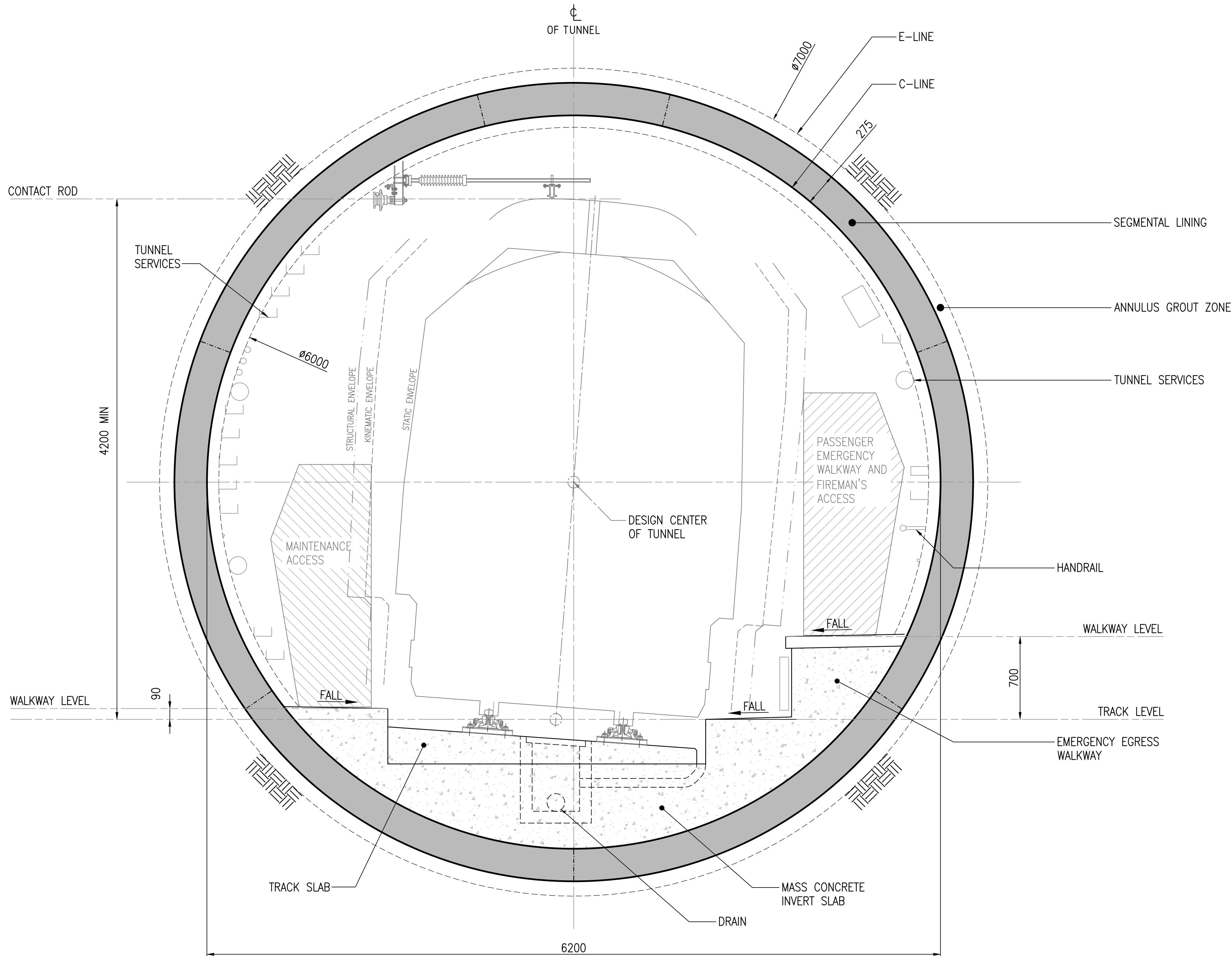


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7 February 2017



BORED TUNNEL – TYPICAL SECTION
SCALE 1:20

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF INSIDE OF PERMANENT LINING

Last Modified : Feb 07, 2017 - 6:08pm XREFS :- MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg

C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
Survey Books	
Dimensions shown in except where shown otherwise	

Scales
A1 / A3 0 200 400 600 800mm
1:20 / 1:40

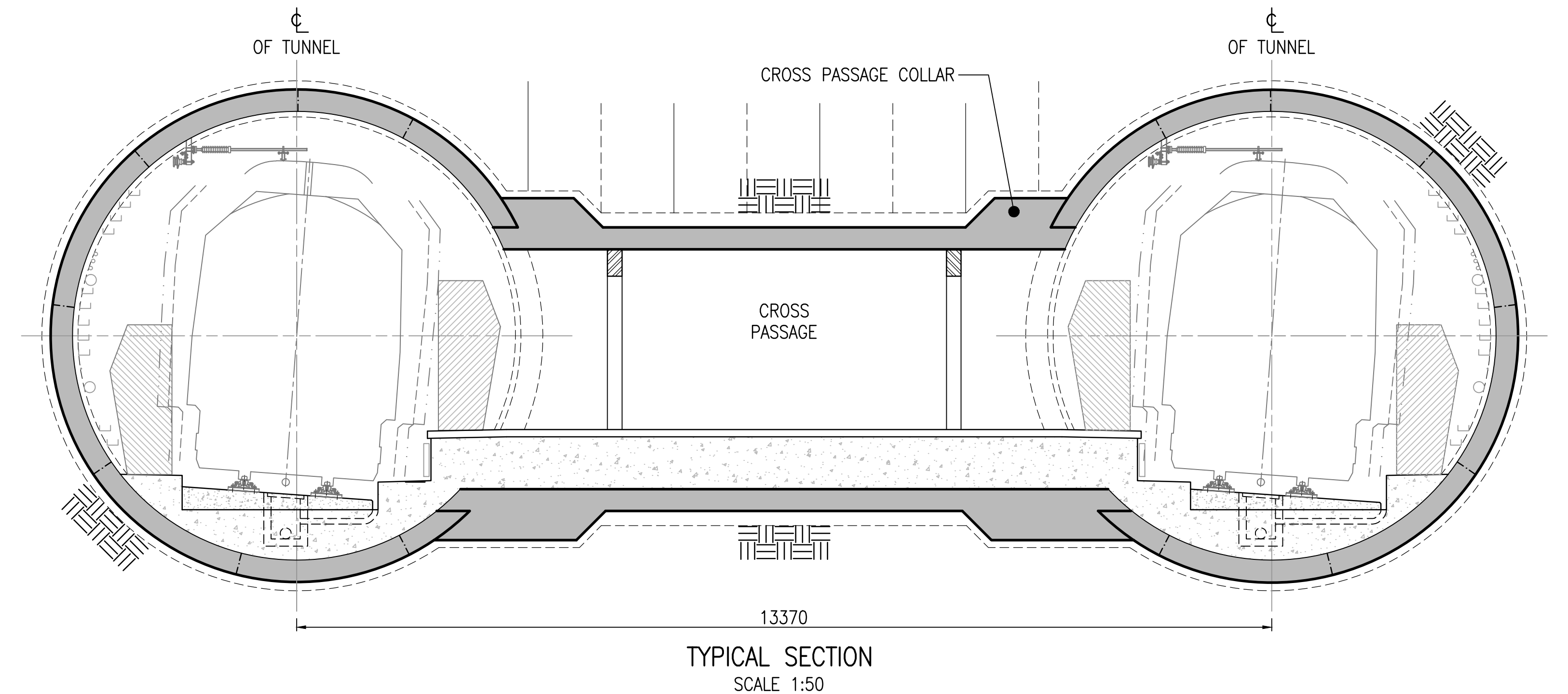
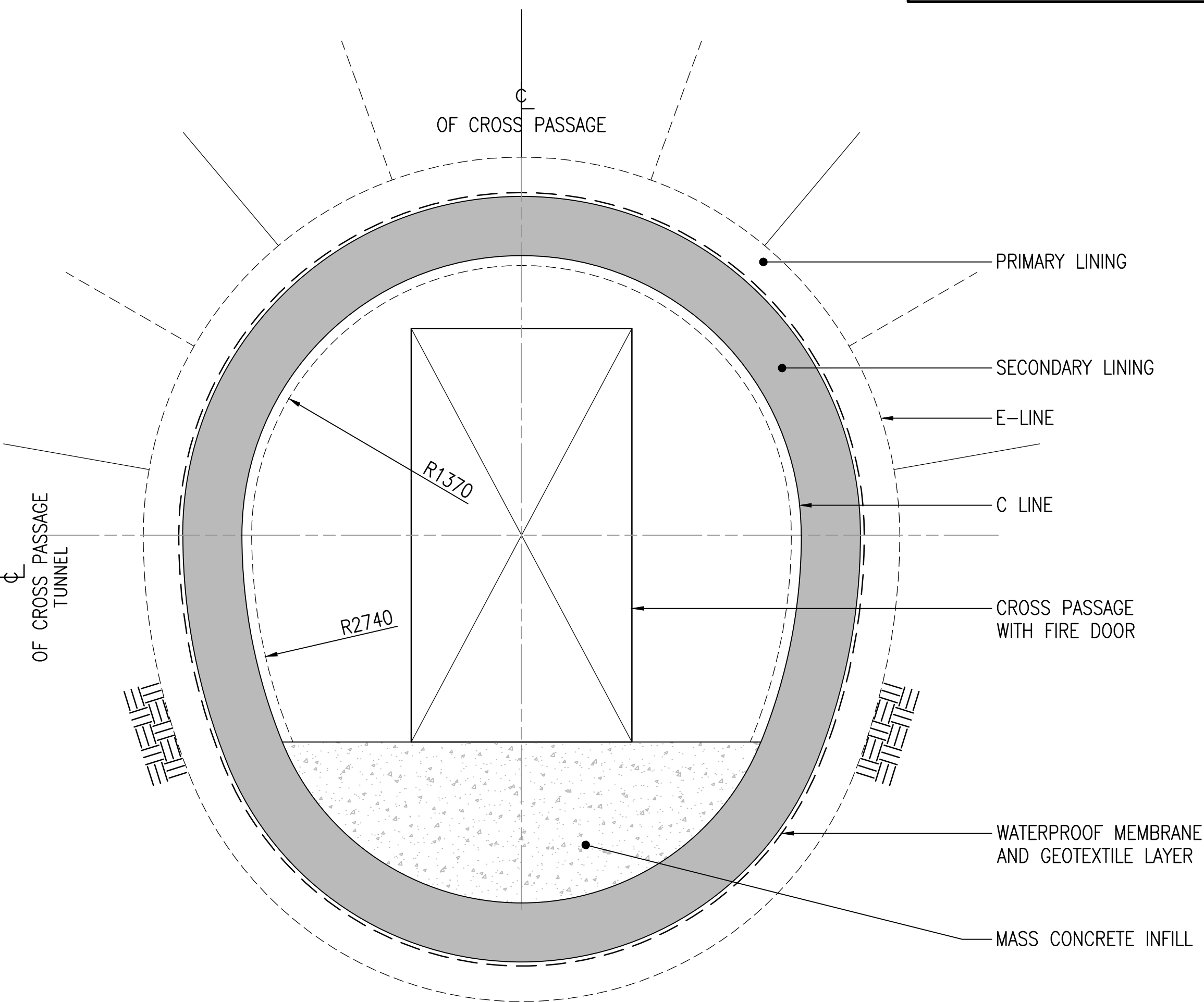
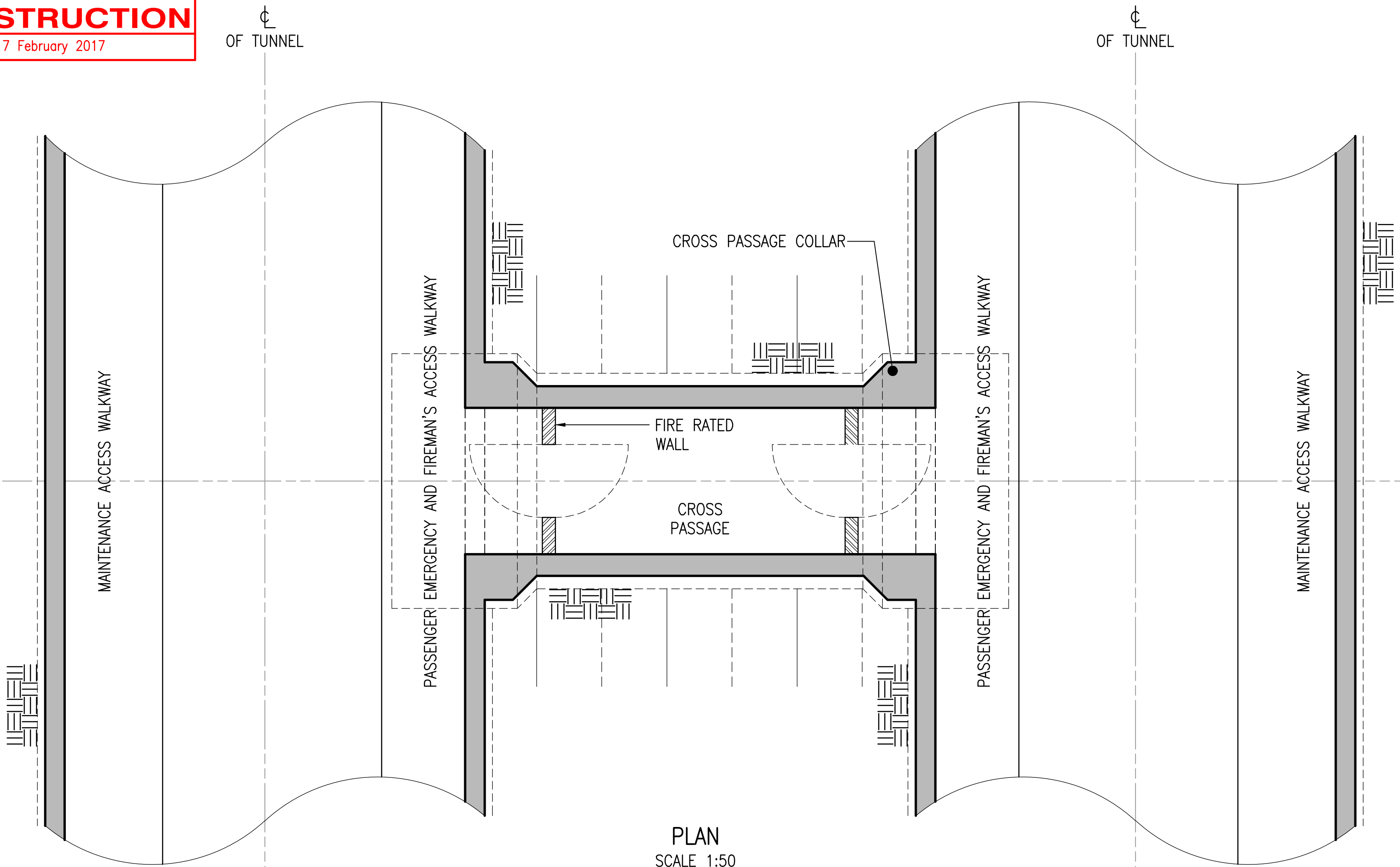
BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS BORED TUNNEL TYPICAL SECTION				
Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)			
Designed JD	ENG. AREA CIVIL	NAME J. DONOHUE	SIGNATURE	NO. 7835 DATE 14/10/16

Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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7 February 2017



NOTES

- CROSS PASSAGE WALKWAY LEVEL SHALL MATCH WITH RUNNING TUNNELS' EMERGENCY EGRESS WALKWAY LEVEL.
- TYPICAL CROSS PASSAGE SECTION ALSO APPLICABLE BETWEEN MINED RUNNING TUNNELS.

LEGEND

- E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF PERMANENT LINING

Last Modified : Feb 07, 2017 - 6:08pm XREFS :- MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg

Revisions/Descriptions	Certification	Date	Microfiled
C MINOR REVISION		08/02/17	
B MINOR REVISION		02/11/16	
A ISSUE FOR RFPC		14/10/16	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books

Scales
A1 / A3 0 1000 2000mm 1:50 / 1:100
A1 / A3 0 200 400 600 800mm 1:20 / 1:40
Dimensions shown in except where shown otherwise

BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS CROSS PASSAGE TYPICAL DETAILS				
Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)			
	ENG. AREA CIVIL	NAME J. DONOHUE	SIGNATURE	NO. 7835 DATE 14/10/16
Designed JD				

Queensland Government	
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

7 February 2017

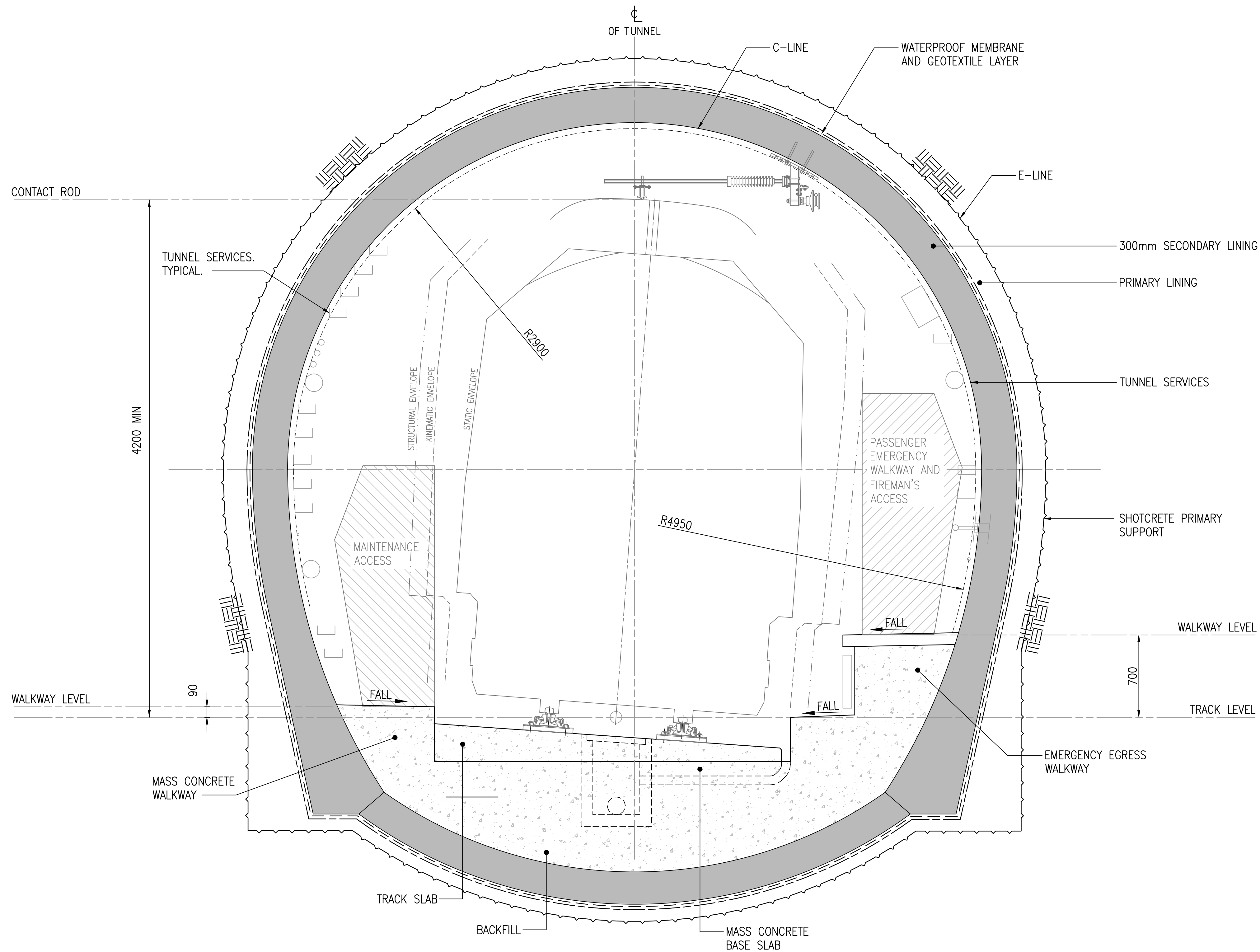


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Government**

[illegible]

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MINED TUNNEL SINGLE TRACK – TYPICAL SECTION
SECONDARY SUPPORT TYPE 1 & 2
SCALE 1:20

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF INSIDE OF PERMANENT LINING

Last Modified: 17 Feb 07, 2017 - 6:09pm
XREFS: MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg

C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books

Scales	
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1:20 / 1:40	
Dimensions shown in except where shown otherwise	

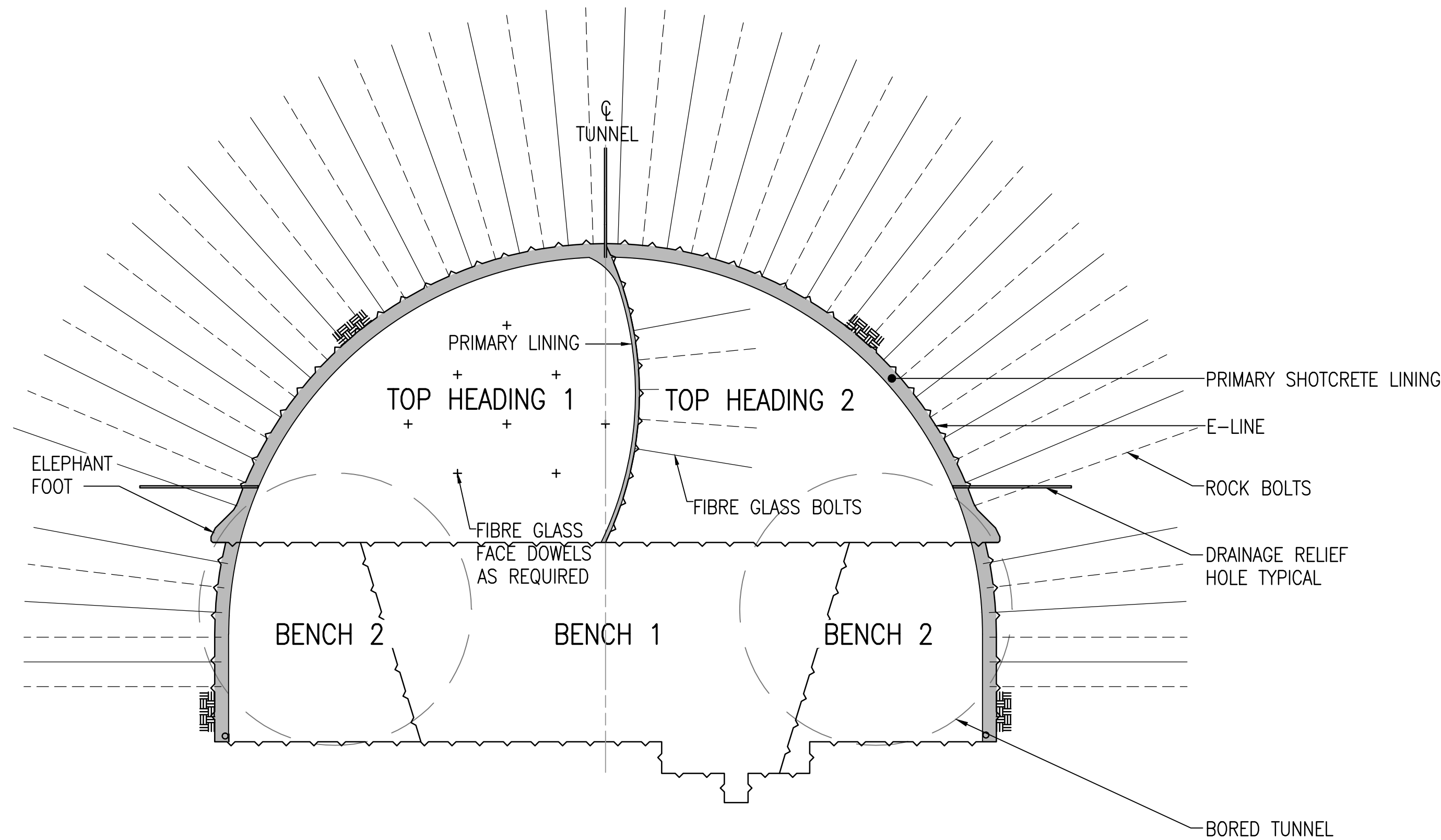
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Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS SINGLE TRACK MINED TUNNEL SECONDARY LINING PRIMARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

