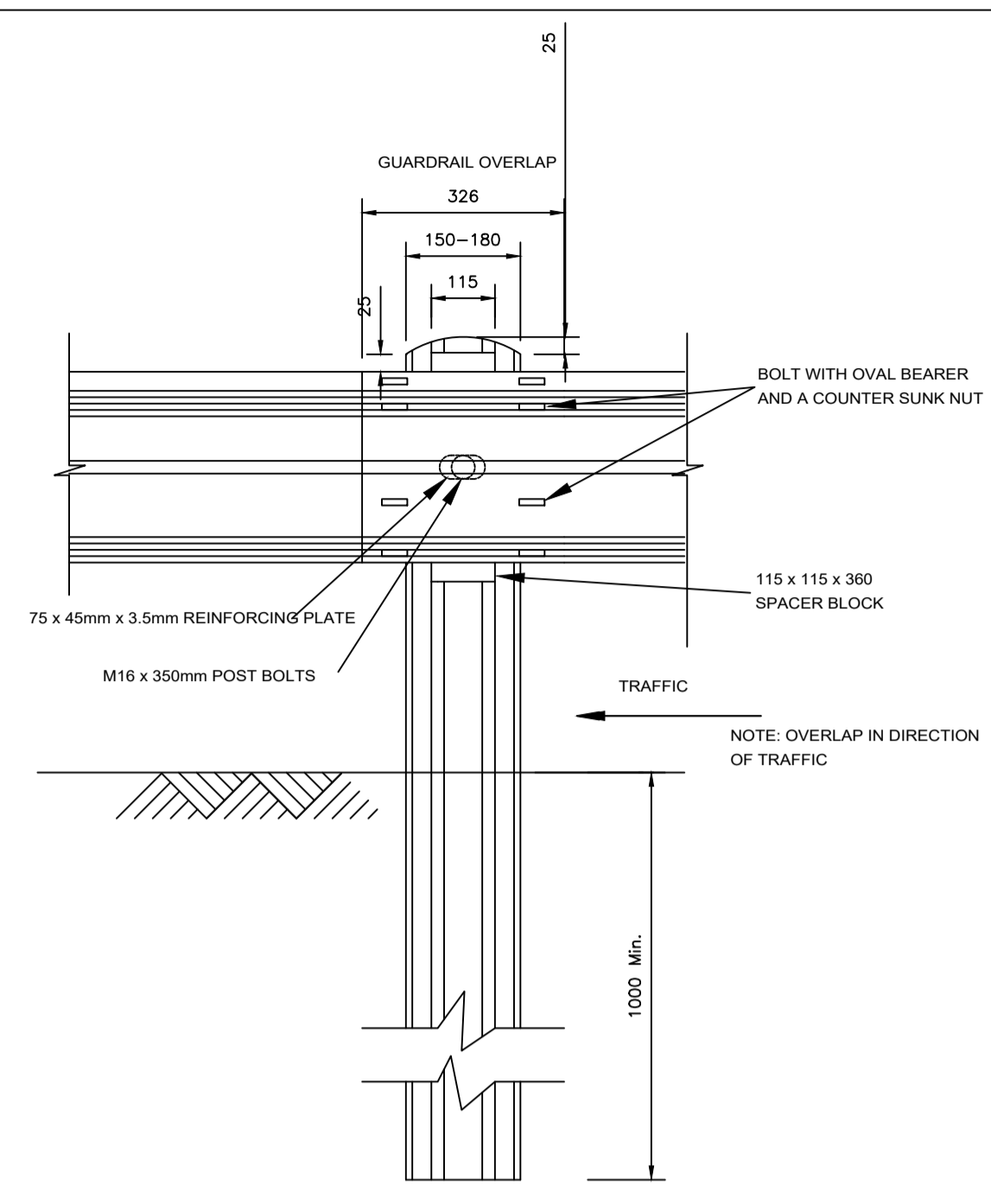
