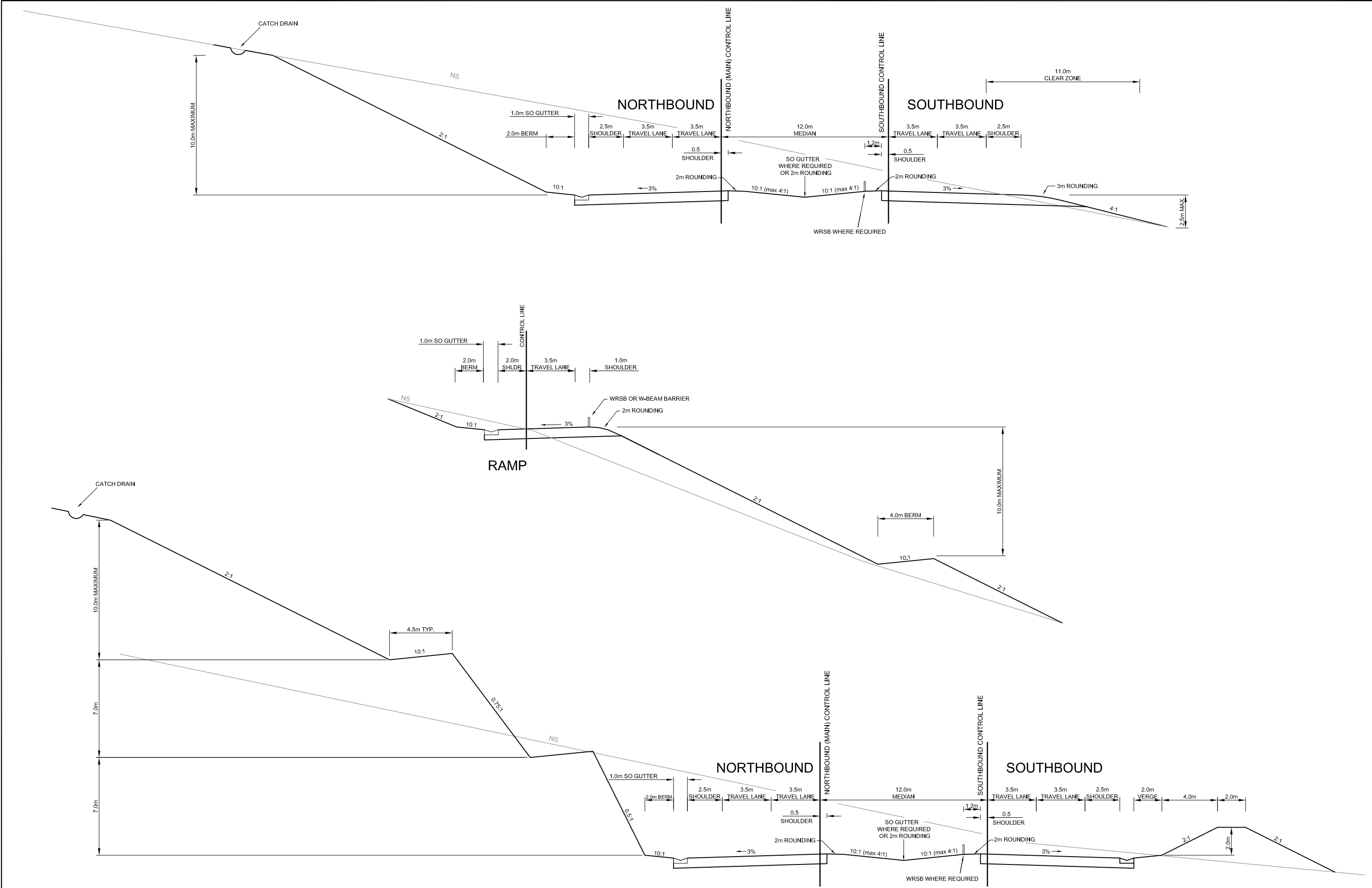


Appendix D

Typical sections and proposed tunnel configurations

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Height Datum: A.H.D.	

