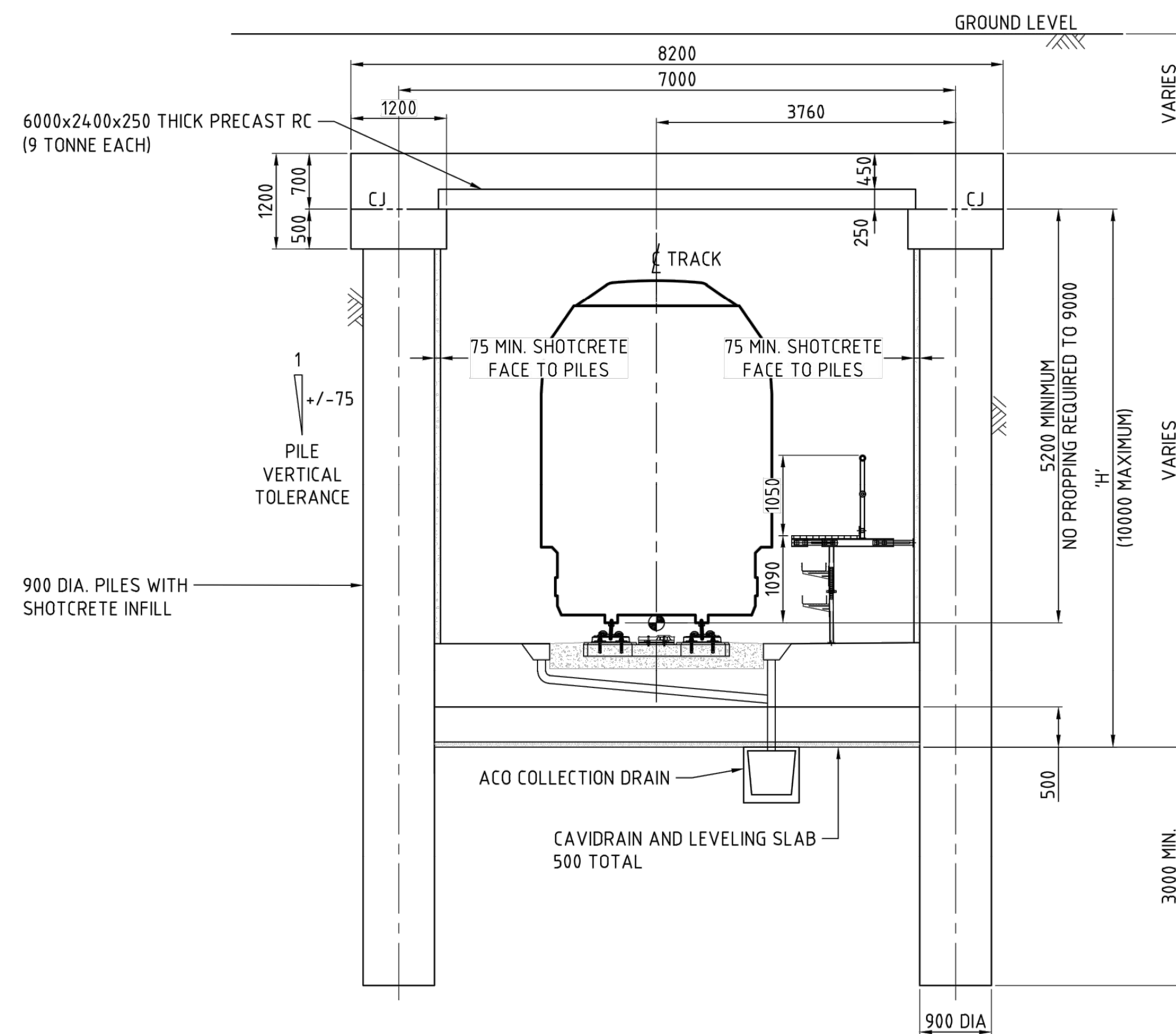
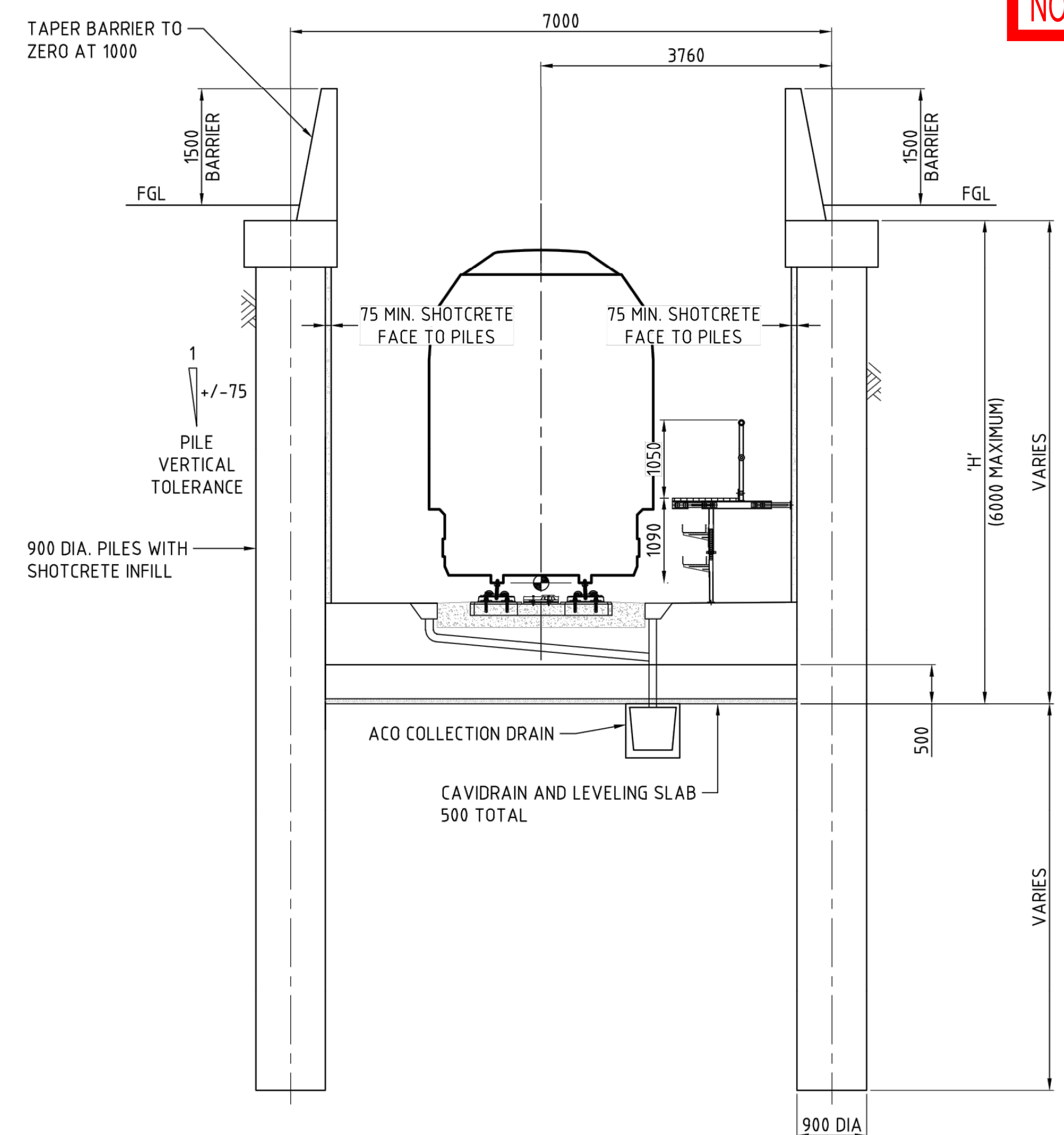


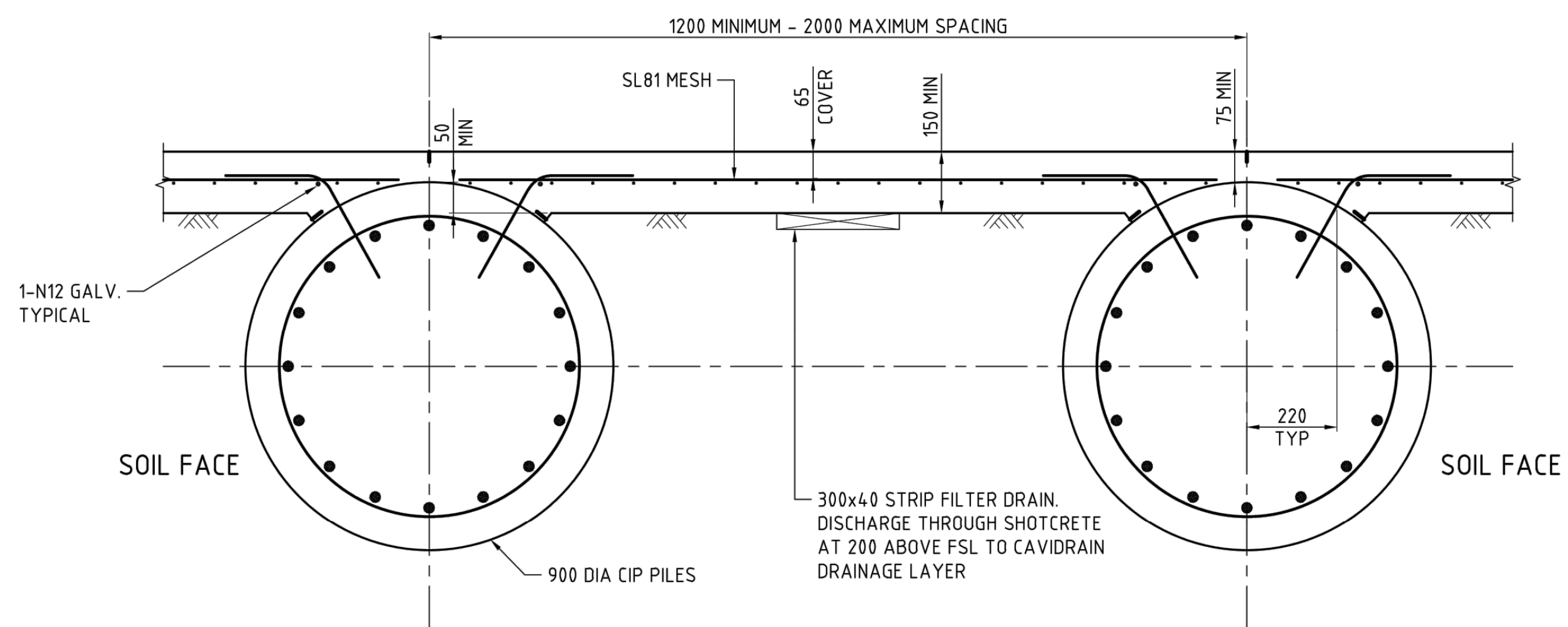
NOT FOR CONSTRUCTION



CUT AND COVER TYPICAL SECTION
SCALE 1:50

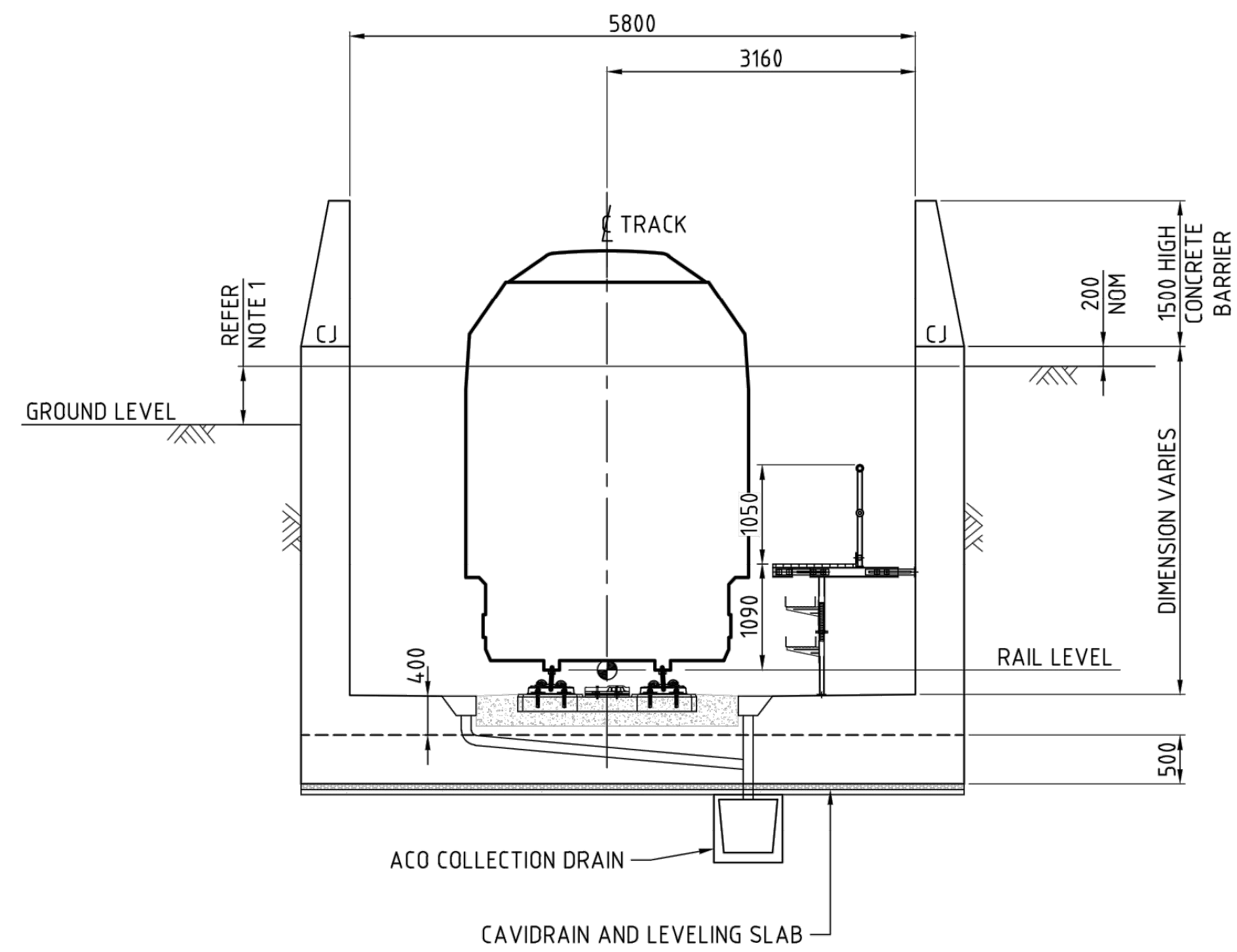


OPEN TROUGH TYPICAL SECTION
SCALE 1:50



TYPICAL SECTION - PILES AND SHOTCRETE WALL
SCALE 1:10

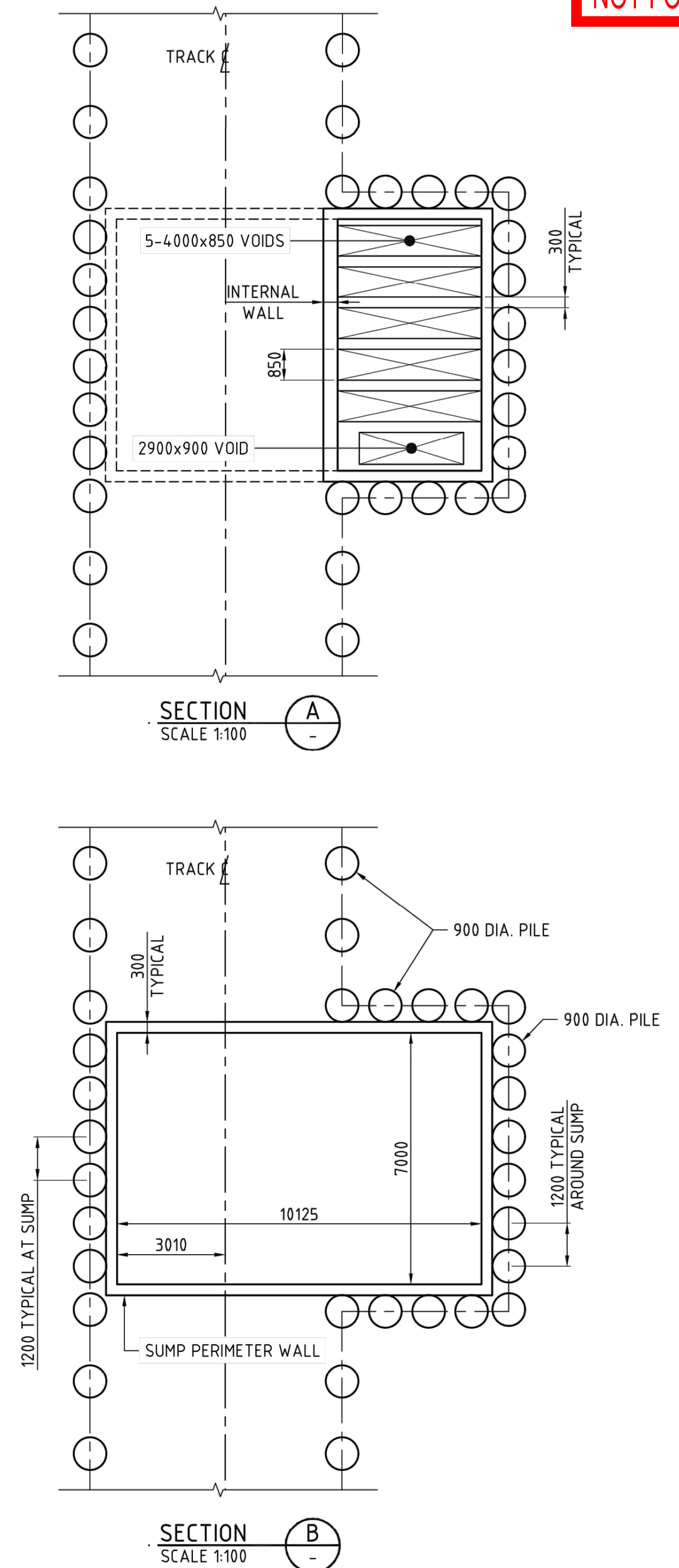
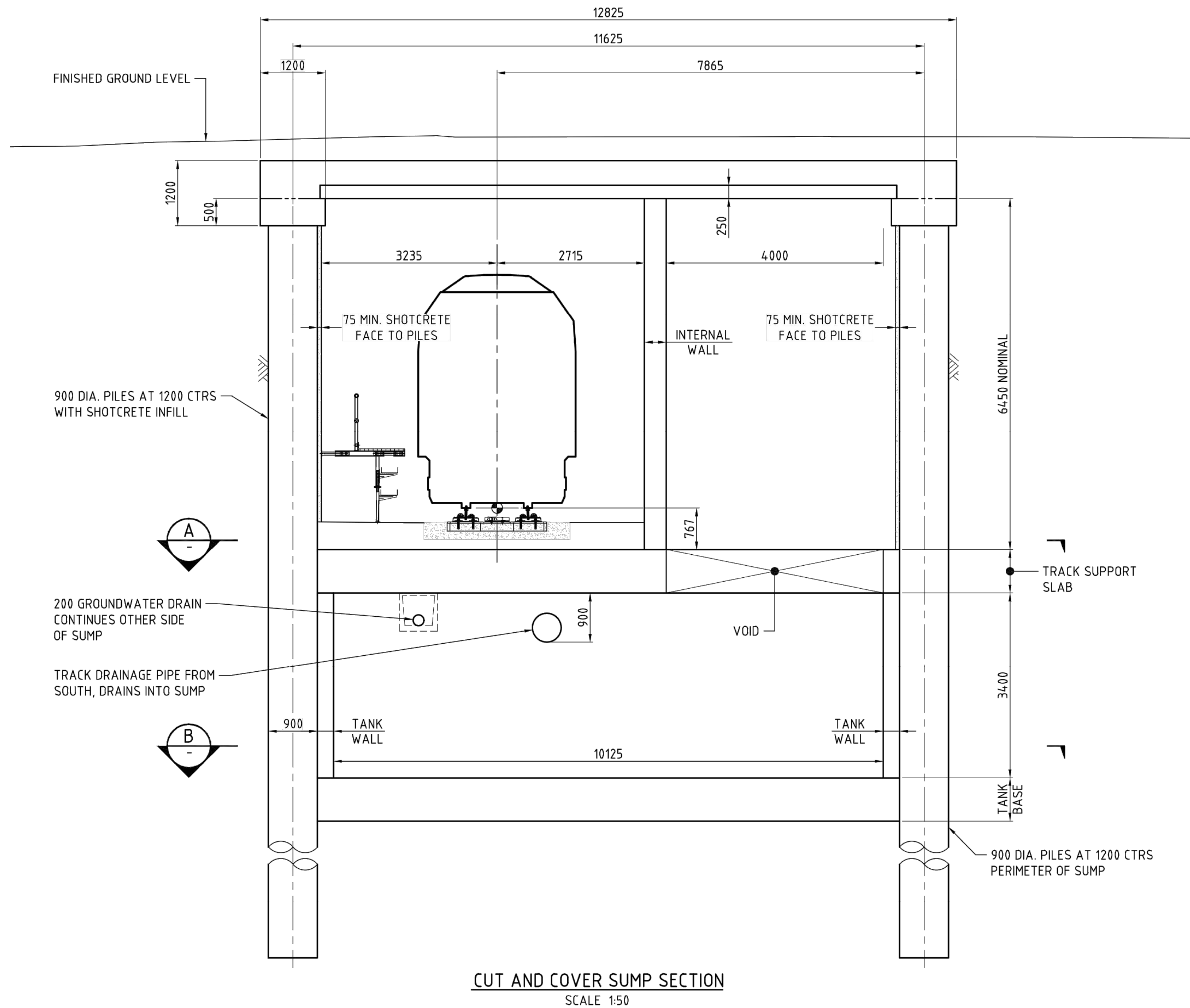
														CRRDA Drg. No.				CRR-0003-POR-GA-101														
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					SOUTH PORTAL CUT AND COVER SECTION – SHEET 1													
								Datum		BCSG02				CROSS RIVER RAIL																		
E RFPC9 ISSUE				30.10.20										CHANGED PROJECT 9																		
D RFPC8 ISSUE				24.07.20				Auxiliary Drg Nos		Horiz. Grid						Reference Points					Drawn				ENGINEERING CERTIFICATION (RPEQ)				Job No.			
C RFPC7 ISSUE				08.05.20						Height Origin						Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP					ENG. AREA NAME SIGNATURE NO. DATE				Contract No.							
B MINOR REVISIONS TO RFPC4 ISSUE				29.04.19								Survey Books		Dimensions shown in millimetres except where shown otherwise							Designed								Drawing No.		E	
A RFPC4 ISSUE				24.04.19																					Series Number		of					
Revisions/Descriptions		Certification		Date		Microfiled										Through Chainage from									MRR_Detail (02/14)							
CAD FILES																																



