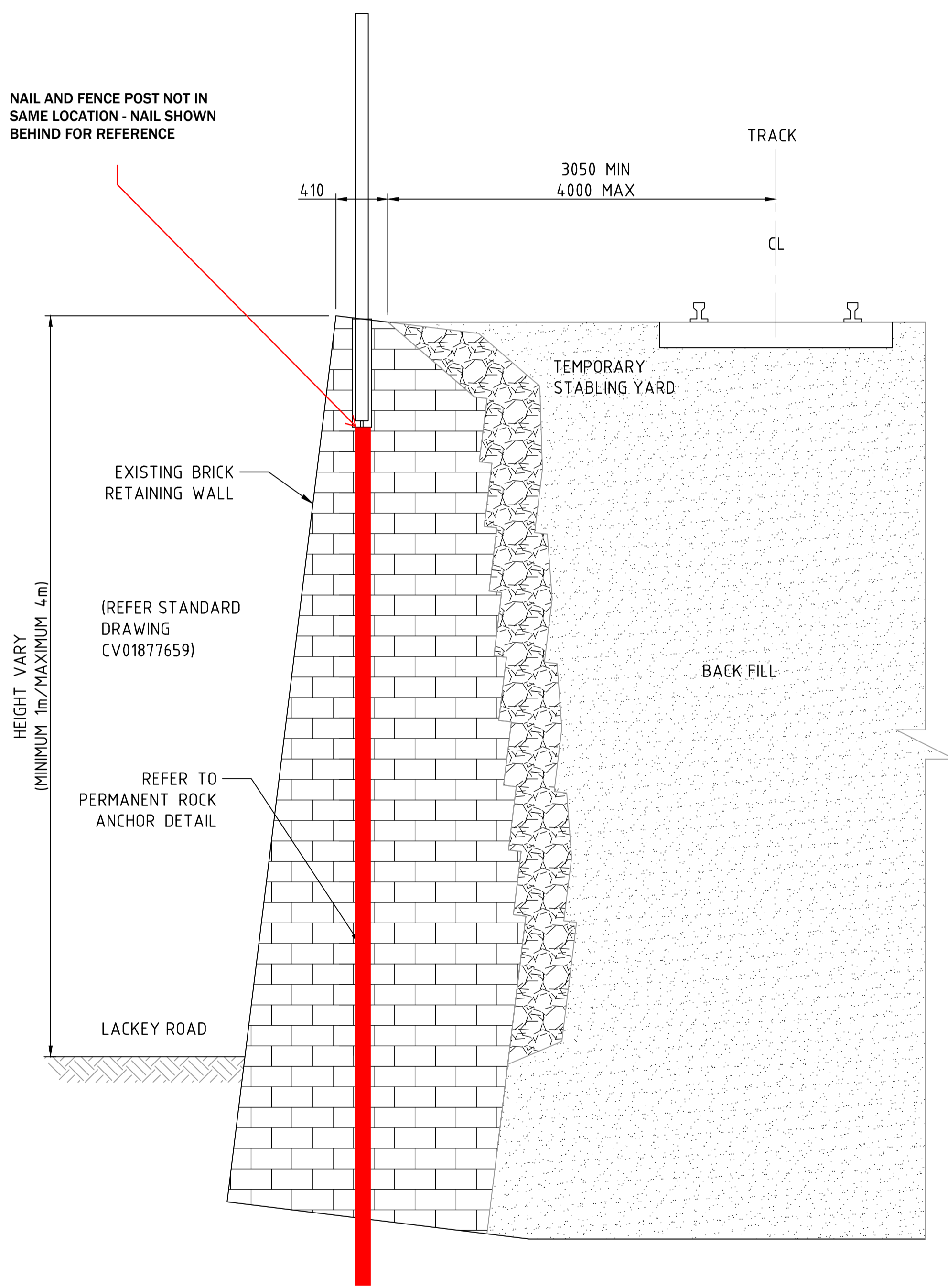
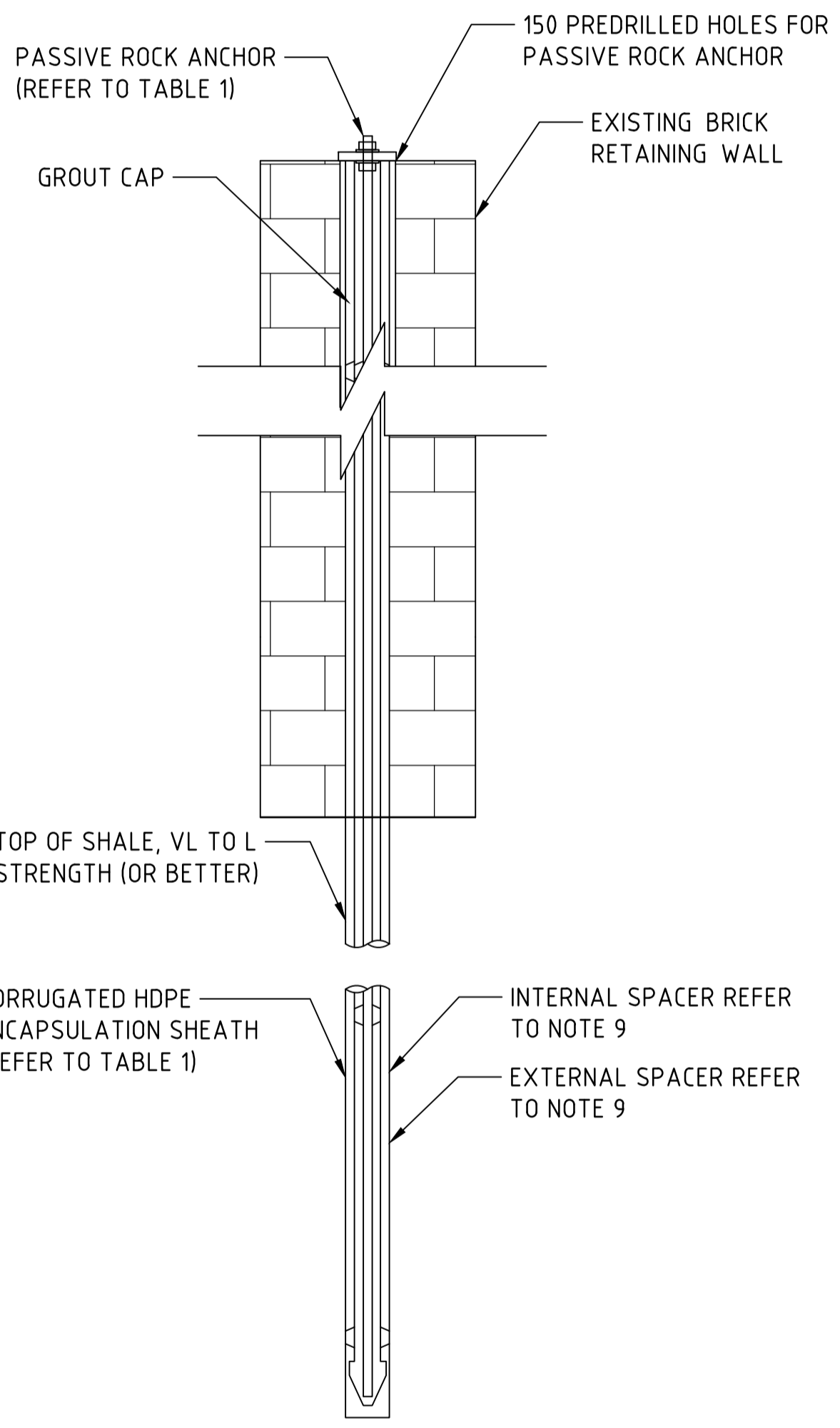