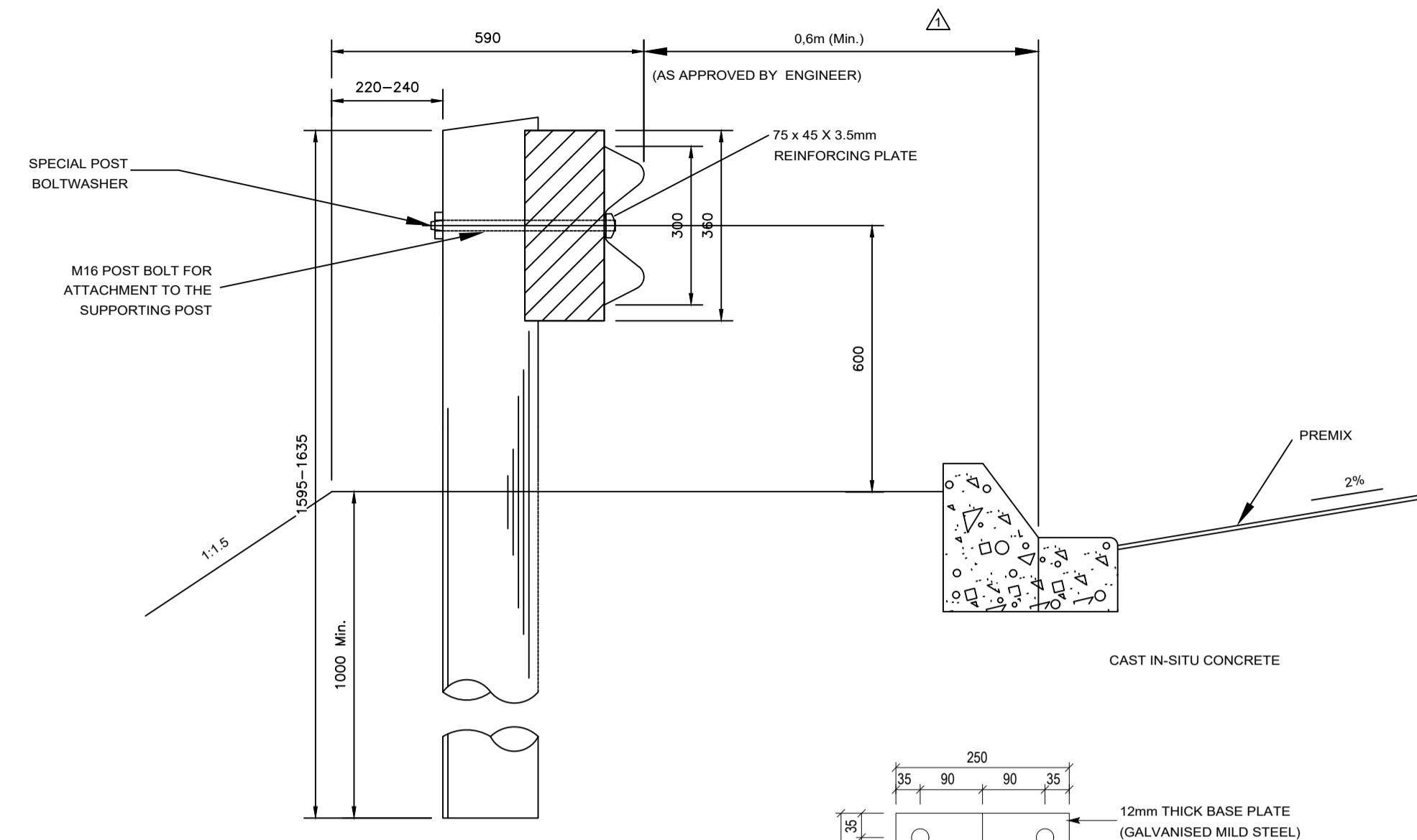


