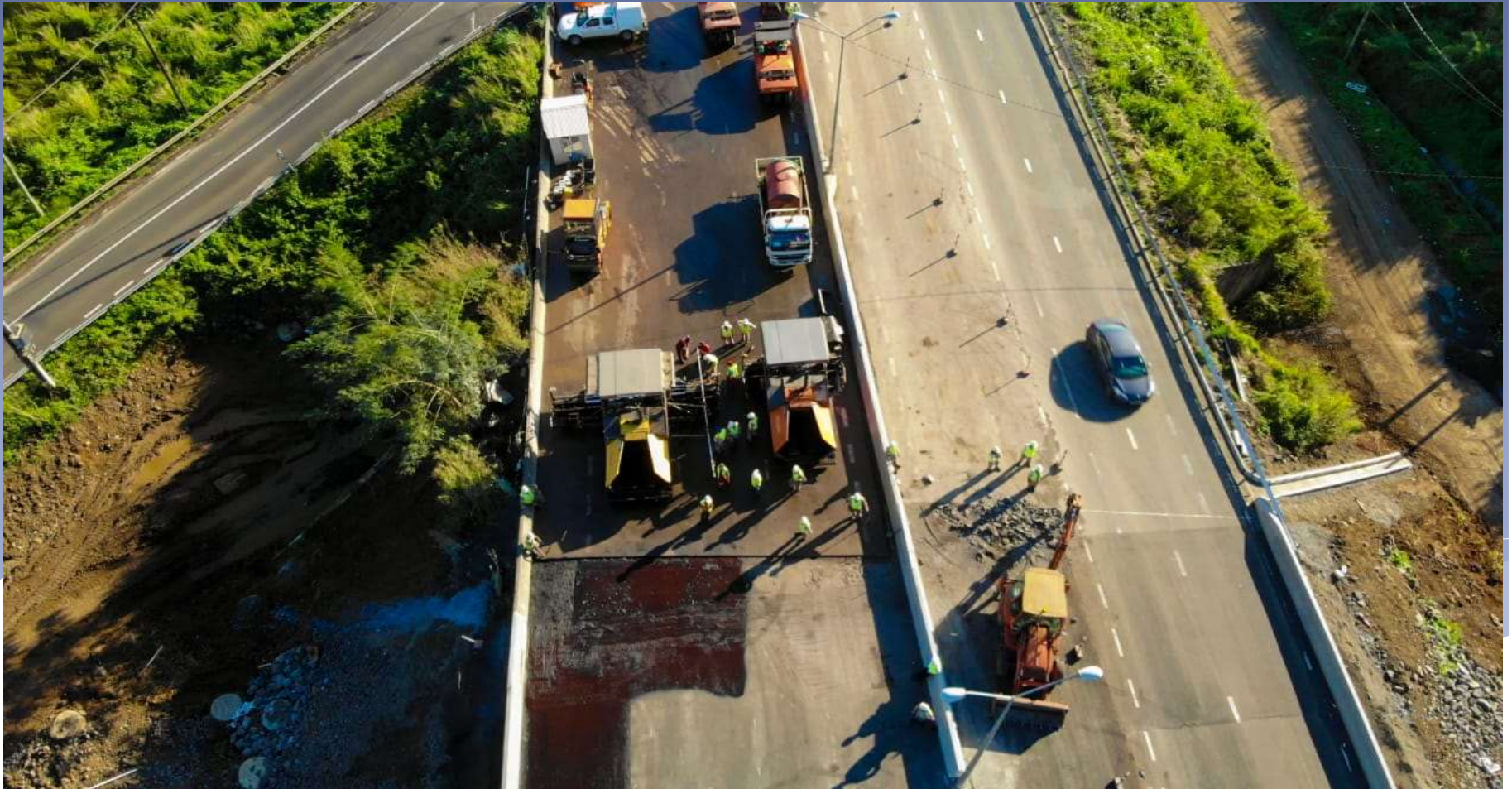


# REPAIR OF EMBANKMENT FAILURE ON TERRE ROUGE- VERDUN ROAD



# Occurrence of cracks on Terre Rouge Verdun Link Road (TRVLR) and embankment collapse over a stretch of 260 meters in January 2015



# Finite element analysis carried out to determine causes of embankment failure due to a layer of soft colluvium and residual breccia