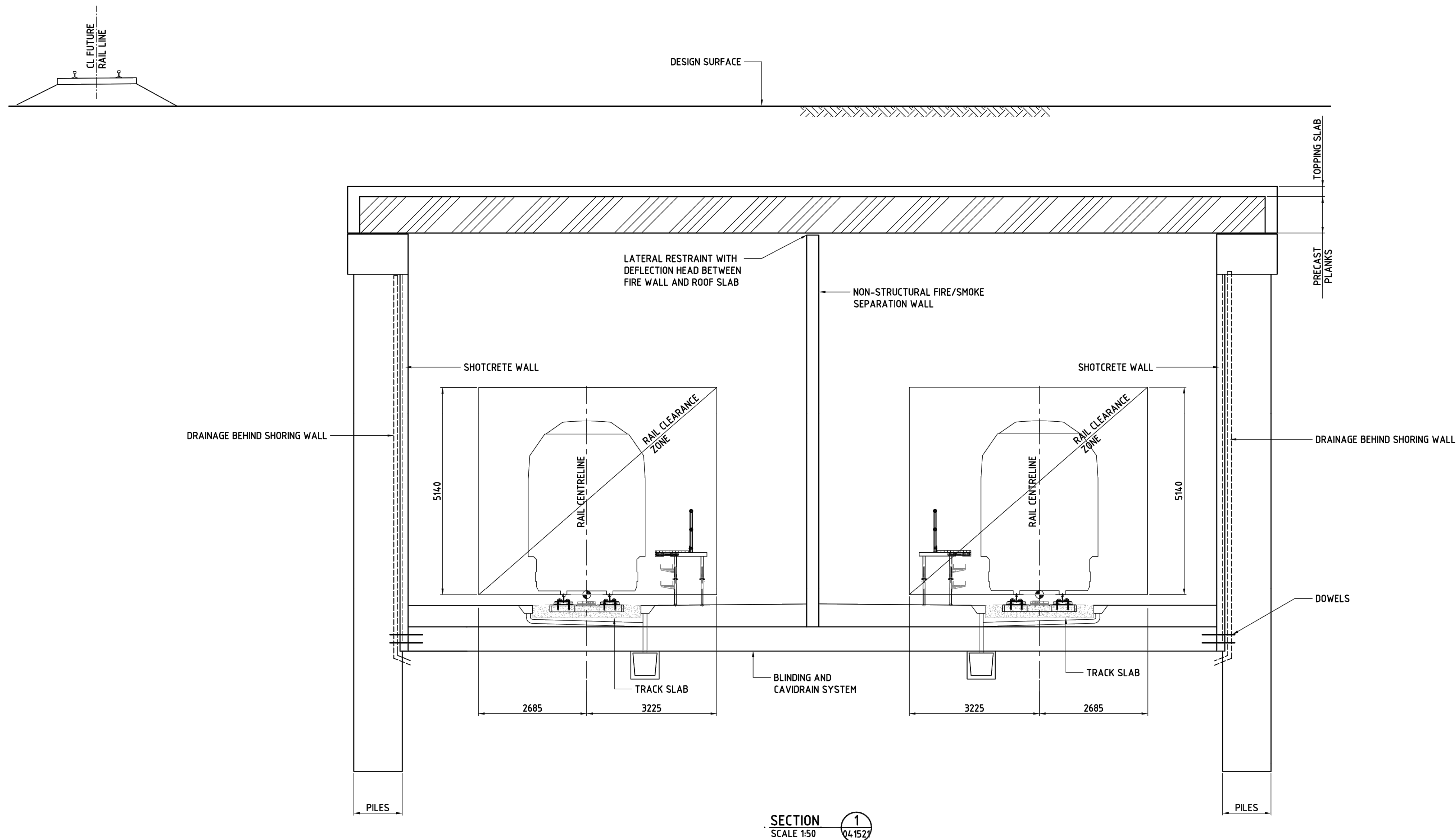
INSITU OPEN TROUGH TYPICAL SECTION
SCALE 1:50

[illegible]

NOT FOR CONSTRUCTION

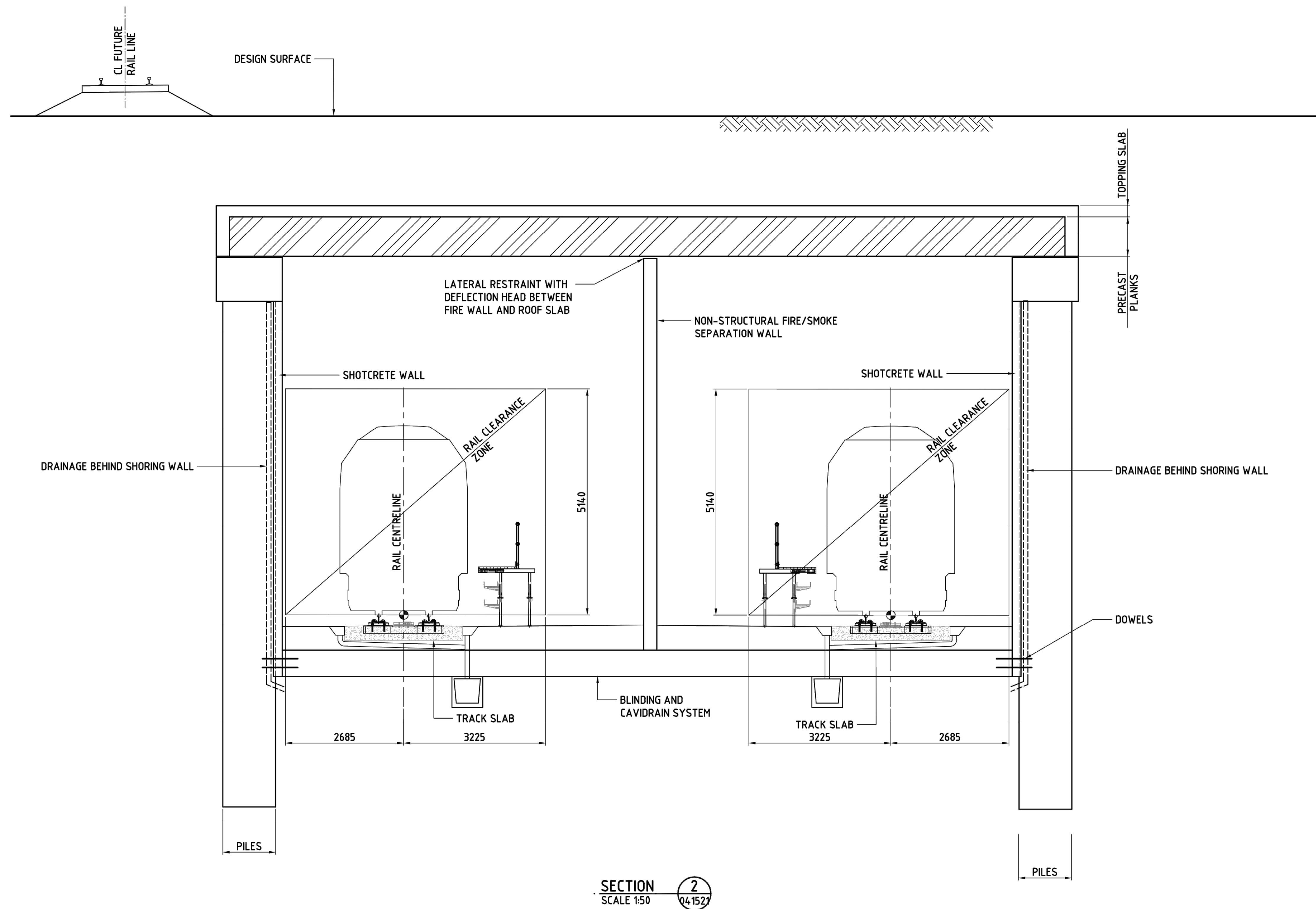


														CRRDA Drg. No.				CRR-0003-POR-GA-103																							
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					SOUTH PORTAL CUT AND COVER SECTION – SHEET 3																						
								Datum		BCSG02				CROSS RIVER RAIL																											
E		RFPC9 ISSUE				30.10.20								CHANGED PROJECT 9																											
D		RFPC8 ISSUE				24.07.20				Auxiliary Drg Nos				Horiz. Grid		Reference Points					Drawn		ENGINEERING CERTIFICATION (RPEQ)						Job No.												
C		RFPC7 ISSUE				08.05.20								Height Origin		Preceding RP					Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract. No.		
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19						Survey Books		Dimensions shown in millimetres except where shown otherwise										Designed								Drawing No.		E		Series Number		of			
A		RFPC4 ISSUE				24.04.19																																		MRR_Detail (02/14)	
CAD FILES		Revisions/Descriptions				Certification		Date		Microfiled									Through Chainage from																						



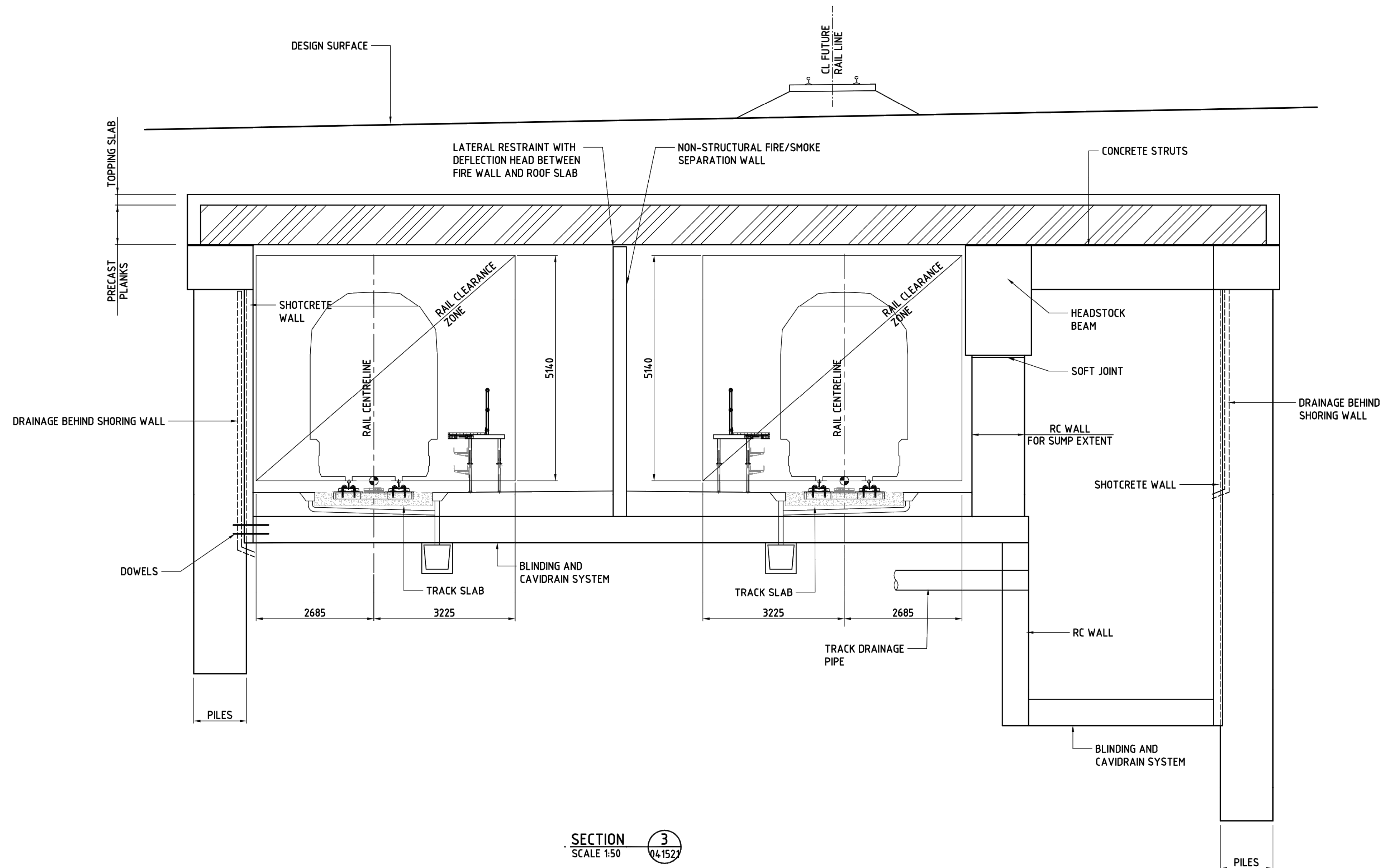
SECTION 1
SCALE 1:50

										CRRDA Drg. No. CRR-0003-POR-GA-110																															
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY				NORTH PORTAL CROSS SECTIONS SHEET 1																									
								Datum				BCSG02		CROSS RIVER RAIL																											
E RFPC9 ISSUE				30.10.20								CHANGED PROJECT 9																													
D RFPC8 ISSUE				24.07.20				Auxiliary Drg Nos		Horiz. Grid				Reference Points				Drawn		ENGINEERING CERTIFICATION (RPEQ)						Job No.															
C RFPC7 ISSUE				08.05.20						Height Origin				Preceding RP						Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.			
B MINOR REVISIONS TO RFPC4 ISSUE				29.04.19						Survey Books				Dimensions shown in millimetres except where shown otherwise																						Drawing No.		E			
A RFPC4 ISSUE				24.04.19																																					
		Revisions/Descriptions		Certification		Date		Microfiled								Through Chainage from																									
CAD FILES																																									



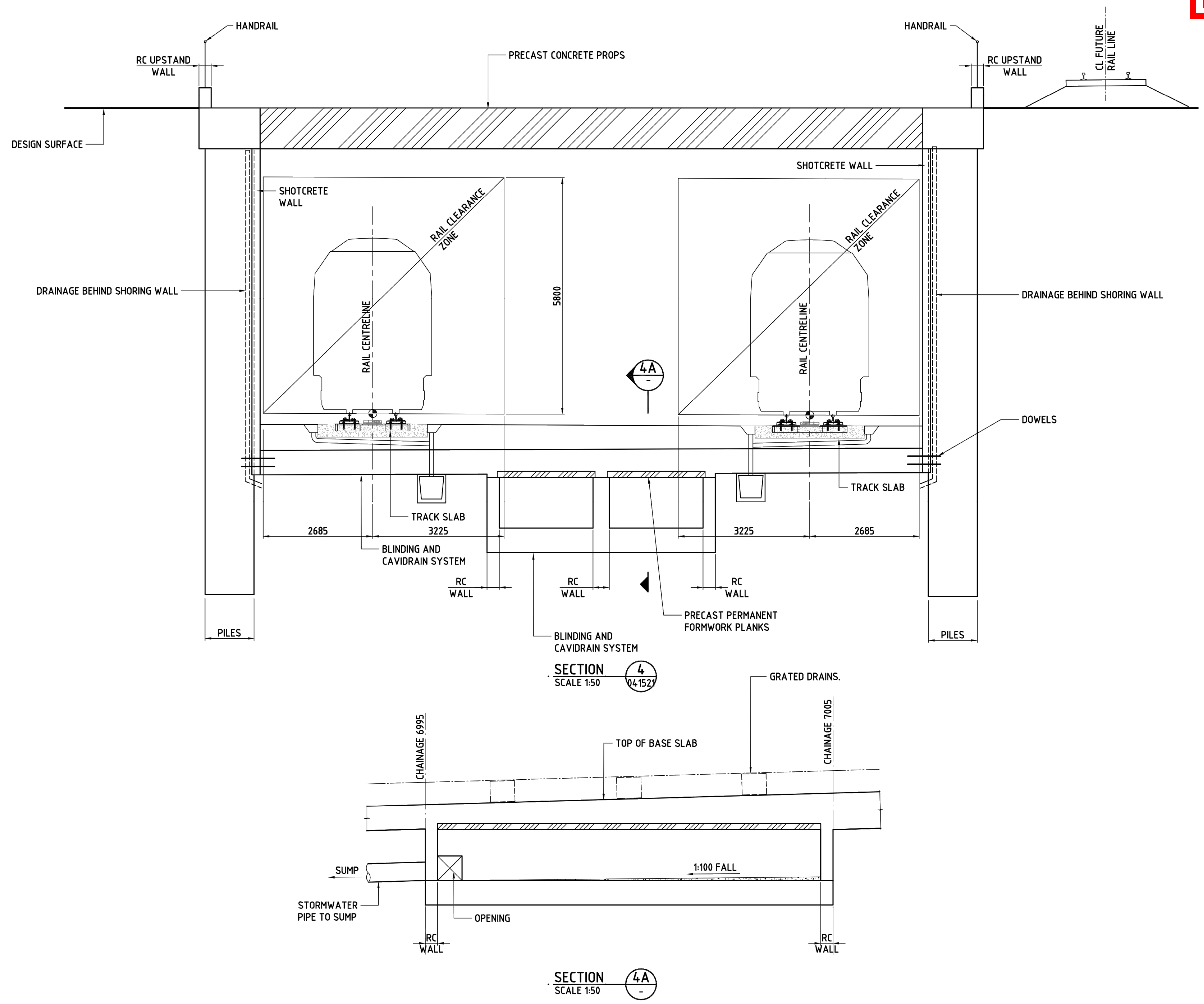
SECTION 2
SCALE 1:50

										CRRDA Drg. No. CRR-0003-POR-GA-111																									
										Associated Job Nos		Survey Data		Scales		BRISBANE CITY				NORTH PORTAL CROSS SECTIONS SHEET 2															
E		RFPC9 ISSUE				30.10.20						Datum				BCSG02		CROSS RIVER RAIL																	
D		RFPC8 ISSUE				24.07.20						Auxiliary Drg Nos				Horiz. Grid		CHANGED PROJECT 9																	
C		RFPC7 ISSUE				08.05.20						Height Origin						Reference Points				Drawn		ENGINEERING CERTIFICATION (RPEQ)						Job No.					
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19												Preceding RP		Dist. to start of job (km)				From start to end of job				From end to Following RP		Following RP		ENG. AREA		NAME	
A		RFPC4 ISSUE				24.04.19						Survey Books				Dimensions shown in millimetres except where shown otherwise						Designed								Drawing No.		E			
		Revisions/Descriptions						Certification		Date		Microfiled																		Series Number		of			
CAD FILES																		Through Chainage from												MRR_Detail (02/14)					