NOTES AND SPECIFICATIONS

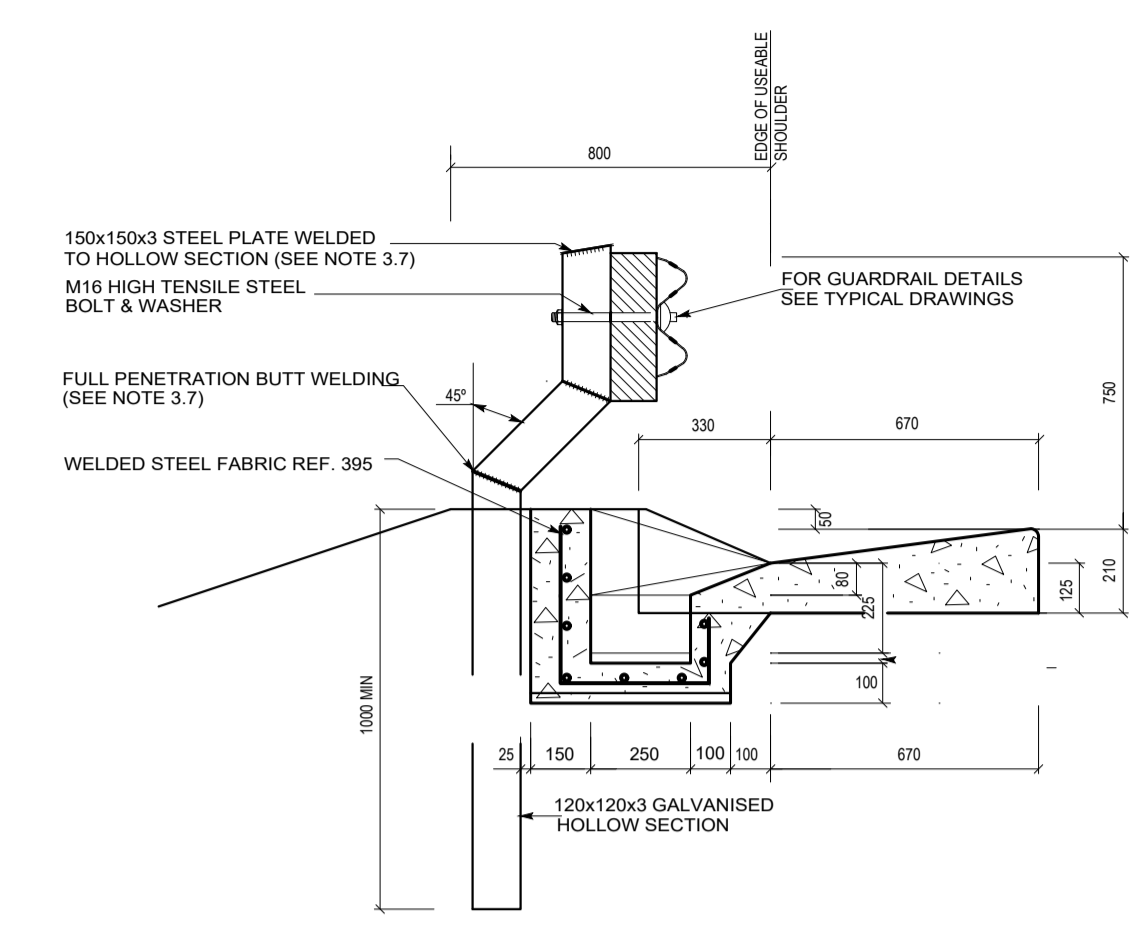
- GUARDRAILS ARE REQUIRED IN THE FOLLOWING CASES:
  - WHERE WATER NEXT TO THE ROAD FORMATION IS DEEPER THAN 1.5m.
  - AT ALL BRIDGES ON SIDE OF ROAD.
  - ON THE OUTSIDE OF CURVES WITH RADII LESS THAN 300m WITHOUT RECOVERY AREAS.
  - WHERE OBSTRUCTIONS ARE LESS THAN 1m FROM THE SHOULDER BREAKPOINT.
  - WHERE AN OBSTRUCTIONS APPEARS TO BE MORE DANGEROUS THAN WHAT A GUARDRAIL WOULD BE.
  - IN THE CASE OF EMBANKMENTS / FILLS, THE WARRANTS DIAGRAM WILL APPLY.
- NO GAURDRAILS WILL BE ACCEPTED THAT SHOW SIGNS OF RUST OR OXIDATION
- SPECIFICATIONS:
  - BOLT : HIGH TENSILE STEEL M16
  - WASHER : STEEL WASHER
  - SPACERBLOCK : GUM OR PINE, TREATED WITH CREOSOTE ACCORDING TO ANY METHOD IN SANS 10005.
  - POLE : 150mm TO 180mm GUM OR PINE TREATED WITH CREOSOTE ACCORDING TO ANY METHOD IN SANS 10005.
  - ALL GUARDRAILS SHALL BE GALVANIZED AS SPECIFIED (NOT PAINTED).
  - ALL STRUCTURAL STEEL, INCLUDING TUBES, SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF SABS 763 FOR TYPE A1 OR B1 ARTICLES AS APPLICABLE (OR LATEST).
  - ALL WELDING WILL BE DONE PRIOR TO GALVANIZING.
  - ALL EXISTING GUARDRAILS TO BE MAINTAINED AT EXISTING HEIGHT UNLESS SPECIFIED BY ENGINEER.
- ALSO REFER TO SECTION 611 OF THE STANDARD SPECIFICATION FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.