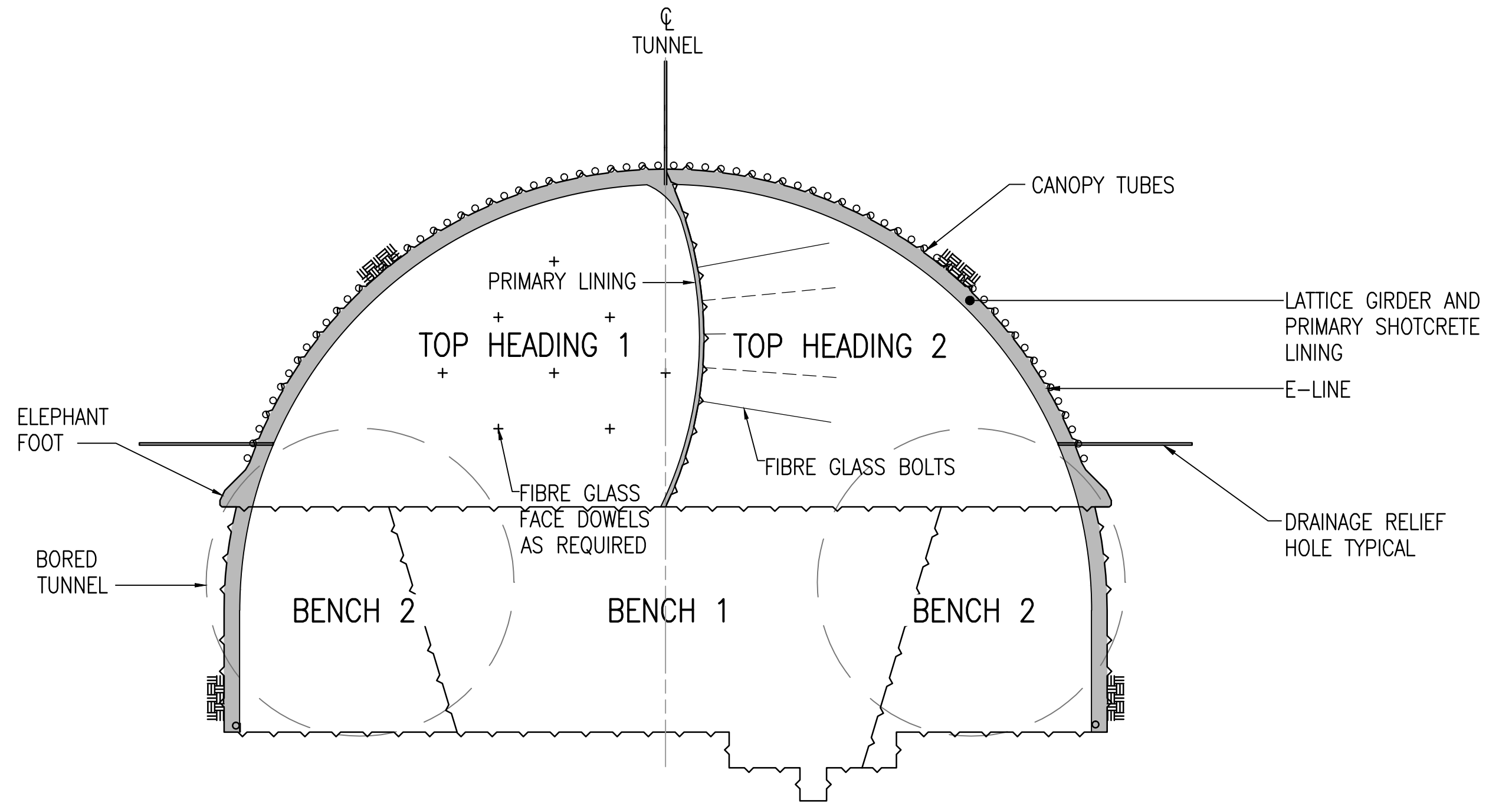
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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CONSTRUCTION

7 February 2017



STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 1
SCALE 1:100



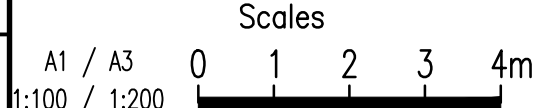
STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 2
SCALE 1:100

LEGEND
E LINE: EXCAVATION LINE

Last Modified :- Feb 07, 2017 - 6:09pm XREFS :- MRR_DETAIL_A1_Ref.dwg : X-CRR-0TUN-0001-DETAILS.dwg


C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
Survey Books	Dimensions shown in except where shown otherwise



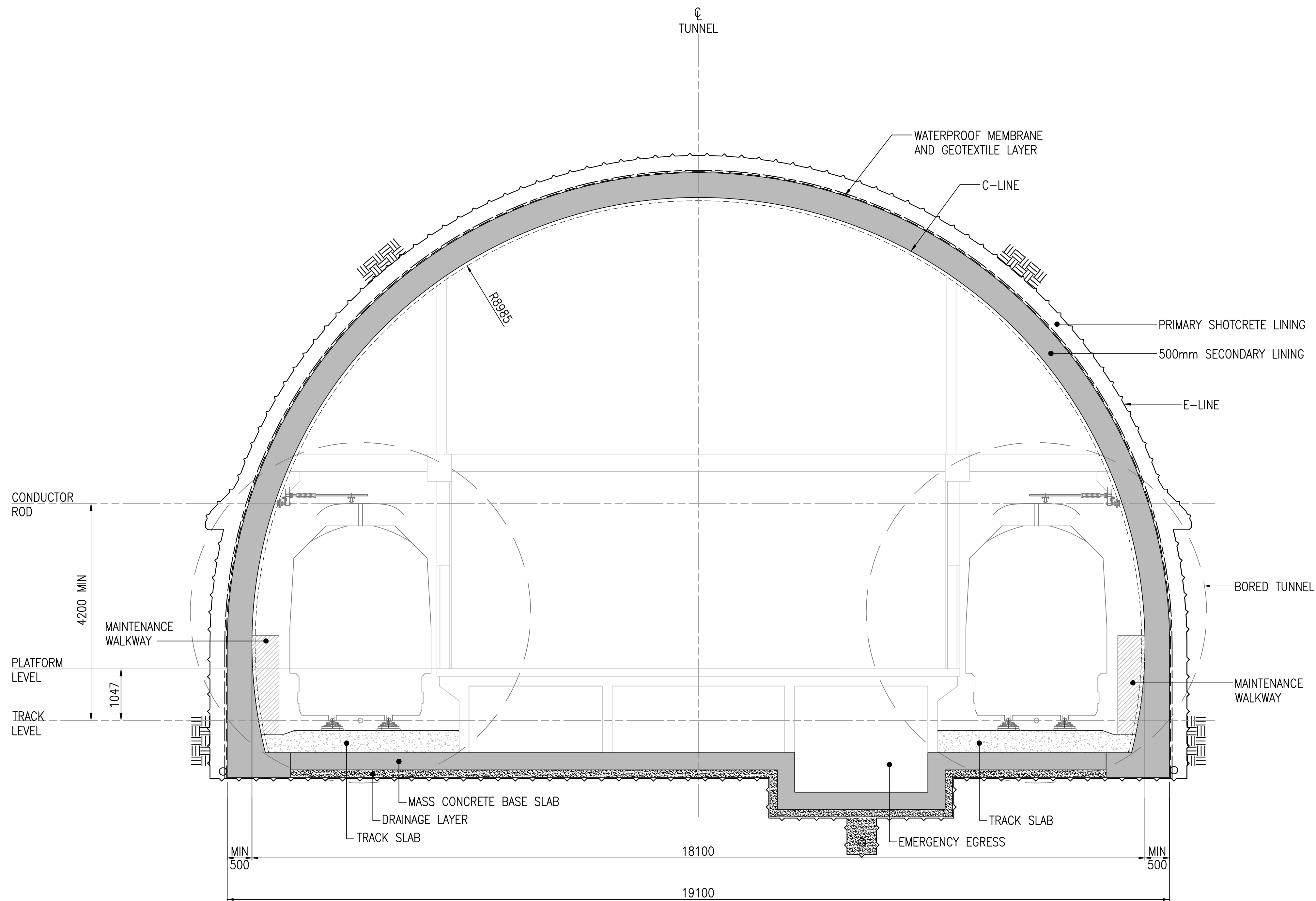
BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS STATION CAVERN PRIMARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

 Queensland Government	
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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CONSTRUCTION

7 February 2017



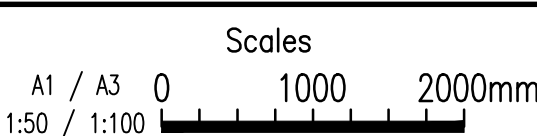
STATION CAVERN - TYPICAL SECTION
SECONDARY SUPPORT TYPE 1
SCALE 1:50

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF PERMANENT LINING

Last Modified : - Feb 07, 2017 - 6:09pm XREFS :- MRR_DETAIL_A1_Ref.dwg : X-CRR-UTUN-0001-DETAILS.dwg

C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
Survey Books	
Dimensions shown in except where shown otherwise	



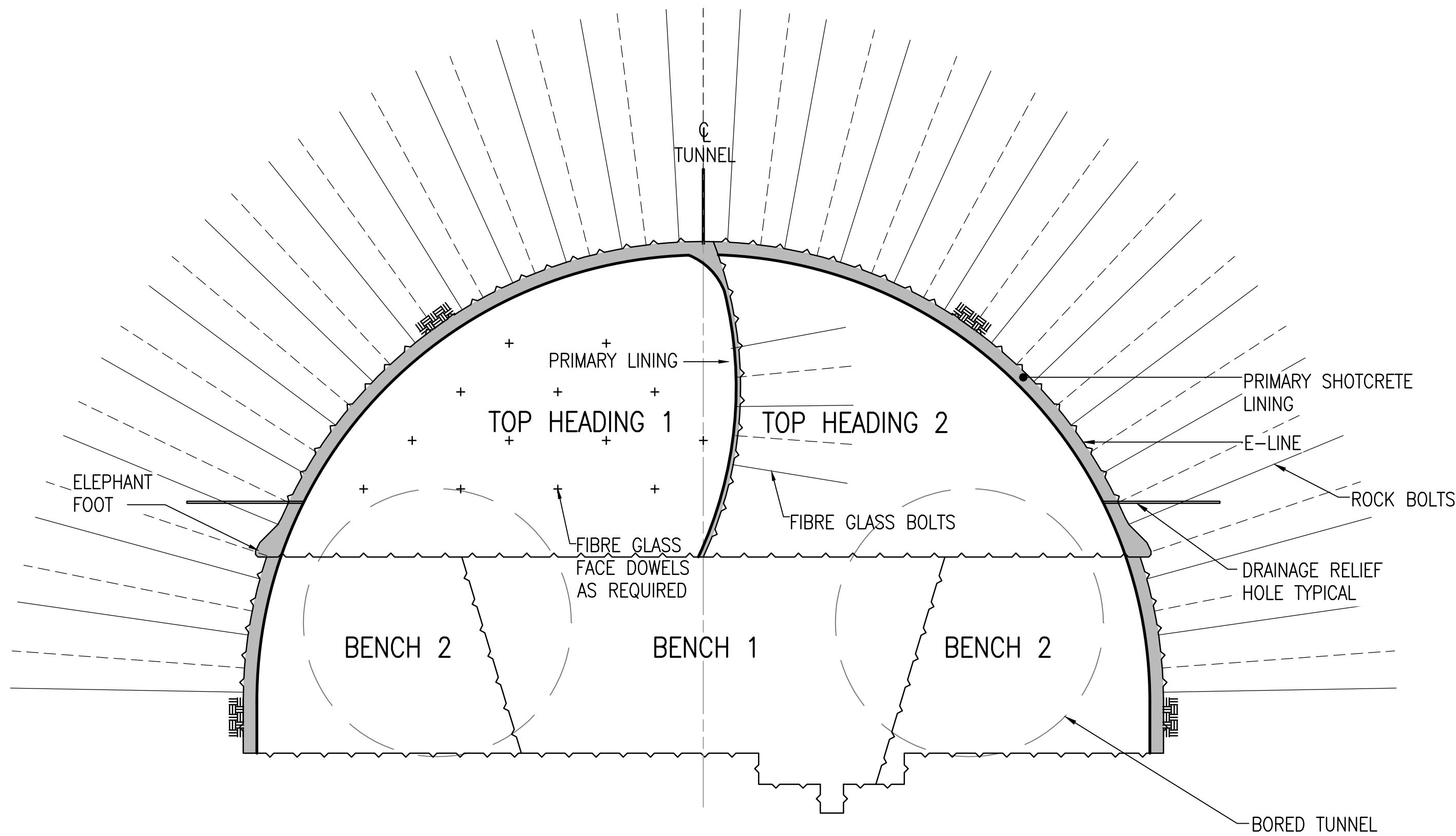
BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS STATION CAVERN SECONDARY SUPPORT TYPE 1				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