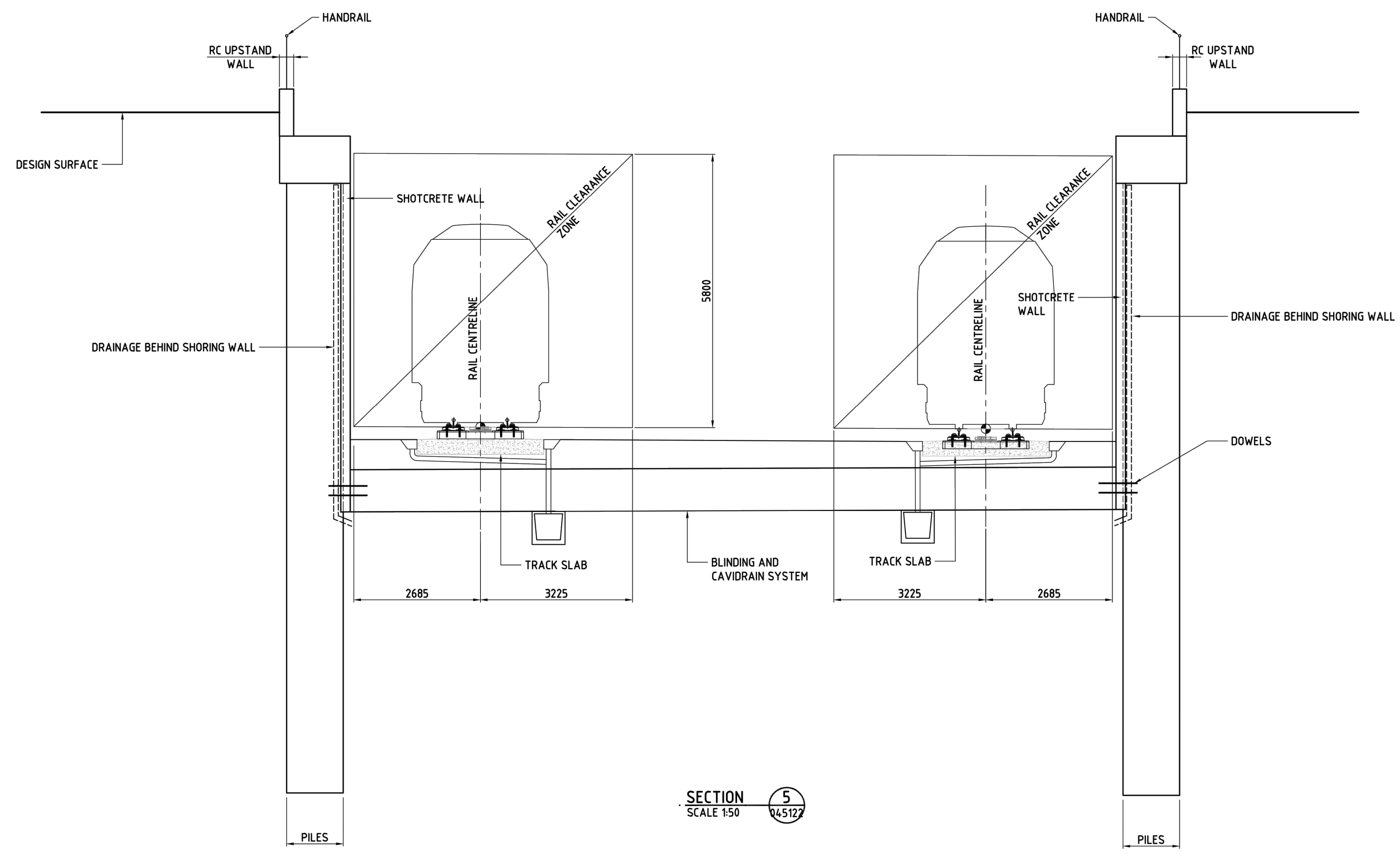


SECTION 3
SCALE 1:50 041521

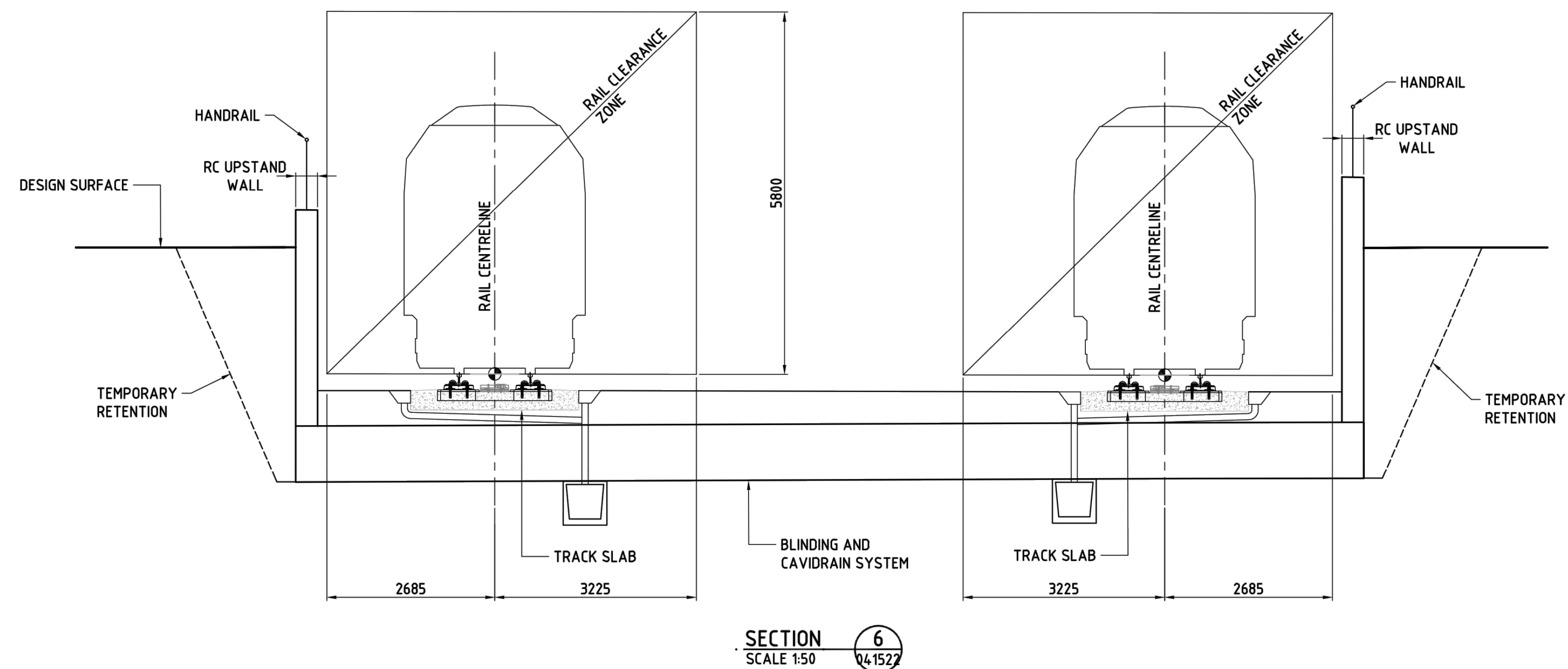
										CRRDA Drg. No.				CRR-0003-POR-GA-112																											
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY				NORTH PORTAL CROSS SECTIONS SHEET 3																							
								Datum		BCSG02				CROSS RIVER RAIL																											
E		RFPC9 ISSUE				30.10.20								CHANGED PROJECT 9																											
D		RFPC8 ISSUE				24.07.20				Auxiliary Drg Nos				Horiz. Grid		Reference Points				Drawn		ENGINEERING CERTIFICATION (RPEQ)				Job No.															
C		RFPC7 ISSUE				08.05.20								Height Origin		Preceding RP				Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.			
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19						Survey Books		Dimensions shown in millimetres except where shown otherwise								Designed														Drawing No.		E			
A		RFPC4 ISSUE				24.04.19																														Series Number		of		MRR_Detail (02/14)	
CAD FILES		Revisions/Descriptions		Certification		Date		Microfiled						Through Chainage from																											

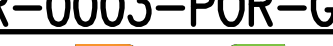


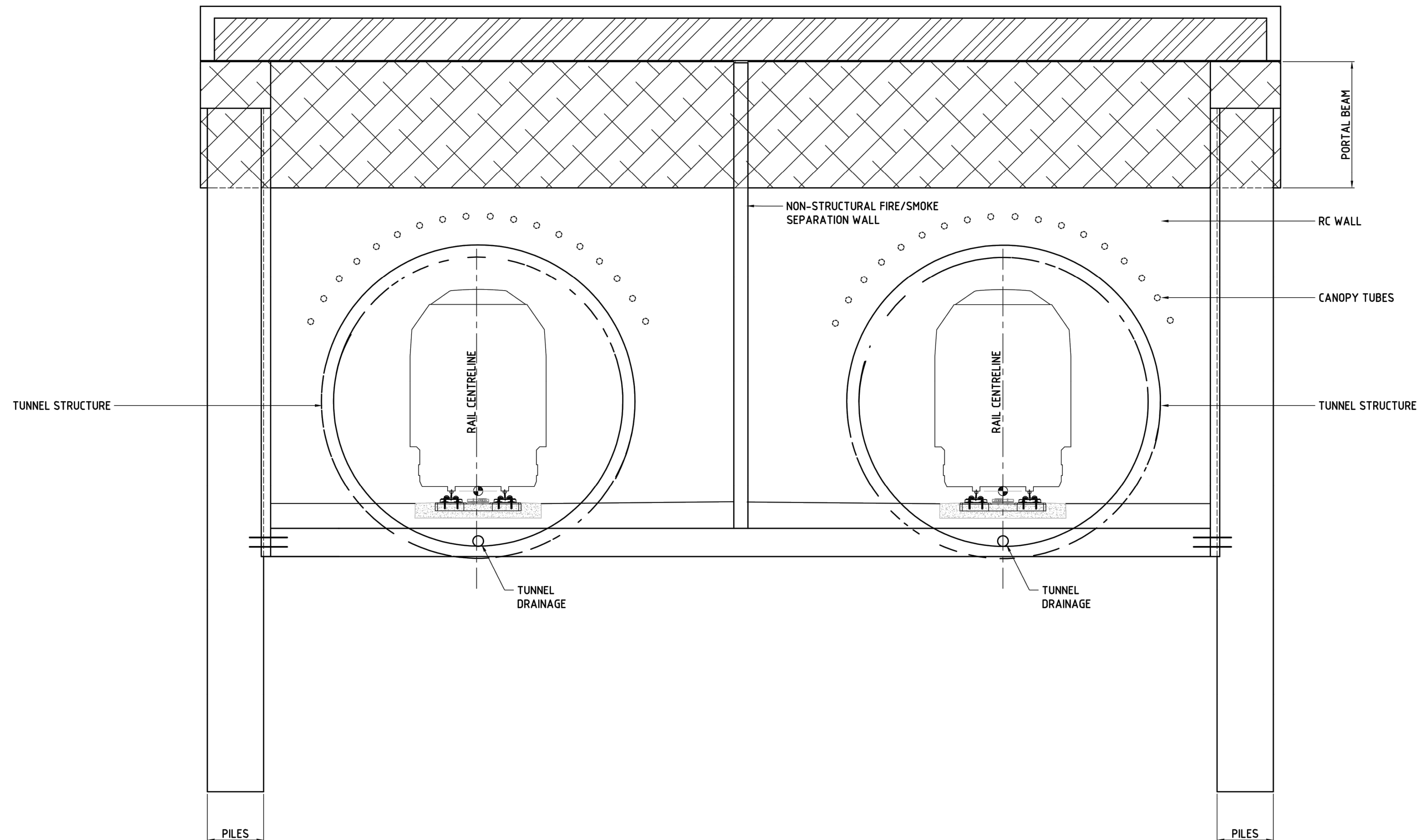
													CRRDA Drg. No. CRR-0003-POR-GA-113																				
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY				NORTH PORTAL CROSS SECTIONS SHEET 4															
E		RFPC9 ISSUE				30.10.20				Datum				BCSG02		CROSS RIVER RAIL																	
D		RFPC8 ISSUE				24.07.20				Auxiliary Drg Nos				Horiz. Grid											CHANGED PROJECT 9								
C		RFPC7 ISSUE				08.05.20								Height Origin				Reference Points															
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19								Survey Books				Dimensions shown in millimetres except where shown otherwise		Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP													
A		RFPC4 ISSUE				24.04.19												Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.								
		Revisions/Descriptions				Certification		Date		Microfiled								Designed		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.			
																														Drawing No.		E	
																														Series Number		of	
CAD FILES																																MRR_Detail (02/14)	