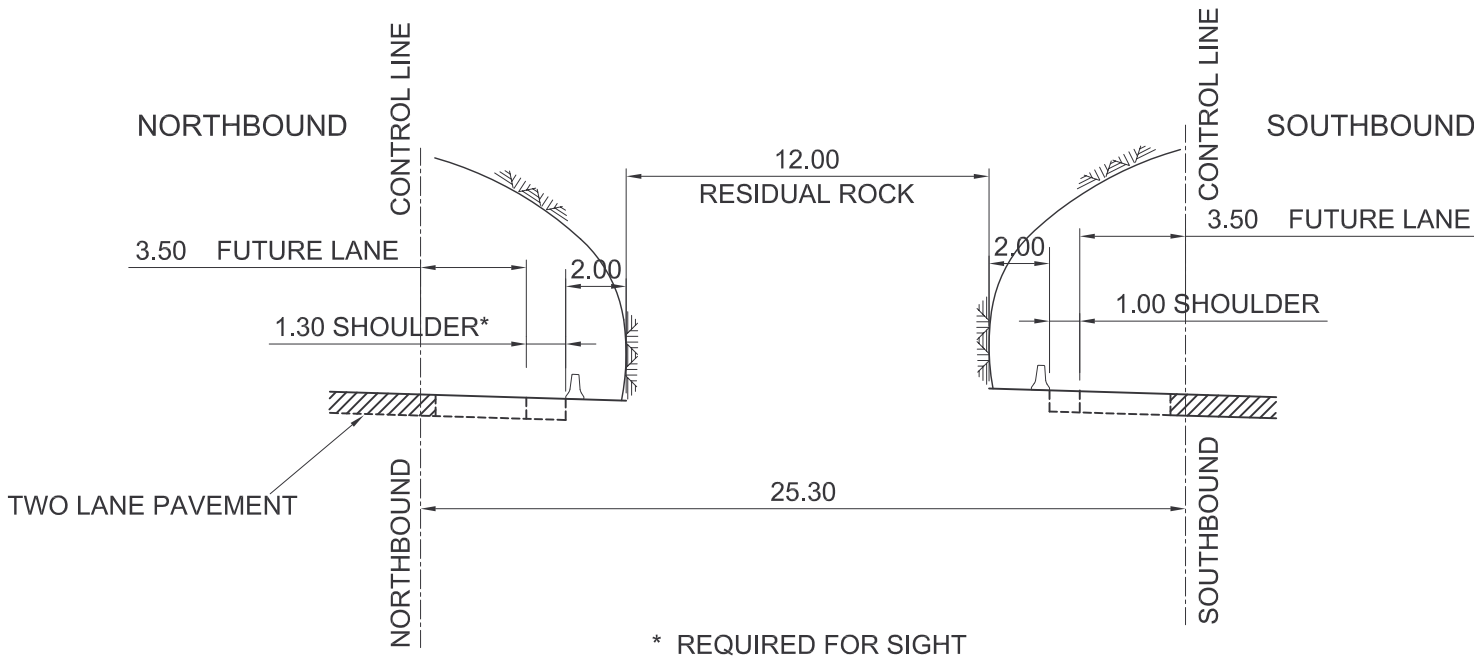
Connell Wagner
Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 2 4941 5415 PO Box 19 The University of Newcastle Union Facsimile: +61 2 4941 5489 Callaghan New South Wales 2308 Australia Email: cwn@connellwagner.com
DESIGNED:
REVIEWED:

ROADS AND TRAFFIC AUTHORITY OF NSW
PACIFIC HIGHWAY UPGRADE COFFS HARBOUR BYPASS
PRELIMINARY CONCEPT DESIGN
TYPICAL CROSS SECTIONS