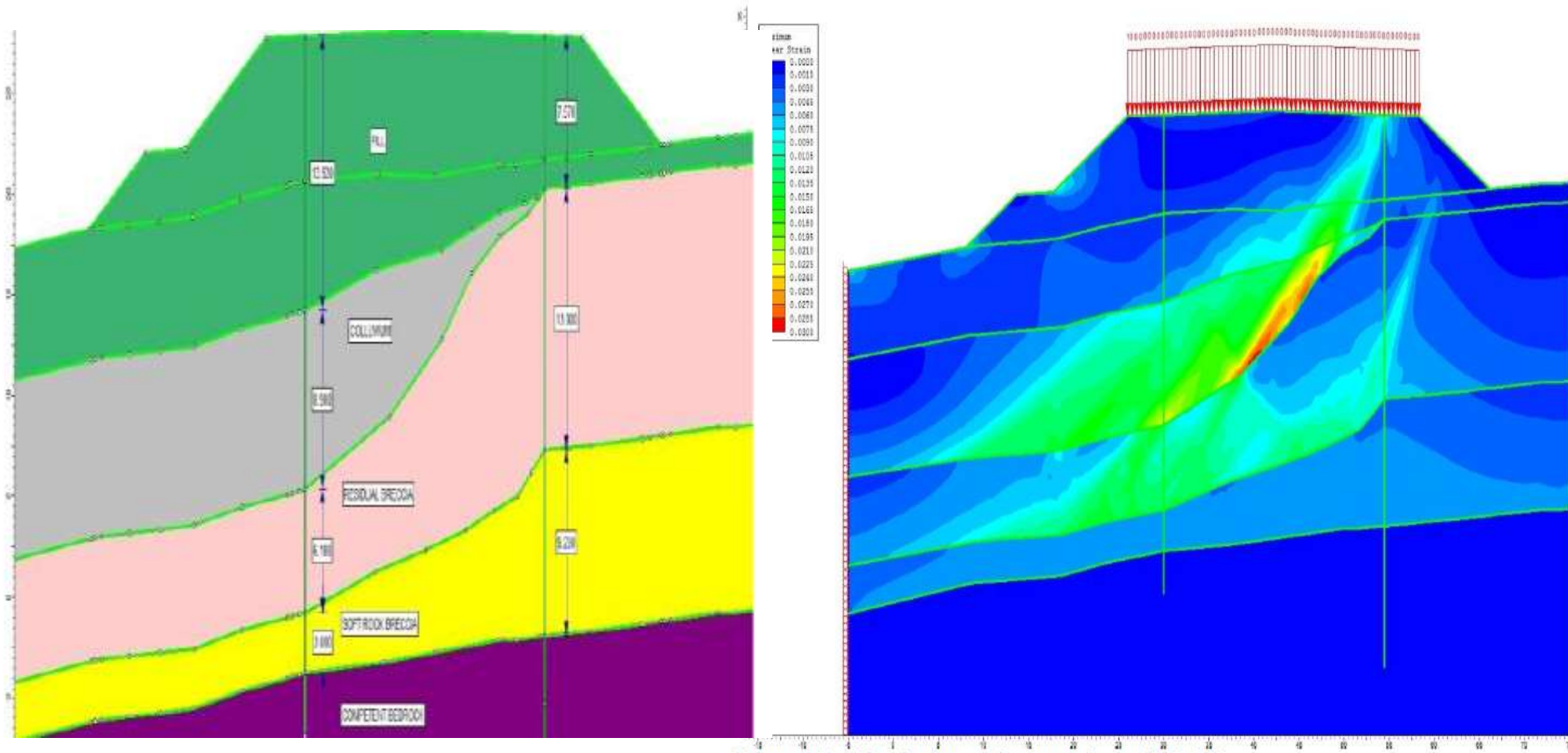
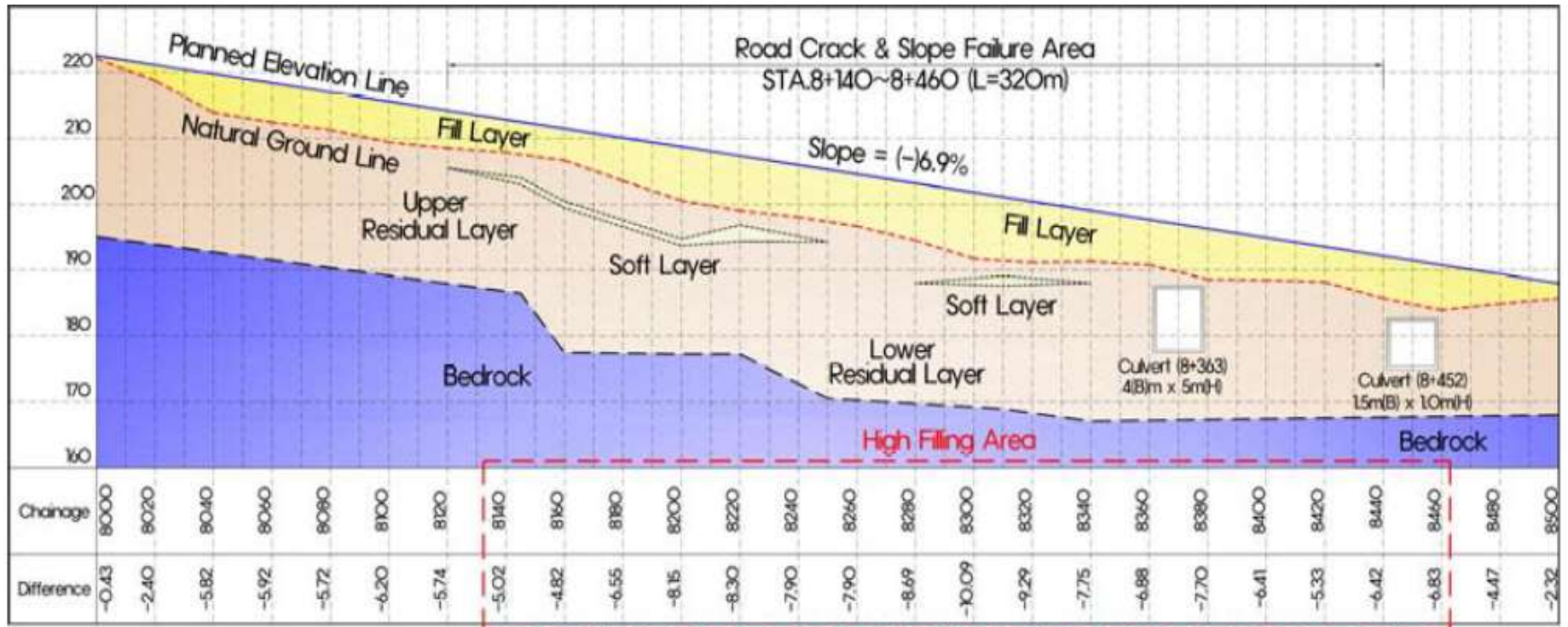