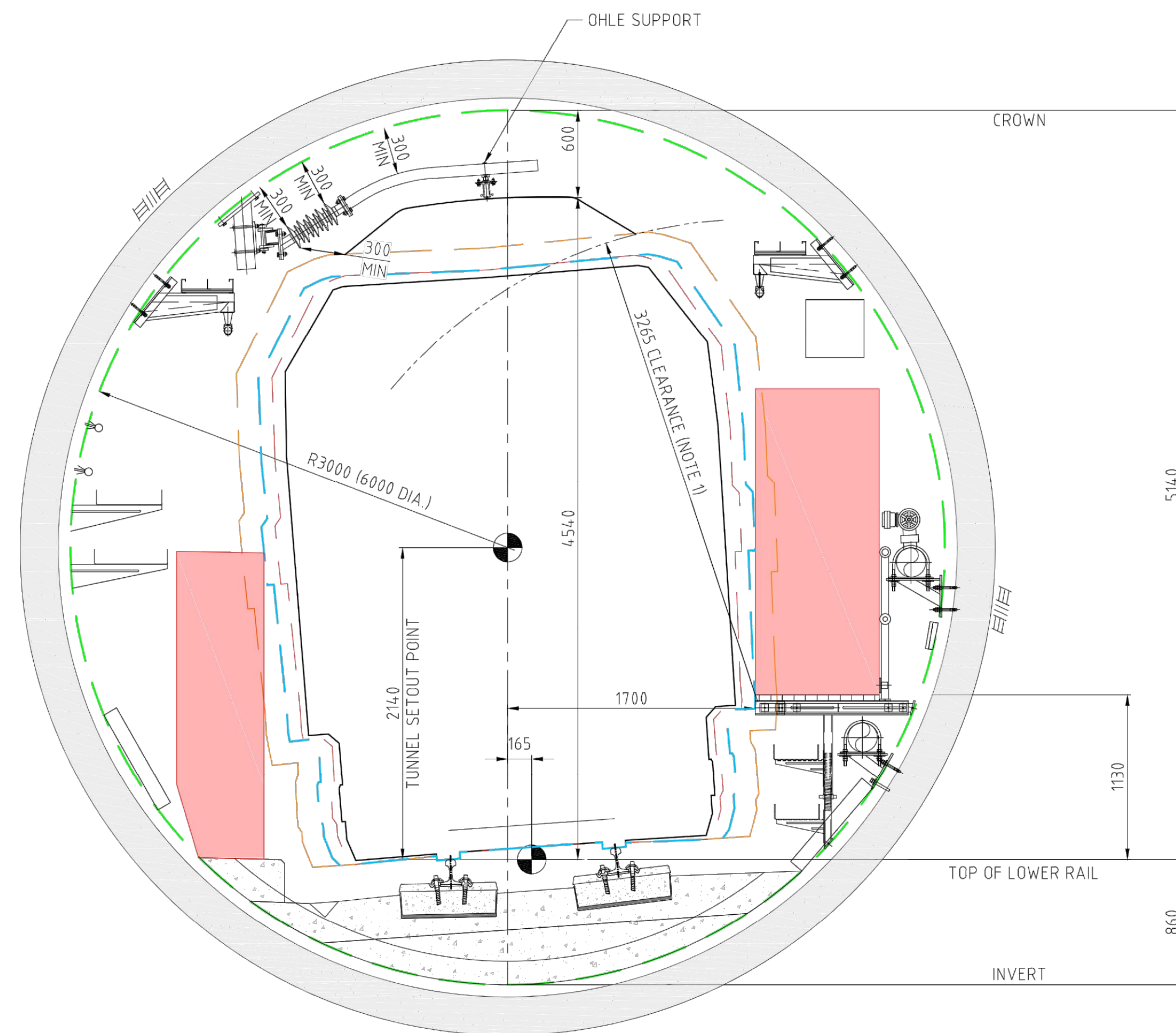
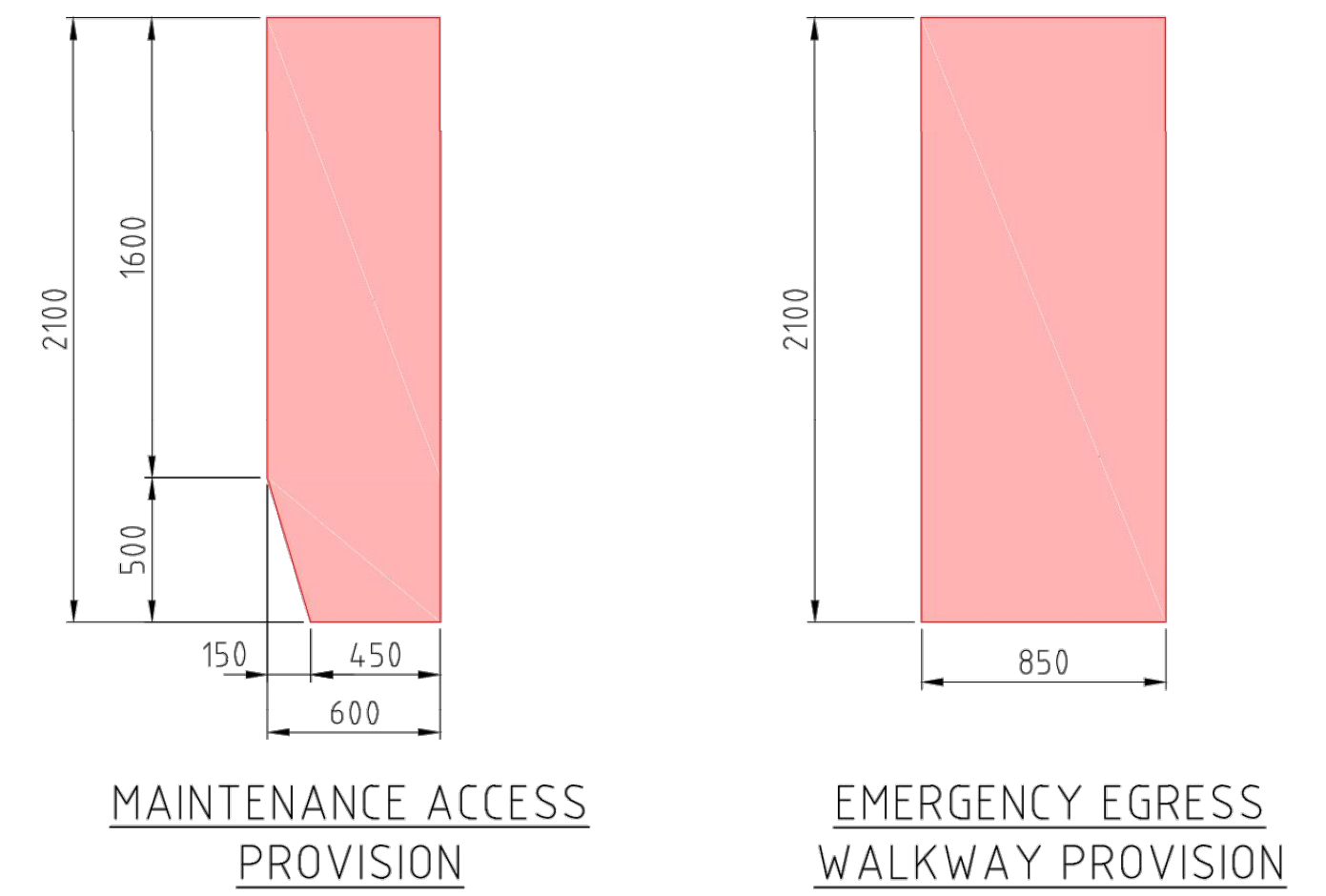
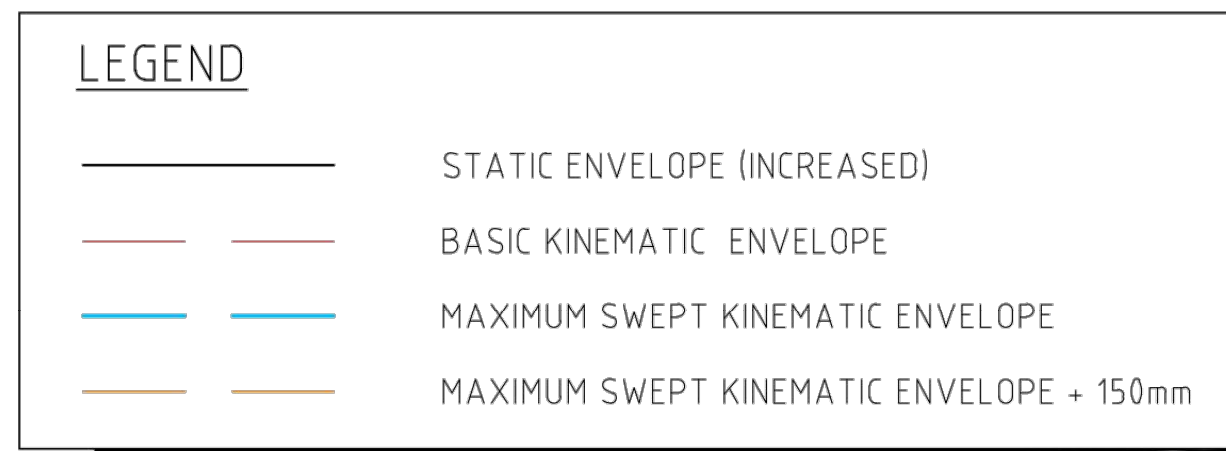
										CRRDA Drg. No. CRR-0003-POR-GA-114																
					Associated Job Nos	Survey Data		Scales	BRISBANE CITY					NORTH PORTAL CROSS SECTIONS SHEET 5												
E	RFPC9 ISSUE		30.10.20			Datum	BCSG02		CROSS RIVER RAIL																	
D	RFPC8 ISSUE		24.07.20						CHANGED PROJECT 9																	
C	RFPC7 ISSUE		08.05.20		Auxiliary Drg Nos	Horiz. Grid			Reference Points					Drawn	ENGINEERING CERTIFICATION (RPEQ)					Job No.						
B	MINOR REVISIONS TO RFPC4 ISSUE		29.04.19			Height Origin			Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP		ENG. AREA	NAME	SIGNATURE	NO.	DATE	Contract No.						
A	RFPC4 ISSUE		24.04.19			Survey Books			Dimensions shown in millimetres except where shown otherwise					Designed						Drawing No.		E				
Revisions/Descriptions																			Series Number		of					
CAD FILES												Through Chainage from										MRR_Detail (02/14)				



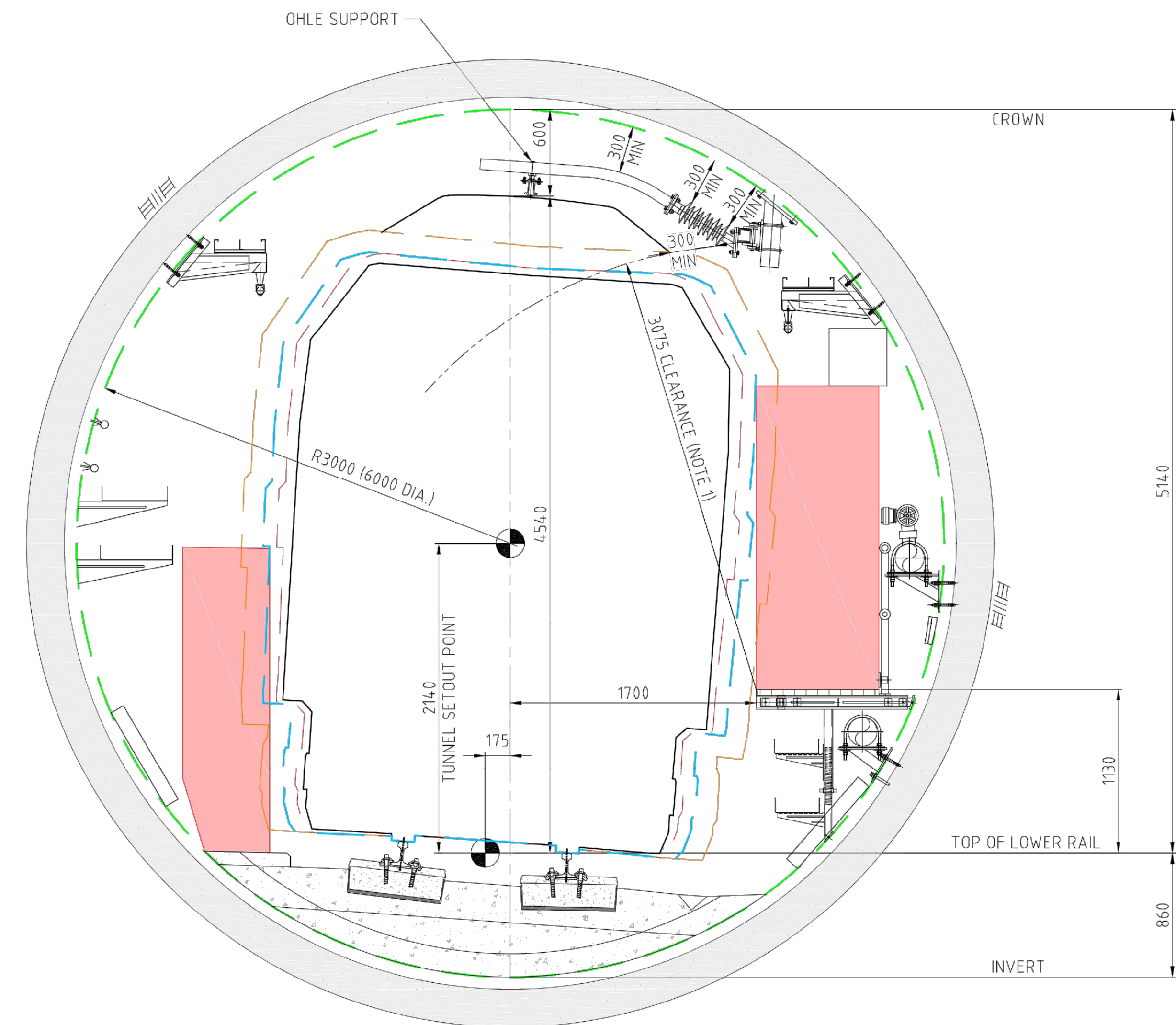
															CRRDA Drg. No.		CRR-0003-POR-GA-115							
					Associated Job Nos	Survey Data		Scales	BRISBANE CITY					NORTH PORTAL CROSS SECTIONS SHEET 6										
						Datum	BCSG02		CROSS RIVER RAIL															
E	RFPC9 ISSUE		30.10.20		Auxiliary Drg Nos	Horiz. Grid			CHANGED PROJECT 9															
D	RFPC8 ISSUE		24.07.20			Height Origin			Reference Points					Drawn	ENGINEERING CERTIFICATION (RPEQ)					Job No.				
C	RFPC7 ISSUE		08.05.20												Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP	ENG. AREA	NAME	SIGNATURE	NO.	DATE
B	MINOR REVISIONS TO RFPC4 ISSUE		29.04.19			Survey Books		Dimensions shown in millimetres except where shown otherwise					Designed						Drawing No.		E			
A	RFPC4 ISSUE		24.04.19																Series Number		of			
Revisions/Descriptions			Certification	Date	Microfiled						Through Chainage from										MRR_Detail (02/14)			
CAD FILES																								



										CRRDA Drg. No.				CRR-0003-POR-GA-116																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					NORTH PORTAL CROSS SECTIONS SHEET 7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
								Datum		BCSG02				CROSS RIVER RAIL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
E		RFPC9 ISSUE				30.10.20								CHANGED PROJECT 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
D		RFPC8 ISSUE				24.07.20				Horiz. Grid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
C		RFPC7 ISSUE				08.05.20				Height Origin																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19				Survey Books		Dimensions shown in millimetres except where shown otherwise							Drawn		ENGINEERING CERTIFICATION (RPEQ)				Job No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
A		RFPC4 ISSUE				24.04.19									Preceding RP		Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Revisions/Descriptions		Certification		Date		Microfiled											Designed						Drawing No.		E		Series Number		of																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
CAD FILES												Through Chainage from																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</			

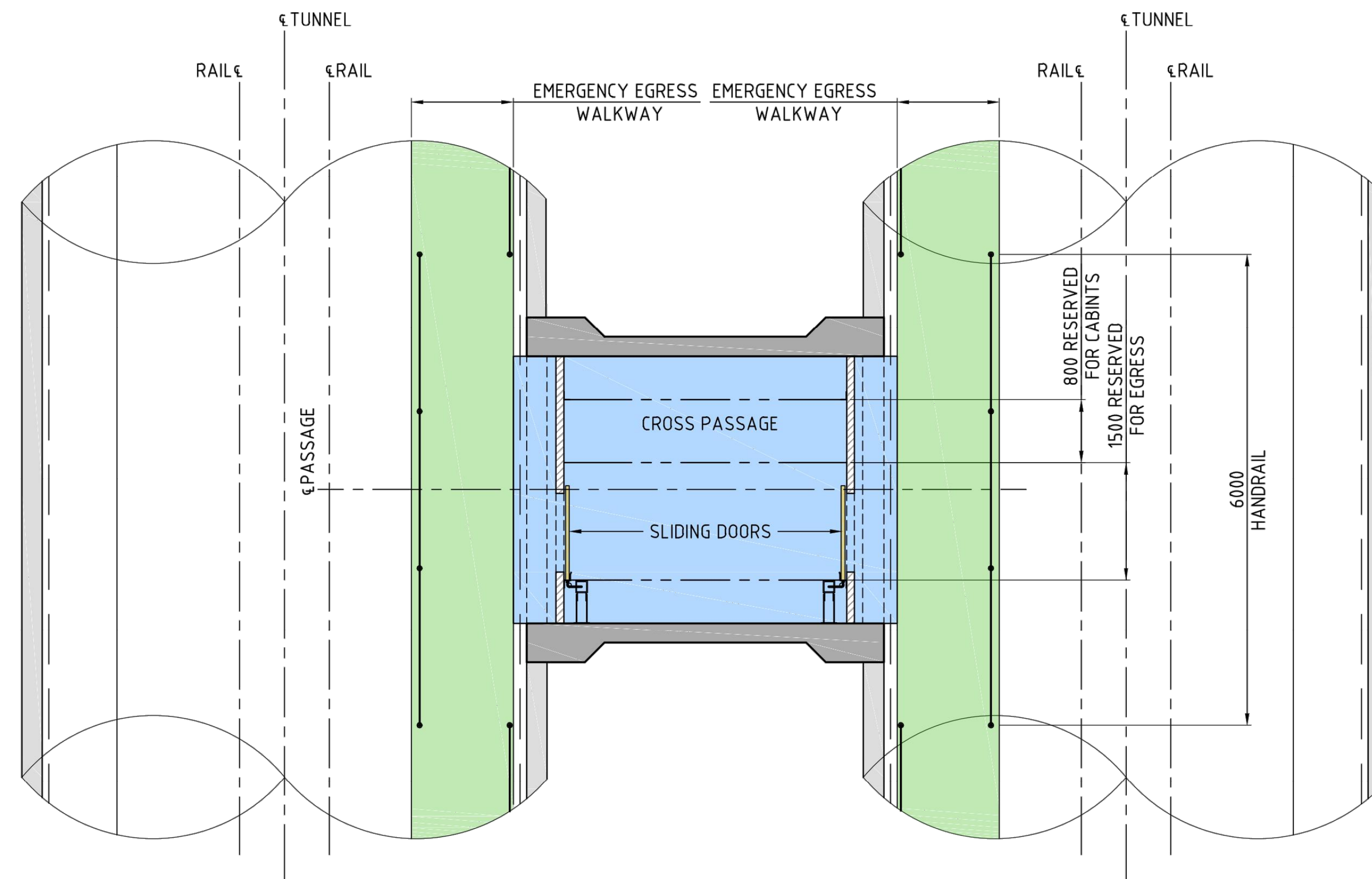


CURVED (LEFT) : 80mm CANT
165mm SHIFT RIGHT



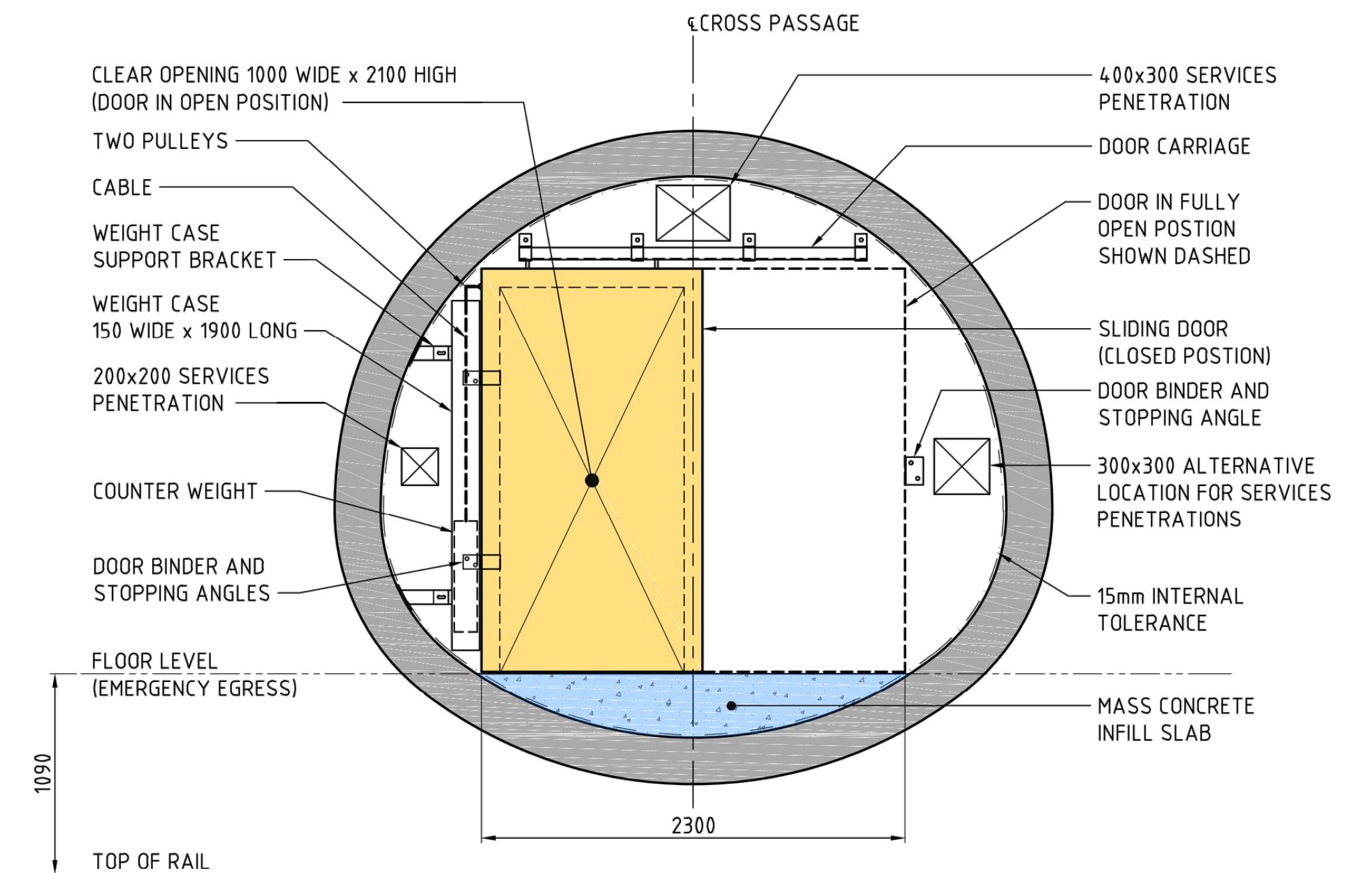
CURVED (RIGHT) : 80mm CANT
175mm SHIFT LEFT