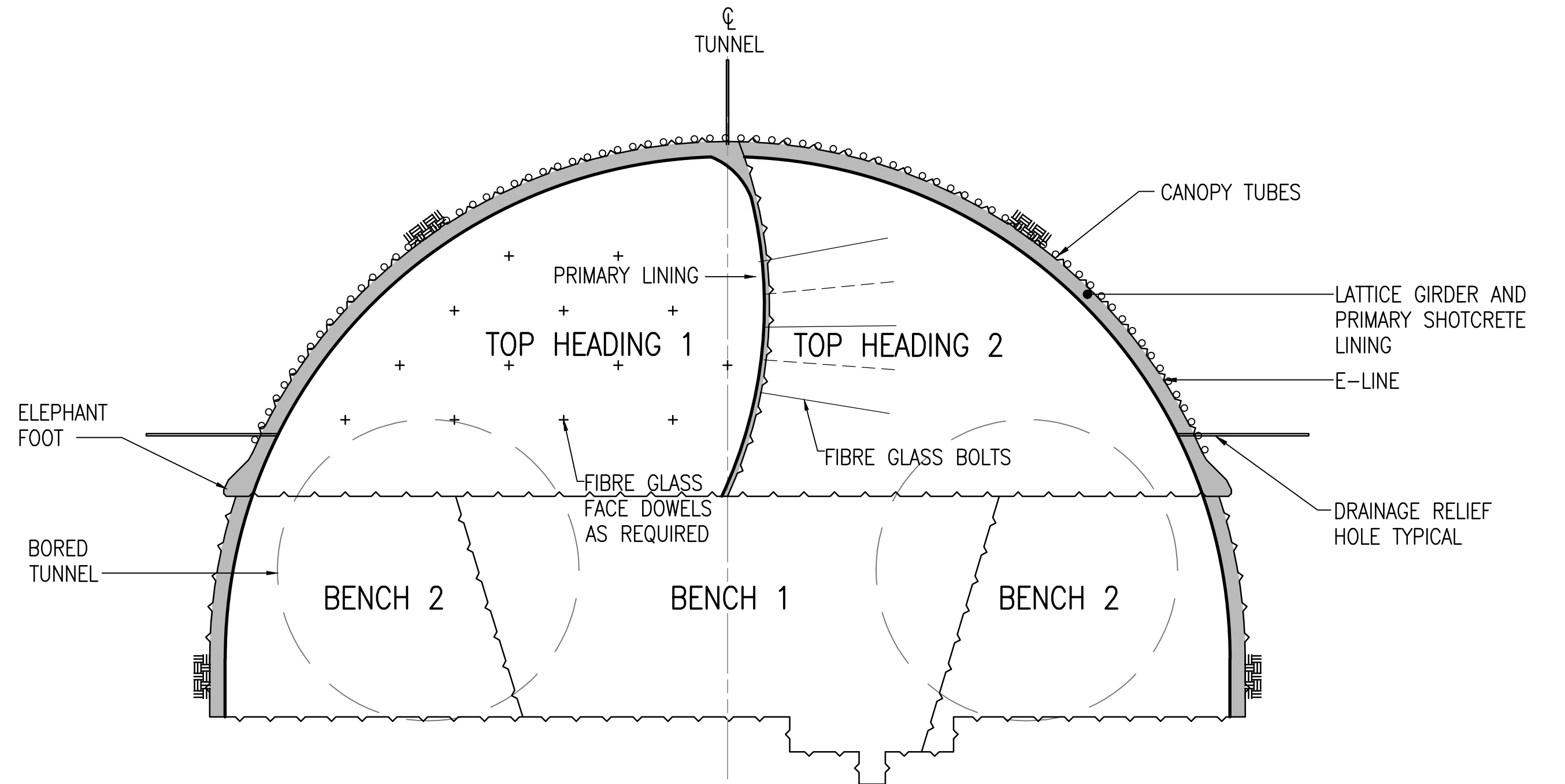
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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7 February 2017



OVERSIZED STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 1
SCALE 1:100



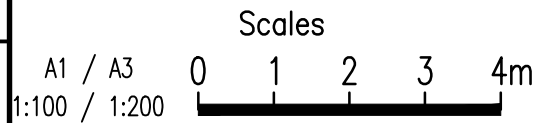
OVERSIZED STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 2
SCALE 1:100

LEGEND
E LINE: EXCAVATION LINE

Last Modified: 17-Feb-2017 6:09pm
XREFS: MRR-DETAIL_A1_Rev.dwg : X-CRR-OTUN-0001-DETAILS.dwg


C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books
Dimensions shown in except where shown otherwise	



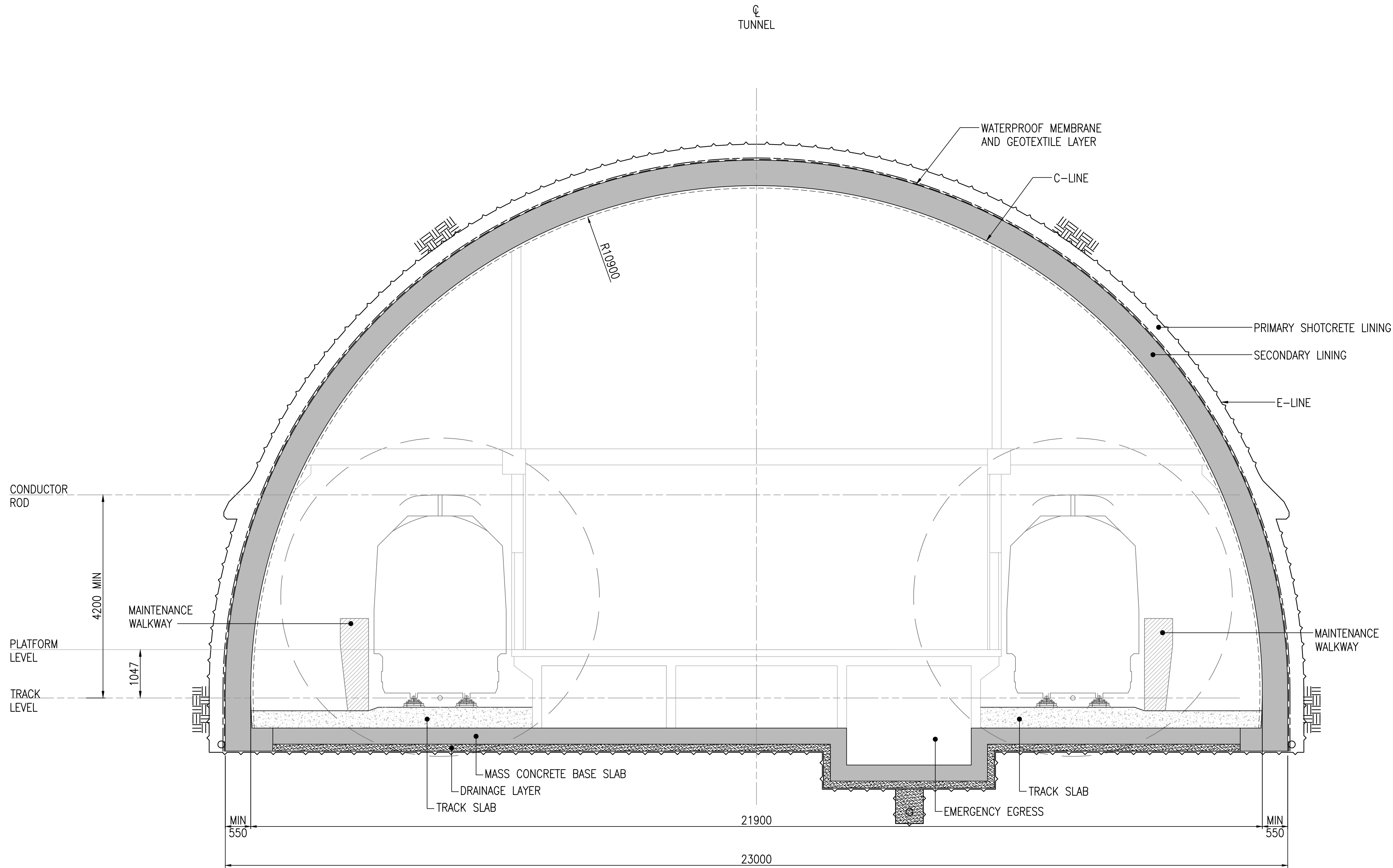
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Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS OVERSIZED STATION CAVERN PRIMARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

 Queensland Government	
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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CONSTRUCTION

7 February 2017



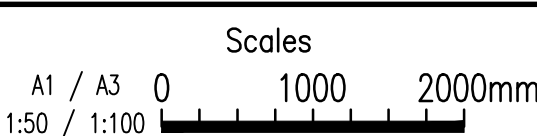
OVERSIZED STATION CAVERN – TYPICAL SECTION
SECONDARY SUPPORT TYPE 1 & 2
SCALE 1:50

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF INSIDE OF PERMANENT LINING

Last Modified : Feb 07, 2017 - 6:09pm XREFS :- MRR_DETAIL_A1_Ref.dwg : X-CRR-OTUN-0001-DETAILS.dwg

C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books
Dimensions shown in except where shown otherwise	






BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS OVERSIZED STATION CAVERN SECONDARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

7 February 2017



-  CRR TRACK
 EXISTING STANDARD LOT
 EXISTING VOLUMETRIC LOT
 RELOCATED NARROW GAUGE TRACK
 EXISTING RAIL CENTERLINES

This diagram illustrates the proposed rail alignment from the 'AT GRADE' section to the 'BOGGO ROAD STATION'. The alignment starts at 'AT GRADE' and passes through an 'UPSTAND WALL'. It then continues as a 'CANTILEVER PILE' structure, which is shown as a series of vertical piles. The alignment then transitions to a 'CUT & COVER' section, which includes an 'EXISTING FREIGHT OVERPASS'. The alignment ends at the 'BOGGO ROAD STATION'. The 'EXISTING SURFACE LEVEL' is indicated by a dashed line. The ground profile is shown in yellow, and the rail bed is shown in grey.

The diagram illustrates the cross-section of the proposed rail alignment. Key features include:

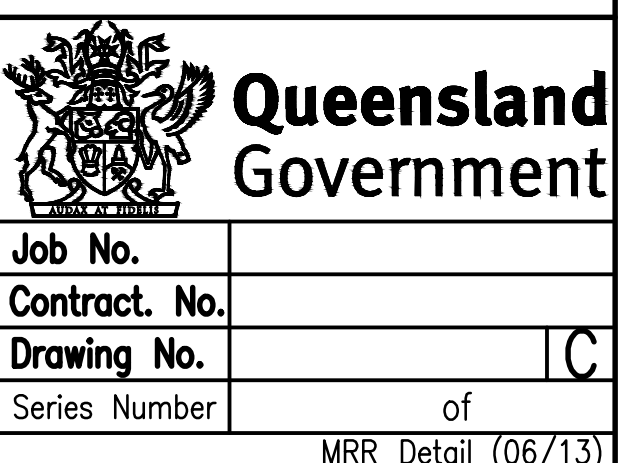
- AT GRADE:** The initial section of the alignment.
- UPSTAND WALL:** A wall structure following the at-grade section.
- CANTILEVER PILE:** A long section of the alignment supported by a dense array of piles.
- CUT & COVER:** A section of the alignment where the ground is excavated and covered.
- SURFACE LEVEL:** The ground surface level, indicated by a dashed line.
- EXISTING FREIGHT OVERPASS:** An existing structure crossing the alignment.
- BOGGO ROAD STATION:** The terminus of the alignment.

[illegible]

Associated Job Nos	Survey Data		Scales					
	Datum	GDA94	A1 / A3 1:100 / 1:200	0	1	2	3	4m
Auxiliary Drg Nos	Horiz. Grid							
	Height Origin							
	Survey Books							
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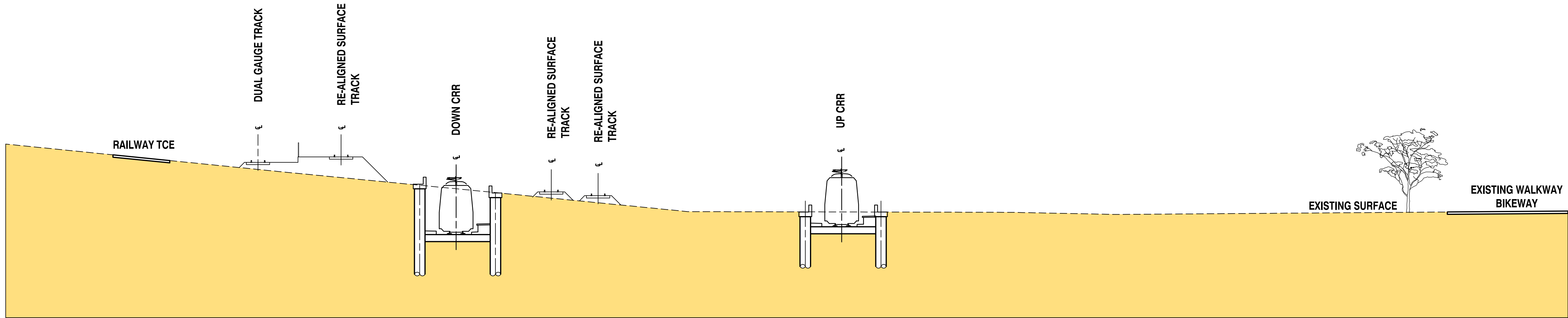
BRISBANE CITY				
CROSS RIVER RAIL				
<i>REFERENCE DESIGN (CHANGED PROJECT)</i>				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

<p style="text-align: center;">TUNNEL WORKS SOUTHERN PORTAL GENERAL ARRANGEMENT</p>					
Drawn	ENGINEERING CERTIFICATION (RPEQ)				
NPK	ENG. AREA	NAME	SIGNATURE	NO.	DATE
Designed	CIVIL	J. DONOHUE		7835	14/10/16
JD					