CHAINAGE FROM	CHAINAGE TO	MAXIMUM WALL HEIGHT	PASSIVE ROCK BOLT	BOLT SPACING	NUMBER OF ROCK BOLTS	BOLT DIAMETER (mm)	BOLT LENGTH (mm)	HEX NUT LENGTH (mm)	ANCHOR PLATE -FLAT (LxWxT)	ANCHOR PLATE SLOTTED HOLE DIAMETER (mm)	BOLT PROTRUSION (mm)	CORRUGATED SHEATHING DIAMETER (mm)	ULS DESIGN ACTION (kN)	DESIGN WORKING LOAD (kN)	BOLT ULTIMATE TENSILE STRENGTH (kN)	BOND LENGTH (mm)	MINIMUM DESIGN SOCKET LENGTH 'L'
13.200	30.000	1830	GEWI TEHREADBAR ANCHOR (T GRADE - 500MPa MIN YIELD STRENGTH)	2400	12	28	6700				50 MIN	100	78		268		5000 INTO VL TO L STRENGTH SHALE (OR BETTER)
30.000	60.000	2800		1200	25	28	8200				50 MIN	100	86		268		5500 INTO VL TO L STRENGTH SHALE (OR BETTER)
60.000	79.800	3600		600	33	28	7900				50 MIN	100	68		268		4400 INTO VL TO L STRENGTH SHALE (OR BETTER)
79.800	130.200	4600		600	83	28	10800				50 MIN	100	98		268		6200 INTO VL TO L STRENGTH SHALE (OR BETTER)
130.200	155.400	4600		1200	21	28	11600				50 MIN	100	111		268		7100 INTO VL TO L STRENGTH SHALE (OR BETTER)