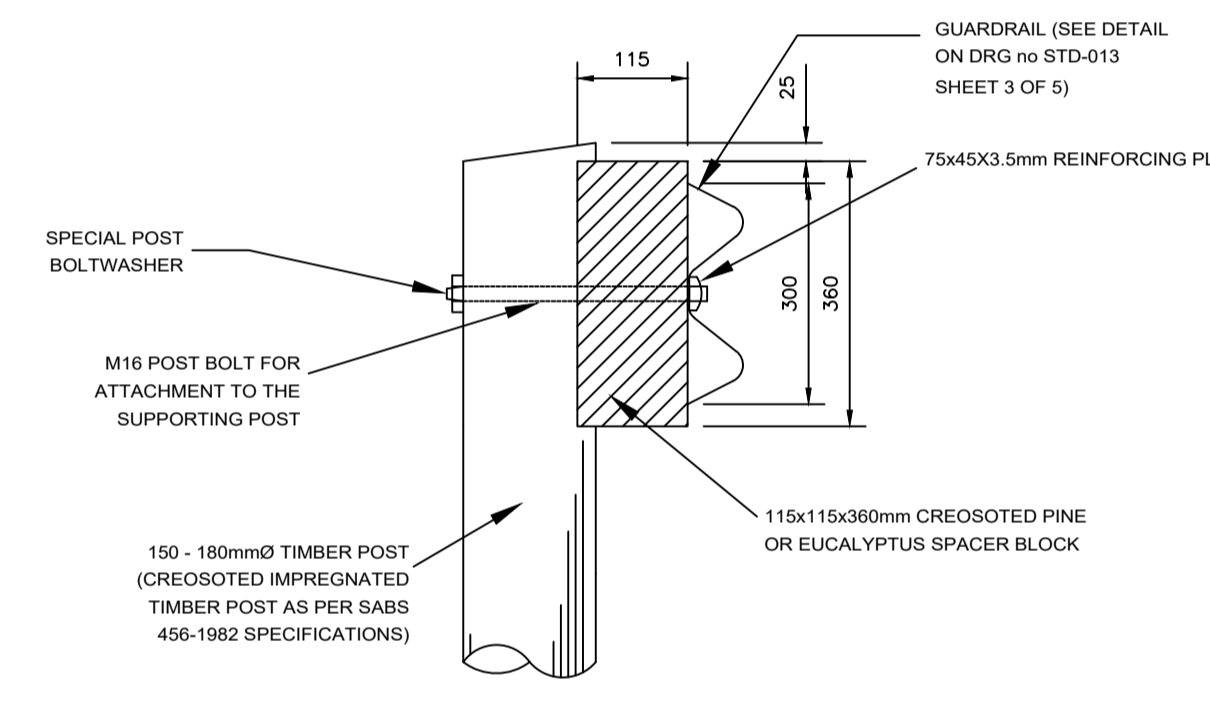
FRONT ELEVATION OF OVERLAP



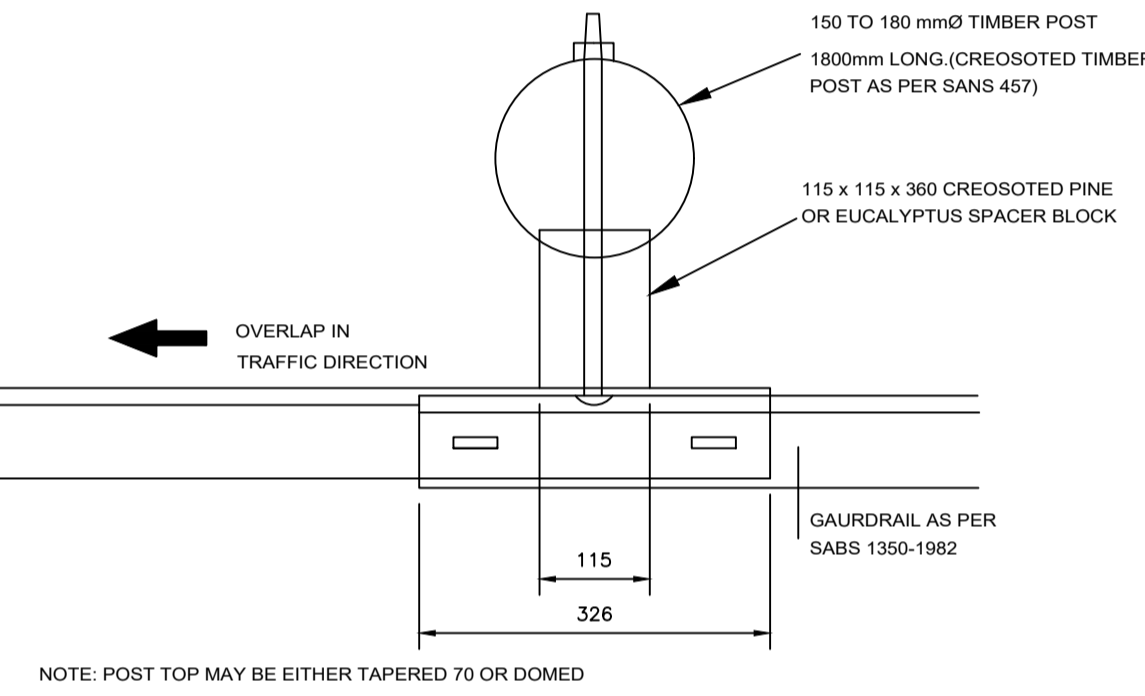
SIDE ELEVATION



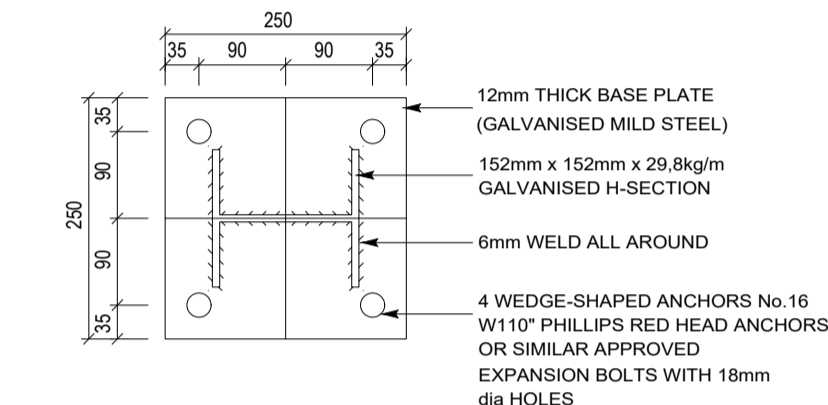
FIXING DETAILS OF GUARDRAIL AT KERB INLET



