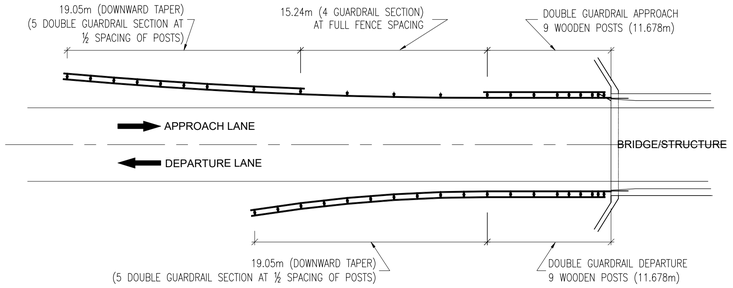
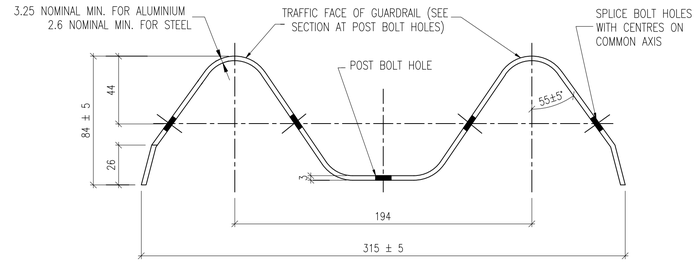
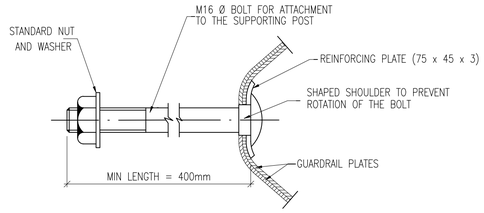
FOR TENDER ONLY



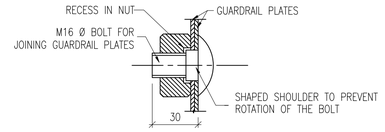
GUARDRAIL LAYOUT PLAN (FILL BELOW 3m)
1:250