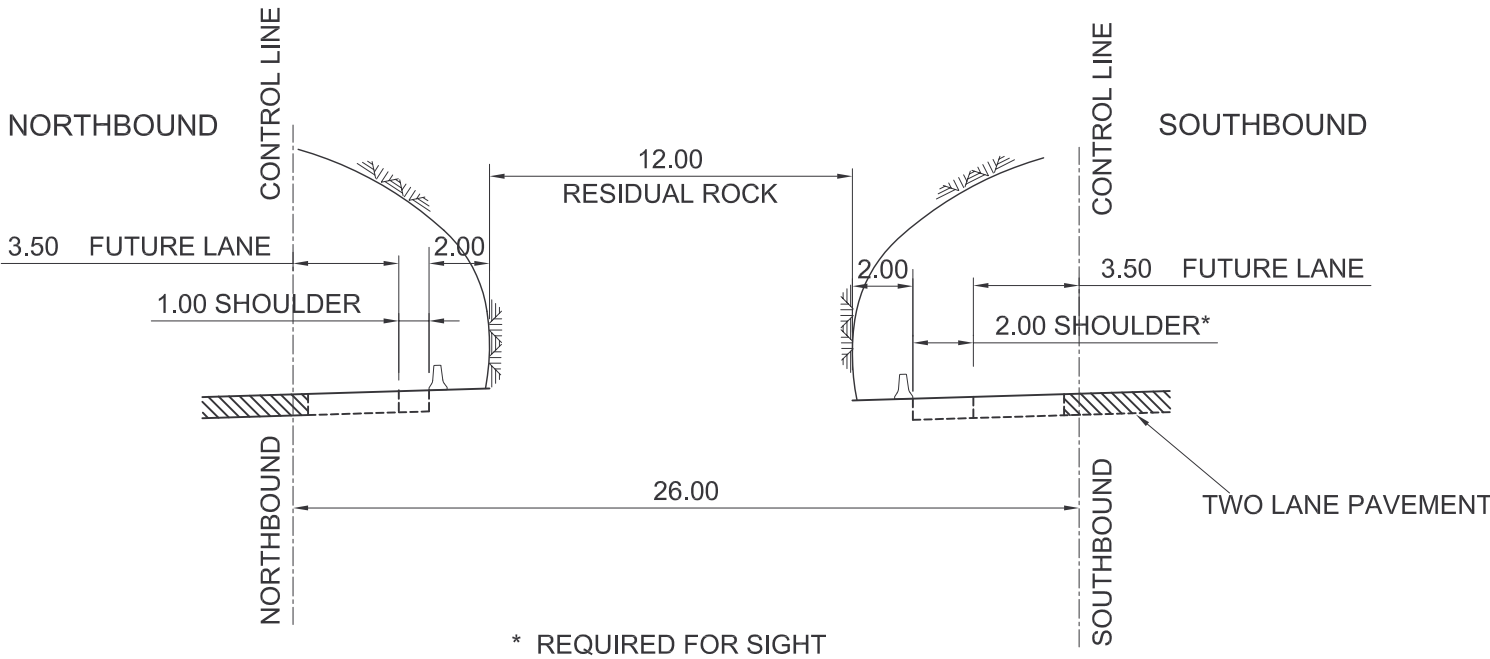
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REGISTRATION NUMBER			