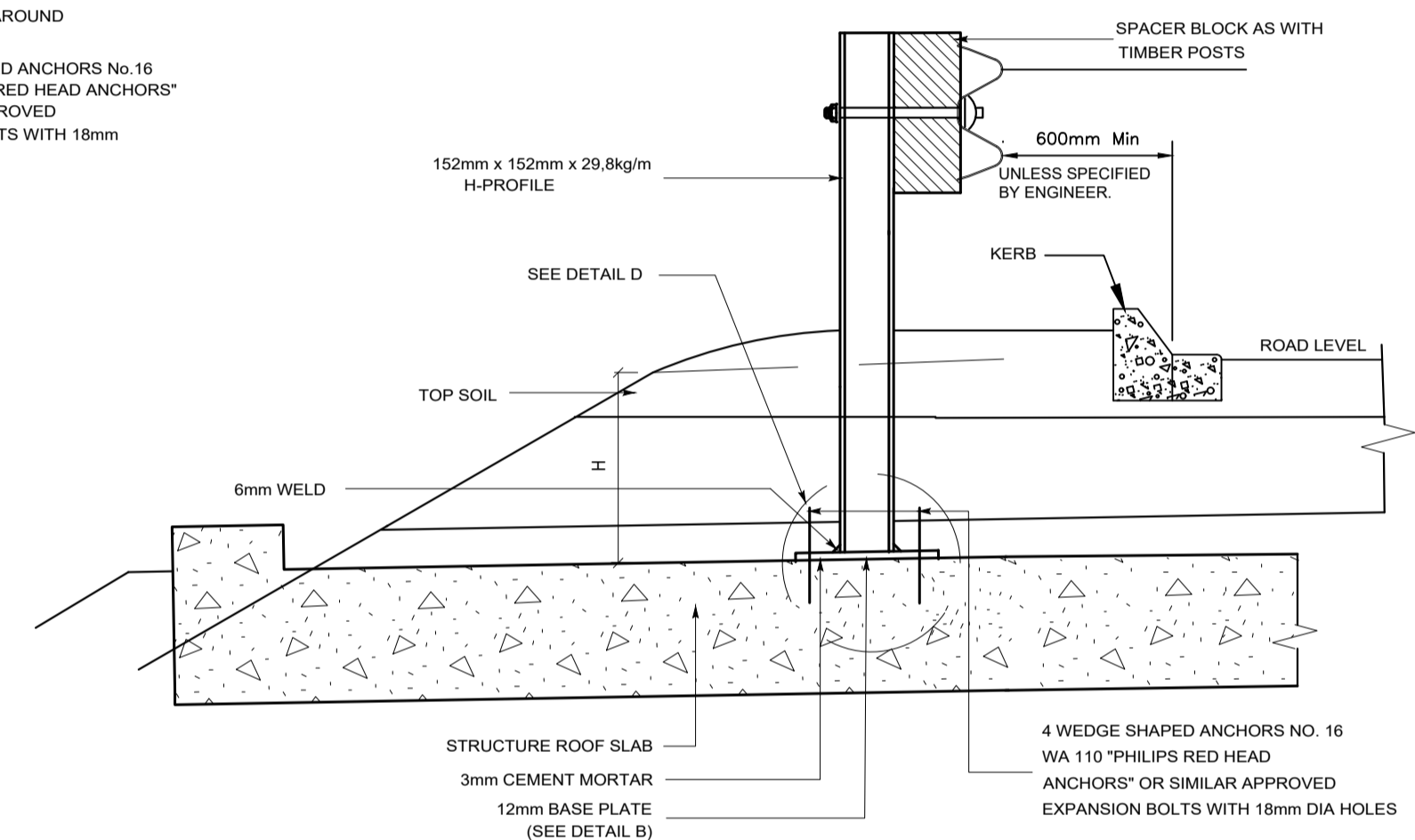
DETAIL OF FIXING



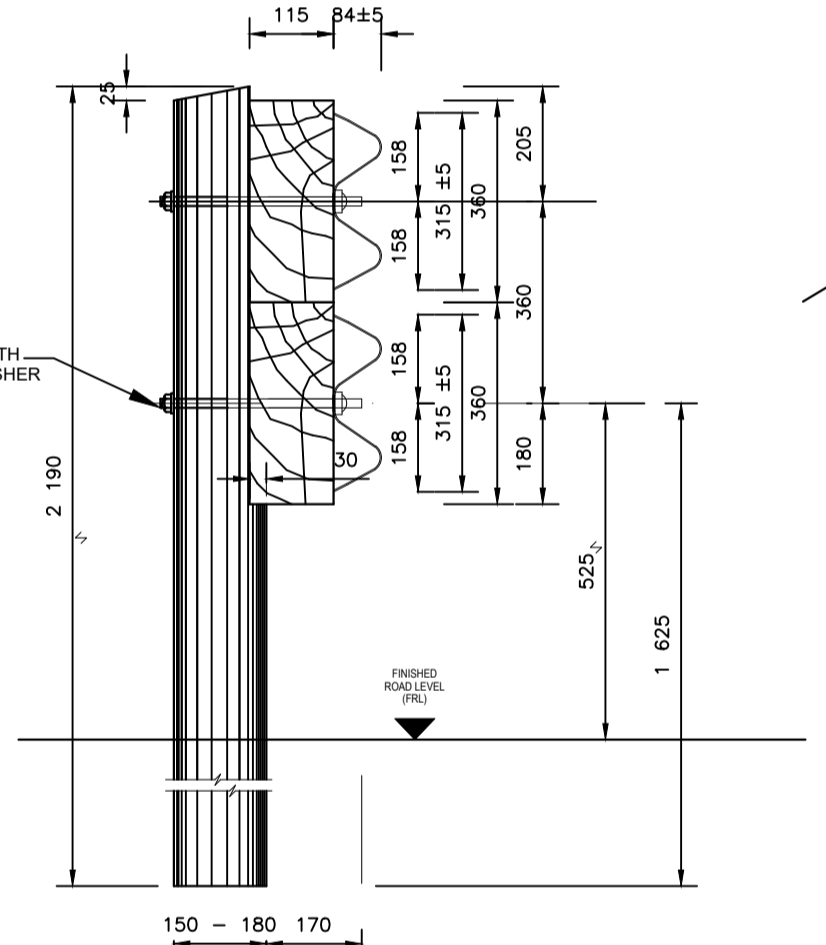
PLAN



DETAIL B (BASE PLATE)