Figure 8-8: SLS - Maximum shear strains at CH 8 240

# Embankment Failure Area

Fig-18 Longitudinal Section



# EXCAVATION OF UNSUITABLE SOIL



# Drainage layer & Trench Drain for Efficient Drainage of Subsurface Water



# FILL WITH CRUSHED STONE



# Landslide During Excavation





# STABILIZATION WITH REINFORCED CONCRETE PILES (191 nos.)



BORING IN PROGRESS



INSTALLATION OF CASING



INSTALLATION OF REBARS



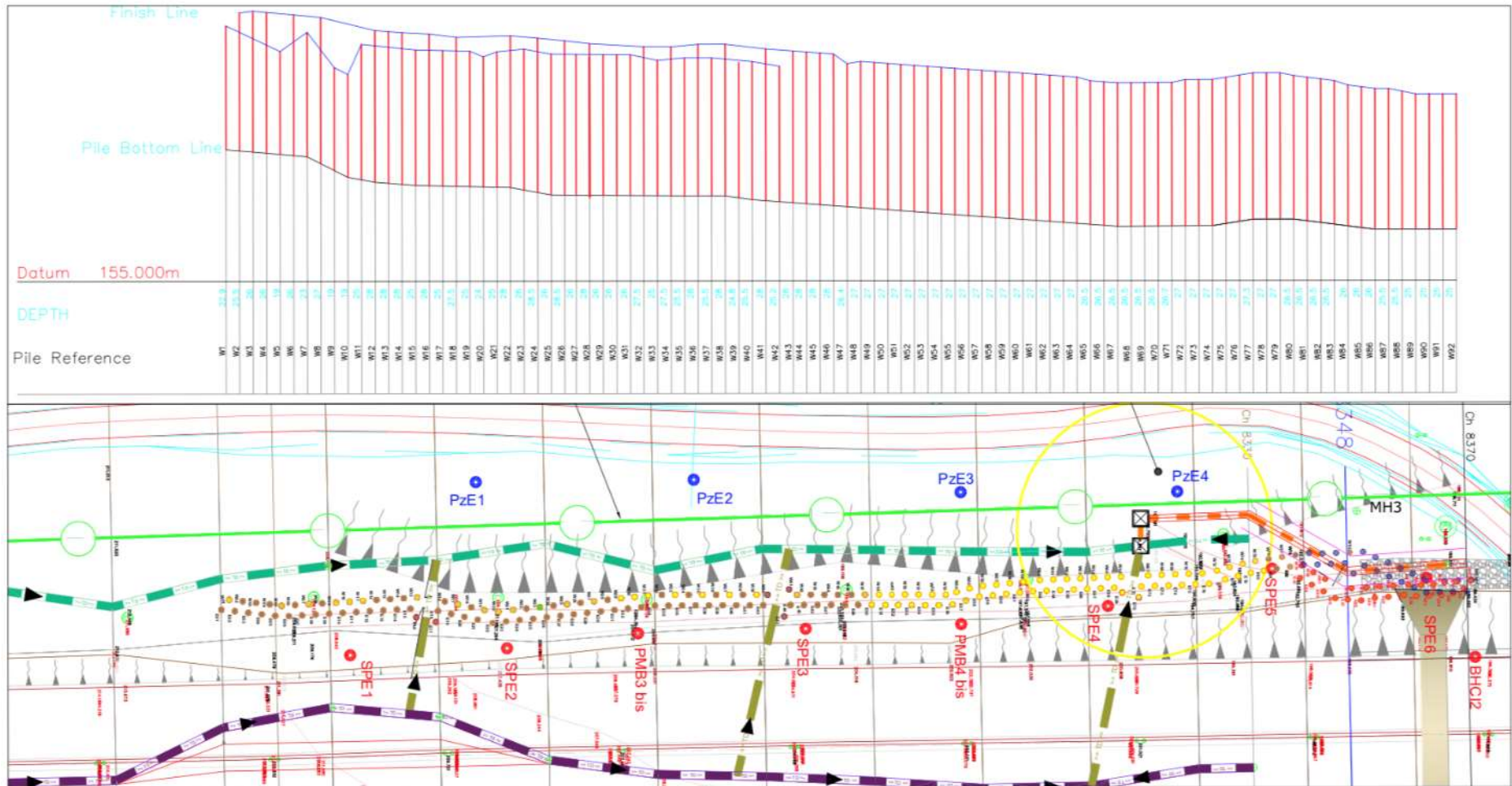
CONCRETING OF PILE

191 nos. of piles of 1.0 m diameter consisting of 2 rows placed 2.0 m apart with the piles staggered at 2.5 m spacing and average length of 30 m up to bedrock strata