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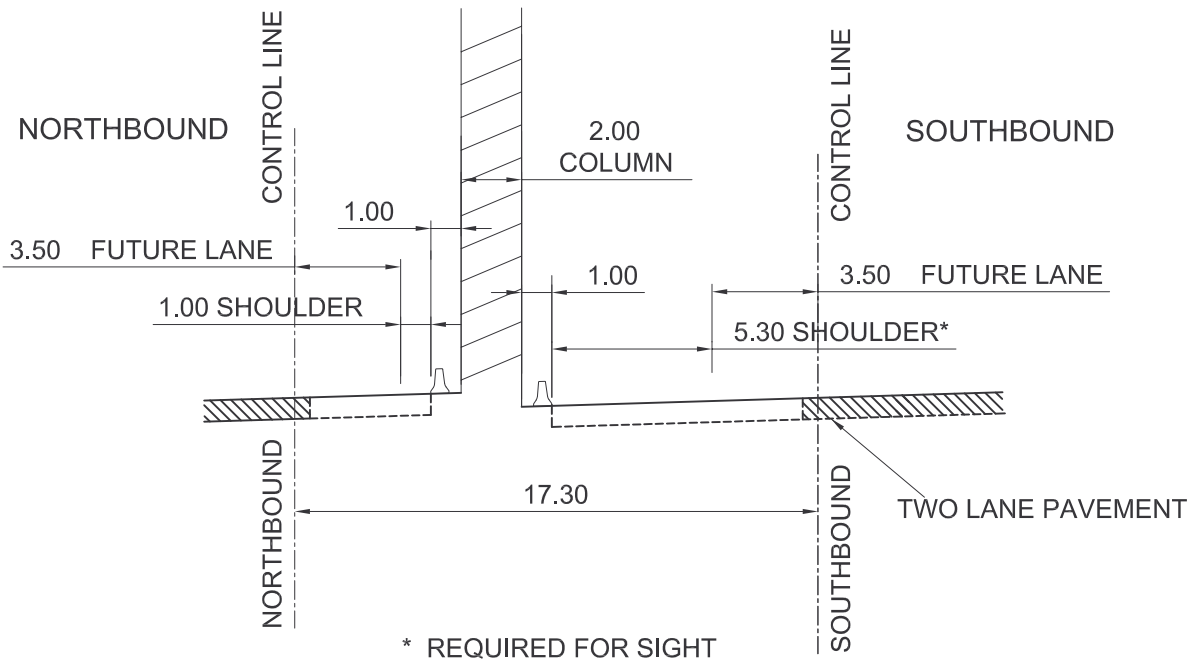
SHEPHERDS LANE (TUNNEL 1)



GATELYS ROAD (TUNNEL 2)



ROBERTS HILL (CUT AND COVER TUNNEL)