										CRRDA Drg. No.		CRR-0003-TUN-GA-101																							
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					TUNNEL SPACE PROOFING TBM TUNNEL CURVED TRACK																
								Datum		BCSG02				CROSS RIVER RAIL																					
E RFPC9 ISSUE				30.10.20										CHANGED PROJECT 9																					
D RFPC8 ISSUE				24.07.20				Auxiliary Drg Nos		Horiz. Grid						Reference Points					Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.							
C RFPC7 ISSUE				08.05.20						Height Origin						Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP					Designed		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract. No.		
B MINOR REVISIONS TO RFPC4 ISSUE				29.04.19																									Drawing No.		E				
A RFPC4 ISSUE				24.04.19										Dimensions shown in millimetres except where shown otherwise																Series Number		of			
CAD FILES		Revisions/Descriptions		Certification		Date		Microfiled						Through Chainage from																		MRR_Detail (02/14)			



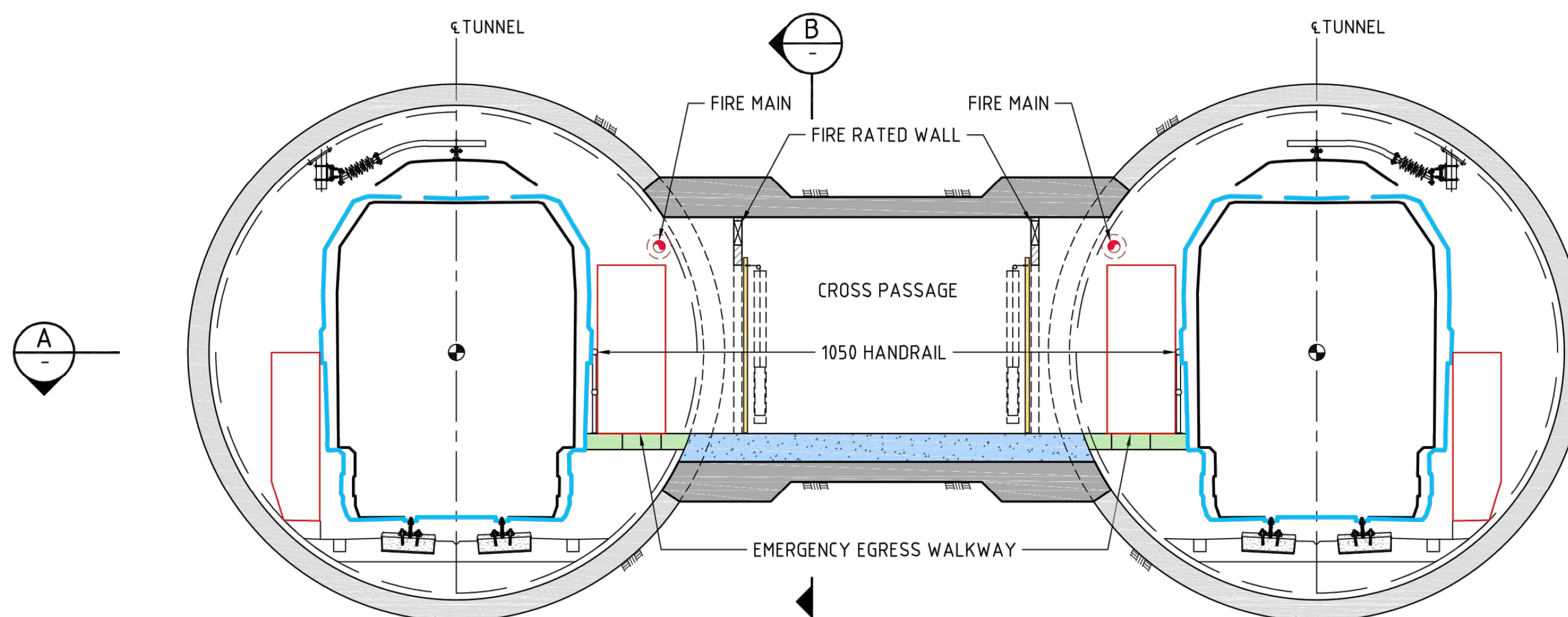
CROSS PASSAGE - PLAN

SECTION A
SCALE 1:50

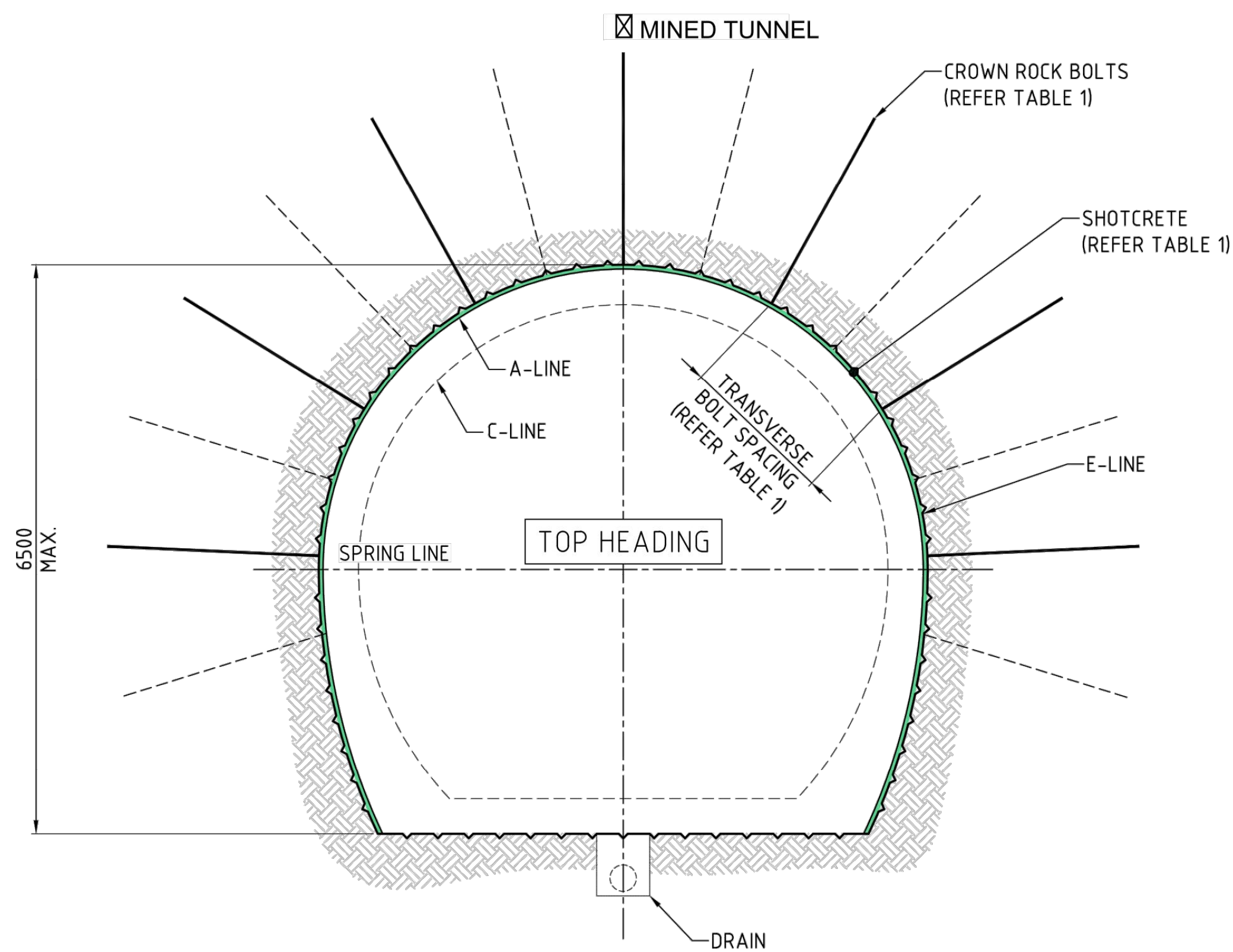


CROSS PASSAGE – CROSS SECTION

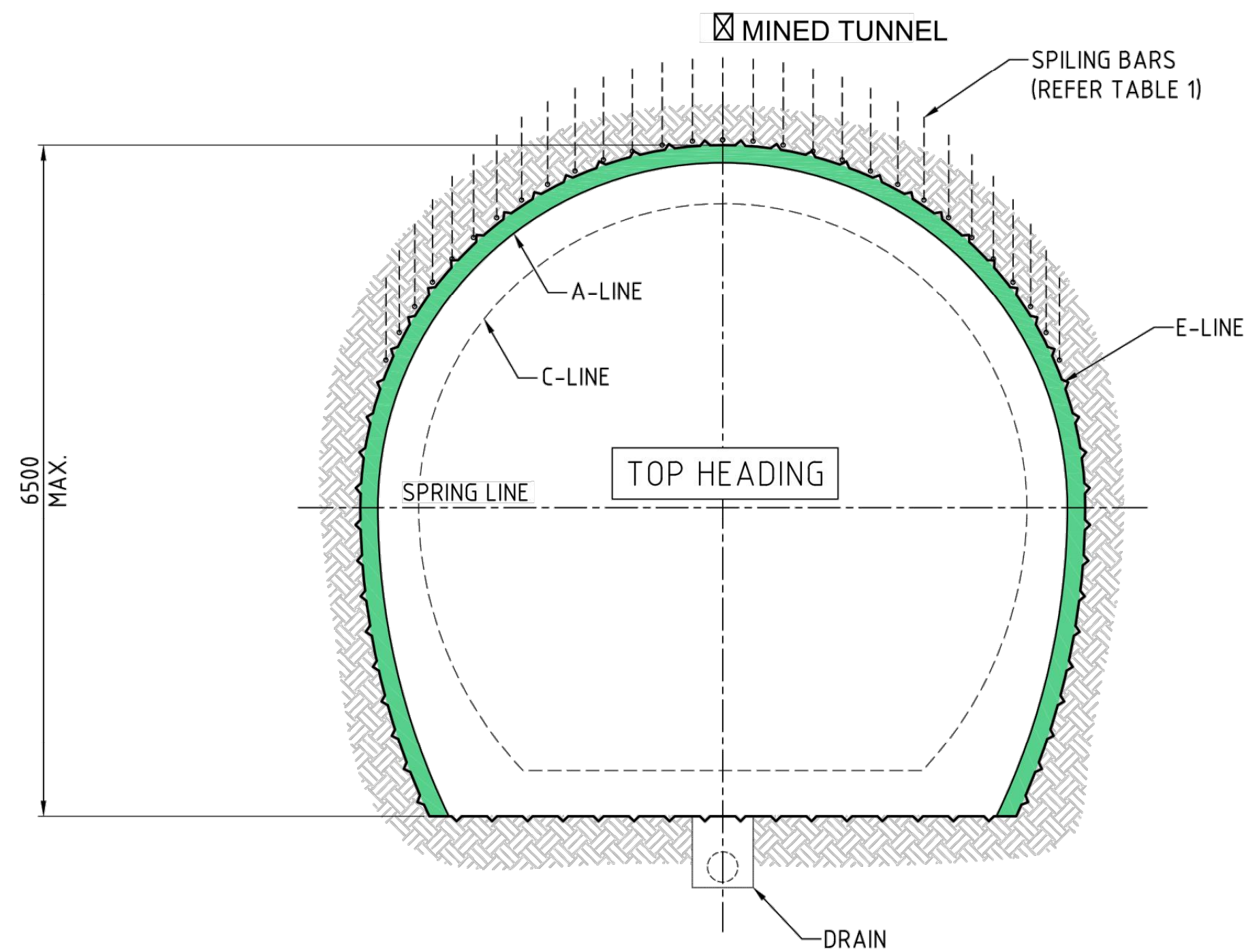
SECTION B
SCALE 1:25



														CRRDA Drg. No.				CRR-0003-TUN-GA-102																			
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY				TUNNEL SPACE PROOFING TBM TUNNEL CROSS PASSAGE																			
								Datum		BCSG02				CROSS RIVER RAIL																							
E RfPC9 ISSUE				30.10.20										CHANGED PROJECT 9																							
D RfPC8 ISSUE				24.07.20				Auxiliary Drg Nos		Horiz. Grid						Reference Points				Drawn		ENGINEERING CERTIFICATION (RPEQ)						Job No.									
C RfPC7 ISSUE				08.05.20						Height Origin						Preceding RP		Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.	
B MINOR REVISIONS TO RfPC4 ISSUE				29.04.19																														Drawing No.		E	
A RfPC4 ISSUE				24.04.19						Survey Books				Dimensions shown in millimetres except where shown otherwise										Designed										Series Number		of	
CAD FILES		Revisions/Descriptions		Certification		Date		Microfiled																												MRR_Detail (02/14)	



MINED TUNNEL SUPPORT TYPE-T1, T2, T3, AND T5
1 : 50



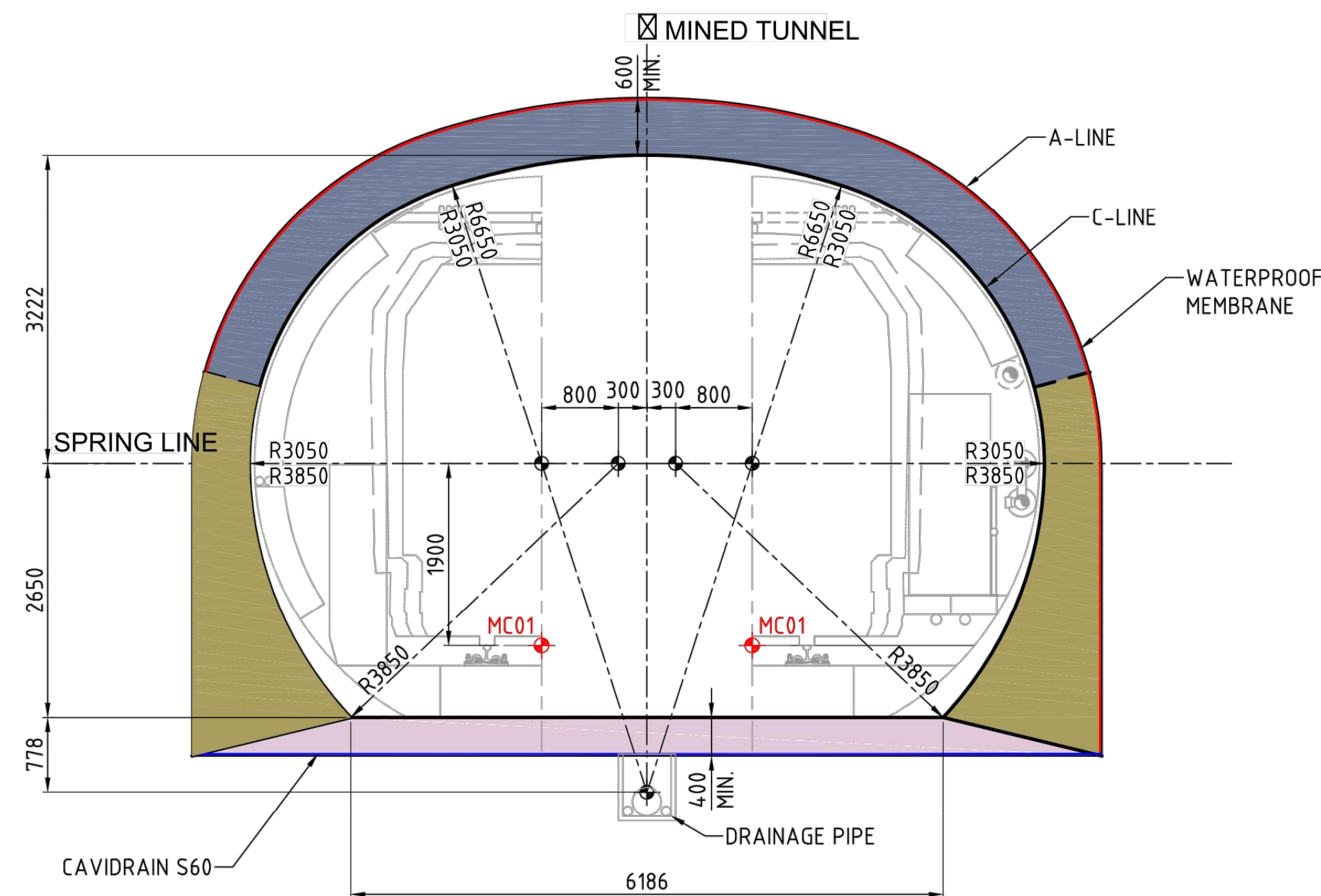
MINED TUNNEL SUPPORT TYPE-T4
1 : 50

TABLE 1: QUANTITIES

PRIMARY SUPPORT TYPE		T1	T2	T3	T4
CROWN SUPPORT	ROCK BOLTS	2400 LONG SWELLEX AT 1750 TRANS. X 1750 LONG. CTS	2400 LONG SWELLEX AT 1500 TRANS. X 1500 LONG. CTS	2400 LONG AT 1250 TRANS. X 1250 LONG. CTS	2400 LONG SPILING BARS
	PRIMARY SHOTCRETE	50 THICK S1	75 THICK S1	100 THICK S1	300 THICK S1
FACE SUPPORT	DOWELS	AS REQUIRED	AS REQUIRED	AS REQUIRED	AS REQUIRED
	SHOTCRETE	AS REQUIRED	AS REQUIRED	AS REQUIRED	AS REQUIRED