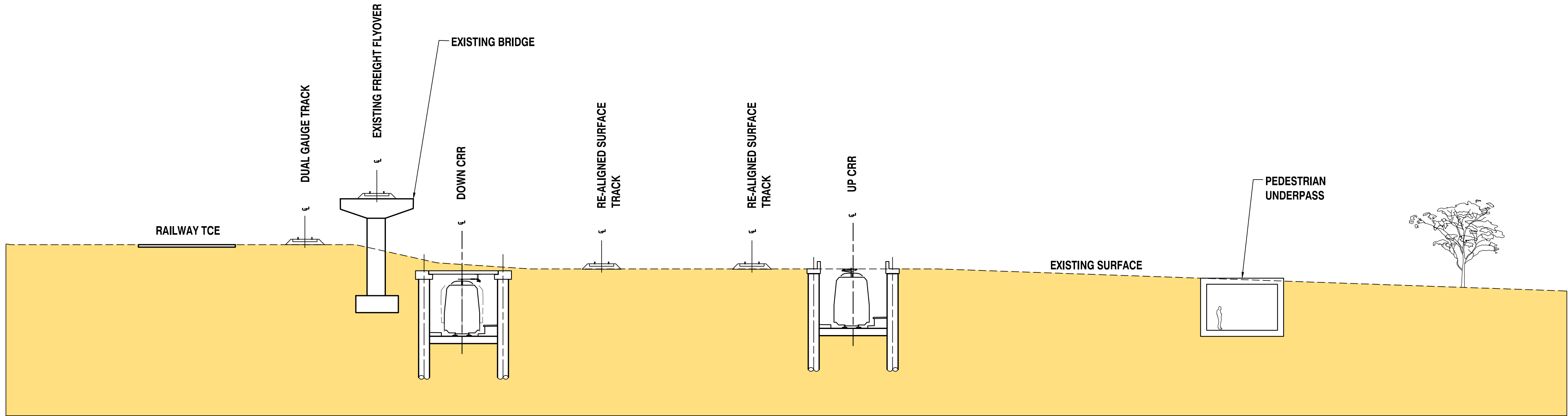


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2 November 2016



SECTION A
CH 1220 DOWN TRACK

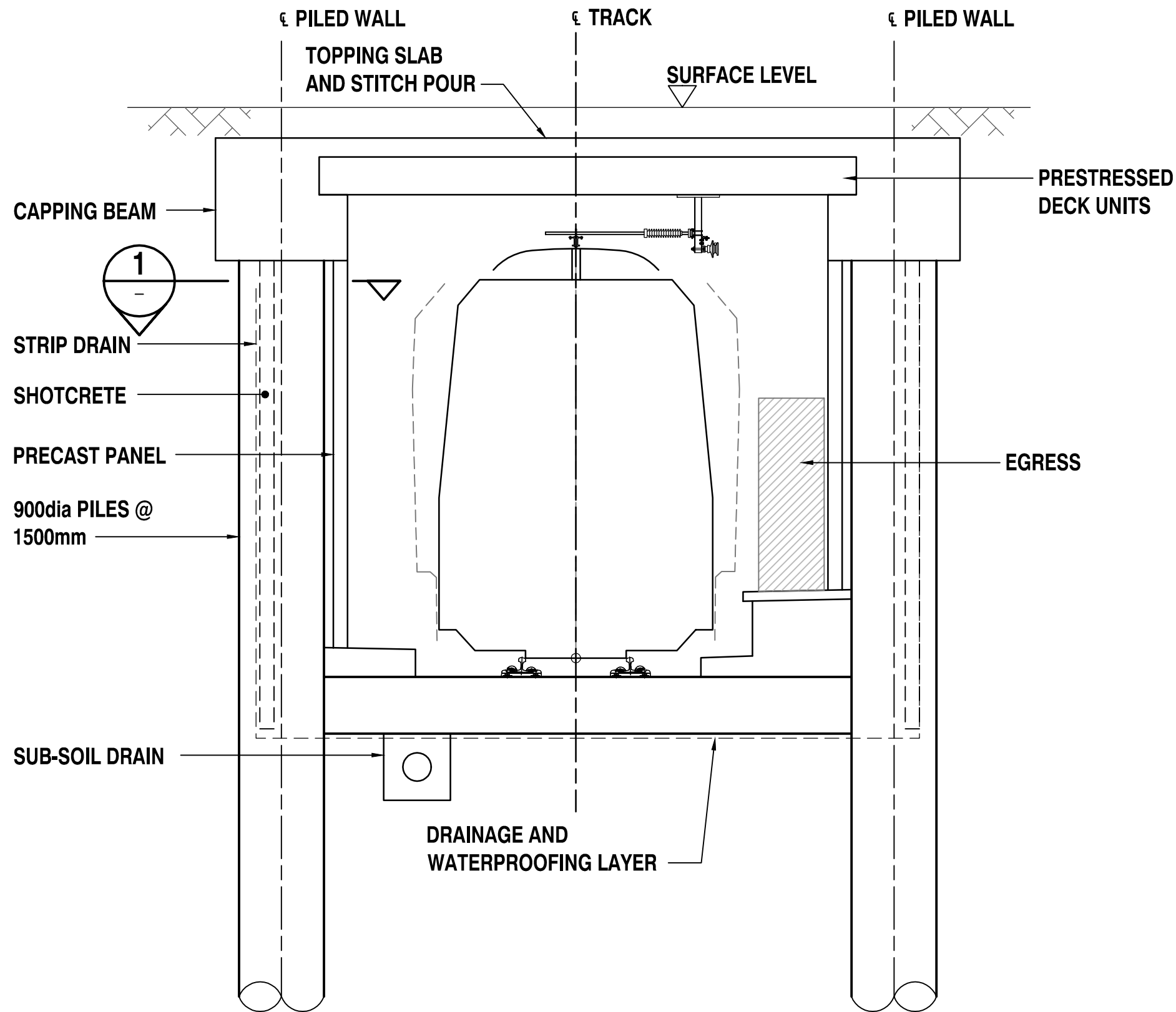


SECTION B
CH 1345 DOWN TRACK

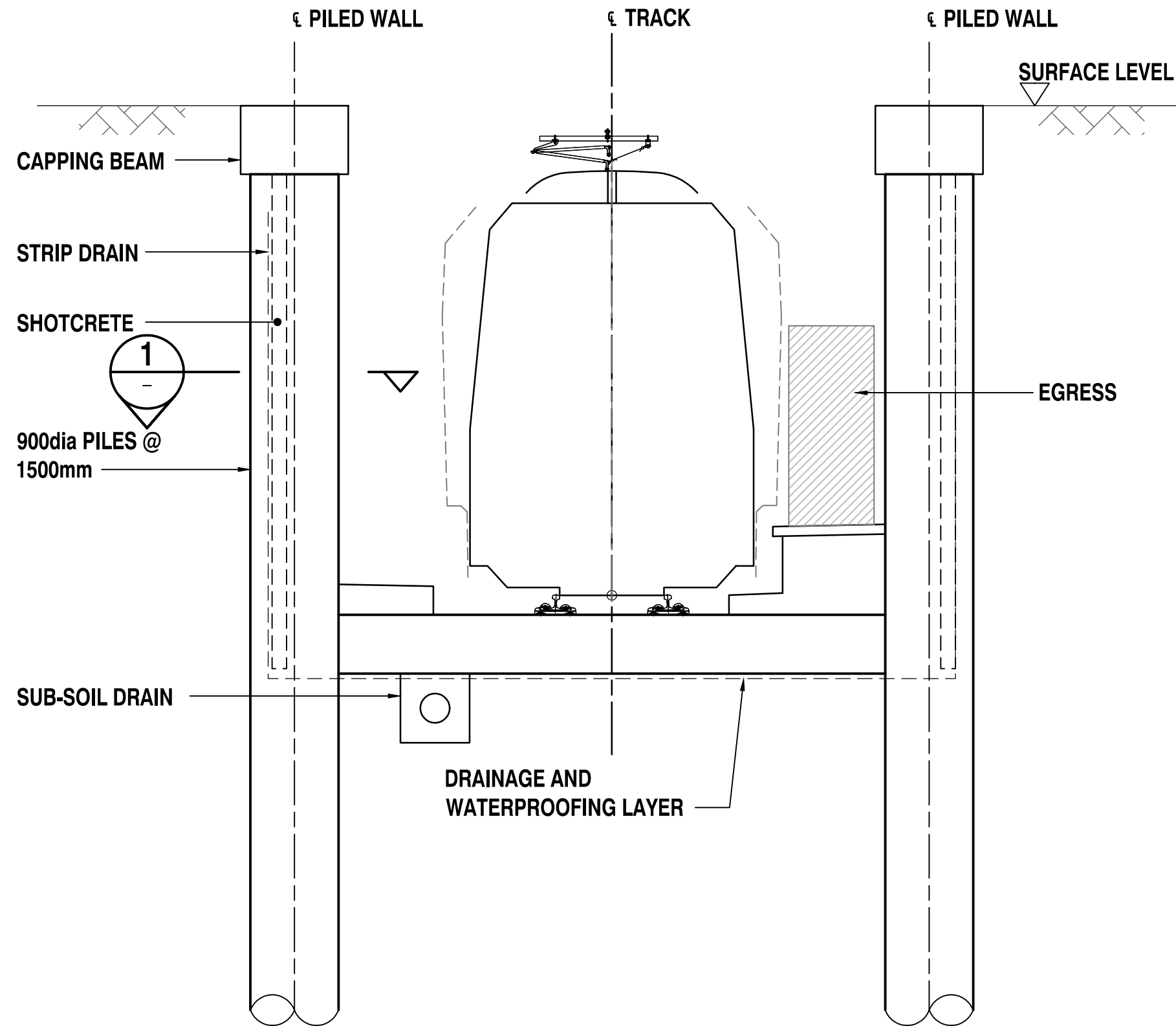
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					Datum	GDA94		CROSS RIVER RAIL																	
					Auxiliary Drg Nos	Horiz. Grid			REFERENCE DESIGN (CHANGED PROJECT)																
						Height Origin			Reference Points																
						Survey Books			Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP	Drawn	ENGINEERING CERTIFICATION (RPEQ)				Job No.						
B MINOR REVISION					02/11/16								NPK	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Contract No.						
A ISSUE FOR RFPC					14/10/16								JD	CIVIL	J. DONOHUE		7835	14/10/16	Drawing No.		B				
Revisions/Descriptions				Certification	Date	Microfiled															Series Number	of			
CAD FILES				C:\projectwise\bnr_projects\luke.cruickshank\dms97298\CRR-0002-PTL-GA-202.dwg				Through Chainage from														MRR_Detail (06/13)			

NOT FOR
CONSTRUCTION

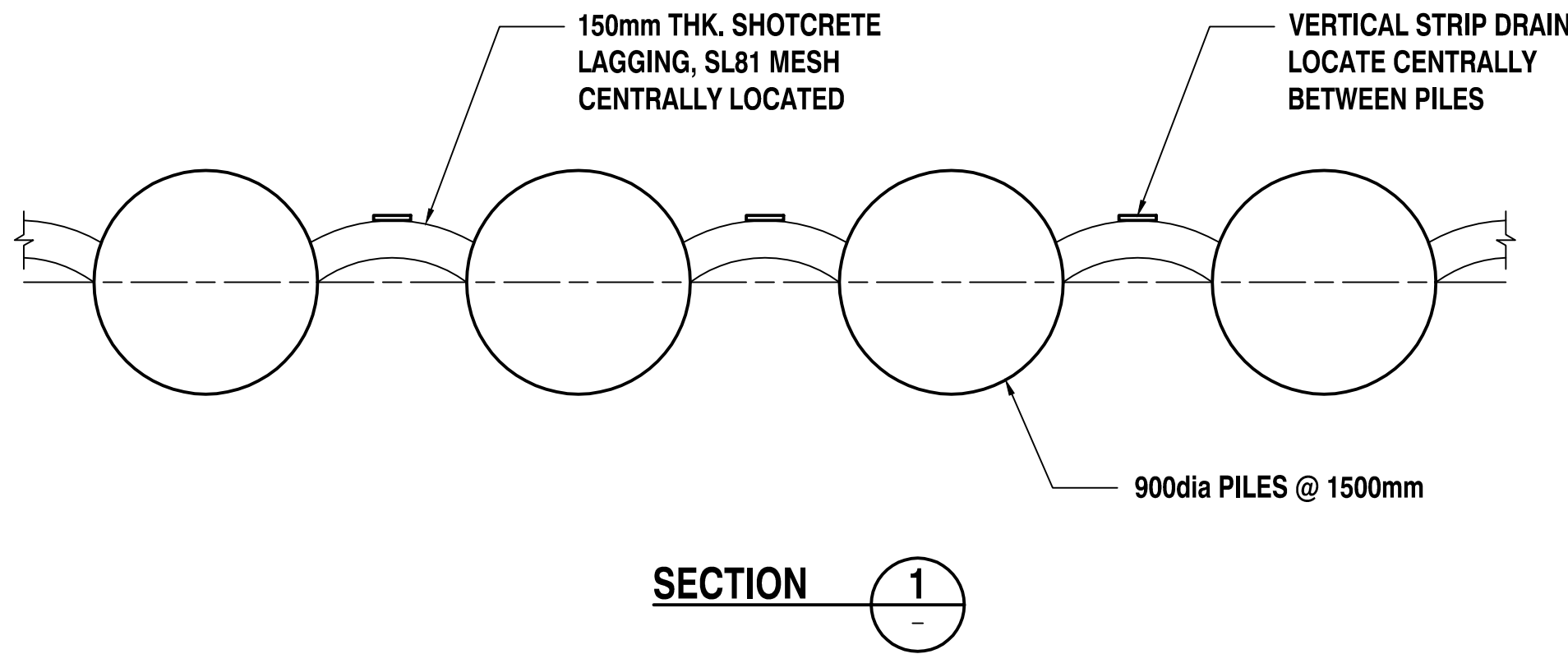
1 November 2016



CUT AND COVER
TYPICAL SECTION



TROUGH STRUCTURE - CANTILEVER PILE
TYPICAL SECTION




SECTION 1

Last Modified: 11/11/2016 4:25pm
XREFS: MRR_DETAIL_A1_1.dwg : X-CRR-DTUN-0001-SOUTHERN_PORTAL_SECTIONS.dwg

