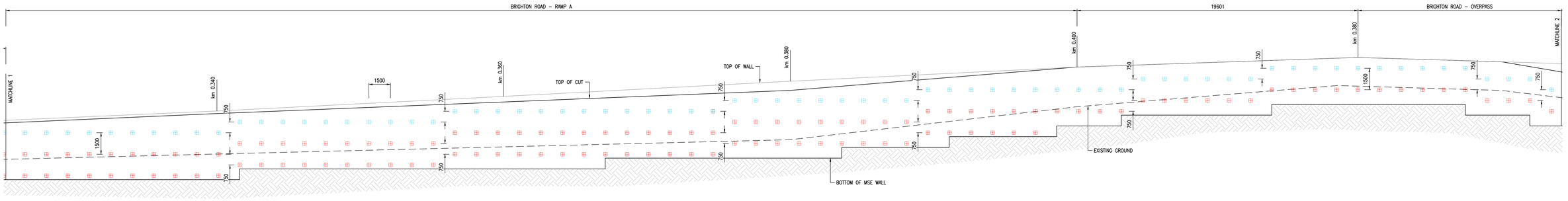
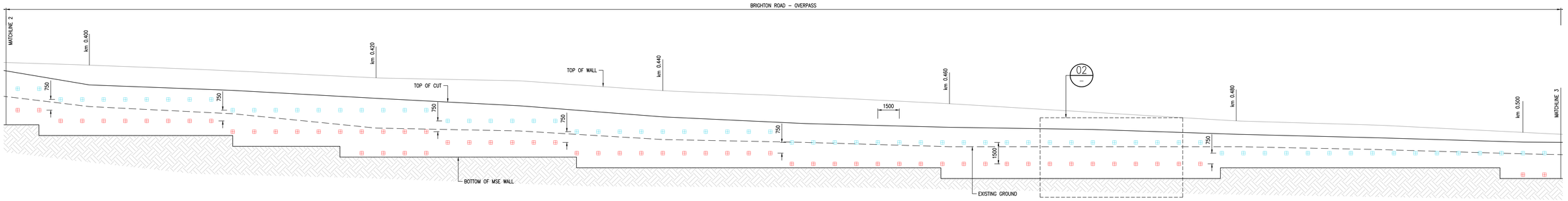


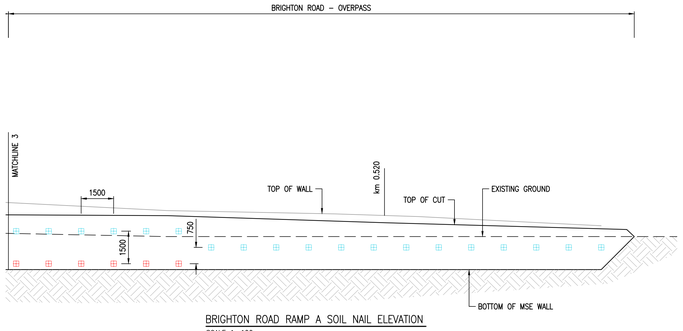
BRIGHTON ROAD RAMP A SOIL NAIL ELEVATION
SCALE 1: 100



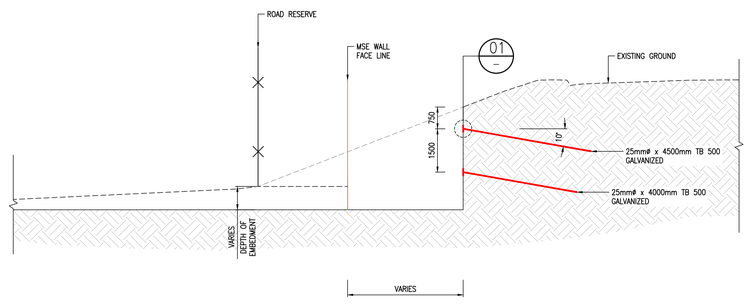
BRIGHTON ROAD RAMP A SOIL NAIL ELEVATION
SCALE 1: 100



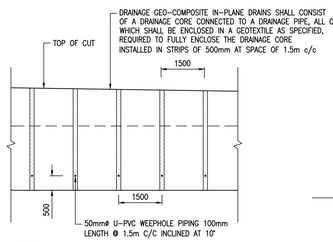
BRIGHTON ROAD RAMP A SOIL NAIL ELEVATION
SCALE 1: 100



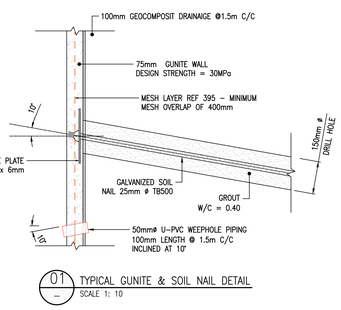
BRIGHTON ROAD RAMP A SOIL NAIL ELEVATION
SCALE 1: 100



TYPICAL SOIL NAIL SECTION
SCALE 1: 75



02 TYPICAL GEOCOMPOSITE DRAINAGE DETAIL
SCALE 1: 75



01 TYPICAL GUNITE & SOIL NAIL DETAIL
SCALE 1: 10

LEGEND:

- 25mm ø x 4500mm TB500 GALVANIZED
- 25mm ø x 4000mm TB500 GALVANIZED

NOTES:

1. FRONT FACE OF THE GEO-COMPOSITE DRAINS MUST BE COVERED WITH PLASTIC TO PREVENT CLOGGING FROM GUNITE
2. NAIL INSTALLATION PROCESS:
   - 2.1. FOR THE FIRST ROW OF SOIL NAIL, EXCAVATE TO A DEPTH NOT MORE THAN 1.0 M – 1.30 M FROM THE TOP OF THE CUT AND ENSURE A SHORT-TERM STABILITY OF THE SOIL (CONTRACTOR TO BE RESPONSIBLE FOR TEMPORARY SUPPORT OF CUT SOIL).
   - 2.2. DRILL THE REQUIRED SIZE (IN LENGTH, DIAMETER, AND INCLINATION) OF SOIL NAIL HOLE AND INSTALL THE REQUIRED / SPECIFIED SOIL NAIL (IN TERMS LENGTH, INCLINATION, STRENGTH), ENSURING THAT THE TENDON IS CENTRALLY LOCATED IN THE HOLE.
   - 2.3. GROUT THE DRILLED HOLE (WITH THE SOIL NAIL ALREADY INSTALLED) FROM THE BASE OF THE HOLE TO THE TOP OF HOLE, USING A TREMIE GROUT PIPE
   - 2.4. PLACE THE GEO COMPOSITE STRIPS FOR DRAINAGE AS SPECIFIED
   - 2.5. PLACE THE SPECIFIED REINFORCEMENT MESH, ENSURING PROPER ANCHORAGE AT THE TOP, AND MINIMUM REQUIRED OVERLAPS.
   - 2.6. APPLY THE SPECIFIED GUNITE AT HIGH PRESSURES TO THE SPECIFIED THICKNESS
   - 2.7. FOR THE NEXT ROW OF SOIL NAIL INSTALLATION, DO NOT EXCAVATE MORE THAN 500 MM BELOW THE POSITION OF THE NEXT SOIL NAIL
   - 2.8. REPEAT THE ABOVE STEPS
3. CONTRACTOR SHOULD ALLOW FOR MOVEMENT MONITORING AT LEAST ONCE A WEEK DURING INSTALLATION AND UP TO 4 WEEKS AFTER COMPLETE INSTALLATION
4. CONTRACTOR SHOULD ALLOW FOR IN-SITU PULL OUT TESTING.

250 0 250 500 750 MILLIMETRES 1:10

1000 0 1000 3000 5000 MILLIMETRES 1:75

2500 0 2500 5000 7500 MILLIMETRES 1:100

No.	DATE	REVISION
A	15/07/2025	ISSUED FOR INFORMATION

HEAD OFFICE
48 Tambotie Avenue
Val de Grace
Pretoria
0184

PO Box 415
Pretoria 0001
South Africa

Tel: (012) 844 8000

SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg No. 1998/009884/30
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

WESTERN REGION
1 Havenga Street
Oakdale
Bellville
7530

Private Bag X19
Bellville
7535

Tel: (021) 957 4600

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 the SA NATIONAL ROADS AGENCY SOC LTD.
Date:

PROJECT DESCRIPTION
THE CAPACITY IMPROVEMENT OF NATIONAL ROUTE 1 SECTION 1 FROM OLD OAK INTERCHANGE (KM 18.90) TO KOELENHOF INTERCHANGE (KM 33.00)

BRIGHTON ROAD RAMP A 220km to 400km AND OVERPASS 380km TO 530km
TEMPORARY SOIL NAIL SUPPORT - ELEVATION, SECTION AND DETAILS

SCALE @ A0: AS SHOWN | SHEET 1 OF 1

PROJECT NUMBER	N001-010-2021/1	
DRAWING LOCATION DATA	START	END
ROUTE	N01	N01
SECTION	01	01
DRAWING km DISTANCE		
DRAWING TYPE		
BRIDGE/STRUCTURE No.	N/A	
CONSULTANT DRAWING No.		VER
SANRAL DOCUMENT #	XXXXXX	