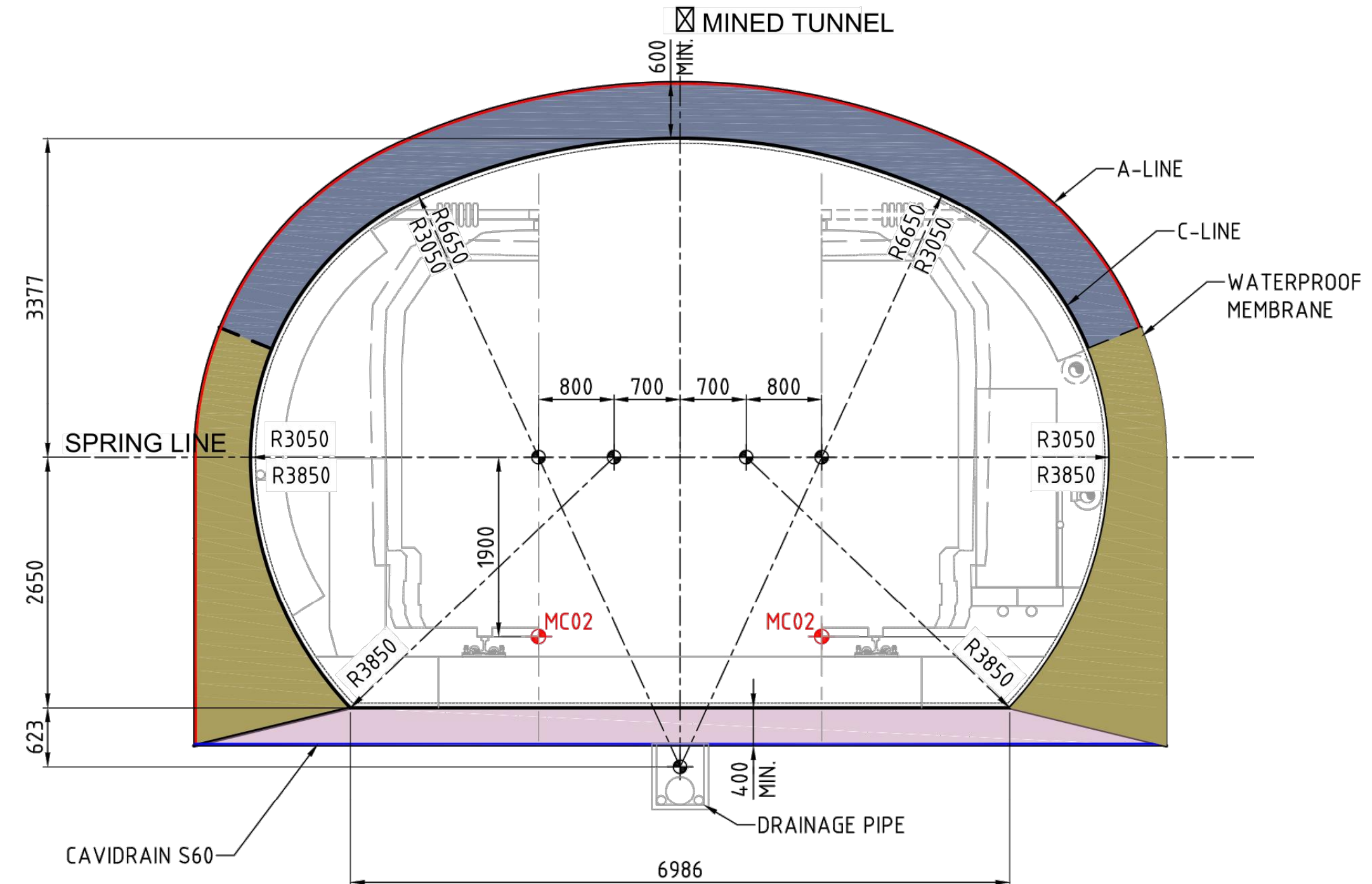
										CRRDA Drg. No. CRR-0003-TUN-GA-110																																			
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY				TUNNEL MINED TUNNEL SUPPORT TYPES T1 – T5																													
								Datum				BCSG02		CROSS RIVER RAIL																															
E		RFPC9 ISSUE				30.10.20								CHANGED PROJECT 9																															
D		RFPC8 ISSUE				24.07.20								Reference Points																															
C		RFPC7 ISSUE				08.05.20										Drawn				ENGINEERING CERTIFICATION (RPEQ)				Job No.																					
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19								Preceding RP				Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.									
A		RFPC4 ISSUE				24.04.19								Designed																Drawing No.				E											
		Revisions/Descriptions				Certification		Date		Microfiled						Dimensions shown in millimetres except where shown otherwise																Series Number				of									
CAD FILES														Through Chainage from																															

LEGEND:
SETOUT POINT
WATERPROOF MEMBRANE



SOUTHERN MINED TUNNEL C-LINE SETOUT - (MC01)
1:50

SECTION A
021100



SOUTHERN MINED TUNNEL C-LINE SETOUT - (MC02)
1:50

SECTION B
021100

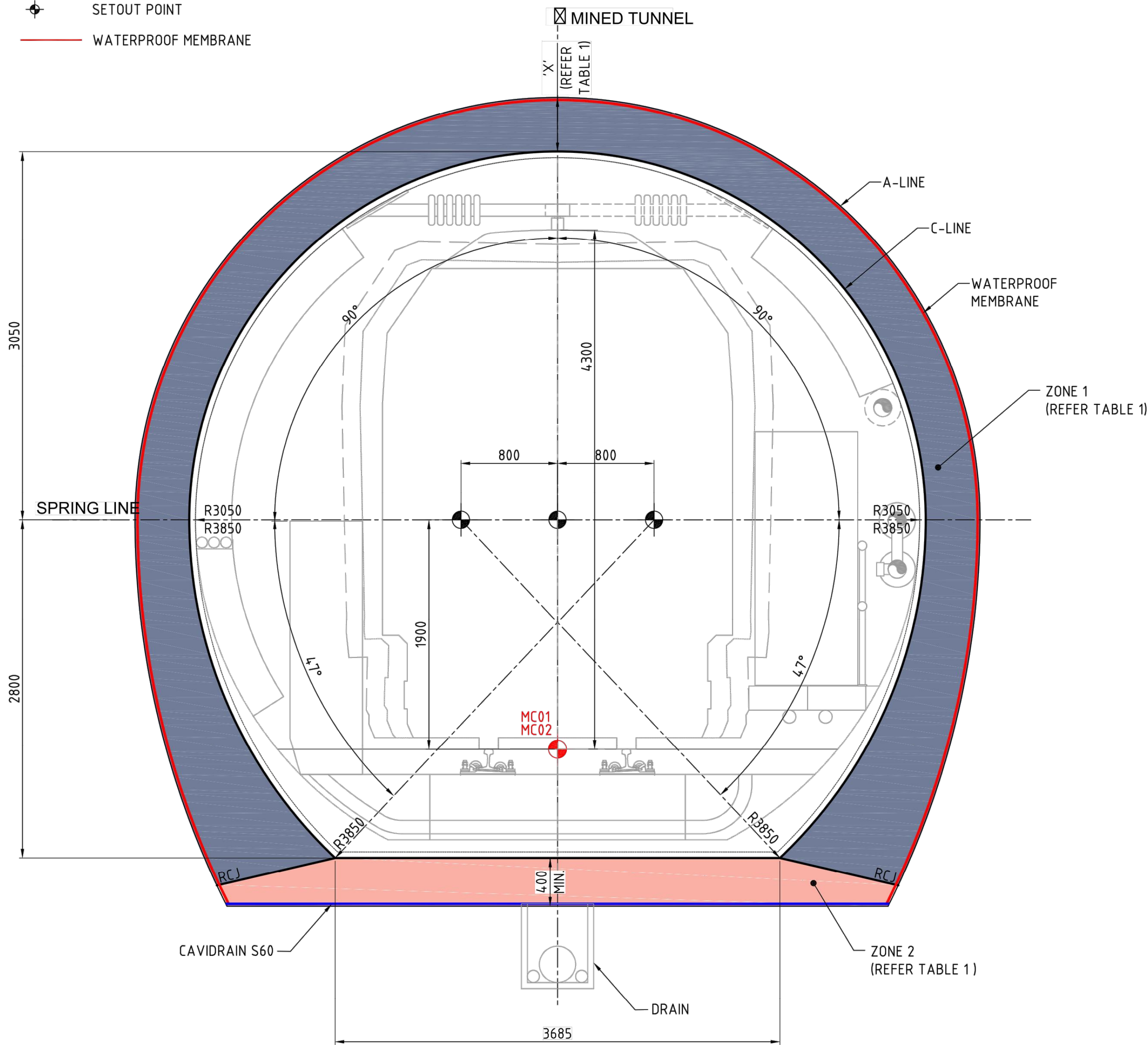
										CRRDA Drg. No. CRR-0003-TUN-GA-111																																							
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					TUNNEL MINED TUNNEL C-LINE SETOUT SHEET 1																														
								Datum		BCSG02				CROSS RIVER RAIL																																			
										CHANGED PROJECT 9																																							
E		RFPC9 ISSUE				30.10.20								Reference Points					Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.																							
D		RFPC8 ISSUE				24.07.20								Preceding RP							Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.										
C		RFPC7 ISSUE				08.05.20						Height Origin					Designed							Drawing No.		E																							
B		MINOR REVISIONS TO RfPC4 ISSUE				29.04.19						Survey Books							Dimensions shown in millimetres except where shown otherwise										Series Number		of																		
A		RfPC4 ISSUE				24.04.19																																											
		Revisions/Descriptions				Certification		Date		Microfiled																																							
CAD FILES																				Through Chainage from																													

NOTES:

1. FOR GENERAL NOTES REFER TO DRAWING 200005.

LEGEND:

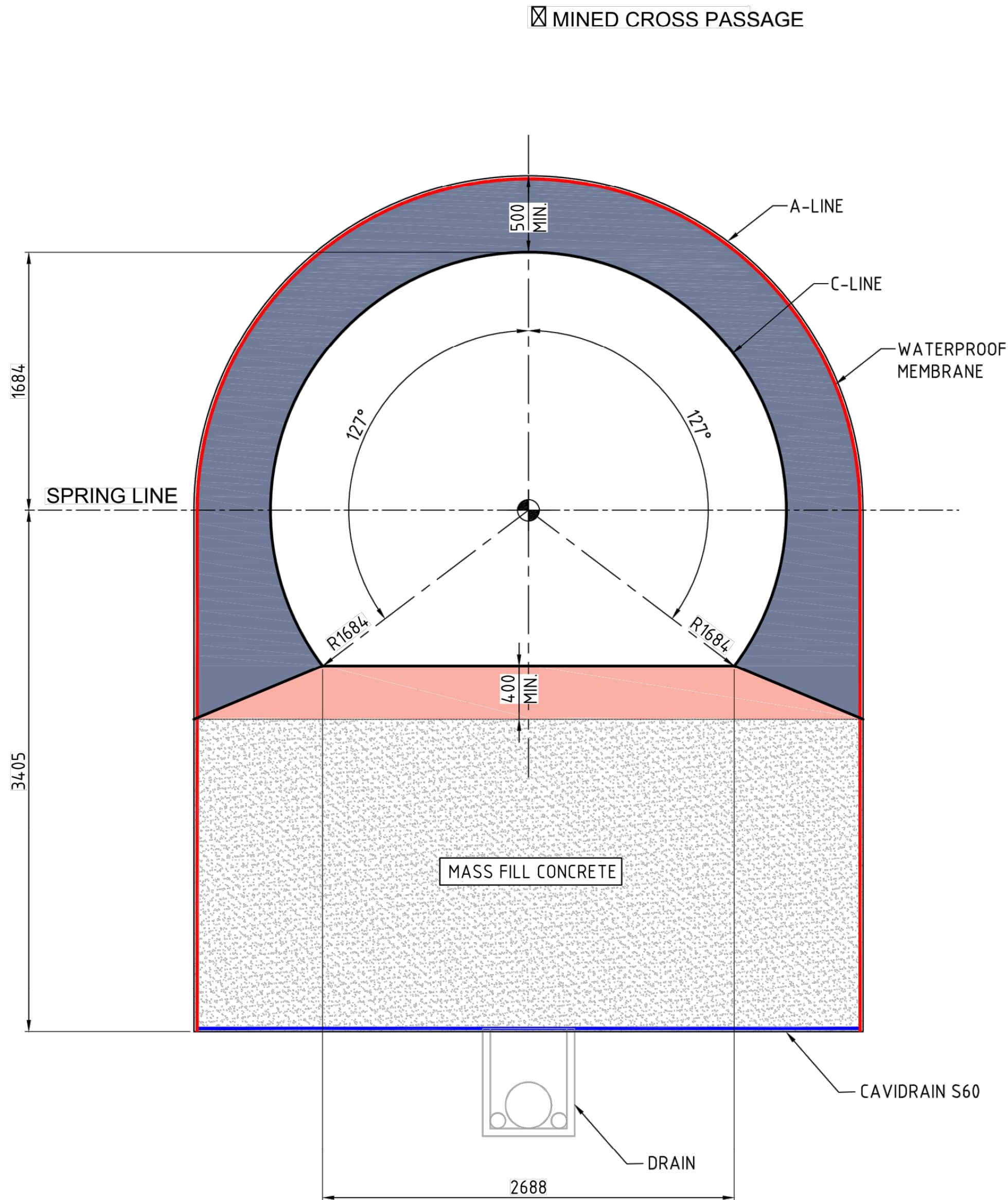
- SETOUT POINT
WATERPROOF MEMBRANE



STANDARD NORTHERN MINED TUNNEL - TS1 AND TS2 - C-LINE SETOUT

SECTION C
SCALE 1:25 021101 - 021107

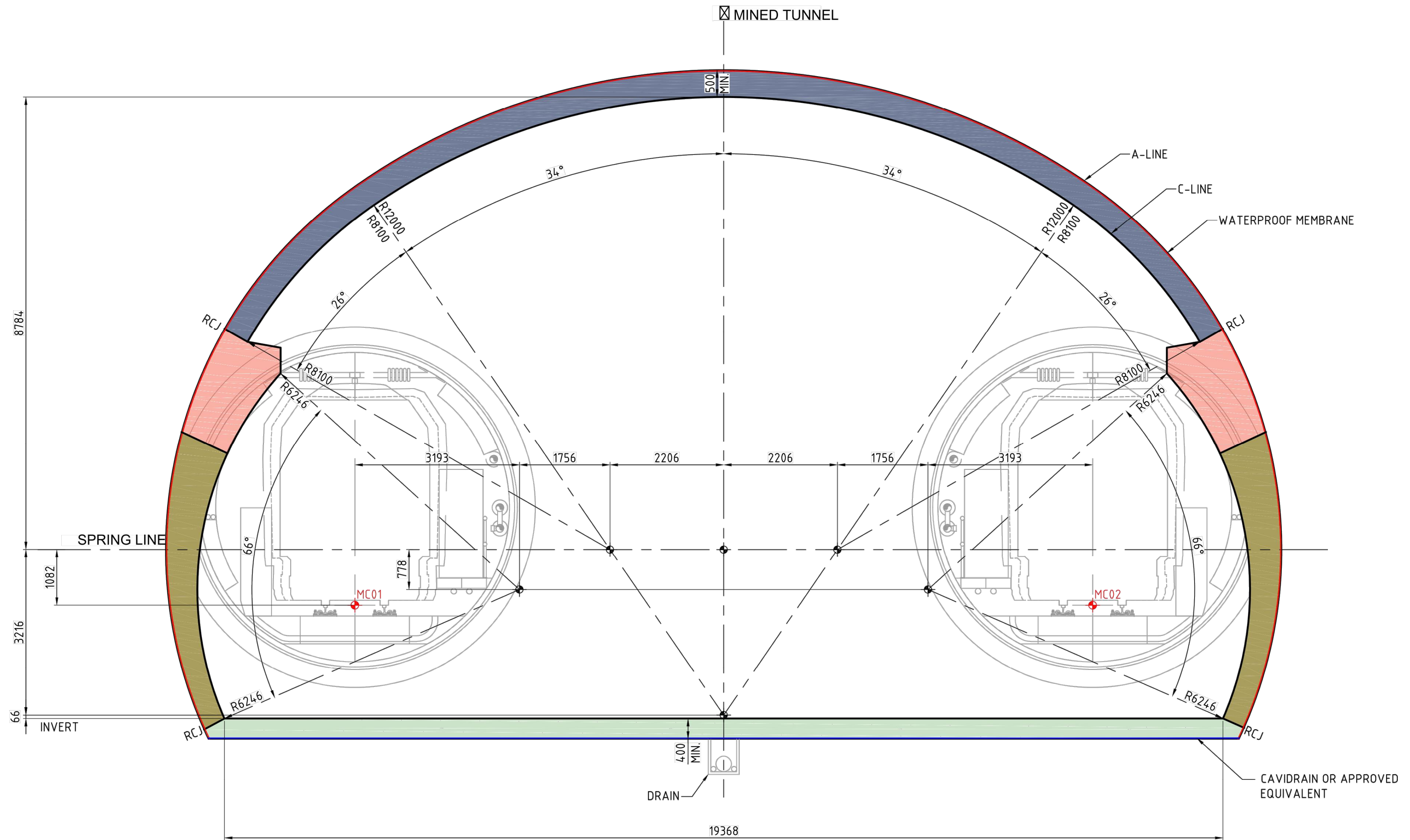
TABLE 1:			
PROFILE	'X'	ZONE	TYPE
TS1	350	1	SFRC
		2	RC
TS2	450	1	RC
		2	RC



MINED TUNNEL - CROSS PASSAGE - C-LINE SETOUT

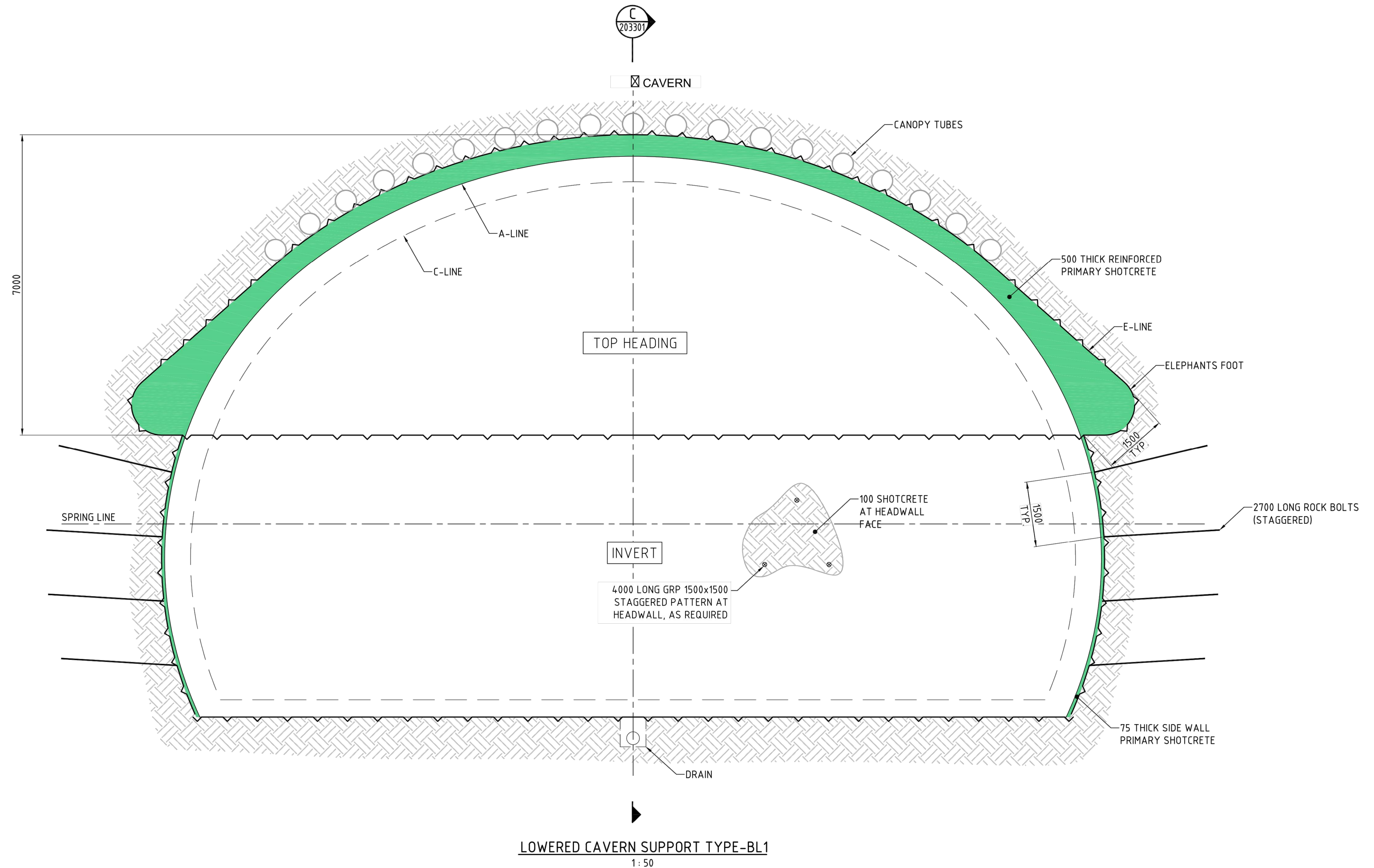
SECTION D
SCALE 1:20 021102
021104
021105