B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos		Survey Data	
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Auxiliary Drg Nos		Horiz. Grid	
		Height	
		Survey	Books

Scales	
A1 / A3 1:500 / 1:1000	
Dimensions shown in except where shown otherwise	

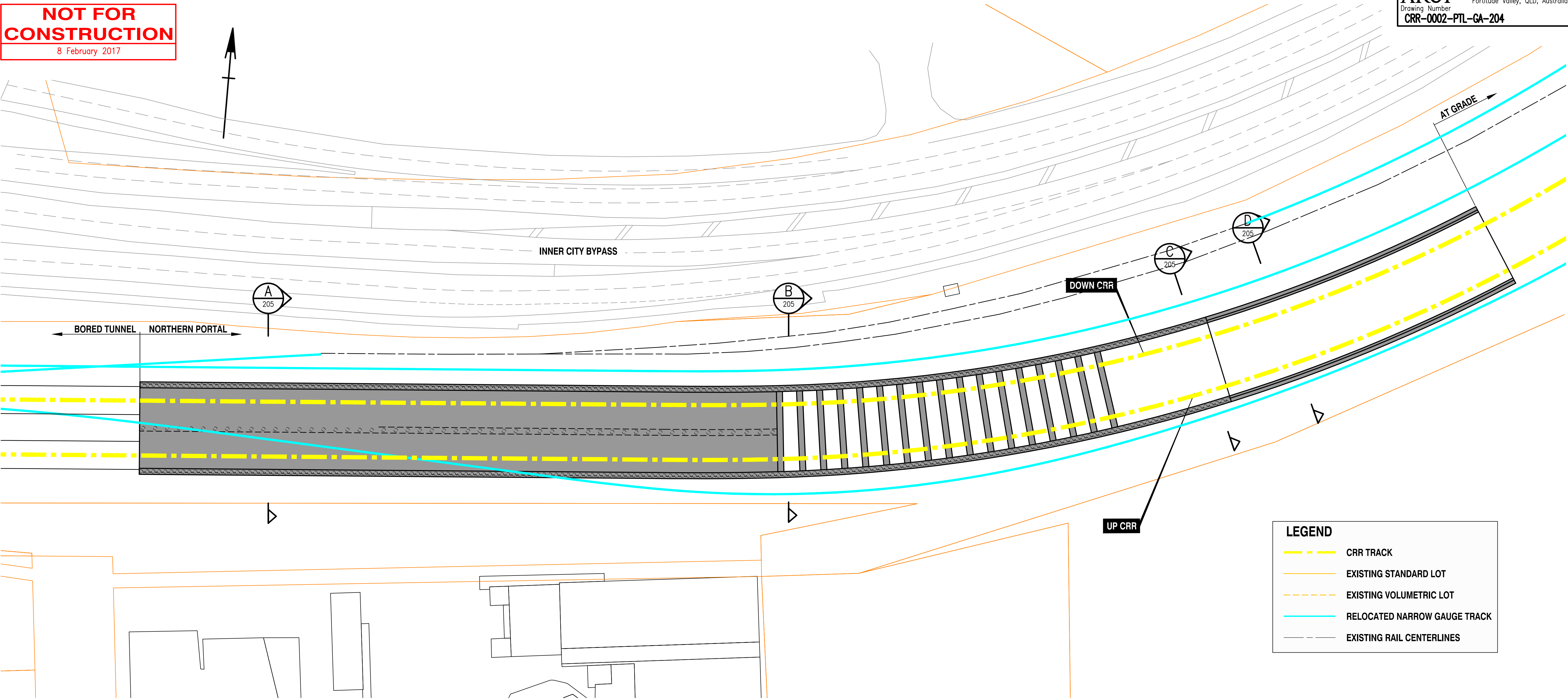
BRISBANE CITY				
CROSS RIVER RAIL				
REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS SOUTHERN PORTAL TYPICAL DETAILED SECTIONS				
Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)			
	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed JD	CIVIL	J. DONOHUE		7835 14/10/16

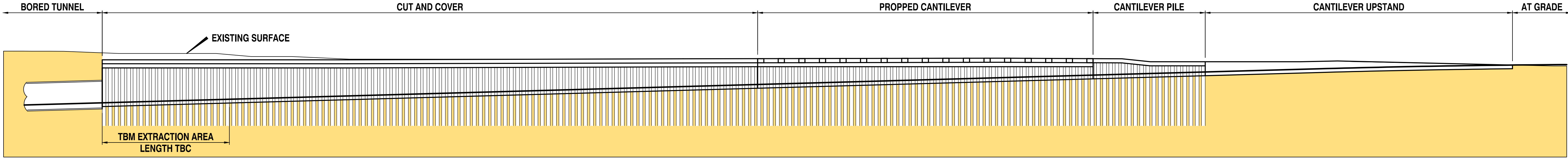
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Last Modified : Feb 08, 2017 - 12:46pm
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 8 February 2017



NORTHERN PORTAL PLAN

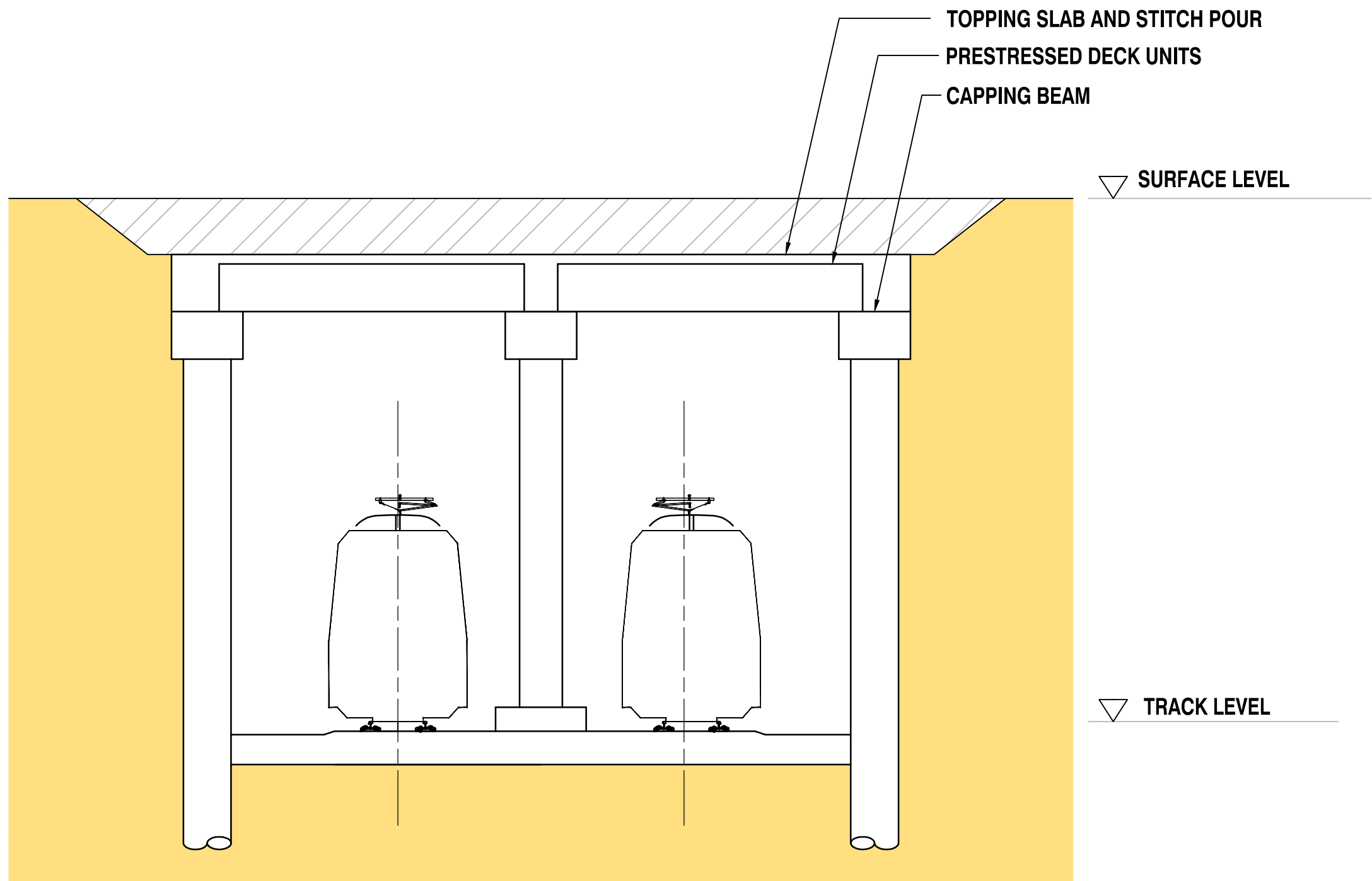


LONGITUDINAL SECTION

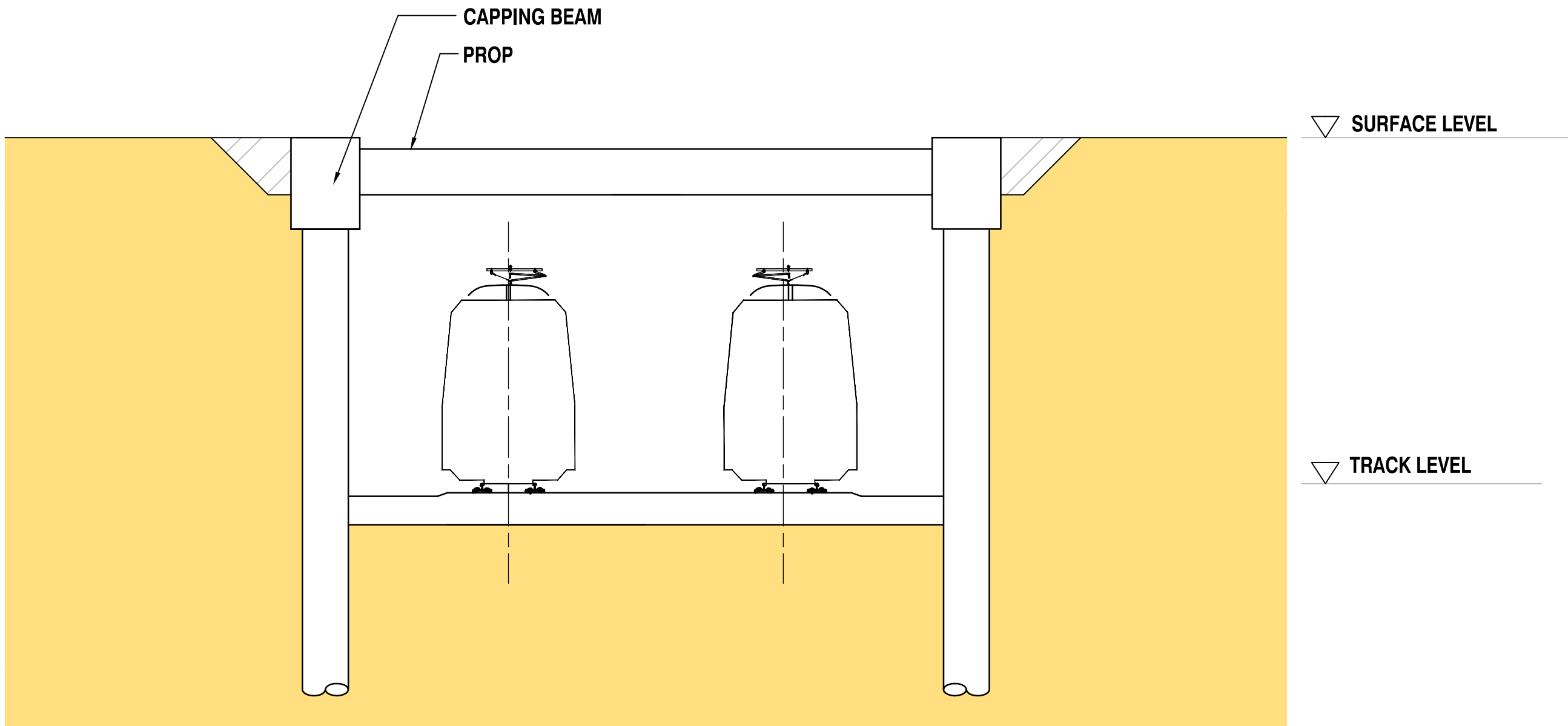
				Associated Job Nos		Survey Data		<div>Scales</div> <div>A1 / A3 1:100 / 1:200</div> <div>0 1 2 3 4m</div>		BRISBANE CITY					TUNNEL WORKS NORTHERN PORTAL GENERAL ARRANGEMENT					 <div>Queensland Government</div>										
				Datum		GDA94				CROSS RIVER RAIL																				
C MINOR REVISION				08/02/17		Auxiliary Drg Nos		Horiz. Grid		REFERENCE DESIGN (CHANGED PROJECT)																				
B MINOR REVISION				02/11/16				Height Origin		Reference Points																				
A ISSUE FOR RFPC				14/10/16				Survey Books		Dimensions shown in 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																		
Revisions/Descriptions				Certification		Date		Microfiled		Through Chainage from					Drawn		ENGINEERING CERTIFICATION (RPEQ)					Job No.								
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															Designed		CIVIL		J. DONOHUE				7835		14/10/16		Drawing No.		C	
															JD												Series Number		of	
CAD FILES				C:\projectwise\bne_projects\stephen.grigg2\dms97298\CRR-0002-PTL-GA-204.dwg																							MRR_Detail (06/13)			

