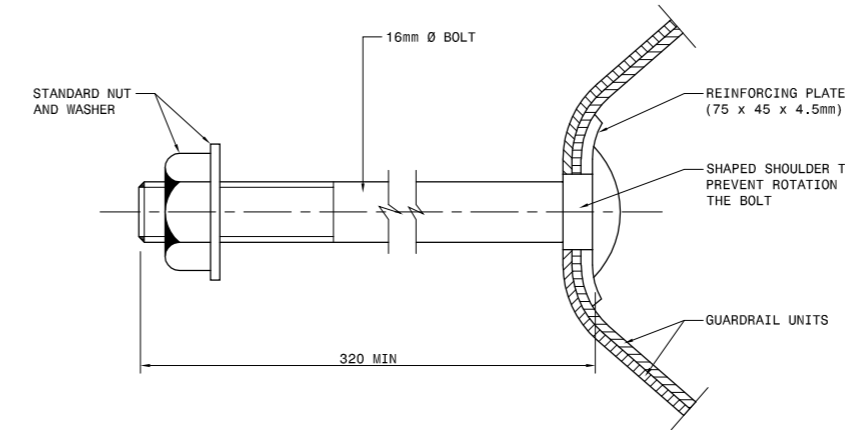
DETAIL A: FRONT ELEVATION: HALF SPACING OF POSTS

SPECIFICATIONS

- BOLT:** HIGH TENSILE STEEL 16mm Ø
- WASHERS:** 3mm THICK
- SPACER BLOCK:** PINE OR GUM, PRESSURE IMPREGNATED WITH CREOSOTE WHICH COMPLIES WITH SABS 538 OR SABS 539.
- POSTS:** 150mm Ø MIN - 230mm Ø MAX., PINE OR GUM, PRESSURE IMPREGNATED WITH CREOSOTE WHICH COMPLIES WITH SABS 538 OR SABS 539.
- GALVANIZING:** GUARDRAILS: SABS 763:TYPE A1 ARTICLES. BOLTS AND WASHERS: SABS 763 TYPE C1 ARTICLES
- TIMBER POSTS:** POSTS SHALL COMPLY WITH THE REQUIREMENTS OF SABS 457 AND SHALL CARRY THE SABS MARK.
- CREOSOTE TREATMENT:** TIMBER POSTS AND SPACER BLOCKS SHALL BE TREATED IN ACCORDANCE WITH SABS 05 WITH CREOSOTE WHICH COMPLIES WITH SABS 538 OR SABS 539.
- REFLECTIVE PLATES:** THE OUTER SURFACES SHALL BE COATED WITH ENGINEERING GRADE RETRO-REFLECTIVE MATERIAL WHICH COMPLIES WITH THE PROVISIONS OF CKS 191 IN THE COLOURS SHOWN ON THIS DRAWING.