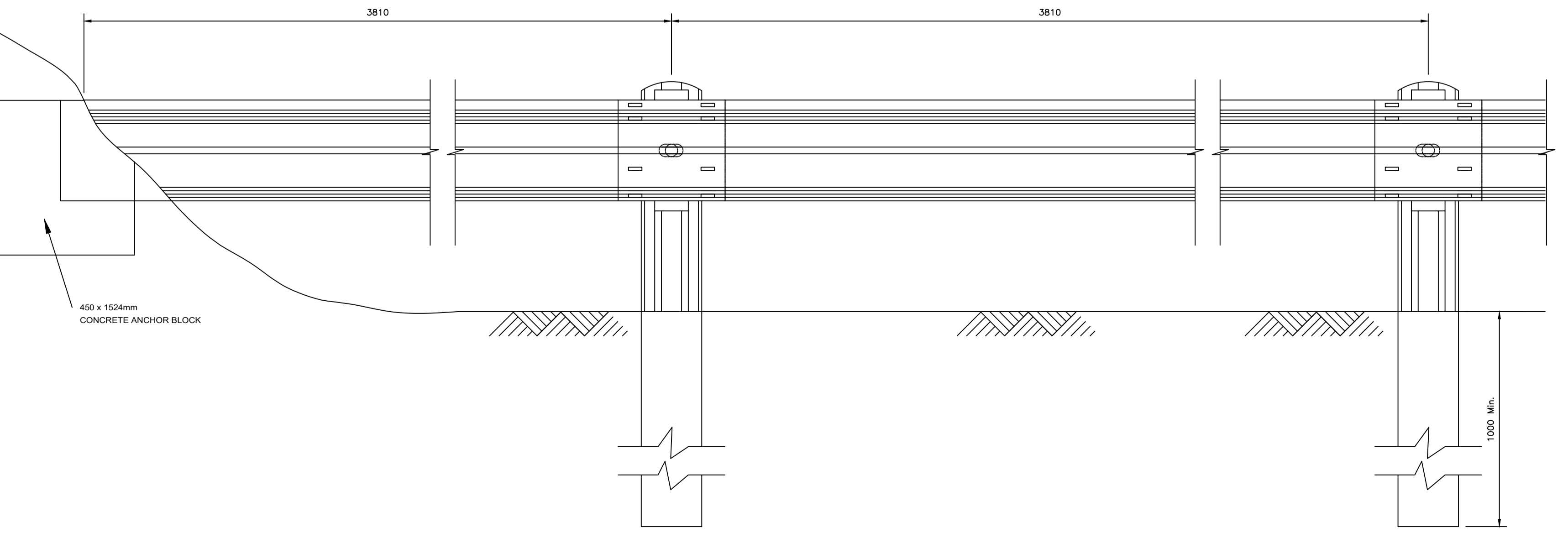


FIXING DETAILS OF GUARDRAIL AT STRUCTURES ( H < 1000mm)