NOT FOR
CONSTRUCTION

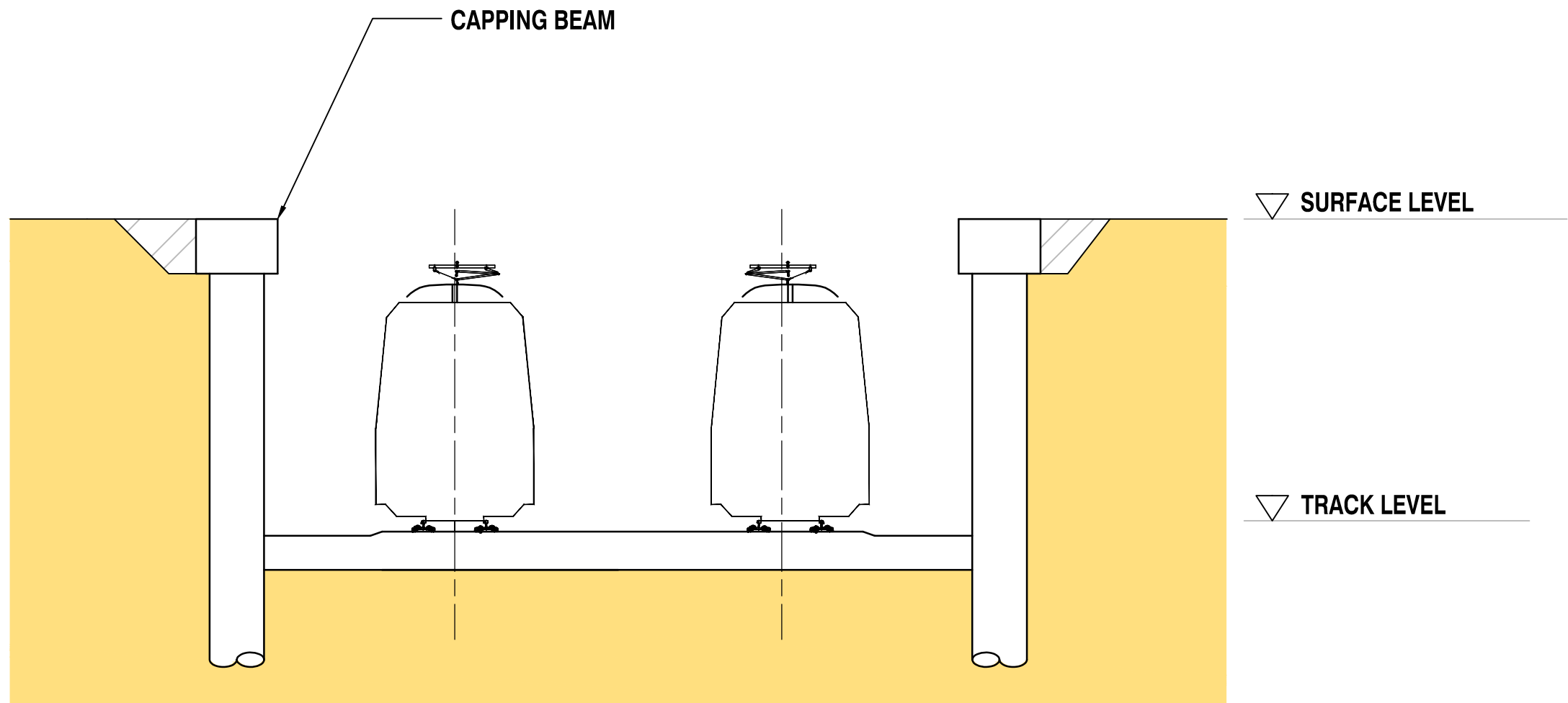
1 November 2016



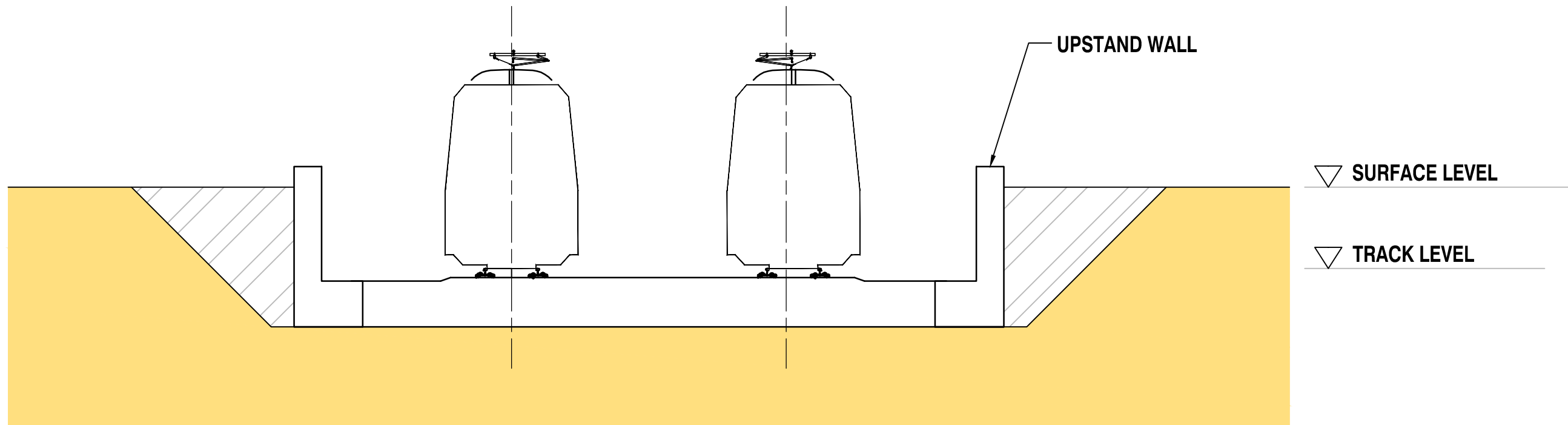
SECTION A



SECTION B



SECTION C



SECTION D


Last Modified : 11/11/2016 4:26pm XREFS :- MRR_DETAIL_A1_Rev.dwg : X-CRR-DTUN-0001-NORTHERN_PORTAL_SECTIONS.dwg

B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books
Scales	
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A1 / A3 0 500 1000mm	1:25 / 1:50
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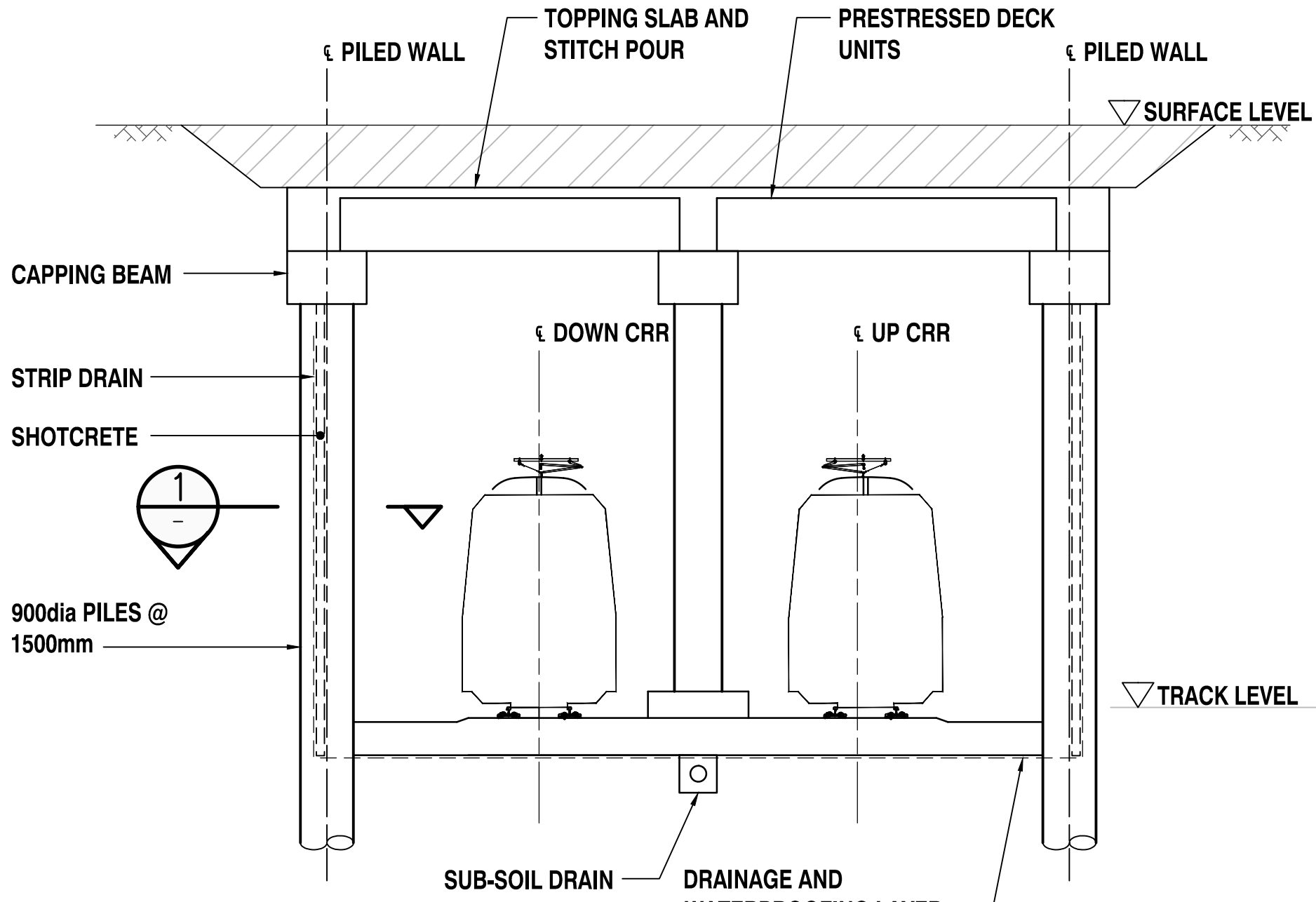
BRISBANE CITY				
CROSS RIVER RAIL				
REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS				
NORTHERN PORTAL				
TYPICAL SECTIONS				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16