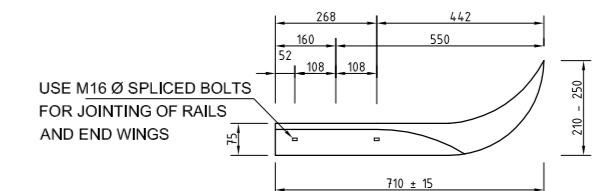


SECTION THROUGH SPLICE BOLT

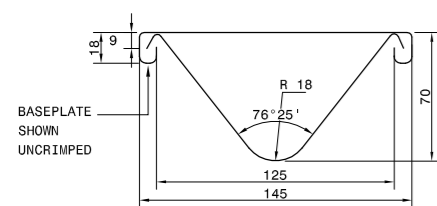


BOLT AT SUPPORT POST

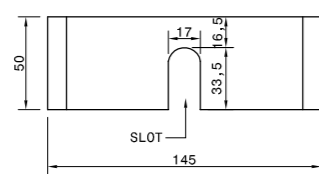
TYPICAL BOLT ATTACHMENT DETAILS



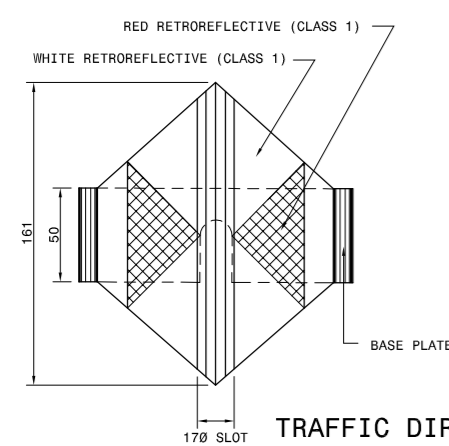
PLAN STANDARD FLARED END WING



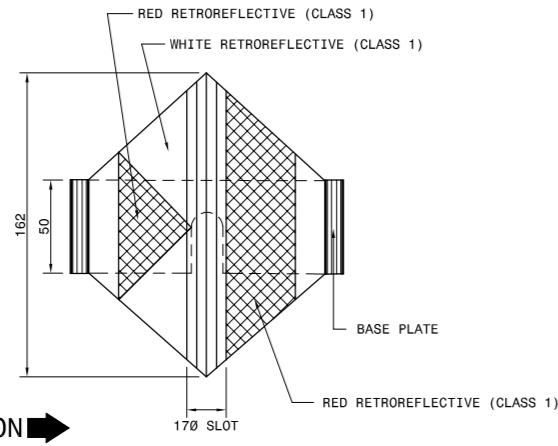
SECTIONAL PLAN



DETAIL OF BASEPLATE

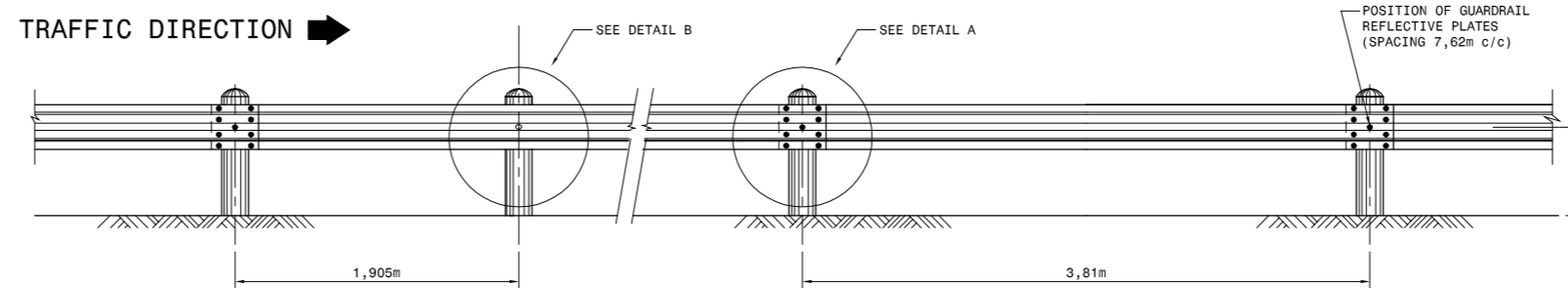


FRONT ELEVATION : TYPE D1 (A)



FRONT ELEVATION : TYPE D1 (B)

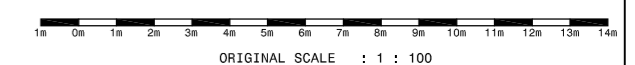
DETAIL OF GUARDRAIL REFLECTIVE PLATES



HALF-SPACING OF GUARDRAIL POSTS

NORMAL SPACING OF GUARDRAIL POSTS

SPACING OF POSTS AND POSITION OF REFLECTIVE PLATES



<p>CONSTRUCTION RECORD (AS-BUILT) WORKS CONTRACT ENGINEER</p> <p>Name: G. LOUBSER Prof. Reg. No.: 860359 Date: APRIL 2016</p> <p>SANRAL PROJECT MANAGER</p> <p>Name: J.B.W. STOLTZ Prof. Reg. No.: 900512 Date: APRIL 2016</p>		<p>DESIGNED BY</p> <p>Name: G. LOUBSER Prof. Reg. No.: 860359 Checked by: J.B.W. STOLTZ Prof. Reg. No.: 900512 Drawn by: L.V.D. MERWIE</p>		<p>CONSULTANT APPROVAL</p> <p>Name: J.B.W. STOLTZ Prof. Reg. No.: 900512 Date: APRIL 2016</p>		<p>HEAD OFFICE</p> <p>48 Tambolie Avenue Val de Grace Pretoria 0184</p> <p>PO Box 415 Pretoria 0001 South Africa</p> <p>Tel: (012) 844 8000</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 HOWEVER 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>GUARDRAIL ELEMENT AND MOUNTING 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-C1</p> <p>VER 1</p>	
<p>V1 07-2019 ORIGINAL VERSION</p> <p>No. DATE REVISION</p>		<p>G. LOUBSER</p> <p>CONSULT. ENG.</p>		<p>J.B.W. STOLTZ</p> <p>CONSULT. ENG.</p>		<p>48 Tambolie Avenue Val de Grace Pretoria 0184</p> <p>PO Box 415 Pretoria 0001 South Africa</p> <p>Tel: (012) 844 8000</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>MAPUTO DEVELOPMENT CORRIDOR (MDC) PRETORIA TO LEBOMBO BORDER POST ROUTINE ROAD MAINTENANCE</p>		<p>TRAC/MAINT-2019-01</p>					