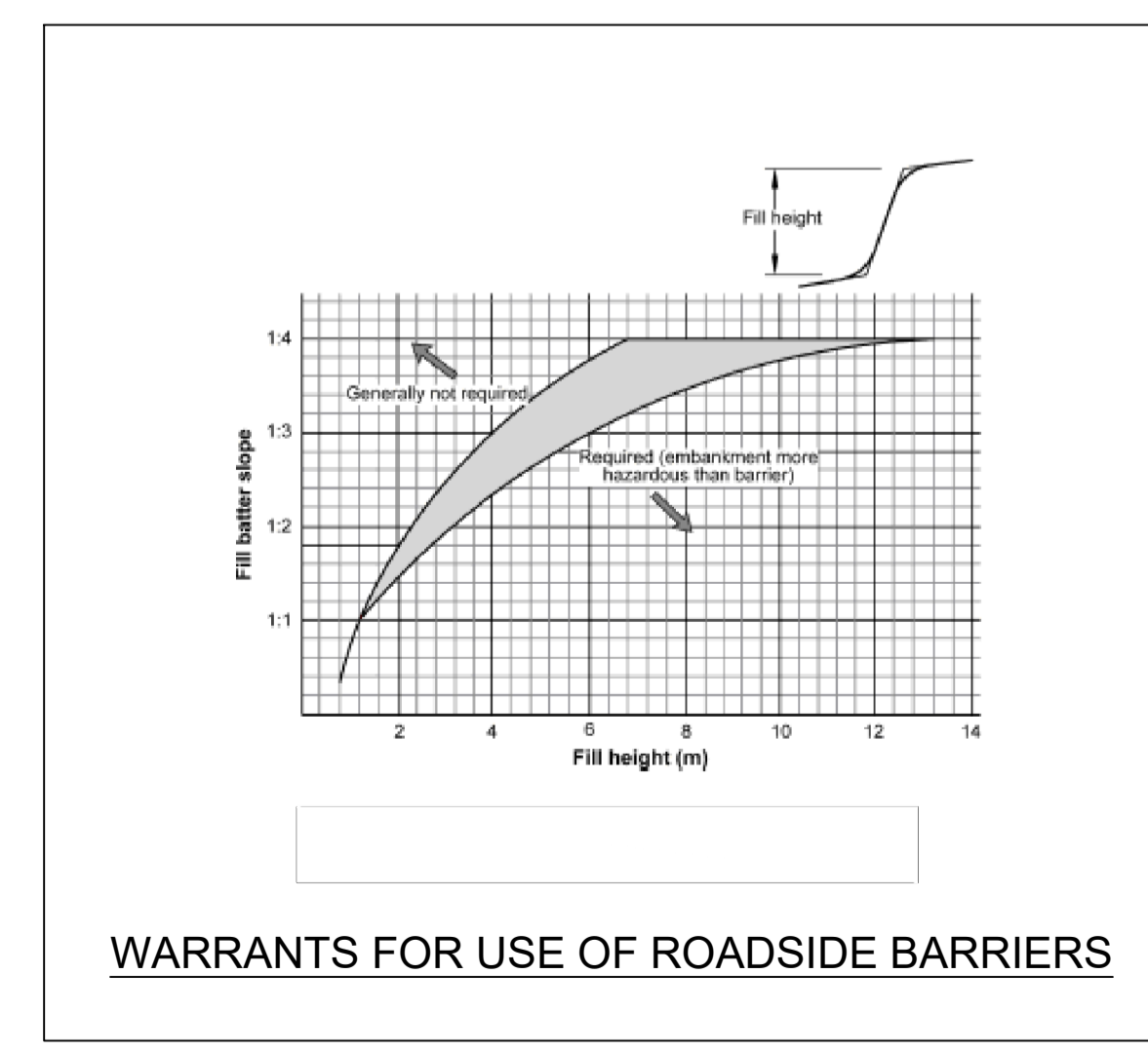


DOUBLE GUARDRAIL

75x45x3.5mm REINFORCING PLATE



PORTION OF GAURDRAIL ANCHORED IN WALL OF EXCAVATION OR SIDE OF FILLING



WARRANTS FOR USE OF ROADSIDE BARRIERS

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

DESIGNED BY J. M. CRONJIE Pr. Tech. Eng.	DRAWN BY S. AUDIE
DESIGN CHECKED BY S. NAIIDOO Pr. Tech. Eng.	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT D.J. CHALMERS

**CITY OF TSHWANE**  
ROADS AND TRANSPORT DEPARTMENT

GROUP HEAD  
Mr Letonkane P. (Pheko)P.O. BOX 1409  
PRETORIA  
0001

DIVISIONAL HEAD  
Mr Marven K Thagale  
P.O. BOX 1409  
PRETORIA  
0001

DRAWING RECOMMENDED BY DIVISIONAL HEADS

TRANSPORT INFRASTRUCTURE DESIGN AND CONSTRUCTION DIVISIONAL HEAD Mr K Thagale (Marven)	TRANSPORTATION PLANNING DIVISIONAL HEAD Mr L. Swaneepoel (Lourens)
SIGNATURE: _____	SIGNATURE: _____
DATE: _____	DATE: _____

APPROVED BY GROUP HEAD  
Mr Letonkane P. (Pheko)

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

LOCATION OF PROJECT:  
**TYPICAL STANDARD DETAILS**

DESCRIPTION OF PROJECT:  
**GUARDRAILS  
DETAILS FOR FIXING, OVERLAP  
AND ANCHORING.**

CONTRACT NO.:	PROJECT NO.:
DATE: 21 OCTOBER 2020	SCALE: NOT TO SCALE
DRAWING NO. <b>STD013</b>	ORIGINAL PAPER SIZE: <b>A1</b>
SHEET NO. 1 OF 5	REVISION