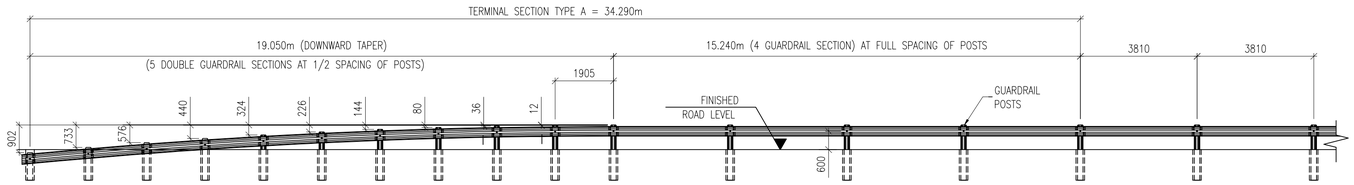
SECTION THROUGH GUARDRAIL
1:2



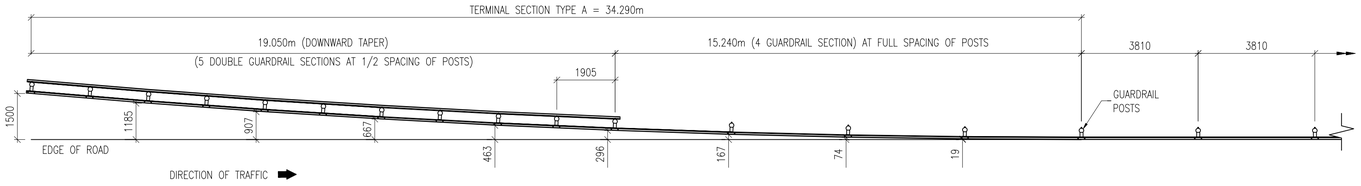
TYPICAL POST BOLTS
1:2



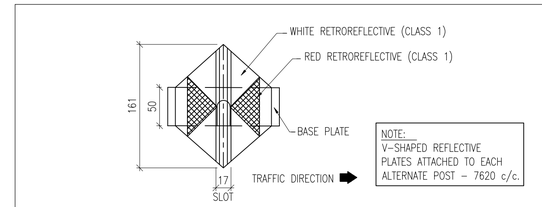
TYPICAL SPLICE BOLTS
1:2



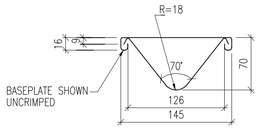
ELEVATION OF GUARDRAIL TERMINATION TYPE A - AT APPROACHES
1:100



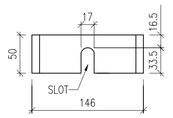
PLAN OF GUARDRAIL TERMINATION TYPE A - AT APPROACHES
1:100



FRONT ELEVATION



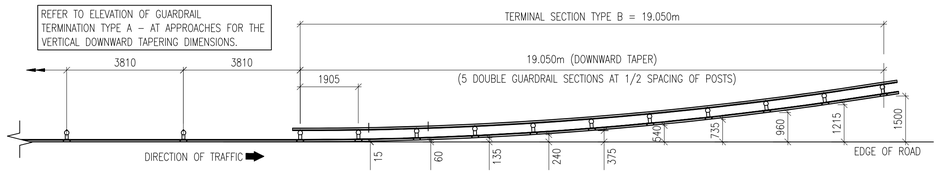
SECTION PLAN



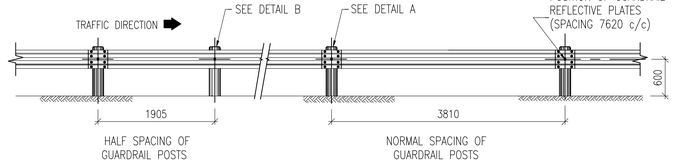
DETAIL OF BASEPLATE

NOTE:
V-SHAPED REFLECTIVE PLATES ATTACHED TO EACH ALTERNATE POST – 7620 c/c.

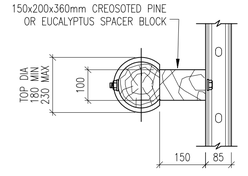
DETAIL OF GUARDRAIL REFLECTIVE PLATES (TYPE 4)
1:4



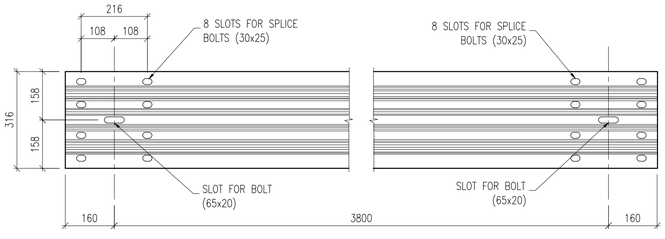
PLAN OF GUARDRAIL TERMINATION TYPE B - AT DEPARTURES
1:100



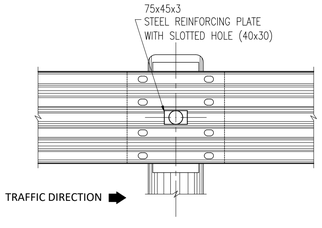
SPACING OF POSTS AND POSITION OF REFLECTIVE PLATES
1:50



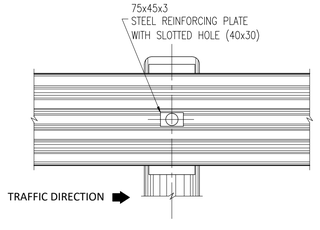
PLAN OF GUARDRAIL
1:10



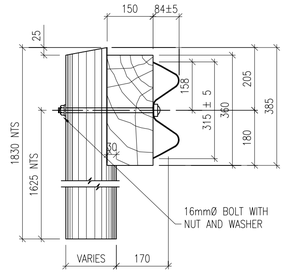
TYPICAL GUARDRAIL SECTION
1:10



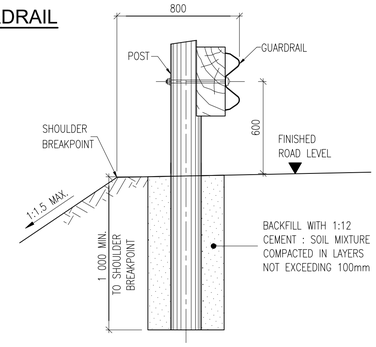
DETAIL A: FRONT ELEVATION NORMAL SPACING OF POSTS (3800 c/c)
1:10



DETAIL B: FRONT ELEVATION HALF SPACING OF POSTS (1900 c/c)
1:10



ELEVATION OF GUARDRAIL
1:10



TYPICAL SECTION GUARDRAIL POSTS
1:20

NOTES ON GUARDRAIL ERECTION DETAILS:

1. THE HOLES FOR TIMBER POSTS SHALL BE OF SUFFICIENT SIZE TO PERMIT PROPER SETTING OF THE POSTS AND TO ALLOW SUFFICIENT ROOM FOR BACKFILLING.
2. AT LEAST 1,0m OF POST SHALL BE EMBEDDED IN THE GROUND.
3. HOLES FOR TIMBER POSTS SHALL BE SPACED TO SUIT THE STANDARD LENGTH OF GUARDRAIL SUPPLIED.
4. HOLES SHALL BE BACKFILLED (12:1) SOIL-CEMENT MIXTURE AT OPTIMUM MOISTURE CONTENT IN COMPACTED LAYERS NOT EXCEEDING 100mm.
5. WHERE JOINTED, THE END OF THE GUARDRAIL WHICH OVERLAPS ON THE SIDE OF THE TRAFFIC SHALL POINT IN THE DIRECTION OF THE TRAFFIC MOVEMENT.