No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

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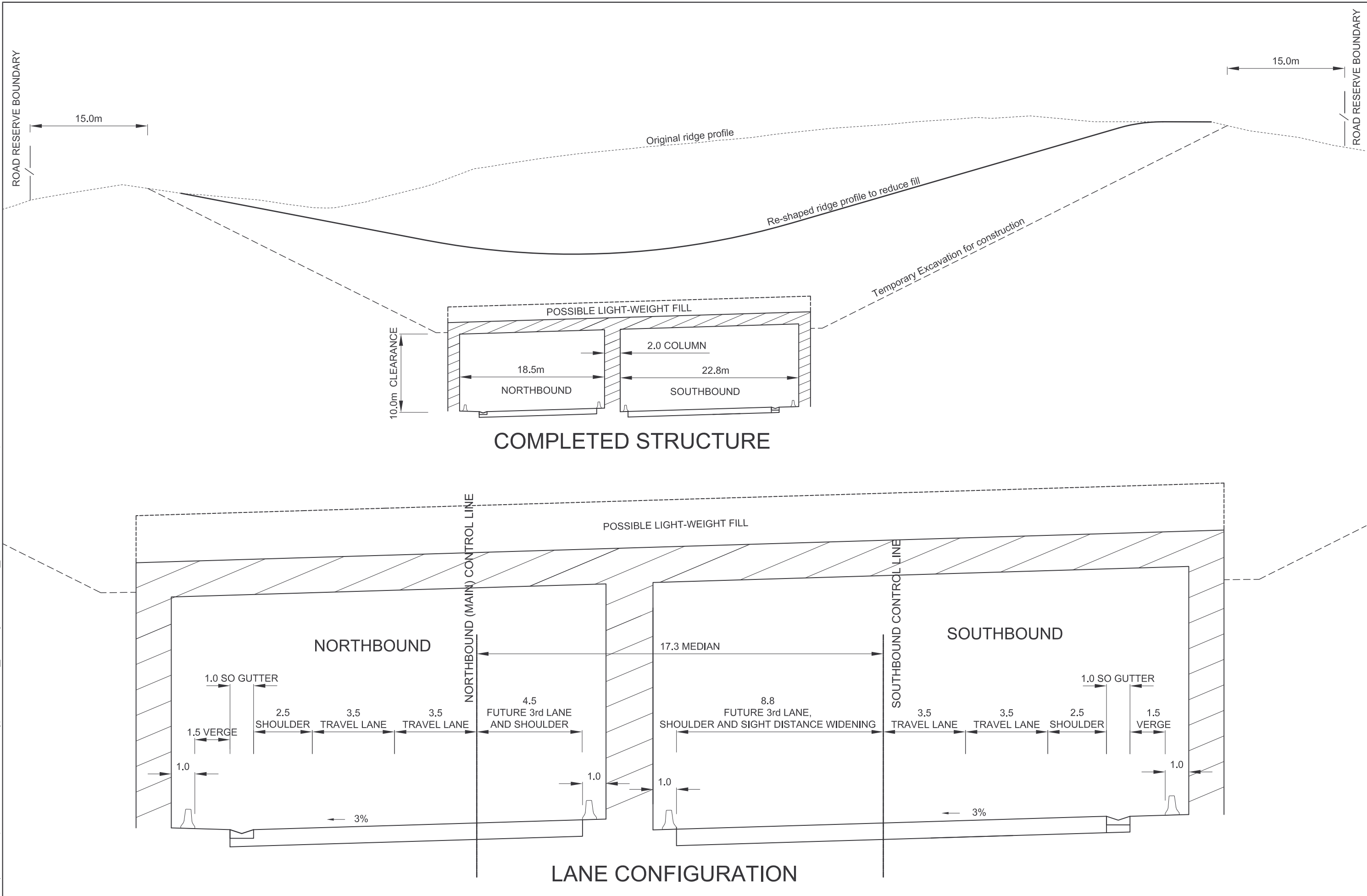
Connell Wagner	
Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 2 4941 5415 PO Box 19 The University of Newcastle Upon Facsimile: +61 2 4941 5489 Callaghan New South Wales 2308 Australia Email: cwnl@connwag.com	
DESIGNED.	
REVIEWED.	

ROADS AND TRAFFIC AUTHORITY OF NSW
PACIFIC HIGHWAY UPGRADE COFFS HARBOUR BYPASS
PRELIMINARY CONCEPT DESIGN
TYPICAL CROSS SECTIONS
MEDIAN WIDTHS AT TUNNELS