										CRRDA Drg. No. CRR-0003-TUN-GA-112																																																			
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					TUNNEL MINED TUNNEL C-LINE SETOUT SHEET 2																																										
E		RFPC9 ISSUE				30.10.20				Datum				BCSG02		CROSS RIVER RAIL																																													
D		RFPC8 ISSUE				24.07.20				Horiz. Grid						CHANGED PROJECT 9																																													
C		RFPC7 ISSUE				08.05.20				Reference Points																																																			
B		MINOR REVISIONS TO RfPC4 ISSUE				29.04.19				Height Origin						Preceding RP		Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP		Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.																												
A		RfPC4 ISSUE				24.04.19				Survey Books				Dimensions shown in Millimetres except where shown otherwise										Designed		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.																									
		Revisions/Descriptions				Certification		Date		Microfiled																								Drawing No.		E																									
CAD FILES												Through Chainage from																				Series Number										of										MRR_Detail (02/14)									

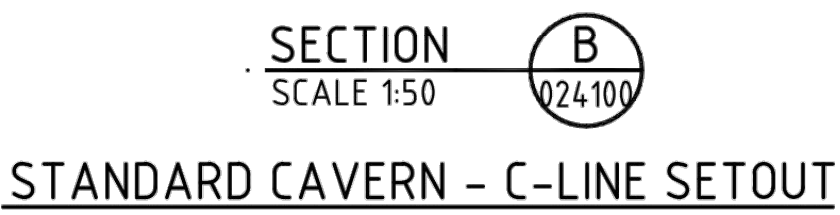


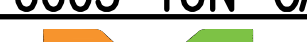
SECTION A
SCALE 1:50
LOWERED CAVERN - BL1- C-LINE SETOUT

										CRRDA Drg. No. CRR-0003-TUN-GA-120																					
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY				BOGGO ROAD STATION AND PRECINCT STATION CAVERN C-LINE SETOUT LOWERED CAVERN															
								Datum				BCSG02		CROSS RIVER RAIL																	
														CHANGED PROJECT 9																	
														Reference Points																	
E		RFPC9 ISSUE				30.10.20												Drawn		ENGINEERING CERTIFICATION (RPEQ)				Job No.							
D		RFPC8 ISSUE				24.07.20										ENG. AREA				NAME		SIGNATURE		NO.		DATE					
C		RFPC7 ISSUE				08.05.20										Designed										Contract No.					
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19												Preceding RP		Dist. to start of job (km)		From start to end of job		From end to Following RP		Following RP					
A		RFPC4 ISSUE				24.04.19																						Drawing No.		E	
		Revisions/Descriptions				Certification		Date		Microfiled																		Series Number		of	
CAD FILES																Through Chainage from														MRR_Detail (02/14)	



										CRRDA Drg. No.					CRR-0003-TUN-GA-121					
					Associated Job Nos	Survey Data		Scales	BRISBANE CITY					BOGGO ROAD STATION AND PRECINCT STATION CAVERN LOWERED CAVERN SUPPORT TYPE						
						Datum	BCSG02		CROSS RIVER RAIL											
E	RFPC9 ISSUE		30.10.20	Auxiliary Drg Nos	Horiz. Grid		CHANGED PROJECT 9													
D	RFPC8 ISSUE		24.07.20		Height Origin		Reference Points													
C	RFPC7 ISSUE		08.05.20				Preceding RP		Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP								
B	MINOR REVISIONS TO RFPC4 ISSUE		29.04.19		Survey Books		Dimensions shown in Millimetres except where shown otherwise													
A	RFPC4 ISSUE		24.04.19								Drawn	ENGINEERING CERTIFICATION (RPEC)					Job No.			
Revisions/Descriptions		Certification	Date	Microfilmed						Through Chainage from	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Contract. No.				
																Drawing No.	E			
																Series Number	of			
																MRR_Detail (02/14)				



															CRRDA Drg. No. CRR-0003-TUN-GA-122																
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY					WOOLLOONGABBA ST STATION AND PRECINCT STATION CAVERN C-LINE SECTION STANDARD CAVERN														
E RFPC9 ISSUE				30.10.20				Datum				BCSG02		CROSS RIVER RAIL																	
D RFPC8 ISSUE				24.07.20										CHANGED PROJECT 9																	
C RFPC7 ISSUE				08.05.20				Auxiliary Drg Nos				Horiz. Grid				Reference Points					Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.			
B MINOR REVISIONS TO RFPC4 ISSUE				29.04.19								Height Origin				Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP							ENG. AREA		NAME		SIGNATURE		NO.		DATE
A RFPC4 ISSUE				24.04.19						Survey Books				Dimensions shown in millimetres except where shown otherwise					Designed							Drawing No.		E			
Revisions/Descriptions		Certification		Date		Microfiled																Series Number		of							
CAD FILES												Through Chainage from															MRR_Detail (02/14)				

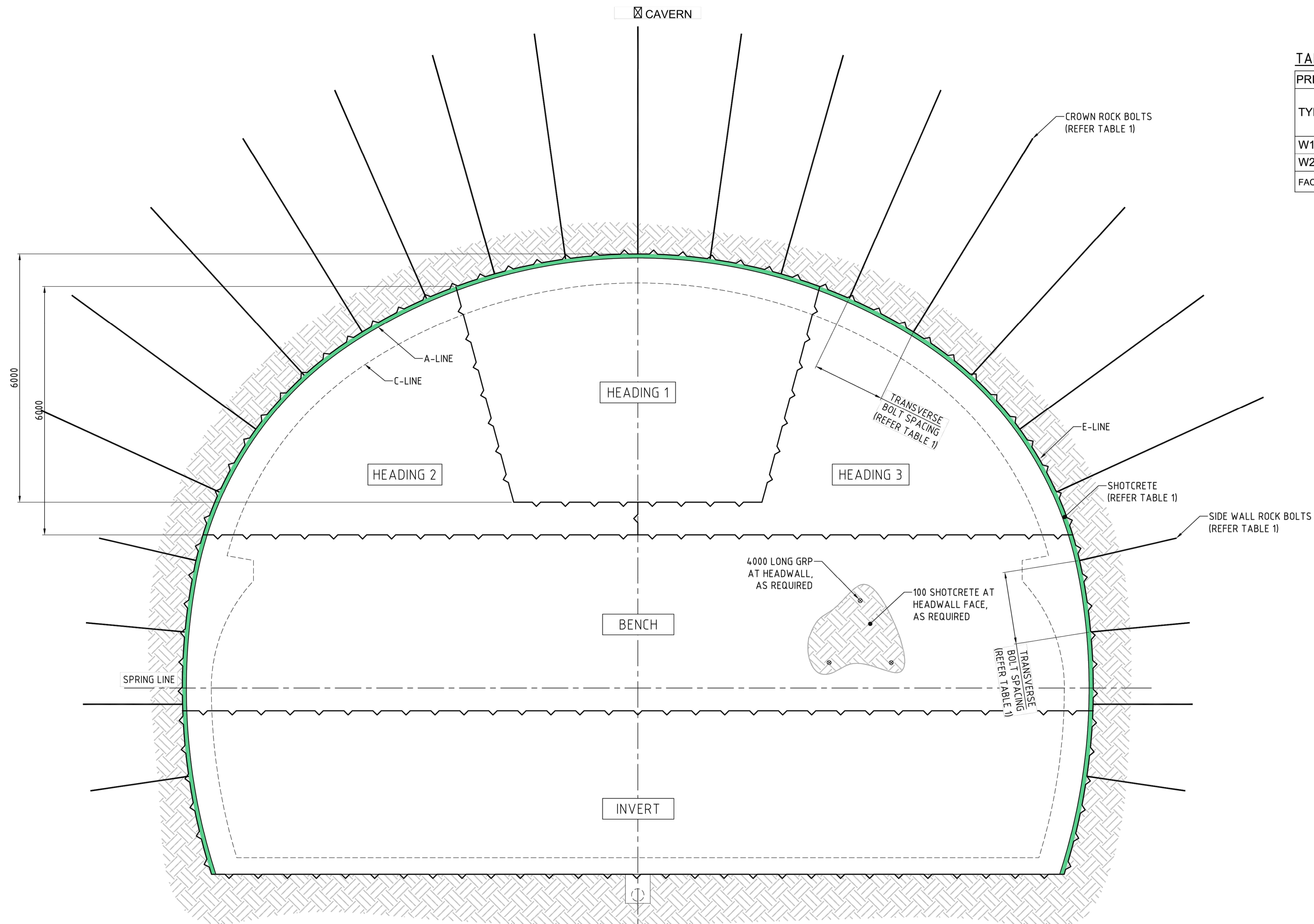


TABLE 1:

PRIMARY SUPPORT				
TYPE	CROWN BOLT LENGTH	SIDE WALL BOLT LENGTH	SPACING	SHOTCRETE THICKNESS
W1	5500	2400	1750	100
W2	5500	2400	1500	250
FACE SUPPORT (GRP DOWELS AND SHOTCRETE) AS REQUIRED				

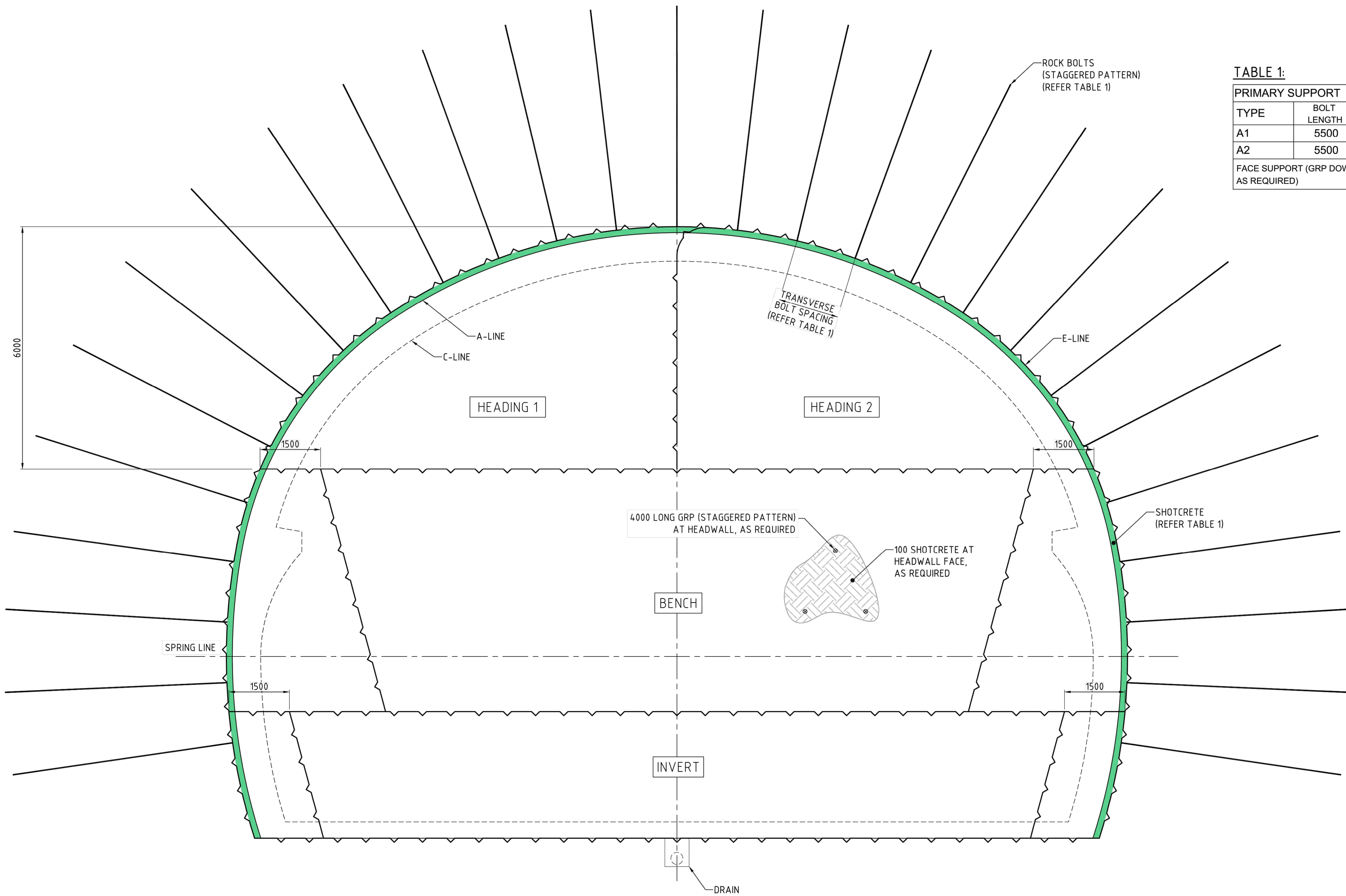
CAVERN PRIMARY SUPPORT TYPE - W1 AND W2
1:50

										CRRDA Drg. No. CRR-0003-TUN-GA-123													
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY				WOOLLOONGABBA STATION AND PRECINCT STATION CAVERN SUPPORT TYPE – W1 AND W2							
								Datum				BCSG02		CROSS RIVER RAIL									
E		RFPC9 ISSUE						30.10.20															
D		RFPC8 ISSUE						24.07.20															
C		RFPC7 ISSUE						08.05.20															
B		MINOR REVISIONS TO RFPC4 ISSUE						29.04.19															
A		RFPC4 ISSUE						24.04.19															
		Revisions/Descriptions		Certification		Date		Microfiled				Auxiliary Drg Nos		Horiz. Grid									
														Height Origin									
														Survey Books		Dimensions shown in millimetres except where shown otherwise							
CAD FILES														Through Chainage from									

TABLE 1:

PRIMARY SUPPORT			
TYPE	BOLT LENGTH	SPACING	SHOTCRETE THICKNESS
A1	5500	1500	100
A2	5500	1250	150

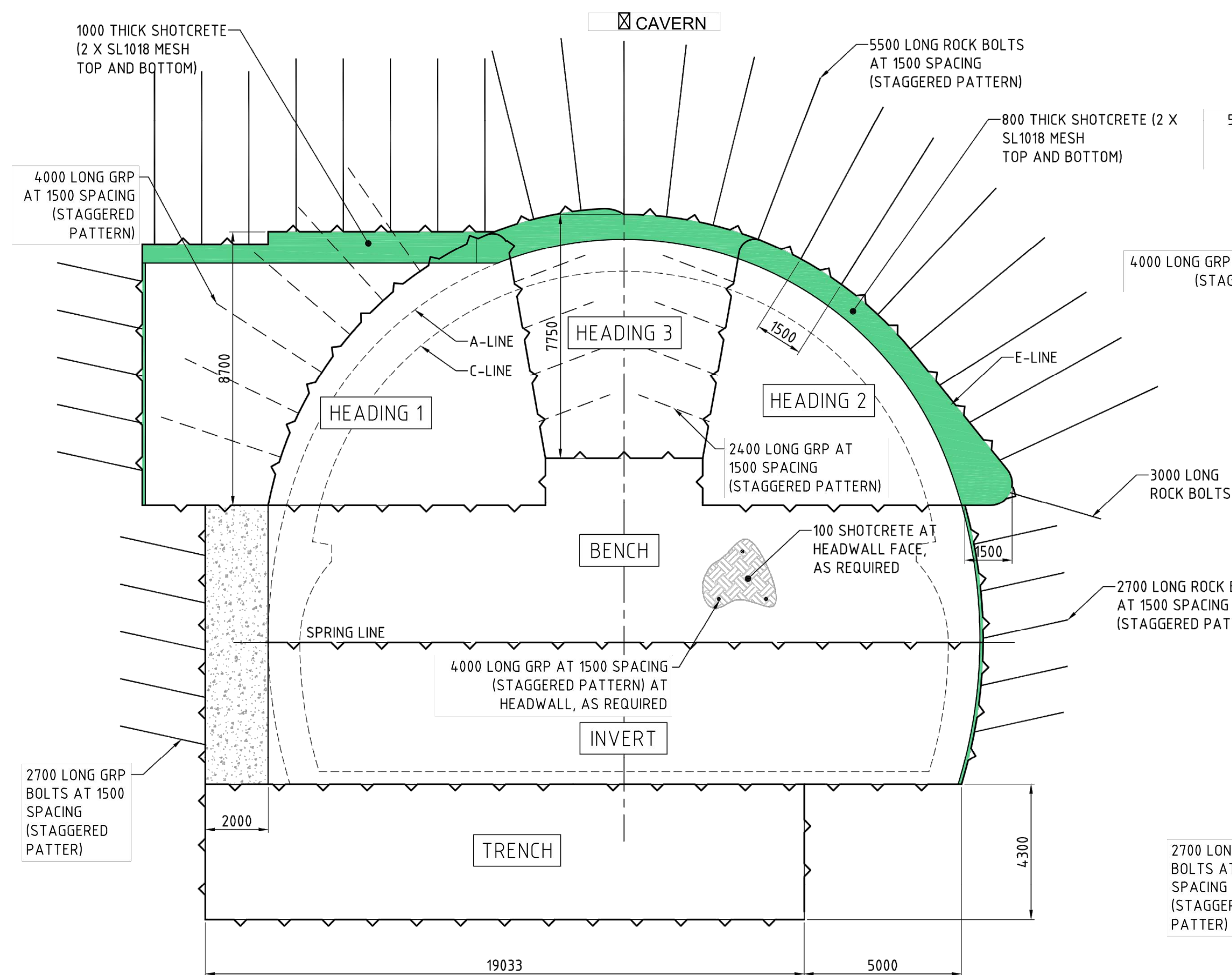
FACE SUPPORT (GRP DOWELS AND SHOTCRETE AS REQUIRED)