TABLE 1: PASSIVE ROCK BOLT SPECIFICATIONS



FENCE POST CONNECTION TO EXISTING BRICK RETAINING WALL - TYPICAL SECTION  
SCALE 1:25

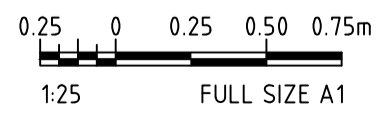


DETAIL - PERMANENT ROCK ANCHOR  
SCALE N.T.S

NOTES:

- REFER TO SHEETS No TAP3150505-SMEC-MVL-MS-DRG-002705 TO TAP3150505-SMEC-MVL-MS-DRG-002707 FOR GENERAL NOTES.
- REFER TO STANDARD BOUNDARY FENCE DRAWING CV0478383 FOR FENCE DETAILS.
- EXISTING BALUSTRADS TO BE REMOVED BEFORE INSTALLATION OF NEW SECURITY FENCE.
- THE TOP OF THE BRICK WALL TO BE CORED AS PER TABLE 1 SHOWN ABOVE TO ALLOW FOR INSTALLATION OF FENCE POSTS.
- AFTER INSTALLATION OF FENCE POST THE CORE HOLES TO BE FILLED WITH 40MPa CONCRETE GROUT.
- REFER TO R064 "SOIL NAILS" FOR PASSIVE ROCK BOLT INSTALLATION SPECIFICATION REQUIREMENTS. REFER TO PASSIVE ROCK BOLT TESTING SPECIFICATIONS PROVIDED IN TAP3150505-SMEC-MVL-ST-XXXX FOR GENERAL NOTES.
- ALL PASSIVE ROCK BOLTS TO BE CENTRED IN DRILL HOLES.
- PROVIDE INTERNAL AND EXTERNAL CENTRALISERS AT INTERVALS NOT EXCEEDING 2000 FIRST AND LAST CENTRALISER 300 FROM THE END OF EACH ANCHOR.
- PROVIDE MINIMUM 3 INTERNAL AND 3 EXTERNAL CENTRALISERS. MAINTAIN A MINIMUM GROUT COVER OF 25mm BETWEEN CORRUGATED SHEATH AND DRILL HOLE AND MINIMUM 20mm BETWEEN THE REINFORCEMENT BAR AND ENCAPSULATION SHEATH. DO NOT USE GROUT TUBE SPIRALLY WOUND AROUND THE PASSIVE ROCK BOLT TO ACT AS A CENTRALISER. GROUT TUBES MUST HAVE MINIMUM INTERNAL DIAMETER OF 12mm. MADE FROM HIGH DENSITY POLYETHYLENE WITH A WALL THICKNESS OF 2mm MIN.
- HOLES SHALL BE GROUTED WITHIN 24HRS. OF DRILLING.
- GEWI THREADED ANCHOR COUPLERS TO BE USED IF REQUIRED.
- PASSIVE ROCK BOLTS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- BOND LENGTH REFERS TO THE MIN LENGTH REQUIRED FOR PASSIVE ROCK BOLTS TO BE GROUTED IN THE SPECIFIED GROUND MATERIAL.

CHECK PRINT		PRELIM	FINAL
DISCIPLINE	INITIAL	DATE	
DISCIPLINE			
DISCIPLINE			
DISCIPLINE			
BACKDRAFTED/CORRECTED			
CONFIRMED			



DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

NO.	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
1	ISSUED FOR PRELIMINARY DESIGN REVIEW	PMcC/05.03.24		



This drawing and the related information have been prepared by, or at the request of, Transport for NSW for a specific purpose and may not be used for any purpose other than the purpose intended by Transport for NSW. Transport for NSW does not provide any warranties and accepts no liability arising out of the use of this drawing or any of the related information for any purpose other than the intended purpose. This drawing is protected by copyright and no part of this drawing may be reproduced in any form without the express written permission of Transport for NSW.

**SMEC**  
Member of the Surlana Jurong Group  
SMEC CIVIL

DRAWN: PETER MCCARRREN  
DESIGNED: \_\_\_\_\_  
DRG CHECK: \_\_\_\_\_  
DESIGN CHECK: \_\_\_\_\_  
APPROVED: \_\_\_\_\_

05/03/2024

**WORK IN PROGRESS**

**MOSS VALE STATION**  
PERMANENT ROCK ANCHOR DETAIL

TYPICAL DETAIL - SHEET 1

FILE No. 30013473-	SHEET: 2 OF 2	A1
STATUS: PRELIMINARY DESIGN REVIEW		
DRG No. 30013473	EDMS No.	

Plotted by PM17833

X:\Projects\30013473\Moss Vale TAP2020\Detailed Design\213 Data Transfer\ENG\_To\_CAD\2024\2826\_SFP\_STR\_GEO\_120\_Mark-ups\_SV\_IT\30013473 - PROPOSED DETAILS.dwg  
 File Protected\0013473-xx  
 Plot Date & Time: 06/03/2024 11:51 AM  
 DF 8017833