FILE No.	DRAWING CH_T002	PRINTED DATE 14-09-07
REGISTRATION NUMBER		

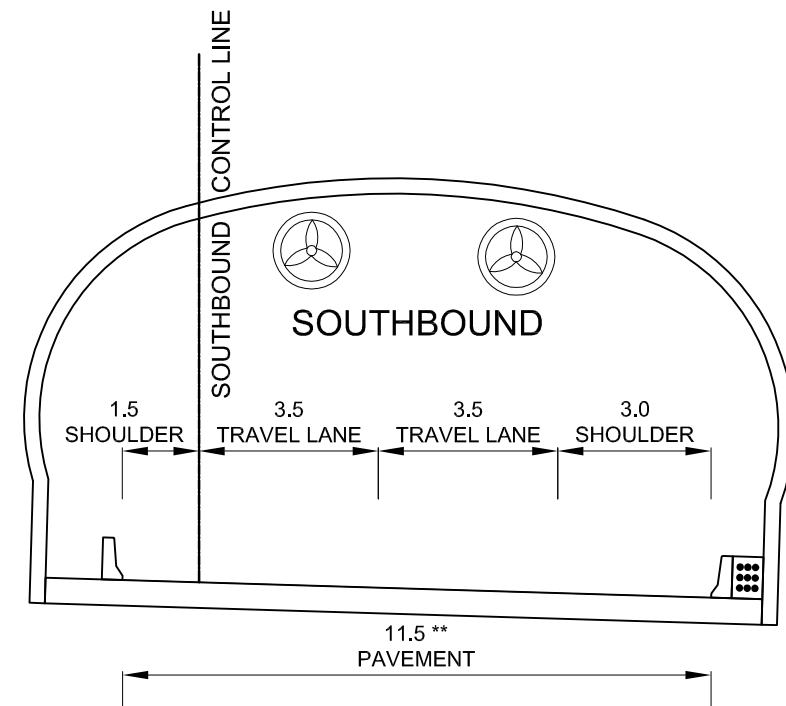
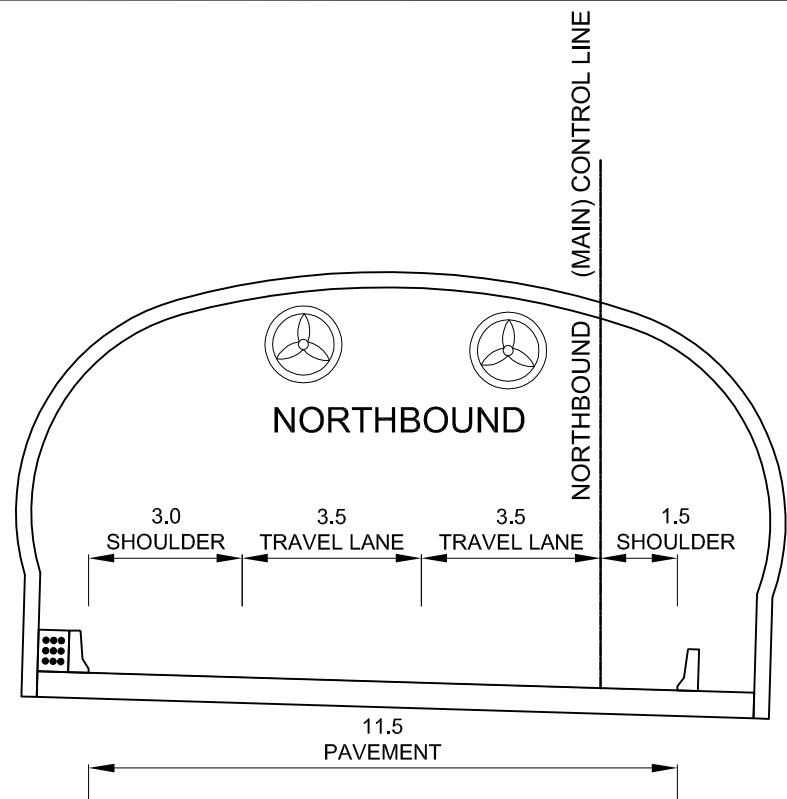
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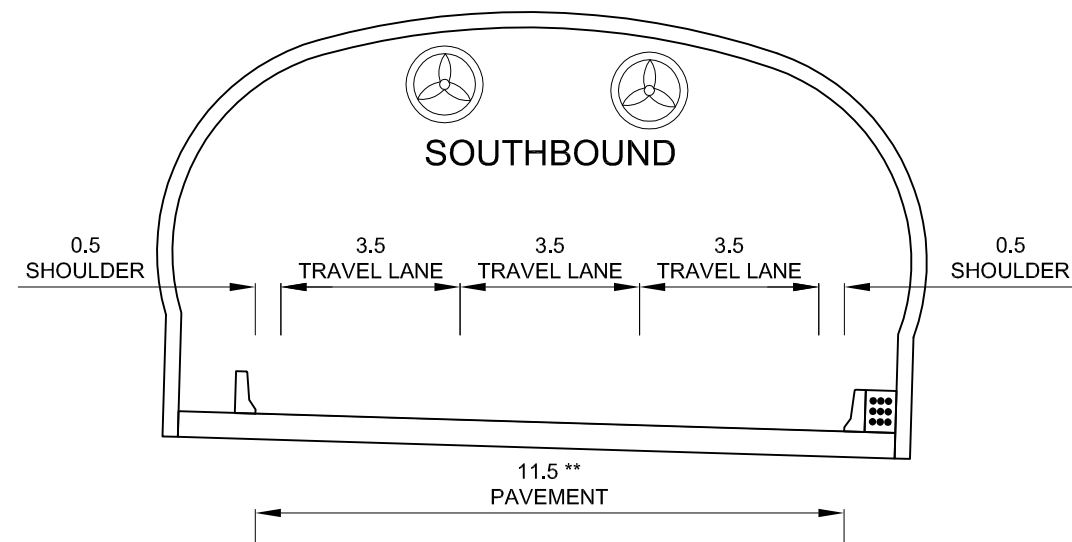
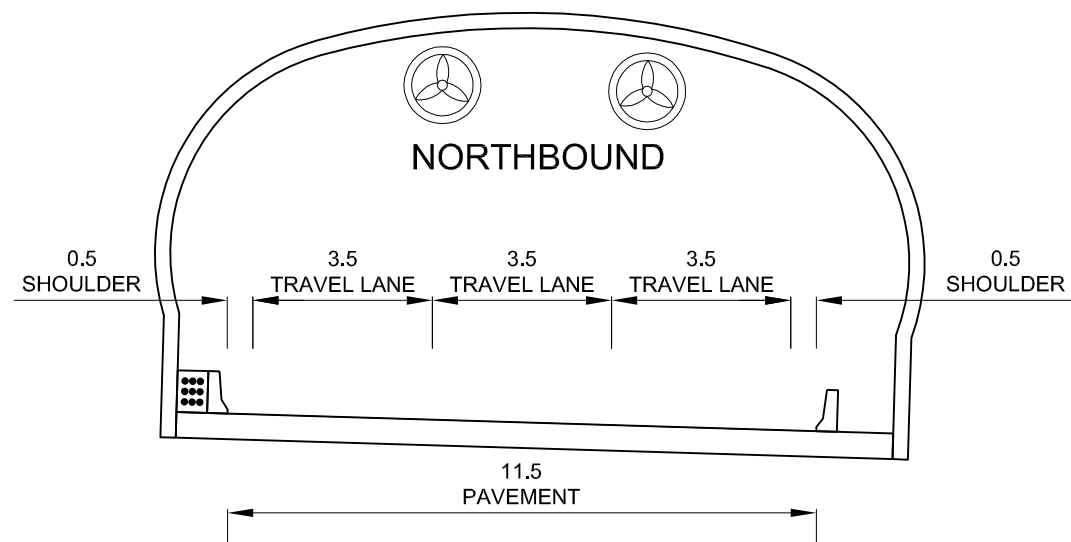
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—		—	—		PACIFIC HIGHWAY UPGRADE COFFS HARBOUR BYPASS PRELIMINARY CONCEPT DESIGN		REGISTRATION NUMBER T003			
—		—	—		TYPICAL CROSS SECTIONS					
—		—	—		ROBERTS HILL CUT AND COVER TUNNEL					
1	General revisions	CH	20.09.07		DESIGNED. _____					
No.	Amendment Description	Initials	Date	REVIEWED. _____						
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25.08.2008@10:20:43 0:\Projects\Transport\1093 - Coffs Harbour Bypass\ACAD\CH_T004.dwg XREF: x-RTA_TB_Plot Date LOGIN NAME: HopkinC