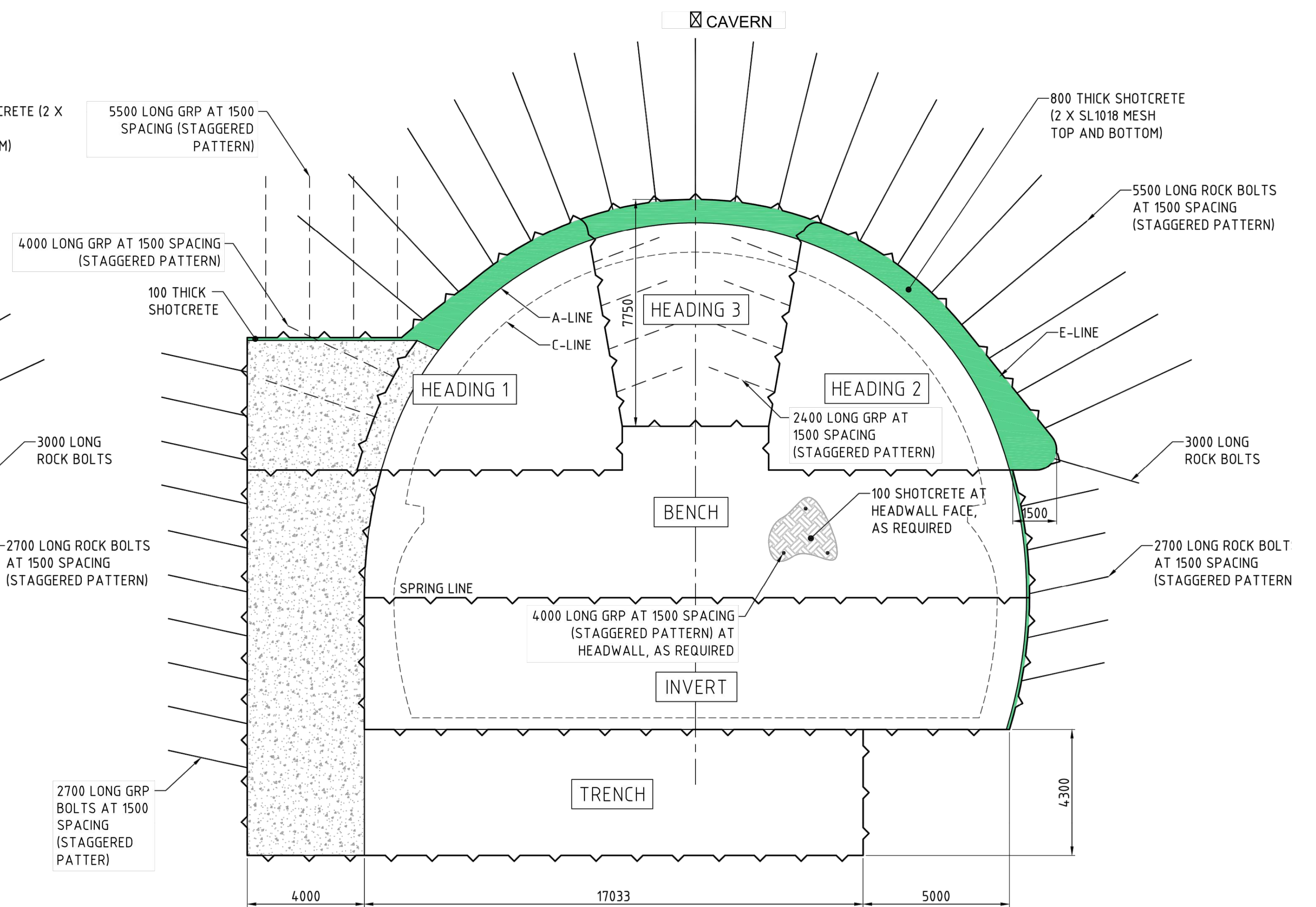
SECTION A
SCALE 1:50

STANDARD CAVERN (ASC1) - SUPPORT TYPE - A1 AND A2

										CRRDA Drg. No. CRR-0003-TUN-GA-124																															
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY				ALBERT ST STATION AND PRECINCT STATION CAVERN SUPPORT TYPE STANDARD CAVERN – ASC1																									
								Datum				BCSG02		CROSS RIVER RAIL																											
														CHANGED PROJECT 9																											
E		RFPC9 ISSUE				30.10.20						Auxiliary Drg Nos		Horiz. Grid				Reference Points				Drawn		ENGINEERING CERTIFICATION (RPEQ)						Job No.											
D		RFPC8 ISSUE				24.07.20												Preceding RP		Dist. to start of job (km)				From start to end of job		From end to Following RP		Following RP		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.	
C		RFPC7 ISSUE				08.05.20				Height Origin																												Drawing No.		E	
B		MINOR REVISIONS TO RFPC4 ISSUE				29.04.19				Survey Books										Dimensions shown in Millimetres except where shown otherwise																		Series Number		of	
A		RFPC4 ISSUE				24.04.19																												MRR_Detail (02/14)							
		Revisions/Descriptions				Certification		Date		Microfiled																															
CAD FILES																																									



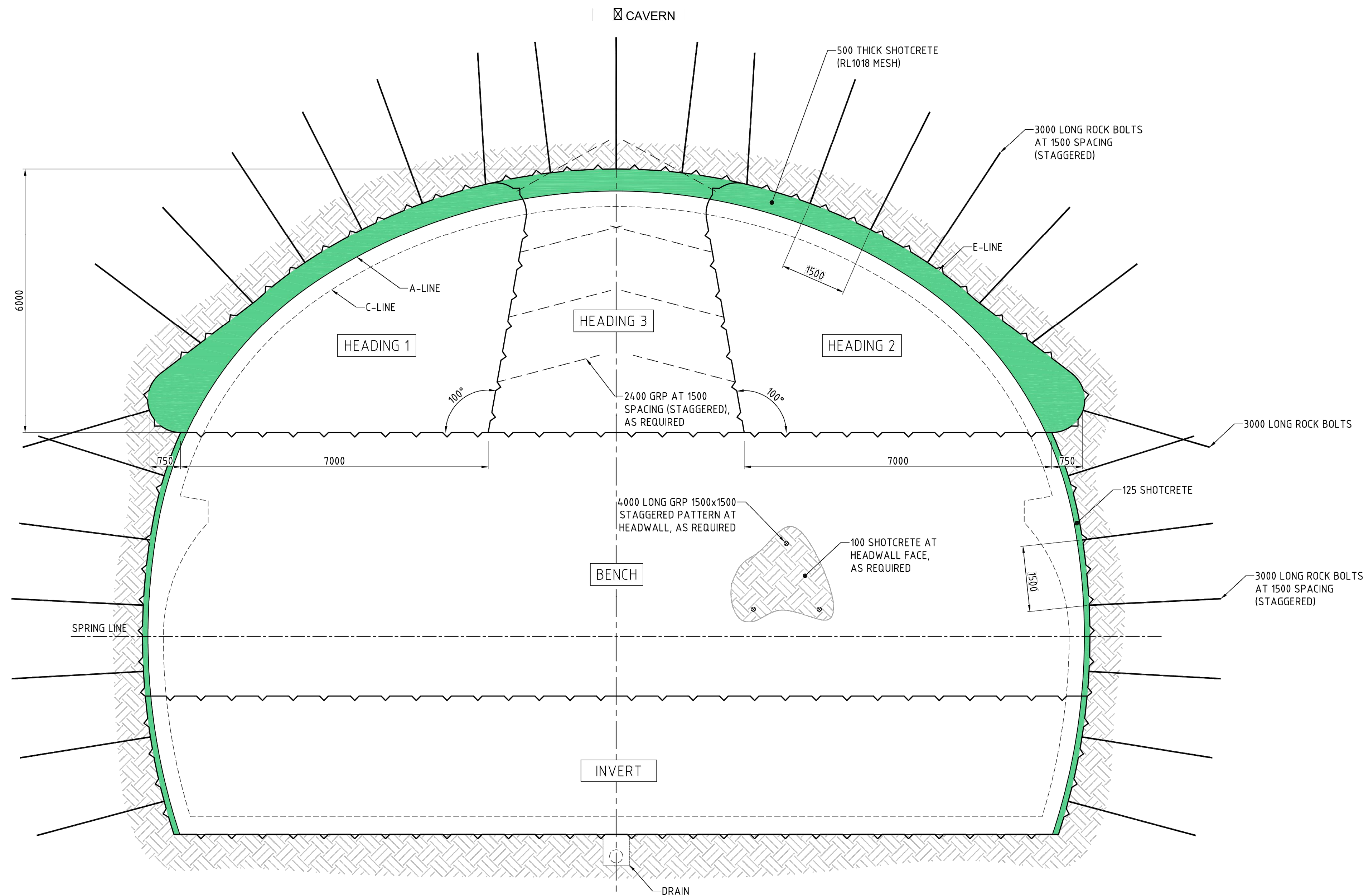
SECTION B
SCALE 1:50 25100
RAISED CAVERN (ARC1) - SUPPORT TYPE-A3



SECTION M
SCALE 1:50 025100

RAISED CAVERN (ARC1) - SUPPORT TYPE-A4

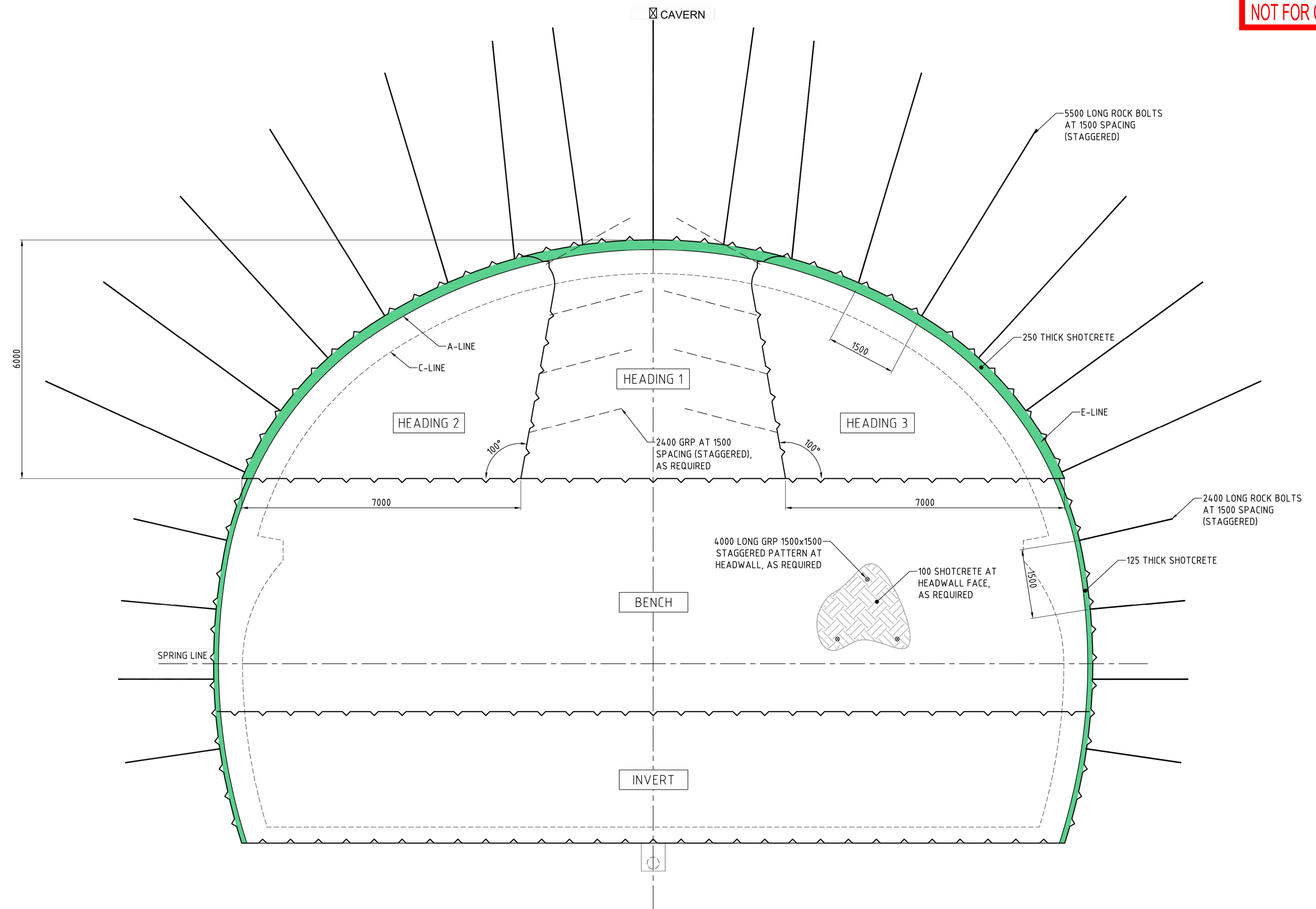
										CRRDA Drg. No.				CRR-0003-TUN-GA-125													
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY				ALBERT ST STATION AND PRECINCT STATION CAVERN SUPPORT TYPE RAISED CAVERN – ARC1									
								Datum		BCSG02				CROSS RIVER RAIL													
E RfPC9 ISSUE				30.10.20										CHANGED PROJECT 9													
D RfPC8 ISSUE				24.07.20		Auxiliary Drg Nos		Horiz. Grid						Reference Points				Drawn		ENGINEERING CERTIFICATION (RPEQ)				Job No.			
C RfPC7 ISSUE				08.05.20				Height Origin						Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP				ENG. AREA		NAME		SIGNATURE		NO.		DATE	
B MINOR REVISIONS TO RfPC4 ISSUE				29.04.19						Survey Books		Dimensions shown in millimetres except where shown otherwise						Designed						Drawing No.		E	
A RfPC4 ISSUE				24.04.19																		Series Number		of			
CAD FILES		Revisions/Descriptions		Certification		Date		Microfiled						Through Chainage from								MRR_Detail (02/14)					



STANDARD CAVERN (RSC1) – SUPPORT TYPE – R1
1 : 50

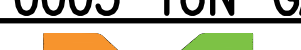
										CRRDA Drg. No.				CRR-0003-TUN-GA-126																					
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					ROMA ST STATION AND PRECINCT STATION CAVERN SUPPORT TYPE STANDARD CAVERN – RSC1 – SHEET 1																
								Datum		BCSG02				CROSS RIVER RAIL																					
E RfPC9 ISSUE				30.10.20										CHANGED PROJECT 9																					
D RfPC8 ISSUE				24.07.20				Auxiliary Drg Nos		Horiz. Grid						Reference Points					Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.							
C RfPC7 ISSUE				08.05.20						Height Origin						Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP					Designed		ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.		
B MINOR REVISIONS TO RfPC4 ISSUE				29.04.19																									Drawing No.		E				
A RfPC4 ISSUE				24.04.19										Dimensions shown in millimetres except where shown otherwise																Series Number		of			
Revisions/Descriptions		Certification		Date		Microfiled								Through Chainage from																		MRR_Detail (02/14)			
CAD FILES																																			

NOT FOR CONSTRUCTION



STANDARD CAVERN (RSC1) - SUPPORT TYPE - R2

1 : 50

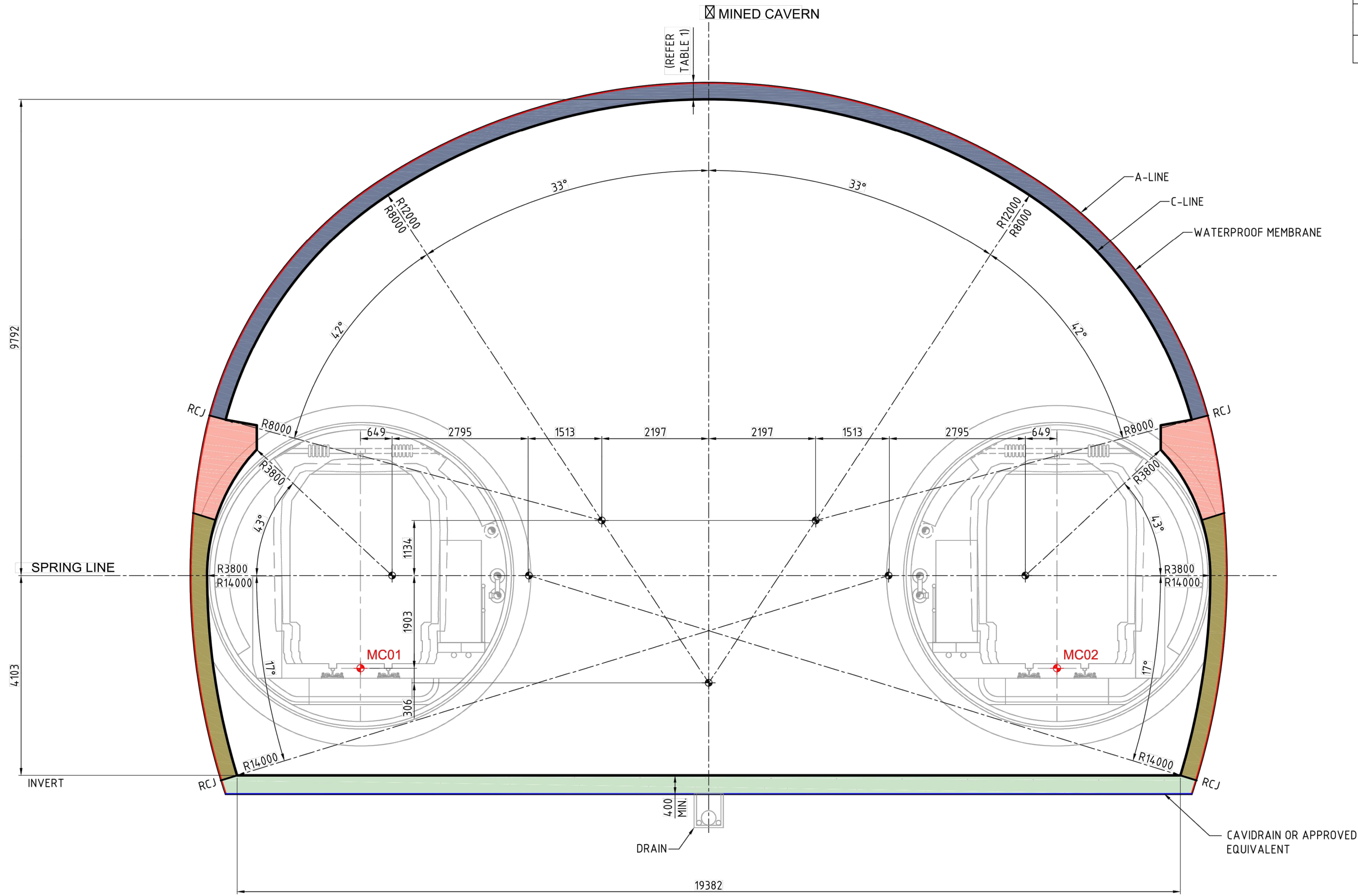
										CRRDA Drg. No. CRR-0003-TUN-GA-127															
								Associated Job Nos		Survey Data		Scales		BRISBANE CITY					ROMA ST STATION AND PRECINCT STATION CAVERN SUPPORT TYPE STANDARD CAVERN – RSC1 – SHEET 2						
								Datum		BCSG02				CROSS RIVER RAIL											
E RFPC9 ISSUE				30.10.20				Auxiliary Drg Nos		Horiz. Grid						CHANGED PROJECT 9									
D RFPC8 ISSUE				24.07.20						Height Origin						Reference Points Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP									
C RFPC7 ISSUE				08.05.20						Survey Books				Drawn ENGINEERING CERTIFICATION (RPEQ) ENG. AREA NAME SIGNATURE NO. DATE											
B MINOR REVISIONS TO RFPC4 ISSUE				29.04.19															Designed						
A RFPC4 ISSUE				24.04.19										Job No. Contract No. Drawing No. Series Number of MRR Detail 02/14											
Revisions/Descriptions		Certification		Date		Microfiled				Dimensions shown in Millimetres except where shown otherwise															
CAD FILES												Through Chainage from													

LEGEND:

SETOUT POINT

TABLE 1:

PERMANENT LINING TYPE	PR1	PR2
CROWN THICKNESS	350 MIN.	700 MIN.



SECTION A
SCALE 1:50
STANDARD CAVERN - RSC1 - C-LINE SETOUT

										CRRDA Drg. No. CRR-0003-TUN-GA-128																							
						Associated Job Nos		Survey Data		Scales		BRISBANE CITY				ROMA ST STATION AND PRECINCT STATION CAVERN C-LINE SETOUT STANDARD CAVERN – RSC1																	
								Datum				BCSG02		CROSS RIVER RAIL																			
														CHANGED PROJECT 9																			
														Reference Points																			
E		RFPC9 ISSUE																		Drawn		ENGINEERING CERTIFICATION (RPEQ)				Job No.							
D		RFPC8 ISSUE																				ENG. AREA		NAME		SIGNATURE		NO.		DATE		Contract No.	
C		RFPC7 ISSUE																												Drawing No.		E	
B		MINOR REVISIONS TO RFPC4 ISSUE																														of	
A		RFPC4 ISSUE																												Series Number			
		Revisions/Descriptions				Certification		Date		Microfiled																						MRR_Detail (02/14)	
CAD FILES												Through Chainage from																					