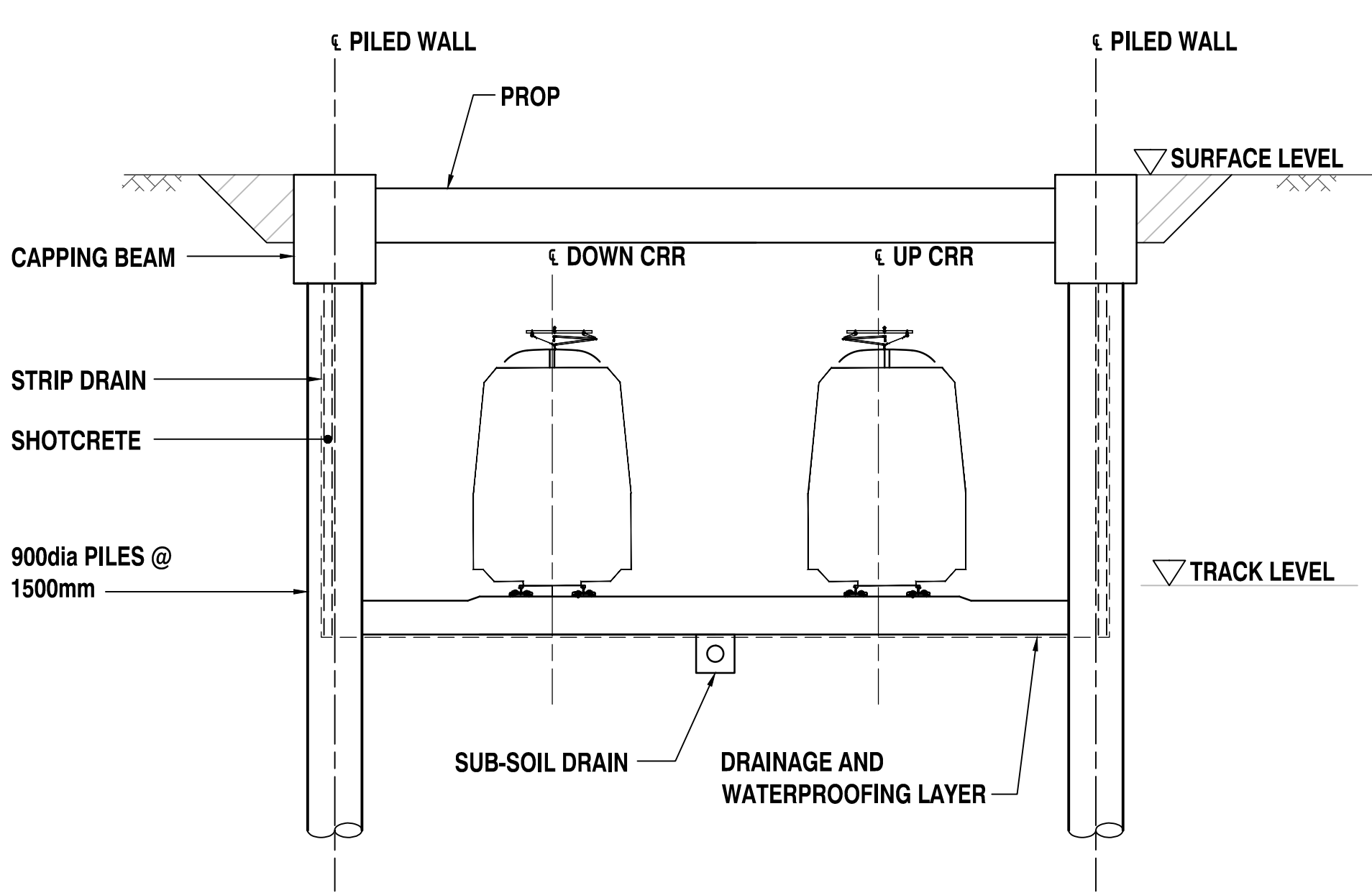
		Job No.	
Contract No.			
Drawing No.			B
Series Number			of
MRR_Detail (06/13)			

NOT FOR
CONSTRUCTION

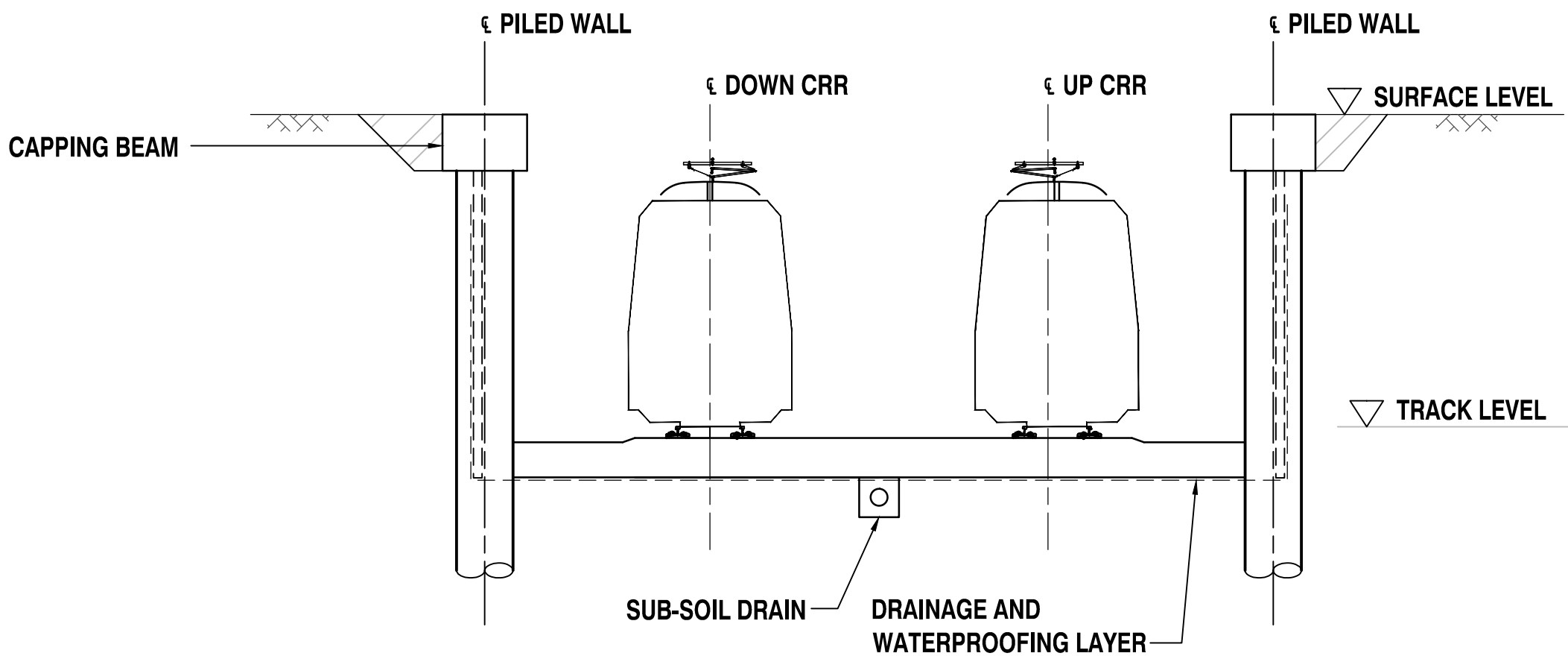
1 November 2016



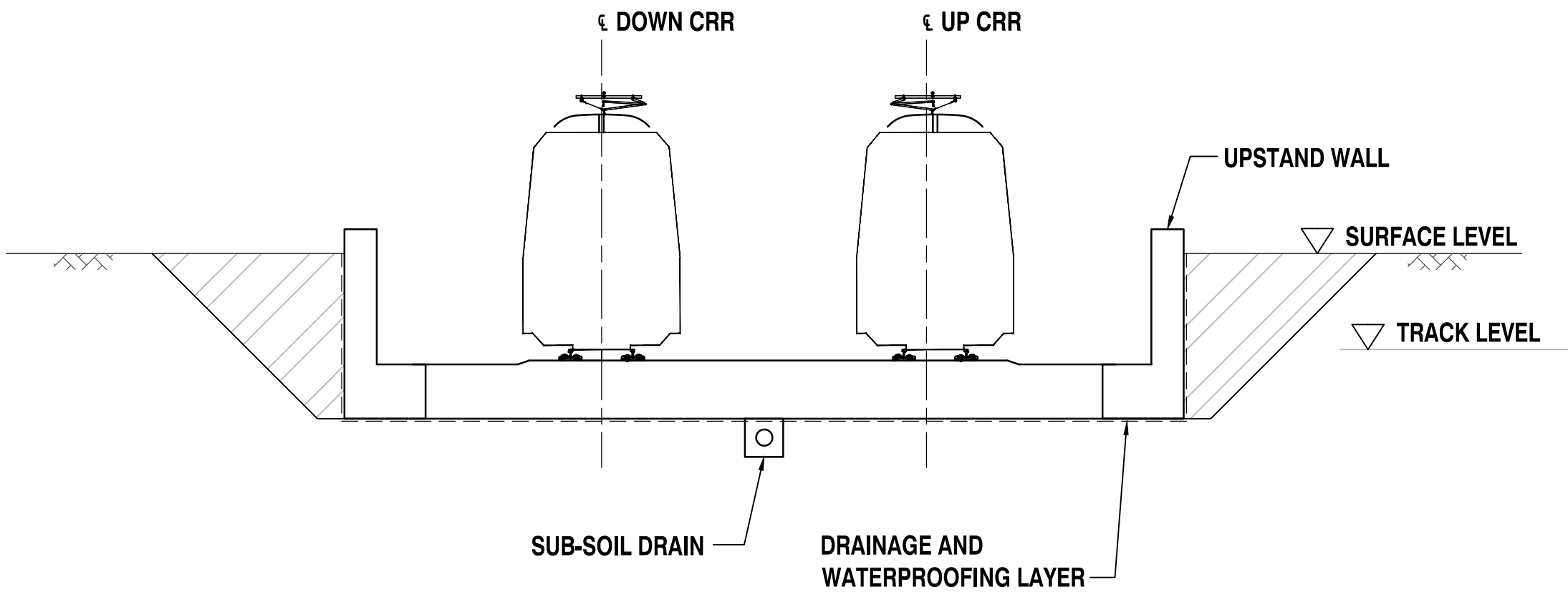
SECTION A



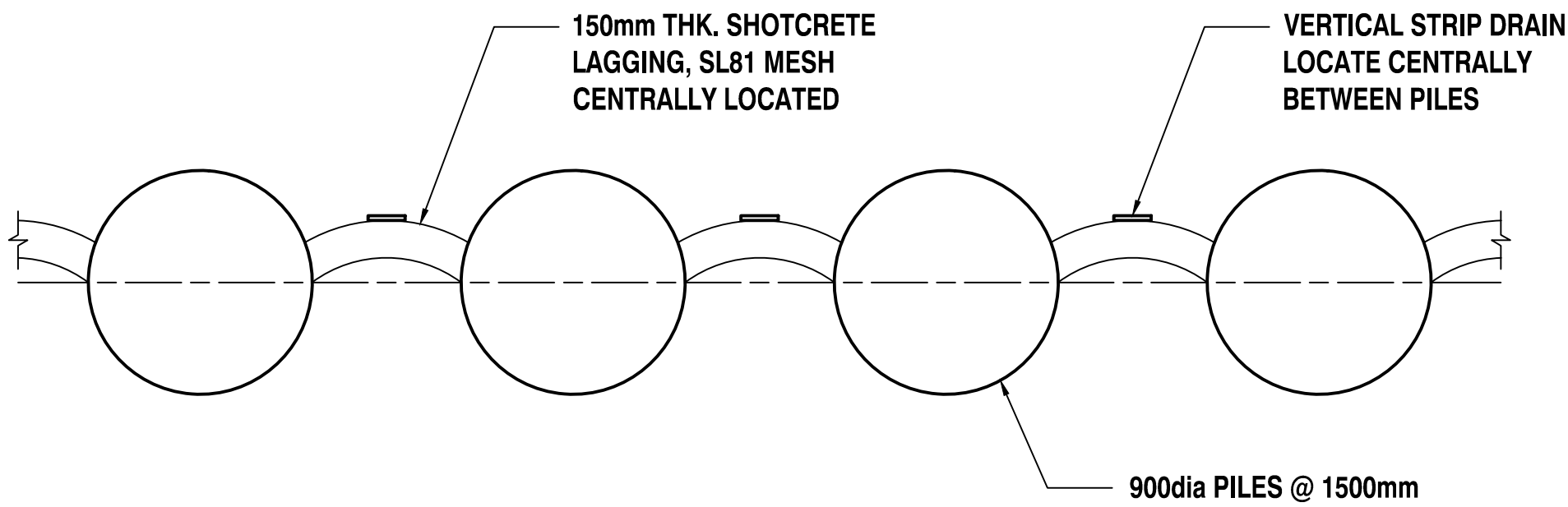
SECTION B



SECTION C

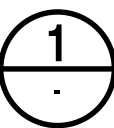


SECTION D



SECTION 1

SCALE 1:25



Nov 01, 2016 - 4:26pm
Last Modified : -
XREFS :- MRR_DETAIL_A1_Ref.dwg : X-CRR-DTUN-0001-NORTHERN_PORTAL_SECTIONS.dwg

Revisions/Descriptions	Certification	Date	Microfiled
B MINOR REVISION		02/11/16	
A ISSUE FOR RFPC		14/10/16	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books

Scales
A1 / A3 1:100 / 1:200 0 1 2 3 4m
A1 / A3 1:25 / 1:50 0 500 1000mm
Dimensions shown in except where shown otherwise

BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS NORTHERN PORTAL TYPICAL DETAILED SECTIONS				
Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)			
Designed JD	ENG. AREA CIVIL	NAME J. DONOHUE	SIGNATURE	NO. 7835 DATE 14/10/16

Job No.	
Contract No.	
Drawing No.	B
Series Number	of
MRR_Detail (06/13)	

[illegible][illegible]

1 November 2016

[illegible]