TWO LANE CONFIGURATION

** GATELYS SOUTHBOUND TUNNEL 12.0 PAVEMENT WIDTH



FUTURE THIRD LANE CONFIGURATION

						SCALES		Connell Wagner Connell Wagner Pty Ltd ABN 54 005 139 873 Telephone: +61 2 4941 5415 PO Box 19 The University of Newcastle Union Facsimile: +61 2 4941 5489 Cullaghan New South Wales 2308 Australia Email: cwn@connwag.com		ROADS AND TRAFFIC AUTHORITY OF NSW				FILE No.	DRAWING	PRINTED DATE	SHEET No.
														CH_T004	25-08-08	T004	
2. <u>Revisions to notes</u>		CH	25.08.08		NOT TO SCALE		PACIFIC HIGHWAY UPGRADE COFFS HARBOUR BYPASS PRELIMINARY CONCEPT DESIGN				REGISTRATION NUMBER						
1	General revisions		CH	20.09.07				TYPICAL CROSS SECTIONS									
No.	Amendment Description		Initials	Date				DESIGNED. _____									
								REVIEWED. _____									
A3 original	This sheet may be prepared using colour and may be incomplete if copied					Co-ordinate System: MGA Zone 56		Height Datum: A.H.D.									

Appendix E

Transverse drainage catchments and discharge calculations

Appendix E

Table F1 Transverse drainage catchments and discharge calculations

Catchment	Area (Ha)	Tc (mins)	I (100)	Q (100)	Cells	Size (mm)	Length (m)	Total (m)
C00	27.0	28	152	8.8	2	1800 dia	52	104
C0	67.0	39	128	18.5	4	1800 dia	117	468
C1	76.0	41	125	20.6	4	3660 x 910	73	292
C2	804.5	101	79	137.0		Newports Creek (South) Bridges		
C3	320.0	71	95	65.7		Newports Creek (North) Bridges		
C4	27.3	28	151	8.9	3	1500 dia	74	222
C5	10.1	19	179	3.9	2	1500 dia	91	182
C6	7.3	17	189	3.0	2	1500 dia	75	150
C7	10.3	19	178	4.0	2	1500 dia	71	142
C8	257.5	65	100	55.4		Coffs Creek Bridges		
C9	106.6	47	118	27.1	4	3050 x 1520	70	280
C10	40.3	32	140	12.2	3	3050 x 1220	65	195
C11	1.5	9	239	0.8	1	750 dia	51	51
C12	19.7	25	160	6.8	2	1800 dia	85	170
C13	11.1	20	176	4.2	2	1500 dia	147	294
C14	36.5	31	143	11.3		North Coast Railway Bridges		
C15	26.9	28	152	8.8	2	1800 dia	165	330
C16	4.4	14	204	1.9	1	1200 dia	68	68
C17	17.7	24	163	6.2	2	1500 dia	86	172
C18	3.7	13	210	1.7	1	1050 dia	96	96
C19	31.8	30	147	10.1	2	1800 dia	125	250
C20	28.4	28	150	9.2	3	1500 dia	91	273
C21	3.3	12	213	1.5	2	1200 dia	128	256
C22	14.7	22	168	5.3	2	1200 dia	189	378
C23	14.8	22	168	5.4	2	1500 dia	219	438
C25	60.4	38	131	17.0	4	1800 dia	143	572
C26	17.0	23	164	6.0	3	1500 dia	88	264
C27	7.7	17	187	3.1	2	1200 dia	59	118
C28	19.5	25	160	6.7	2	1500 dia	158	316
C29	12.4	21	172	4.6	2	1200 dia	98	196
C30	6.8	16	191	2.8	1	1200 dia	95	95
C29+C30	19.2	24	161	6.7	3	1200 dia	79	237
C28+C29+C30	38.7	32	142	11.8	4	1500 dia	51	204
C31	680.0	94	82	120.0		Pinebrush Creek Bridges		
C32	7.3	17	189	3.0	2	1050 dia	79	158