# Layout & Profile of stabilization Piles

Layout Plan and longitudinal line for Piles at West side



# PILE TESTING



SONIC LOGGING TEST



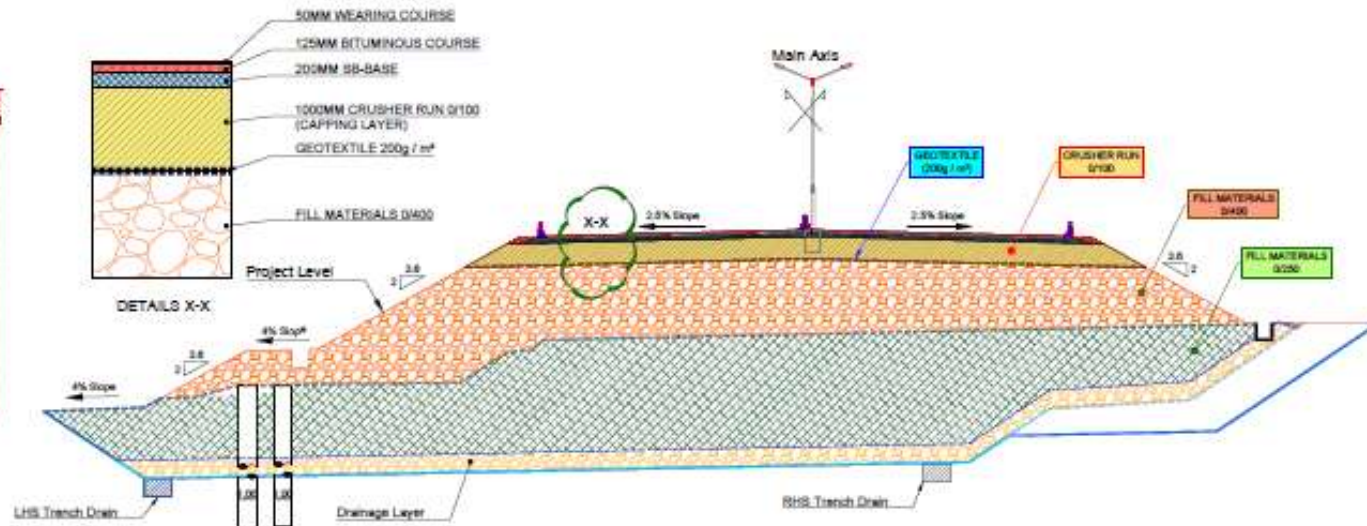
LOW STRAIN PILE INTEGRITY TEST

# COARSE ROCK FILL



57,500 m<sup>3</sup> crushed stone 0/250 mm  
& 52,200 m<sup>3</sup> coarse rock fill 0/400

# CROSS-SECTION OF TERRE ROUGE- VERDUN EMBANKMENT



PROPOSED GEOTEXTILE LAYER (200g / m<sup>2</sup>) ON FILL MATERIALS 0/400

# ROAD STRUCTURE (LAYING OF CRUSHER RUN)



# ROAD STRUCTURE – LAYING OF WEARING COURSE





# COMPLETION OF EMBANKMENT TERRE ROUGE-VERDUN