GUARDRAIL WARRANT:

1. WHERE THE ROAD IS IN FILL > 3.0m.
2. WHERE THERE IS PERMANENT WATER ADJACENT TO THE ROADWAY.
3. ON ALL BRIDGE APPROACHES.
4. AT OBSTRUCTIONS 1.0m AWAY FROM THE SHOULDER BREAKPOINT.
5. AT ANY DANGER POINT WHERE THE OFF-SHOULDER HAZARD IS GREATER THAN THE HAZARD OF THE GUARDRAIL.

THE ABOVE CRITERIA ARE TO BE APPLIED WITH DISCRETION AND THE POSITION OF ALL GUARDRAILS MUST BE CONFIRMED WITH THE ENGINEER PRIOR TO THE ERECTION THEREOF.

NOTE:
LENGTH OF GUARDRAIL = 4 130mm.
NORMAL SPACING OF POSTS = 3 810mm.

GUARDRAIL SPECIFICATIONS

1. BOLT: HIGH TENSILE STEEL 16mmØ.
2. WASHERS: 3mm THICK
3. SPACER BLOCK: PINE OR GUM, PRESSURE IMPREGNATED IN ACCORDANCE WITH SANS 10005 WITH CREOSOTE WHICH COMPLIES WITH SANS 538 OR 539.
4. POSTS: 180mmØ MIN – 230mmØ MAX., SALIGNA (BLUEGUM), PRESSURE IMPREGNATED IN ACCORDANCE WITH SANS 10005 WITH CREOSOTE WHICH COMPLIES WITH SANS 538 OR SANS 539.
5. GALVANISING:
   GUARDRAILS:
   (SANS 121/ISO 1461): TYPE A1 ARTICLES.
   BOLTS AND WASHERS:
   (SANS 121/ISO 1461) TYPE C1 ARTICLES.
6. TIMBER POSTS: POSTS SHALL COMPLY WITH THE REQUIREMENTS OF SANS 457 AND SHALL CARRY THE SANS MARK.
7. REFLECTIVE PLATES: THE OUTER SURFACES SHALL BE COATED WITH ENGINEERING GRADE RETRO-REFLECTIVE MATERIAL

No.	DATE	REVISION	CONSULT. ENG.
VA		FOR TENDER	

CONSTRUCTION RECORD
WORKS CONTRACT ENGINEER
Name :
Prof. Reg. No. :
Date :
SANRAL PROJECT MANAGER
Name :
Prof. Reg. No. :
Date :

FOR TENDER ONLY

DESIGNED BY
NAME
Prof. Reg. No.
CHECKED BY
NAME
Prof. Reg. No.
DRAWN BY
NAME

CONSULTANT APPROVAL
Name :
Prof. Reg. No. :
Date :

HEAD OFFICE
48 Tambotie Avenue
Val de Grace
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0184
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South Africa
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SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

SOUTHERN REGION
20 Shoreward Drive
Baywest
Port Elizabeth
6025
P.O. Box 27230
Greenacres
6057
Tel: (041) 398 3200
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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 CEO: SA NATIONAL ROADS AGENCY LTD.
Date:

PROJECT DESCRIPTION
AD-HOC STRUCTURAL AND DRAINAGE SERVICES IN THE SOUTHERN REGION – EMERGENCY BRIDGE REPAIR WORKS

DRAWING TITLE
R61 SECTION 7 km 43.65
BRIDGE REPAIRS - GUARDRAIL DETAILS

SCALE : AS SHOWN | SHEET 1 OF 1

PROJECT NUMBER	X.003-080-2024/1-C	
DRAWING LOCATION DATA	START	END
ROUTE	R61	R61
SECTION	07	07
DRAWING km DISTANCE	KM 43.65	KM 43.65
DRAWING TYPE	STRUCTURES - BRIDGES	
BRIDGE/STRUCTURE No.	B4117 & C0246	
CONSULTANT DRAWING No.	201931-R61-07-44-101	VER
SANRAL DOCUMENT #	#########	VA